

Zoomed Pham 306092

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
1. Xenomor	2. Stardom	3. Benito_20	4. Mooshroom	5. Elsa_Z2+	6. BenitoAnto	7. KeaneyLin	8. Circum_Z2	9. Bowling_Z2	10. YoshiYam	11. Correa_Z	12. Imbby_Z2	13. Cheesy_Z	14. JEGGS_Z	15. Mudcat_Z	16. Heisenber	17. Brunswick	18. CastorTra	19. Hemma_Z	20. Dinailo_Z	21. Nightmar	22. Synopsis	23. NIKISON_Z	24. AteFioNa	25. Darby_Z6	26. Issa_Z6	27. Tatanka	28. CapniWur	29. ScienceW	30. Westerlin	31. Acai_Z6	32. Trustibo	33. MimiBage	34. Breylor17	35. Teacup_Z	36. DevitoJr	37. Gordon_Z	38. LiliHuddy	39. Bouchard	40. Chiochio	41. Shepard	42. Phaby_Z7	43. Giantsbar	44. Tipton_Z7	45. Tokki_Z7	46. Loretta_Z	47. Anandi_Z	48. MediumF	49. Caterpila	50. Makai_Z6

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 306092 Report

This analysis was run 06/20/26 on database version 651.

Pham number 306092 has 261 members, 51 are drafts.

Phages represented in each track:

- Track 1 : Xenomorph_20
- Track 2 : Stardom_20
- Track 3 : Benllo_20
- Track 4 : Mooshroom_21, Kardesai_20, Hankly_20
- Track 5 : Elsa_22, Nason_22, Arcadia_22
- Track 6 : BenitoAntonio_22
- Track 7 : KeaneyLin_20, GoCrazy_20
- Track 8 : Circum_22
- Track 9 : Bowling_22, Dynamite_21, NapoleonB_21
- Track 10 : YoshiYama_21
- Track 11 : Correa_21
- Track 12 : Tribby_22
- Track 13 : Cheesy_22
- Track 14 : JEGGS_21
- Track 15 : Mudcat_21
- Track 16 : Heisenberger_21
- Track 17 : Brunswick_26
- Track 18 : CastorTray_28
- Track 19 : Hemma_23
- Track 20 : Dinallo_27, Tenno_27
- Track 21 : Nightmare_27, LucySwiss_26
- Track 22 : Synopsis_25
- Track 23 : Niktson_26, ElephantMan_26
- Track 24 : AreFloNak_26, Nivinsha_26
- Track 25 : Darby_26
- Track 26 : Issa_26
- Track 27 : Tatanka_26
- Track 28 : CapnMurica_26
- Track 29 : ScienceWizSam_28
- Track 30 : Westerlin_27
- Track 31 : Acai_26
- Track 32 : Trustiboi_27
- Track 33 : MiniBagel_26
- Track 34 : Breylor17_27
- Track 35 : Teacup_26
- Track 36 : DevitoJr_26
- Track 37 : Gordon_26

- Track 38 : LilHuddy_27
- Track 39 : Bouchard_27
- Track 40 : Chlochlo_27
- Track 41 : Shepard_27
- Track 42 : Phaby_27
- Track 43 : Giantsbane_27
- Track 44 : Tipton_27
- Track 45 : Tokki_27
- Track 46 : Loretta_26, Ingrid_26
- Track 47 : Anandi_27
- Track 48 : MediumFry_24
- Track 49 : Caterpillar_24
- Track 50 : Makai_26, Truckee_25
- Track 51 : TrixiePhattel_26
- Track 52 : Biscute_27
- Track 53 : BlackHoleSun_27
- Track 54 : Barbonzobean_29
- Track 55 : Altjira_25
- Track 56 : Phaila_25
- Track 57 : Navi1117_26
- Track 58 : Leathea_26
- Track 59 : Kinny_28
- Track 60 : KevinMinion_26
- Track 61 : Renaldo_31
- Track 62 : BarbieDoll_29
- Track 63 : Muglass_28
- Track 64 : PoeMe_27
- Track 65 : Tenney120_26
- Track 66 : Mardi_27
- Track 67 : Argan_25
- Track 68 : Uzumaki_26
- Track 69 : GantcherGoblin_25
- Track 70 : Zeina_26
- Track 71 : Lewando_29
- Track 72 : Stardrop_26
- Track 73 : Inked_28
- Track 74 : Zippen_26
- Track 75 : Natasha_23
- Track 76 : Sprinkle_23
- Track 77 : ProfFrink_23, MrAaronian_23, Djungelskog_23
- Track 78 : Stayer_23, BronxBay_23
- Track 79 : Sporto_24
- Track 80 : StarLord_23, Sloopyjoe_23
- Track 81 : Boog_23
- Track 82 : Spain_22
- Track 83 : RustyBoy_23
- Track 84 : Salk_23, Linda_23, Jeremy4pt0_23
- Track 85 : Raunak_23
- Track 86 : Onestar_23
- Track 87 : DoctorPepper_23
- Track 88 : Powelldog_24
- Track 89 : Shiba_23
- Track 90 : Egad_23

- Track 91 : HerbBucket_22
- Track 92 : Michelle_23
- Track 93 : Espio_23, FrodoSwaggins_23, Popy_23
- Track 94 : Indigenous_23, Jaylociraptor_23
- Track 95 : Maya_23
- Track 96 : Meibysrarus_23
- Track 97 : Hoshi_23, Esketit_23
- Track 98 : HazuAndZazu_23
- Track 99 : TonyStarch_23
- Track 100 : Namu_23, Rima_23
- Track 101 : Spectropatronm_23
- Track 102 : Soshi_23
- Track 103 : CherryBlossom_23
- Track 104 : TaidaOne_23
- Track 105 : DrGrey_23
- Track 106 : TieDye_22
- Track 107 : OlympicHelado_23
- Track 108 : IceWarrior_23
- Track 109 : Madamoto_23
- Track 110 : FidgetOrca_23
- Track 111 : GirlPower_22
- Track 112 : Scap1_19
- Track 113 : PherryCruz_18, RavenPuff_18
- Track 114 : Ditters_19
- Track 115 : RosaAsantewaa_19
- Track 116 : SheRa_19
- Track 117 : Annihilus_19
- Track 118 : Bilo_19
- Track 119 : HotFries_18
- Track 120 : GoblinVoyage_19
- Track 121 : Sangak_19, Doxi13_19
- Track 122 : Moozy_19
- Track 123 : Monse_19
- Track 124 : LibertyBell_21
- Track 125 : Thiqqums_21, Miek_21, SendItCS_20, CricKo_21, Rainydai_21, Regigigas_22
- Track 126 : FromIndy_22
- Track 127 : Bing_24
- Track 128 : Wigberry_23
- Track 129 : Kardashian_22
- Track 130 : ClubPenguin_22
- Track 131 : Pepy6_035
- Track 132 : Poco6_036
- Track 133 : PerroGrande22_39
- Track 134 : ArtetaBall_33
- Track 135 : Figliar_32
- Track 136 : OhMyWard_32
- Track 137 : Madvan_32
- Track 138 : Vardy_32
- Track 139 : Hydrus_33
- Track 140 : JulesRay_29, Football_30, Bugg_30
- Track 141 : Phepper_32
- Track 142 : Schwartz33_33

- Track 143 : Perunas_31, SweetCrkHerbs_31, Talon44_30
- Track 144 : Blanky_32
- Track 145 : AlainaMarie_32, EndAve_32
- Track 146 : MajinBuu_32
- Track 147 : Luthien_33, Nithya_32
- Track 148 : Hortihabitatio_32
- Track 149 : Kerry_29, Odesza_29, Gill_29, Tanis_29, Gravy_29
- Track 150 : Runhaar_32, Burley_32
- Track 151 : Zeph_33
- Track 152 : Rickmore_31
- Track 153 : Chickenjars_32
- Track 154 : Duffington_32
- Track 155 : TenaciousP_33, Jodelie19_33
- Track 156 : Dancer_29
- Track 157 : CWormy_32
- Track 158 : FortCran_29, Artorias_29
- Track 159 : Pherobrine_31
- Track 160 : Citrus_31
- Track 161 : Tairn4Wing_31
- Track 162 : Gusicorn_32, PestoPenguin_35, BetterYeti_32, Aloe25_35
- Track 163 : Kenosha_32
- Track 164 : Avazak_29
- Track 165 : Glintora_32
- Track 166 : Capybara_29
- Track 167 : Demure_31
- Track 168 : Crocheter_32
- Track 169 : Mysticmoon_31
- Track 170 : Fazel_30
- Track 171 : Arataki_31
- Track 172 : Tonaltzin_34
- Track 173 : Conley_30
- Track 174 : ChickyNuggy_30
- Track 175 : BluerMoon_32
- Track 176 : Petite_31
- Track 177 : Secretariat_30
- Track 178 : Dialga_33
- Track 179 : Mossy_33
- Track 180 : Captrips_29
- Track 181 : Eddiemania_33
- Track 182 : ShaggyRogers_32
- Track 183 : OlgasClover_32
- Track 184 : NoPickles_29
- Track 185 : Trufflozitus_29
- Track 186 : Untouchable_32
- Track 187 : Aflac_32
- Track 188 : Roney_29
- Track 189 : Nadmeg_33
- Track 190 : Magel_30
- Track 191 : Damascus_24
- Track 192 : DizzyRudy_24
- Track 193 : Count_30
- Track 194 : Camille_24
- Track 195 : Mema_24

- Track 196 : Arzan_22
- Track 197 : Jazzy4900_24, Sunny4976_23
- Track 198 : GermyBearimy_25
- Track 199 : Gandionco_41
- Track 200 : Marianna39_41
- Track 201 : JeNeSaisPas_39
- Track 202 : Paella_40, Qui_40, Elver_40
- Track 203 : Kureo_41
- Track 204 : Eevee_26
- Track 205 : AddiRose_25
- Track 206 : Yotsuba_26
- Track 207 : Sweetclover_26
- Track 208 : Pippin15_25
- Track 209 : Serenabean_25
- Track 210 : Daddyjeff_25
- Track 211 : JoyLin_26

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 19, it was called in 170 of the 210 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acai_26, AddiRose_25, Aflac_32, AlainaMarie_32, Aloe25_35, Altjira_25, Anandi_27, Annihilus_19, Arataki_31, Arcadia_22, AreFloNak_26, Argan_25, ArtetaBall_33, Artorias_29, Avazak_29, Barbonzobean_29, BenitoAntonio_22, Benllo_20, BetterYeti_32, Bilo_19, Biscute_27, BlackHoleSun_27, Blanky_32, BluerMoon_32, Boog_23, Bouchard_27, Bowling_22, Breylor17_27, BronxBay_23, Brunswick_26, Bugg_30, Burley_32, CWormy_32, Camille_24, CapnMurica_26, Captrips_29, Capybara_29, CastorTray_28, Caterpillar_24, Cheesy_22, ChickyNugget_30, Chikenjars_32, Chlochlo_27, Circum_22, Citrus_31, Conley_30, Correa_21, Count_30, Crocheter_32, Daddyjeff_25, Damascus_24, Dancer_29, Darby_26, Demure_31, DevitoJr_26, Dialga_33, Dinallo_27, Ditters_19, DizzyRudy_24, Djungelskog_23, DoctorPepper_23, Doxi13_19, Duffington_32, Dynamite_21, Eddiemania_33, Eevee_26, ElephantMan_26, Elsa_22, Elver_40, EndAve_32, Fazel_30, Figliar_32, Football_30, FortCran_29, GantcherGoblin_25, Giantsbane_27, Gill_29, Glintora_32, GoCrazy_20, GoblinVoyage_19, Gordon_26, Gravy_29, Gusicorn_32, Hankly_20, Heisenberger_21, Hemma_23, HerbBucket_22, Hortihabitatio_32, HotFries_18, Hydrus_33, Ingrid_26, Inked_28, Issa_26, JEGGS_21, Jeremy4pt0_23, Jodelie19_33, JoyLin_26, JulesRay_29, Kardesai_20, KeaneyLin_20, Kenosha_32, Kerry_29, KevinMinion_26, Kinny_28, Leathea_26, Lewando_29, LilHuddy_27, Linda_23, Loretta_26, LucySwiss_26, Luthien_33, Madvan_32, MajinBuu_32, Makai_26, MediumFry_24, Mema_24, Michelle_23, MiniBagel_26, Monse_19, Mooshroom_21, Mossy_33, MrAaronian_23, Mudcat_21, Muglass_28, Mysticmoon_31, Nadmeg_33, NapoleonB_21, Nason_22, Natasha_23, Navi1117_26, Nightmare_27, Niktson_26, Nithya_32, Nivinsha_26, NoPickles_29, Odesza_29, OhMyWard_32, OlgasClover_32, Paella_40, Pepy6_035, Perkunas_31, PerroGrande22_39, PestoPenguin_35, Petite_31, Phaby_27, Phaila_25, Phepper_32, Pherobrine_31, PherryCruz_18, Pippin15_25, Poco6_036, PoeMe_27, PowellDog_24, ProfFrink_23, Qui_40, RavenPuff_18, Rickmore_31, Roney_29,

RosaAsantewaa_19, Runhaar_32, RustyBoy_23, Salk_23, Sangak_19, Schwartz33_33, ScienceWizSam_28, Secretariat_30, Serenabean_25, ShaggyRogers_32, SheRa_19, Shepard_27, Sloopyjoe_23, Sporto_24, Sprinkle_23, StarLord_23, Stardom_20, Stardrop_26, Stayer_23, SweetCrkHerbs_31, Sweetclover_26, Synepsis_25, Tairn4Wing_31, Talon44_30, Tanis_29, Tatanka_26, Teacup_26, TenaciousP_33, Tenney120_26, Tenno_27, Tipton_27, Tokki_27, Tonaltzin_34, Tribby_22, TrixiePhattel_26, Truckee_25, Trufflozitus_29, Trustiboi_27, Untouchable_32, Uzumaki_26, Vardy_32, Westerlin_27, Xenomorph_20, YoshiYama_21, Zeina_26, Zeph_33, Zippen_26,

Genes that have the "Most Annotated" start but do not call it:

- BarbieDoll_29, Egad_23, Gandionco_41, JeNeSaisPas_39, Kureo_41, Mardi_27, Marianna39_41, Moozy_19, Onestar_23, Raunak_23, Renaldo_31, Scap1_19, Shiba_23, Spain_22, Yotsuba_26,

Genes that do not have the "Most Annotated" start:

- Arzan_22, Bing_24, CherryBlossom_23, ClubPenguin_22, CricKo_21, DrGrey_23, Esketit_23, Espio_23, FidgetOrca_23, FrodoSwaggins_23, FromIndy_22, GermyBearimy_25, GirlPower_22, HazuAndZazu_23, Hoshi_23, IceWarrior_23, Indigenous_23, Jaylociraptor_23, Jazzy4900_24, Kardashian_22, LibertyBell_21, Madamato_23, Magel_30, Maya_23, Meibysrarus_23, Miek_21, Namu_23, OlympicHelado_23, Popy_23, Rainydai_21, Regigigas_22, Rima_23, SendItCS_20, Soshi_23, Spectropatronm_23, Sunny4976_23, TaidaOne_23, Thiqqums_21, TieDye_22, TonyStarch_23, Wigberry_23,

Summary by start number:

Start 2:

- Found in 35 of 261 (13.4%) of genes in pham
- Manual Annotations of this start: 33 of 210
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bing_24 (BI5), CherryBlossom_23 (BI1), CricKo_21 (BI4), DrGrey_23 (BI1), Esketit_23 (BI1), Espio_23 (BI1), FidgetOrca_23 (BI1), FrodoSwaggins_23 (BI1), FromIndy_22 (BI4), GirlPower_22 (BI1), HazuAndZazu_23 (BI1), Hoshi_23 (BI1), IceWarrior_23 (BI1), Indigenous_23 (BI1), Jaylociraptor_23 (BI1), Kardashian_22 (BI6), LibertyBell_21 (BI3), Madamato_23 (BI1), Maya_23 (BI1), Meibysrarus_23 (BI1), Miek_21 (BI4), Namu_23 (BI1), OlympicHelado_23 (BI1), Popy_23 (BI1), Rainydai_21 (BI4), Regigigas_22 (BI4), Rima_23 (BI1), SendItCS_20 (BI4), Soshi_23 (BI1), Spectropatronm_23 (BI1), TaidaOne_23 (BI1), Thiqqums_21 (BI4), TieDye_22 (BI1), TonyStarch_23 (BI1), Wigberry_23 (BI5),

Start 5:

- Found in 4 of 261 (1.5%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arzan_22 (FI), GermyBearimy_25 (FI), Jazzy4900_24 (FI), Sunny4976_23 (FI),

Start 16:

- Found in 1 of 261 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 210
- Called 100.0% of time when present

- Phage (with cluster) where this start called: ClubPenguin_22 (BI7),

Start 18:

- Found in 130 of 261 (49.8%) of genes in pham
- Manual Annotations of this start: 2 of 210
- Called 3.1% of time when present
- Phage (with cluster) where this start called: BarbieDoll_29 (AU6), Mardi_27 (AU6), Moozy_19 (BI2), Scap1_19 (BI2),

Start 19:

- Found in 220 of 261 (84.3%) of genes in pham
- Manual Annotations of this start: 170 of 210
- Called 93.2% of time when present
- Phage (with cluster) where this start called: Acai_26 (AU1), AddiRose_25 (JA), Aflac_32 (DJ), AlainaMarie_32 (DJ), Aloe25_35 (DJ), Altjira_25 (AU6), Anandi_27 (AU4), Annihilus_19 (BI2), Arataki_31 (DJ), Arcadia_22 (AM), AreFloNak_26 (AU1), Argan_25 (AU6), ArtetaBall_33 (DJ), Artorias_29 (DJ), Avazak_29 (DJ), Barbonzobean_29 (AU6), BenitoAntonio_22 (AM), Benllo_20 (AM), BetterYeti_32 (DJ), Bilo_19 (BI2), Biscute_27 (AU6), BlackHoleSun_27 (AU6), Blanky_32 (DJ), BluerMoon_32 (DJ), Boog_23 (AW), Bouchard_27 (AU2), Bowling_22 (AM), Breylor17_27 (AU1), BronxBay_23 (AW), Brunswick_26 (AU1), Bugg_30 (DJ), Burley_32 (DJ), CWormy_32 (DJ), Camille_24 (EL), CapnMurica_26 (AU1), Captrips_29 (DJ), Copybara_29 (DJ), CastorTray_28 (AU1), Caterpillar_24 (AU4), Cheesy_22 (AM), ChickyNuggy_30 (DJ), Chikenjars_32 (DJ), Chlochlo_27 (AU2), Circum_22 (AM), Citrus_31 (DJ), Conley_30 (DJ), Correa_21 (AM), Count_30 (EL), Crocheter_32 (DJ), Daddyjeff_25 (JA), Damascus_24 (EL), Dancer_29 (DJ), Darby_26 (AU1), Demure_31 (DJ), DevitoJr_26 (AU1), Dialga_33 (DJ), Dinallo_27 (AU1), Ditters_19 (BI2), DizzyRudy_24 (EL), Djungelskog_23 (AW), DoctorPepper_23 (AW), Doxi13_19 (BI2), Duffington_32 (DJ), Dynamite_21 (AM), Eddiemania_33 (DJ), Eevee_26 (JA), ElephantMan_26 (AU1), Elsa_22 (AM), Elver_40 (FK), EndAve_32 (DJ), Fazel_30 (DJ), Figliar_32 (DJ), Football_30 (DJ), FortCran_29 (DJ), GantcherGoblin_25 (AU6), Giantsbane_27 (AU2), Gill_29 (DJ), Glintora_32 (DJ), GoCrazy_20 (AM), GoblinVoyage_19 (BI2), Gordon_26 (AU1), Gravy_29 (DJ), Gusicorn_32 (DJ), Hankly_20 (AM), Heisenberger_21 (AM), Hemma_23 (AU1), HerbBucket_22 (AW), Hortihabitatio_32 (DJ), HotFries_18 (BI2), Hydrus_33 (DJ), Ingrid_26 (AU3), Inked_28 (AU7), Issa_26 (AU1), JEGGS_21 (AM), Jeremy4pt0_23 (AW), Jodelie19_33 (DJ), JoyLin_26 (JA), JulesRay_29 (DJ), Kardesai_20 (AM), KeaneyLin_20 (AM), Kenosha_32 (DJ), Kerry_29 (DJ), KevinMinion_26 (AU6), Kinny_28 (AU6), Leatheia_26 (AU6), Lewando_29 (AU6), LilHuddy_27 (AU2), Linda_23 (AW), Loretta_26 (AU3), LucySwiss_26 (AU1), Luthien_33 (DJ), Madvan_32 (DJ), MajinBuu_32 (DJ), Makai_26 (AU5), MediumFry_24 (AU4), Mema_24 (EL), Michelle_23 (AW), MiniBagel_26 (AU1), Monse_19 (BI2), Mooshroom_21 (AM), Mossy_33 (DJ), MrAaronian_23 (AW), Mudcat_21 (AM), Muglass_28 (AU6), Mysticmoon_31 (DJ), Nadmeg_33 (DJ), NapoleonB_21 (AM), Nason_22 (AM), Natasha_23 (AW), Navi1117_26 (AU6), Nightmare_27 (AU1), Niktson_26 (AU1), Nithya_32 (DJ), Nivinsha_26 (AU1), NoPickles_29 (DJ), Odesza_29 (DJ), OhMyWard_32 (DJ), OlgasClover_32 (DJ), Paella_40 (FK), Pepy6_035 (CC), Perkunas_31 (DJ), PerroGrande22_39 (CC), PestoPenguin_35 (DJ), Petite_31 (DJ), Phaby_27 (AU2), Phaila_25 (AU6), Phepper_32 (DJ), Pherobrine_31 (DJ), PherryCruz_18 (BI2), Pippin15_25 (JA), Poco6_036 (CC), PoeMe_27 (AU6), Powelldog_24 (AW), ProfFrink_23 (AW), Qui_40 (FK), RavenPuff_18 (BI2), Rickmore_31 (DJ), Roney_29 (DJ), RosaAsantewaa_19 (BI2), Runhaar_32 (DJ), RustyBoy_23 (AW), Salk_23 (AW), Sangak_19 (BI2),

Schwartz33_33 (DJ), ScienceWizSam_28 (AU1), Secretariat_30 (DJ), Serenabean_25 (JA), ShaggyRogers_32 (DJ), SheRa_19 (BI2), Shepard_27 (AU2), Sloopyjoe_23 (AW), Sporto_24 (AW), Sprinkle_23 (AW), StarLord_23 (AW), Stardom_20 (AM), Stardrop_26 (AU6), Stayer_23 (AW), SweetCrkHerbs_31 (DJ), Sweetclover_26 (JA), Synopsis_25 (AU1), Tairn4Wing_31 (DJ), Talon44_30 (DJ), Tanis_29 (DJ), Tatanka_26 (AU1), Teacup_26 (AU1), TenaciousP_33 (DJ), Tenney120_26 (AU6), Tenno_27 (AU1), Tipton_27 (AU2), Tokki_27 (AU2), Tonaltzin_34 (DJ), Tribby_22 (AM), TrixiePhattel_26 (AU6), Truckee_25 (AU5), Trufflozitus_29 (DJ), Trustiboi_27 (AU1), Untouchable_32 (DJ), Uzumaki_26 (AU6), Vardy_32 (DJ), Westerlin_27 (AU1), Xenomorph_20 (AM), YoshiYama_21 (AM), Zeina_26 (AU6), Zeph_33 (DJ), Zippen_26 (AU7),

Start 23:

- Found in 220 of 261 (84.3%) of genes in pham
- Manual Annotations of this start: 3 of 210
- Called 4.5% of time when present
- Phage (with cluster) where this start called: Egad_23 (AW), Gandionco_41 (FK), JeNeSaisPas_39 (FK), Kureo_41 (FK), Marianna39_41 (FK), Onestar_23 (AW), Raunak_23 (AW), Shiba_23 (AW), Spain_22 (AW), Yotsuba_26 (JA),

Start 34:

- Found in 50 of 261 (19.2%) of genes in pham
- No Manual Annotations of this start.
- Called 2.0% of time when present
- Phage (with cluster) where this start called: Renaldo_31 (AU6),

Start 213:

- Found in 32 of 261 (12.3%) of genes in pham
- Manual Annotations of this start: 1 of 210
- Called 3.1% of time when present
- Phage (with cluster) where this start called: Magel_30 (DJ),

Summary by clusters:

There are 22 clusters represented in this pham: DJ, FI, FK, JA, AU1, AU3, AU2, AU5, AU4, AU7, AU6, EL, CC, AM, AW, BI6, BI7, BI4, BI5, BI2, BI3, BI1,

Info for manual annotations of cluster AM:

- Start number 19 was manually annotated 21 times for cluster AM.

Info for manual annotations of cluster AU1:

- Start number 19 was manually annotated 19 times for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 19 was manually annotated 8 times for cluster AU2.

Info for manual annotations of cluster AU3:

- Start number 19 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:

- Start number 19 was manually annotated 3 times for cluster AU4.

Info for manual annotations of cluster AU5:

- Start number 19 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AU6:

- Start number 19 was manually annotated 14 times for cluster AU6.

Info for manual annotations of cluster AU7:

- Start number 19 was manually annotated 2 times for cluster AU7.

Info for manual annotations of cluster AW:

- Start number 19 was manually annotated 17 times for cluster AW.
- Start number 23 was manually annotated 2 times for cluster AW.

Info for manual annotations of cluster BI1:

- Start number 2 was manually annotated 24 times for cluster BI1.

Info for manual annotations of cluster BI2:

- Start number 18 was manually annotated 2 times for cluster BI2.
- Start number 19 was manually annotated 11 times for cluster BI2.

Info for manual annotations of cluster BI3:

- Start number 2 was manually annotated 1 time for cluster BI3.

Info for manual annotations of cluster BI4:

- Start number 2 was manually annotated 5 times for cluster BI4.

Info for manual annotations of cluster BI5:

- Start number 2 was manually annotated 2 times for cluster BI5.

Info for manual annotations of cluster BI6:

- Start number 2 was manually annotated 1 time for cluster BI6.

Info for manual annotations of cluster BI7:

- Start number 16 was manually annotated 1 time for cluster BI7.

Info for manual annotations of cluster DJ:

- Start number 19 was manually annotated 57 times for cluster DJ.
- Start number 213 was manually annotated 1 time for cluster DJ.

Info for manual annotations of cluster EL:

- Start number 19 was manually annotated 4 times for cluster EL.

Info for manual annotations of cluster FK:

- Start number 19 was manually annotated 3 times for cluster FK.

Info for manual annotations of cluster JA:

- Start number 19 was manually annotated 7 times for cluster JA.
- Start number 23 was manually annotated 1 time for cluster JA.

Gene Information:

Gene: Acai_26 Start: 20116, Stop: 24702, Start Num: 19

Candidate Starts for Acai_26:

(Start: 18 @20095 has 2 MA's), (Start: 19 @20116 has 170 MA's), (Start: 23 @20146 has 3 MA's), (30, 20200), (34, 20221), (40, 20257), (49, 20335), (60, 20395), (66, 20419), (68, 20431), (71, 20461), (74, 20512), (78, 20542), (79, 20584), (80, 20602), (84, 20644), (86, 20674), (88, 20719), (89, 20731), (96, 20785), (99, 20800), (101, 20812), (105, 20833), (119, 20926), (122, 20959), (126, 20974), (132, 21022), (151, 21193), (166, 21307), (167, 21310), (173, 21358), (194, 21472), (201, 21496), (204, 21511), (207, 21523), (222, 21598), (239, 21691), (244, 21706), (246, 21712), (253, 21730), (265, 21802), (283, 21868), (306, 21970), (308, 21976), (316, 22009), (317, 22012), (323, 22039), (344, 22153), (353, 22210), (355, 22222), (367, 22276), (370, 22285), (371, 22288), (377, 22309), (386, 22354), (392, 22375), (409, 22471), (416, 22492), (423, 22513), (425, 22531), (426, 22534), (437, 22585), (442, 22615), (444, 22630), (446, 22642), (475, 22762), (480, 22792), (499, 22870), (502, 22885), (505, 22894), (507, 22906), (512, 22927), (515, 22936), (523, 22981), (524, 22984), (525, 22993), (532, 23014), (539, 23044), (544, 23056), (552, 23077), (554, 23083), (559, 23104), (567, 23128), (568, 23137), (578, 23191), (584, 23206), (587, 23215), (600, 23254), (603, 23266), (605, 23272), (613, 23296), (615, 23305), (635, 23380), (636, 23383), (640, 23401), (658, 23467), (661, 23476), (673, 23530), (674, 23533), (705, 23659), (706, 23662), (712, 23683), (720, 23716), (722, 23725), (735, 23785), (740, 23806), (746, 23839), (754, 23872), (762, 23929), (772, 23989), (777, 24013), (787, 24091), (789, 24103), (812, 24229), (822, 24271), (830, 24319), (837, 24352), (840, 24364), (843, 24370), (846, 24391), (847, 24394), (848, 24400), (856, 24439), (862, 24466), (867, 24493), (906, 24652), (910, 24679),

Gene: AddiRose_25 Start: 18536, Stop: 23140, Start Num: 19

Candidate Starts for AddiRose_25:

(Start: 19 @18536 has 170 MA's), (Start: 23 @18569 has 3 MA's), (43, 18692), (45, 18716), (57, 18806), (61, 18824), (65, 18836), (71, 18881), (75, 18938), (79, 19004), (84, 19064), (92, 19175), (96, 19205), (99, 19220), (118, 19343), (119, 19346), (121, 19367), (126, 19394), (133, 19451), (140, 19541), (150, 19610), (152, 19625), (154, 19646), (157, 19667), (180, 19808), (184, 19829), (187, 19850), (197, 19904), (233, 20093), (324, 20480), (344, 20606), (348, 20636), (370, 20738), (374, 20750), (383, 20789), (423, 20966), (426, 20987), (431, 21011), (432, 21014), (440, 21050), (466, 21179), (481, 21251), (484, 21272), (490, 21290), (499, 21323), (502, 21341), (507, 21362), (509, 21368), (512, 21383), (520, 21422), (528, 21458), (535, 21482), (537, 21491), (541, 21506), (555, 21548), (567, 21590), (568, 21599), (571, 21626), (572, 21629), (579, 21656), (584, 21668), (587, 21677), (606, 21737), (615, 21767), (623, 21794), (664, 21950), (676, 22001), (684, 22037), (694, 22076), (699, 22103), (703, 22115), (708, 22133), (714, 22154), (721, 22181), (726, 22199), (735, 22247), (744, 22289), (769, 22433), (774, 22457), (776, 22466), (777, 22475), (781, 22508), (787, 22553), (797, 22607), (807, 22679), (814, 22703), (826, 22757), (828, 22772), (830, 22781), (832, 22793), (834, 22802), (837, 22814), (839, 22823), (856, 22901), (857, 22904), (874, 22976), (911, 23129),

Gene: Aflac_32 Start: 23512, Stop: 28626, Start Num: 19

Candidate Starts for Aflac_32:

(Start: 19 @23512 has 170 MA's), (Start: 23 @23542 has 3 MA's), (28, 23587), (49, 23731), (61, 23797), (71, 23857), (72, 23878), (79, 23980), (87, 24106), (90, 24142), (96, 24181), (105, 24229), (110, 24271), (117, 24343), (122, 24391), (137, 24517), (145, 24592), (146, 24604), (151, 24625), (163, 24730), (164, 24733), (207, 24955), (220, 25021), (236, 25111), (247, 25147), (260, 25198), (267, 25246), (271, 25258), (300, 25402), (308, 25441), (313, 25468), (344, 25630), (351, 25678), (354, 25693), (355, 25699), (360, 25717), (371, 25765), (386, 25831), (398, 25882), (399, 25894), (402, 25912), (415, 25966), (426, 26011), (430, 26032), (433, 26041), (437, 26062), (441, 26083), (451, 26137), (452, 26140), (455, 26149), (461, 26170), (463, 26182), (467, 26203), (469, 26209), (473, 26227), (480, 26263), (485, 26293), (499, 26341), (502, 26353), (504, 26359), (505, 26362), (507, 26374), (508, 26377), (513, 26398), (520, 26434), (533, 26488), (534, 26491), (539, 26512), (545, 26524), (547, 26527), (561, 26575), (566, 26590), (567, 26593), (568, 26602), (570, 26623),

(576, 26650), (577, 26653), (583, 26677), (587, 26689), (593, 26710), (595, 26722), (597, 26731), (601, 26743), (609, 26770), (619, 26803), (621, 26809), (626, 26827), (639, 26881), (643, 26896), (662, 26965), (688, 27076), (717, 27187), (729, 27232), (746, 27322), (771, 27466), (780, 27529), (783, 27556), (795, 27628), (798, 27640), (799, 27649), (805, 27703), (813, 27724), (815, 27736), (849, 27898), (865, 27985), (871, 28003), (879, 28033), (886, 28051), (887, 28054), (890, 28066), (898, 28093), (915, 28204), (920, 28267), (923, 28279), (929, 28327), (938, 28381), (944, 28408), (961, 28522), (975, 28612),

Gene: AlainaMarie_32 Start: 23499, Stop: 28610, Start Num: 19

Candidate Starts for AlainaMarie_32:

(Start: 19 @23499 has 170 MA's), (Start: 23 @23529 has 3 MA's), (28, 23574), (49, 23718), (61, 23784), (71, 23844), (72, 23865), (79, 23967), (86, 24057), (87, 24093), (90, 24129), (96, 24168), (105, 24216), (110, 24258), (117, 24330), (122, 24378), (137, 24504), (145, 24579), (146, 24591), (151, 24612), (163, 24717), (164, 24720), (207, 24942), (220, 25008), (221, 25011), (233, 25080), (236, 25098), (260, 25185), (272, 25254), (291, 25356), (293, 25359), (300, 25386), (308, 25425), (313, 25452), (344, 25614), (351, 25662), (355, 25683), (360, 25701), (362, 25716), (371, 25749), (386, 25815), (397, 25863), (398, 25866), (401, 25887), (402, 25896), (415, 25950), (426, 25995), (430, 26016), (433, 26025), (440, 26058), (441, 26067), (444, 26091), (451, 26121), (452, 26124), (455, 26133), (458, 26145), (461, 26154), (463, 26166), (467, 26187), (469, 26193), (480, 26247), (485, 26277), (499, 26325), (502, 26337), (504, 26343), (505, 26346), (508, 26361), (513, 26382), (520, 26418), (533, 26472), (534, 26475), (537, 26487), (539, 26496), (545, 26508), (547, 26511), (552, 26526), (559, 26553), (561, 26559), (566, 26574), (567, 26577), (568, 26586), (569, 26601), (570, 26607), (574, 26622), (576, 26634), (577, 26637), (587, 26673), (593, 26694), (595, 26706), (597, 26715), (601, 26727), (609, 26754), (616, 26778), (619, 26787), (621, 26793), (626, 26811), (643, 26880), (662, 26949), (698, 27105), (746, 27306), (771, 27450), (780, 27513), (783, 27540), (795, 27612), (798, 27624), (799, 27633), (805, 27687), (813, 27708), (815, 27720), (849, 27882), (865, 27969), (871, 27987), (879, 28017), (886, 28035), (887, 28038), (890, 28050), (898, 28077), (915, 28188), (923, 28263), (929, 28311), (938, 28365), (944, 28392), (961, 28506), (975, 28596),

Gene: Aloe25_35 Start: 23289, Stop: 28400, Start Num: 19

Candidate Starts for Aloe25_35:

(Start: 19 @23289 has 170 MA's), (Start: 23 @23319 has 3 MA's), (28, 23364), (49, 23508), (61, 23574), (71, 23634), (72, 23655), (79, 23757), (87, 23883), (90, 23919), (96, 23958), (101, 23985), (105, 24006), (110, 24048), (122, 24168), (135, 24282), (137, 24294), (145, 24369), (151, 24402), (163, 24507), (164, 24510), (233, 24870), (236, 24888), (272, 25044), (291, 25146), (293, 25149), (300, 25176), (308, 25215), (313, 25242), (320, 25263), (325, 25287), (344, 25404), (354, 25467), (355, 25473), (360, 25491), (361, 25497), (367, 25527), (375, 25551), (386, 25605), (393, 25629), (397, 25653), (398, 25656), (401, 25677), (402, 25686), (412, 25731), (415, 25740), (426, 25785), (430, 25806), (433, 25815), (434, 25821), (437, 25836), (439, 25842), (441, 25857), (451, 25911), (452, 25914), (455, 25923), (458, 25935), (461, 25944), (463, 25956), (467, 25977), (469, 25983), (475, 26007), (480, 26037), (482, 26052), (499, 26115), (502, 26127), (504, 26133), (505, 26136), (507, 26148), (508, 26151), (520, 26208), (533, 26262), (534, 26265), (539, 26286), (545, 26298), (547, 26301), (561, 26349), (566, 26364), (567, 26367), (568, 26376), (569, 26391), (570, 26397), (576, 26424), (577, 26427), (579, 26433), (587, 26463), (593, 26484), (595, 26496), (597, 26505), (601, 26517), (609, 26544), (619, 26577), (621, 26583), (626, 26601), (633, 26631), (662, 26739), (683, 26829), (688, 26850), (717, 26961), (729, 27006), (740, 27063), (746, 27096), (771, 27240), (780, 27303), (790, 27369), (795, 27402), (798, 27414), (805, 27477), (813, 27498), (815, 27510), (819, 27531), (849, 27672), (865, 27759), (871, 27777), (879, 27807), (886, 27825), (887, 27828), (889, 27834), (890, 27840), (898, 27867), (915, 27978), (920, 28041), (923, 28053), (933, 28122), (938, 28155), (943, 28179), (961, 28296), (975, 28386),

Gene: Altjira_25 Start: 19696, Stop: 24333, Start Num: 19

Candidate Starts for Altjira_25:

(Start: 18 @19675 has 2 MA's), (Start: 19 @19696 has 170 MA's), (Start: 23 @19726 has 3 MA's), (30, 19780), (31, 19789), (61, 20059), (62, 20062), (71, 20119), (72, 20140), (78, 20200), (79, 20242), (84, 20302), (96, 20443), (99, 20458), (105, 20491), (109, 20530), (110, 20533), (117, 20569), (119, 20584), (126, 20632), (163, 20956), (164, 20959), (167, 20968), (175, 21028), (185, 21070), (194, 21130), (195, 21136), (198, 21145), (203, 21160), (204, 21169), (224, 21268), (225, 21280), (226, 21289), (228, 21301), (301, 21586), (317, 21655), (344, 21796), (351, 21844), (358, 21874), (367, 21919), (370, 21928), (377, 21952), (381, 21970), (391, 22015), (392, 22018), (395, 22027), (405, 22093), (416, 22135), (423, 22156), (426, 22177), (437, 22228), (442, 22258), (444, 22273), (455, 22315), (460, 22333), (469, 22381), (470, 22384), (481, 22441), (486, 22468), (507, 22549), (510, 22558), (520, 22609), (528, 22645), (537, 22678), (539, 22687), (544, 22699), (552, 22720), (559, 22747), (567, 22771), (568, 22780), (584, 22849), (585, 22852), (586, 22855), (587, 22858), (597, 22888), (603, 22909), (610, 22930), (615, 22948), (618, 22957), (623, 22975), (638, 23035), (646, 23068), (653, 23092), (666, 23137), (672, 23170), (673, 23173), (674, 23176), (679, 23194), (708, 23314), (709, 23317), (714, 23335), (716, 23344), (720, 23359), (736, 23434), (737, 23437), (752, 23506), (759, 23560), (762, 23572), (781, 23689), (787, 23734), (796, 23782), (823, 23917), (824, 23920), (826, 23938), (830, 23962), (843, 24013), (856, 24082), (859, 24100),

Gene: Anandi_27 Start: 20666, Stop: 25264, Start Num: 19

Candidate Starts for Anandi_27:

(Start: 18 @20645 has 2 MA's), (Start: 19 @20666 has 170 MA's), (Start: 23 @20696 has 3 MA's), (30, 20750), (40, 20807), (46, 20855), (60, 20945), (66, 20969), (71, 21011), (78, 21092), (79, 21134), (80, 21152), (84, 21194), (86, 21224), (88, 21269), (89, 21281), (93, 21320), (96, 21335), (99, 21350), (105, 21383), (117, 21461), (119, 21476), (122, 21509), (126, 21524), (127, 21533), (132, 21572), (151, 21743), (158, 21812), (159, 21815), (167, 21860), (172, 21902), (175, 21920), (184, 21959), (188, 21980), (189, 21983), (192, 22010), (204, 22061), (210, 22085), (233, 22211), (257, 22310), (288, 22445), (298, 22490), (316, 22568), (338, 22652), (344, 22703), (360, 22790), (365, 22817), (370, 22835), (377, 22859), (386, 22904), (392, 22925), (399, 22967), (405, 23000), (406, 23003), (423, 23063), (426, 23084), (444, 23180), (445, 23183), (450, 23207), (451, 23210), (462, 23249), (471, 23297), (475, 23312), (482, 23357), (483, 23360), (487, 23378), (489, 23384), (490, 23387), (502, 23435), (505, 23444), (506, 23450), (512, 23477), (523, 23531), (524, 23534), (528, 23552), (539, 23594), (544, 23609), (550, 23618), (552, 23630), (557, 23651), (559, 23657), (560, 23660), (563, 23669), (567, 23681), (568, 23690), (578, 23744), (579, 23747), (586, 23765), (587, 23768), (598, 23801), (600, 23807), (605, 23825), (607, 23831), (615, 23858), (626, 23894), (634, 23930), (636, 23936), (640, 23954), (642, 23960), (646, 23978), (654, 24005), (658, 24020), (667, 24050), (668, 24056), (673, 24083), (674, 24086), (684, 24128), (694, 24167), (705, 24212), (706, 24215), (722, 24278), (725, 24287), (735, 24338), (744, 24380), (745, 24389), (746, 24392), (749, 24404), (766, 24512), (781, 24599), (787, 24644), (788, 24647), (803, 24734), (814, 24794), (822, 24824), (830, 24872), (832, 24884), (834, 24893), (840, 24917), (856, 24992), (859, 25010), (862, 25019), (867, 25046), (906, 25208),

Gene: Annihilus_19 Start: 13516, Stop: 18744, Start Num: 19

Candidate Starts for Annihilus_19:

(Start: 18 @13495 has 2 MA's), (Start: 19 @13516 has 170 MA's), (Start: 23 @13546 has 3 MA's), (42, 13648), (45, 13699), (61, 13807), (79, 13990), (87, 14116), (90, 14152), (96, 14191), (110, 14281), (154, 14668), (177, 14818), (182, 14842), (194, 14914), (243, 15145), (265, 15223), (270, 15241), (273, 15244), (279, 15277), (305, 15385), (321, 15445), (344, 15526), (355, 15595), (367, 15649), (389, 15736), (390, 15739), (392, 15748), (411, 15850), (423, 15886), (426, 15904), (437, 15955), (459, 16057), (462, 16069), (464, 16084), (479, 16153), (480, 16162), (485, 16192), (498, 16237), (504, 16258), (511, 16288), (514, 16300), (515, 16303), (519, 16324), (520, 16333), (528, 16369), (537, 16402), (564, 16486), (571, 16531), (572, 16534), (573, 16537), (587, 16582), (597, 16612), (611, 16657), (615, 16672), (625, 16705), (630, 16726), (632, 16735), (634, 16744), (640, 16768), (641, 16771), (644, 16780), (649, 16801), (652, 16813), (660, 16840), (669, 16879), (674, 16900), (682, 16936), (684, 16942), (718, 17074), (720, 17083), (722, 17092), (725, 17101), (726, 17104),

(729, 17116), (730, 17119), (731, 17128), (733, 17137), (752, 17230), (759, 17284), (787, 17392), (790, 17407), (797, 17446), (800, 17461), (827, 17605), (878, 17839), (899, 17914), (936, 18193), (937, 18196), (940, 18217), (947, 18265), (949, 18271), (964, 18379), (969, 18424), (973, 18451), (983, 18553), (993, 18706),

Gene: Arataki_31 Start: 22605, Stop: 27719, Start Num: 19

Candidate Starts for Arataki_31:

(Start: 19 @22605 has 170 MA's), (Start: 23 @22635 has 3 MA's), (28, 22680), (49, 22824), (56, 22869), (57, 22872), (60, 22884), (61, 22890), (71, 22950), (72, 22971), (79, 23073), (81, 23109), (87, 23199), (96, 23274), (101, 23301), (105, 23322), (108, 23346), (110, 23364), (122, 23484), (139, 23640), (145, 23685), (151, 23718), (163, 23823), (164, 23826), (174, 23892), (177, 23901), (204, 24036), (220, 24114), (236, 24204), (260, 24291), (267, 24339), (283, 24414), (300, 24495), (308, 24534), (313, 24561), (340, 24702), (344, 24723), (354, 24786), (355, 24792), (360, 24810), (361, 24816), (371, 24858), (375, 24870), (377, 24879), (386, 24924), (396, 24966), (398, 24975), (399, 24987), (401, 24996), (402, 25005), (415, 25059), (426, 25104), (430, 25125), (433, 25134), (438, 25158), (439, 25161), (440, 25167), (451, 25230), (452, 25233), (455, 25242), (458, 25254), (460, 25260), (461, 25263), (463, 25275), (467, 25296), (469, 25302), (470, 25305), (475, 25326), (480, 25356), (482, 25371), (485, 25386), (499, 25434), (502, 25446), (504, 25452), (505, 25455), (507, 25467), (508, 25470), (520, 25527), (533, 25581), (539, 25605), (545, 25617), (547, 25620), (560, 25665), (561, 25668), (566, 25683), (567, 25686), (568, 25695), (569, 25710), (570, 25716), (571, 25722), (576, 25743), (577, 25746), (581, 25758), (584, 25773), (587, 25782), (593, 25803), (595, 25815), (601, 25836), (609, 25863), (619, 25896), (621, 25902), (626, 25920), (633, 25950), (643, 25989), (662, 26058), (691, 26181), (709, 26250), (729, 26325), (746, 26415), (771, 26559), (780, 26622), (790, 26688), (795, 26721), (798, 26733), (805, 26796), (813, 26817), (815, 26829), (819, 26850), (849, 26991), (865, 27078), (871, 27096), (879, 27126), (886, 27144), (887, 27147), (890, 27159), (898, 27186), (915, 27297), (923, 27372), (933, 27441), (938, 27474), (943, 27498), (961, 27615), (975, 27705),

Gene: Arcadia_22 Start: 17670, Stop: 22148, Start Num: 19

Candidate Starts for Arcadia_22:

(Start: 18 @17649 has 2 MA's), (Start: 19 @17670 has 170 MA's), (Start: 23 @17700 has 3 MA's), (26, 17733), (30, 17754), (68, 17985), (71, 18015), (78, 18096), (79, 18138), (80, 18156), (84, 18198), (89, 18285), (96, 18339), (99, 18354), (105, 18387), (119, 18480), (126, 18528), (128, 18543), (133, 18585), (137, 18639), (145, 18714), (151, 18747), (164, 18855), (174, 18921), (182, 18954), (184, 18963), (185, 18966), (187, 18984), (246, 19266), (255, 19290), (260, 19320), (302, 19479), (317, 19539), (344, 19668), (351, 19716), (362, 19770), (365, 19782), (367, 19791), (370, 19800), (377, 19824), (386, 19869), (392, 19890), (405, 19965), (413, 19998), (423, 20028), (426, 20049), (430, 20070), (442, 20130), (443, 20136), (451, 20175), (452, 20178), (457, 20193), (470, 20256), (475, 20277), (480, 20307), (485, 20337), (491, 20355), (502, 20403), (508, 20427), (512, 20445), (515, 20454), (516, 20463), (518, 20469), (521, 20490), (528, 20520), (537, 20553), (538, 20559), (539, 20562), (544, 20574), (552, 20595), (567, 20646), (568, 20655), (572, 20685), (574, 20691), (584, 20724), (587, 20733), (597, 20763), (600, 20772), (603, 20784), (615, 20823), (623, 20850), (625, 20856), (626, 20859), (629, 20874), (636, 20901), (640, 20919), (644, 20931), (653, 20967), (679, 21069), (694, 21132), (702, 21168), (703, 21171), (705, 21177), (709, 21192), (714, 21210), (720, 21234), (724, 21249), (725, 21252), (730, 21270), (735, 21303), (740, 21324), (752, 21381), (759, 21435), (761, 21444), (781, 21498), (784, 21525), (787, 21543), (796, 21591), (797, 21597), (807, 21669), (826, 21747), (828, 21762), (836, 21801), (843, 21825), (855, 21894), (859, 21915), (885, 22008), (911, 22137),

Gene: AreFloNak_26 Start: 20074, Stop: 24663, Start Num: 19

Candidate Starts for AreFloNak_26:

(Start: 18 @20053 has 2 MA's), (Start: 19 @20074 has 170 MA's), (Start: 23 @20104 has 3 MA's), (30, 20158), (34, 20179), (40, 20215), (49, 20293), (60, 20353), (66, 20377), (68, 20389), (71, 20419), (74,

20470), (78, 20500), (79, 20542), (80, 20560), (84, 20602), (86, 20632), (88, 20677), (89, 20689), (96, 20743), (99, 20758), (101, 20770), (105, 20791), (119, 20884), (122, 20917), (126, 20932), (132, 20980), (151, 21151), (166, 21265), (167, 21268), (194, 21430), (201, 21454), (204, 21469), (207, 21481), (222, 21556), (239, 21649), (244, 21664), (246, 21670), (253, 21688), (265, 21760), (278, 21811), (283, 21826), (290, 21856), (306, 21928), (308, 21934), (316, 21967), (317, 21970), (323, 21997), (344, 22111), (353, 22168), (355, 22180), (367, 22234), (370, 22243), (371, 22246), (377, 22267), (386, 22312), (392, 22333), (399, 22375), (402, 22393), (416, 22450), (423, 22471), (426, 22492), (442, 22573), (444, 22588), (445, 22591), (451, 22618), (452, 22621), (464, 22672), (480, 22750), (482, 22765), (483, 22768), (487, 22786), (489, 22792), (491, 22798), (494, 22807), (502, 22843), (505, 22852), (512, 22885), (523, 22939), (524, 22942), (528, 22960), (532, 22972), (539, 23002), (544, 23017), (550, 23026), (552, 23038), (557, 23059), (568, 23098), (579, 23155), (584, 23167), (587, 23176), (600, 23215), (603, 23227), (613, 23257), (615, 23266), (626, 23302), (635, 23341), (636, 23344), (640, 23362), (642, 23368), (658, 23428), (661, 23437), (673, 23491), (674, 23494), (677, 23503), (705, 23620), (706, 23623), (712, 23644), (720, 23677), (721, 23680), (722, 23686), (725, 23695), (731, 23722), (740, 23767), (754, 23833), (760, 23884), (762, 23890), (772, 23950), (784, 24034), (787, 24052), (789, 24064), (820, 24223), (822, 24232), (830, 24280), (837, 24313), (840, 24325), (843, 24331), (846, 24352), (847, 24355), (848, 24361), (856, 24400), (862, 24427), (906, 24613), (910, 24640),

Gene: Argan_25 Start: 18963, Stop: 23600, Start Num: 19

Candidate Starts for Argan_25:

(Start: 18 @18942 has 2 MA's), (Start: 19 @18963 has 170 MA's), (Start: 23 @18993 has 3 MA's), (30, 19047), (31, 19056), (61, 19326), (62, 19329), (71, 19386), (72, 19407), (78, 19467), (79, 19509), (84, 19569), (88, 19644), (96, 19710), (99, 19725), (105, 19758), (109, 19797), (110, 19800), (117, 19836), (119, 19851), (126, 19899), (146, 20097), (157, 20172), (164, 20226), (167, 20235), (175, 20295), (185, 20337), (194, 20397), (195, 20403), (198, 20412), (203, 20427), (204, 20436), (224, 20535), (225, 20547), (228, 20568), (301, 20853), (313, 20913), (317, 20922), (344, 21063), (351, 21111), (352, 21117), (356, 21135), (358, 21141), (367, 21186), (370, 21195), (377, 21219), (381, 21237), (391, 21282), (392, 21285), (395, 21294), (405, 21360), (416, 21402), (420, 21414), (423, 21423), (426, 21444), (437, 21495), (442, 21525), (444, 21540), (455, 21582), (460, 21600), (469, 21648), (470, 21651), (481, 21708), (507, 21816), (510, 21825), (520, 21876), (528, 21912), (537, 21945), (539, 21954), (544, 21966), (552, 21987), (559, 22014), (567, 22038), (568, 22047), (584, 22116), (585, 22119), (586, 22122), (587, 22125), (597, 22155), (603, 22176), (610, 22197), (615, 22215), (618, 22224), (623, 22242), (638, 22302), (646, 22335), (650, 22350), (652, 22356), (653, 22359), (666, 22404), (673, 22440), (674, 22443), (676, 22449), (679, 22461), (680, 22464), (708, 22581), (709, 22584), (714, 22602), (723, 22638), (733, 22680), (737, 22704), (752, 22773), (759, 22827), (762, 22839), (781, 22956), (787, 23001), (823, 23184), (826, 23205), (830, 23229), (843, 23280), (856, 23349), (857, 23352), (859, 23367),

Gene: ArtetaBall_33 Start: 23642, Stop: 28753, Start Num: 19

Candidate Starts for ArtetaBall_33:

(Start: 19 @23642 has 170 MA's), (Start: 23 @23672 has 3 MA's), (28, 23717), (49, 23861), (61, 23927), (71, 23987), (72, 24008), (79, 24110), (87, 24236), (90, 24272), (96, 24311), (101, 24338), (105, 24359), (110, 24401), (120, 24500), (122, 24521), (137, 24647), (145, 24722), (146, 24734), (151, 24755), (163, 24860), (164, 24863), (233, 25223), (260, 25328), (272, 25397), (277, 25418), (291, 25499), (293, 25502), (300, 25529), (308, 25568), (313, 25595), (344, 25757), (351, 25805), (355, 25826), (360, 25844), (371, 25892), (375, 25904), (386, 25958), (398, 26009), (399, 26021), (401, 26030), (402, 26039), (426, 26138), (430, 26159), (433, 26168), (438, 26192), (439, 26195), (440, 26201), (451, 26264), (452, 26267), (455, 26276), (460, 26294), (461, 26297), (463, 26309), (467, 26330), (469, 26336), (470, 26339), (475, 26360), (480, 26390), (482, 26405), (485, 26420), (499, 26468), (502, 26480), (504, 26486), (505, 26489), (507, 26501), (508, 26504), (520, 26561), (533, 26615), (539, 26639), (545, 26651), (547, 26654), (560, 26699), (561, 26702), (566, 26717), (567, 26720), (568, 26729), (569, 26744), (570, 26750), (571, 26756), (576, 26777), (577, 26780),

(581, 26792), (584, 26807), (587, 26816), (593, 26837), (595, 26849), (601, 26870), (609, 26897), (619, 26930), (621, 26936), (626, 26954), (633, 26984), (643, 27023), (709, 27284), (729, 27359), (746, 27449), (771, 27593), (780, 27656), (790, 27722), (795, 27755), (798, 27767), (805, 27830), (813, 27851), (815, 27863), (819, 27884), (831, 27941), (849, 28025), (865, 28112), (871, 28130), (879, 28160), (886, 28178), (887, 28181), (889, 28187), (890, 28193), (898, 28220), (915, 28331), (923, 28406), (933, 28475), (938, 28508), (943, 28532), (961, 28649), (975, 28739),

Gene: Artorias_29 Start: 20505, Stop: 25607, Start Num: 19

Candidate Starts for Artorias_29:

(Start: 19 @20505 has 170 MA's), (Start: 23 @20535 has 3 MA's), (44, 20673), (48, 20718), (49, 20724), (51, 20733), (53, 20748), (56, 20769), (61, 20790), (68, 20820), (71, 20850), (72, 20871), (79, 20973), (84, 21033), (88, 21108), (89, 21120), (92, 21144), (96, 21174), (99, 21189), (105, 21222), (110, 21264), (115, 21315), (124, 21369), (125, 21372), (135, 21471), (138, 21495), (151, 21591), (163, 21696), (164, 21699), (175, 21768), (177, 21774), (178, 21780), (Start: 213 @21957 has 1 MA's), (224, 22008), (233, 22059), (247, 22113), (248, 22116), (300, 22368), (301, 22371), (318, 22446), (332, 22503), (342, 22587), (344, 22596), (357, 22671), (360, 22683), (362, 22698), (363, 22701), (368, 22722), (381, 22770), (386, 22797), (392, 22818), (395, 22827), (398, 22848), (399, 22860), (401, 22869), (402, 22878), (415, 22932), (416, 22935), (423, 22956), (430, 22998), (436, 23025), (439, 23034), (441, 23049), (442, 23058), (444, 23073), (446, 23085), (448, 23094), (458, 23127), (461, 23136), (479, 23220), (480, 23229), (482, 23244), (483, 23247), (487, 23265), (499, 23307), (505, 23328), (508, 23343), (510, 23349), (518, 23385), (520, 23400), (534, 23457), (537, 23469), (539, 23478), (545, 23490), (551, 23502), (552, 23508), (557, 23529), (561, 23541), (567, 23559), (568, 23568), (569, 23583), (570, 23589), (573, 23601), (583, 23643), (584, 23646), (587, 23655), (593, 23676), (595, 23688), (609, 23736), (612, 23745), (619, 23769), (621, 23775), (626, 23793), (627, 23802), (633, 23823), (651, 23892), (656, 23910), (662, 23931), (703, 24102), (717, 24153), (748, 24297), (759, 24366), (771, 24432), (779, 24483), (798, 24606), (805, 24669), (818, 24717), (819, 24723), (821, 24732), (831, 24780), (846, 24852), (858, 24912), (863, 24933), (864, 24936), (872, 24987), (875, 24996), (879, 25014), (887, 25035), (890, 25047), (907, 25140), (915, 25185), (923, 25260), (925, 25278), (927, 25299), (943, 25386), (960, 25497), (975, 25593),

Gene: Arzan_22 Start: 17242, Stop: 22302, Start Num: 5

Candidate Starts for Arzan_22:

(5, 17242), (7, 17272), (11, 17326), (13, 17347), (31, 17554), (32, 17560), (33, 17563), (49, 17683), (55, 17716), (61, 17749), (69, 17788), (72, 17830), (77, 17881), (79, 17932), (87, 18058), (89, 18079), (96, 18133), (102, 18163), (119, 18265), (121, 18286), (127, 18322), (132, 18361), (145, 18499), (151, 18532), (159, 18604), (161, 18625), (163, 18637), (164, 18640), (172, 18691), (179, 18724), (185, 18751), (187, 18769), (204, 18850), (212, 18949), (216, 18985), (221, 19021), (227, 19066), (245, 19171), (266, 19306), (293, 19468), (294, 19471), (303, 19531), (314, 19594), (315, 19600), (337, 19714), (344, 19768), (348, 19798), (356, 19840), (359, 19852), (369, 19897), (370, 19900), (373, 19909), (377, 19924), (386, 19969), (392, 19990), (395, 19999), (401, 20041), (423, 20128), (430, 20170), (444, 20245), (455, 20287), (467, 20347), (475, 20377), (491, 20455), (494, 20464), (500, 20494), (507, 20524), (528, 20620), (536, 20647), (537, 20653), (539, 20662), (544, 20674), (545, 20677), (552, 20695), (557, 20716), (567, 20746), (568, 20755), (579, 20812), (581, 20818), (587, 20833), (593, 20848), (600, 20872), (602, 20878), (610, 20905), (612, 20911), (615, 20923), (636, 21001), (638, 21010), (648, 21049), (649, 21052), (656, 21079), (664, 21106), (669, 21130), (682, 21187), (684, 21193), (685, 21202), (707, 21283), (722, 21343), (724, 21349), (725, 21352), (733, 21388), (735, 21403), (776, 21622), (787, 21709), (801, 21778), (820, 21880), (823, 21892), (826, 21913), (834, 21958), (838, 21976), (843, 21991), (848, 22021), (855, 22060), (908, 22276),

Gene: Avazak_29 Start: 20512, Stop: 25614, Start Num: 19

Candidate Starts for Avazak_29:

(Start: 19 @20512 has 170 MA's), (Start: 23 @20542 has 3 MA's), (44, 20680), (48, 20725), (49, 20731), (51, 20740), (53, 20755), (56, 20776), (61, 20797), (68, 20827), (71, 20857), (72, 20878), (79,

20980), (84, 21040), (88, 21115), (89, 21127), (92, 21151), (96, 21181), (99, 21196), (105, 21229), (110, 21271), (115, 21322), (124, 21376), (125, 21379), (135, 21478), (138, 21502), (143, 21538), (151, 21598), (163, 21703), (164, 21706), (175, 21775), (177, 21781), (178, 21787), (Start: 213 @21964 has 1 MA's), (224, 22015), (233, 22066), (247, 22120), (248, 22123), (276, 22255), (283, 22294), (300, 22375), (301, 22378), (318, 22453), (332, 22510), (342, 22594), (344, 22603), (357, 22678), (360, 22690), (362, 22705), (363, 22708), (368, 22729), (381, 22777), (386, 22804), (392, 22825), (395, 22834), (398, 22855), (399, 22867), (401, 22876), (402, 22885), (416, 22942), (423, 22963), (426, 22984), (430, 23005), (436, 23032), (439, 23041), (441, 23056), (442, 23065), (444, 23080), (446, 23092), (448, 23101), (458, 23134), (461, 23143), (479, 23227), (480, 23236), (482, 23251), (487, 23272), (499, 23314), (505, 23335), (508, 23350), (518, 23392), (520, 23407), (534, 23464), (537, 23476), (539, 23485), (545, 23497), (551, 23509), (552, 23515), (557, 23536), (561, 23548), (564, 23557), (567, 23566), (568, 23575), (569, 23590), (570, 23596), (573, 23608), (579, 23632), (583, 23650), (587, 23662), (593, 23683), (595, 23695), (609, 23743), (612, 23752), (619, 23776), (621, 23782), (622, 23785), (626, 23800), (627, 23809), (628, 23812), (633, 23830), (651, 23899), (662, 23938), (703, 24109), (717, 24160), (748, 24304), (759, 24373), (771, 24439), (779, 24490), (798, 24613), (805, 24676), (818, 24724), (819, 24730), (821, 24739), (831, 24787), (846, 24859), (858, 24919), (863, 24940), (864, 24943), (872, 24994), (875, 25003), (879, 25021), (887, 25042), (890, 25054), (907, 25147), (915, 25192), (923, 25267), (925, 25285), (927, 25306), (943, 25393), (960, 25504), (975, 25600),

Gene: BarbieDoll_29 Start: 20909, Stop: 25573, Start Num: 18

Candidate Starts for BarbieDoll_29:

(Start: 18 @20909 has 2 MA's), (Start: 19 @20930 has 170 MA's), (Start: 23 @20960 has 3 MA's), (30, 21014), (34, 21035), (40, 21071), (49, 21239), (60, 21299), (71, 21365), (72, 21386), (79, 21488), (80, 21506), (84, 21548), (88, 21623), (89, 21635), (96, 21689), (99, 21704), (105, 21737), (117, 21815), (119, 21830), (131, 21920), (137, 21989), (151, 22097), (157, 22151), (163, 22202), (164, 22205), (175, 22274), (185, 22316), (194, 22376), (195, 22382), (198, 22391), (203, 22406), (204, 22415), (220, 22493), (224, 22514), (225, 22526), (228, 22547), (281, 22754), (289, 22778), (301, 22832), (317, 22901), (344, 23042), (356, 23114), (358, 23120), (367, 23165), (369, 23171), (370, 23174), (377, 23198), (381, 23216), (392, 23264), (395, 23273), (416, 23381), (423, 23402), (426, 23423), (436, 23471), (442, 23504), (444, 23519), (460, 23579), (482, 23696), (507, 23795), (508, 23798), (520, 23855), (523, 23870), (525, 23882), (528, 23891), (537, 23924), (539, 23933), (544, 23945), (567, 24017), (568, 24026), (576, 24074), (584, 24095), (586, 24101), (587, 24104), (606, 24164), (615, 24194), (618, 24203), (640, 24290), (641, 24293), (642, 24296), (646, 24314), (650, 24329), (655, 24344), (658, 24356), (666, 24383), (673, 24419), (674, 24422), (676, 24428), (679, 24440), (691, 24494), (699, 24530), (709, 24563), (714, 24581), (720, 24605), (721, 24608), (727, 24629), (742, 24710), (749, 24740), (752, 24752), (759, 24806), (762, 24818), (781, 24935), (787, 24980), (800, 25049), (826, 25184), (830, 25208), (840, 25253), (843, 25259), (850, 25298), (856, 25328), (859, 25346),

Gene: Barbonzobean_29 Start: 20527, Stop: 25158, Start Num: 19

Candidate Starts for Barbonzobean_29:

(Start: 18 @20506 has 2 MA's), (Start: 19 @20527 has 170 MA's), (Start: 23 @20557 has 3 MA's), (30, 20611), (34, 20632), (40, 20668), (49, 20836), (60, 20896), (71, 20962), (72, 20983), (79, 21085), (80, 21103), (84, 21145), (88, 21220), (89, 21232), (96, 21286), (99, 21301), (105, 21334), (117, 21412), (119, 21427), (131, 21517), (137, 21586), (146, 21673), (151, 21694), (157, 21748), (163, 21799), (164, 21802), (175, 21871), (185, 21913), (194, 21973), (195, 21979), (198, 21988), (203, 22003), (204, 22012), (224, 22111), (225, 22123), (228, 22144), (281, 22351), (289, 22375), (301, 22429), (317, 22498), (344, 22636), (352, 22690), (356, 22708), (358, 22714), (367, 22759), (369, 22765), (370, 22768), (377, 22792), (381, 22810), (392, 22858), (395, 22867), (399, 22900), (416, 22975), (423, 22996), (426, 23017), (436, 23065), (442, 23098), (444, 23113), (460, 23173), (482, 23290), (507, 23389), (508, 23392), (520, 23449), (525, 23476), (528, 23485), (537, 23518), (539, 23527), (544, 23539), (552, 23560), (557, 23581), (559, 23587), (568, 23620), (572, 23650), (587, 23698),

(597, 23728), (606, 23758), (615, 23788), (618, 23797), (640, 23884), (641, 23887), (642, 23890), (646, 23908), (650, 23923), (655, 23938), (666, 23977), (672, 24010), (674, 24016), (676, 24022), (679, 24034), (691, 24088), (699, 24124), (708, 24154), (709, 24157), (714, 24175), (720, 24199), (721, 24202), (742, 24304), (749, 24334), (752, 24346), (762, 24412), (781, 24529), (787, 24574), (826, 24778), (830, 24802), (840, 24847), (843, 24853), (850, 24892), (856, 24922), (859, 24940),

Gene: BenitoAntonio_22 Start: 17286, Stop: 21764, Start Num: 19

Candidate Starts for BenitoAntonio_22:

(Start: 18 @17265 has 2 MA's), (Start: 19 @17286 has 170 MA's), (Start: 23 @17316 has 3 MA's), (26, 17349), (30, 17370), (68, 17601), (71, 17631), (78, 17712), (79, 17754), (80, 17772), (84, 17814), (89, 17901), (96, 17955), (99, 17970), (105, 18003), (117, 18081), (119, 18096), (126, 18144), (133, 18201), (137, 18255), (138, 18267), (145, 18330), (151, 18363), (164, 18471), (174, 18537), (182, 18570), (184, 18579), (187, 18600), (246, 18882), (259, 18927), (260, 18936), (302, 19095), (310, 19128), (317, 19155), (344, 19284), (358, 19362), (367, 19407), (370, 19416), (374, 19428), (377, 19440), (383, 19467), (386, 19485), (392, 19506), (405, 19581), (409, 19602), (410, 19605), (413, 19614), (423, 19644), (430, 19686), (442, 19746), (443, 19752), (444, 19761), (452, 19794), (456, 19806), (457, 19809), (468, 19866), (470, 19872), (475, 19893), (480, 19923), (485, 19953), (491, 19971), (502, 20019), (508, 20043), (512, 20061), (515, 20070), (518, 20085), (521, 20106), (528, 20136), (537, 20169), (538, 20175), (539, 20178), (544, 20190), (552, 20211), (567, 20262), (568, 20271), (572, 20301), (574, 20307), (584, 20340), (587, 20349), (597, 20379), (600, 20388), (603, 20400), (615, 20439), (623, 20466), (625, 20472), (626, 20475), (636, 20517), (644, 20547), (653, 20583), (679, 20685), (694, 20748), (702, 20784), (703, 20787), (705, 20793), (709, 20808), (714, 20826), (720, 20850), (724, 20865), (725, 20868), (730, 20886), (735, 20919), (740, 20940), (752, 20997), (759, 21051), (761, 21060), (781, 21114), (784, 21141), (787, 21159), (796, 21207), (797, 21213), (807, 21285), (826, 21363), (828, 21378), (836, 21417), (843, 21441), (855, 21510), (859, 21531), (885, 21624), (911, 21753),

Gene: Benllo_20 Start: 17570, Stop: 22048, Start Num: 19

Candidate Starts for Benllo_20:

(Start: 18 @17549 has 2 MA's), (Start: 19 @17570 has 170 MA's), (Start: 23 @17600 has 3 MA's), (26, 17633), (30, 17654), (68, 17885), (71, 17915), (78, 17996), (79, 18038), (80, 18056), (84, 18098), (89, 18185), (96, 18239), (99, 18254), (105, 18287), (117, 18365), (119, 18380), (126, 18428), (128, 18443), (133, 18485), (141, 18581), (145, 18614), (151, 18647), (164, 18755), (174, 18821), (182, 18854), (184, 18863), (185, 18866), (187, 18884), (246, 19166), (255, 19190), (260, 19220), (302, 19379), (317, 19439), (344, 19568), (351, 19616), (358, 19646), (362, 19670), (365, 19682), (367, 19691), (370, 19700), (377, 19724), (386, 19769), (392, 19790), (405, 19865), (413, 19898), (423, 19928), (426, 19949), (430, 19970), (442, 20030), (443, 20036), (451, 20075), (457, 20093), (475, 20177), (480, 20207), (485, 20237), (491, 20255), (502, 20303), (508, 20327), (512, 20345), (515, 20354), (516, 20363), (518, 20369), (521, 20390), (528, 20420), (537, 20453), (538, 20459), (543, 20468), (552, 20495), (559, 20522), (568, 20555), (571, 20582), (573, 20588), (580, 20615), (587, 20633), (597, 20663), (600, 20672), (603, 20684), (605, 20690), (606, 20693), (610, 20705), (615, 20723), (623, 20750), (625, 20756), (642, 20825), (649, 20852), (653, 20867), (679, 20969), (702, 21068), (703, 21071), (705, 21077), (709, 21092), (714, 21110), (724, 21149), (725, 21152), (730, 21170), (735, 21203), (740, 21224), (752, 21281), (759, 21335), (761, 21344), (781, 21398), (784, 21425), (787, 21443), (796, 21491), (797, 21497), (807, 21569), (826, 21647), (832, 21683), (836, 21701), (843, 21725), (847, 21749), (855, 21794), (859, 21815), (911, 22037),

Gene: BetterYeti_32 Start: 23289, Stop: 28400, Start Num: 19

Candidate Starts for BetterYeti_32:

(Start: 19 @23289 has 170 MA's), (Start: 23 @23319 has 3 MA's), (28, 23364), (49, 23508), (61, 23574), (71, 23634), (72, 23655), (79, 23757), (87, 23883), (90, 23919), (96, 23958), (101, 23985), (105, 24006), (110, 24048), (122, 24168), (135, 24282), (137, 24294), (145, 24369), (151, 24402), (163, 24507), (164, 24510), (233, 24870), (236, 24888), (272, 25044), (291, 25146), (293, 25149),

(300, 25176), (308, 25215), (313, 25242), (320, 25263), (325, 25287), (344, 25404), (354, 25467), (355, 25473), (360, 25491), (361, 25497), (367, 25527), (375, 25551), (386, 25605), (393, 25629), (397, 25653), (398, 25656), (401, 25677), (402, 25686), (412, 25731), (415, 25740), (426, 25785), (430, 25806), (433, 25815), (434, 25821), (437, 25836), (439, 25842), (441, 25857), (451, 25911), (452, 25914), (455, 25923), (458, 25935), (461, 25944), (463, 25956), (467, 25977), (469, 25983), (475, 26007), (480, 26037), (482, 26052), (499, 26115), (502, 26127), (504, 26133), (505, 26136), (507, 26148), (508, 26151), (520, 26208), (533, 26262), (534, 26265), (539, 26286), (545, 26298), (547, 26301), (561, 26349), (566, 26364), (567, 26367), (568, 26376), (569, 26391), (570, 26397), (576, 26424), (577, 26427), (579, 26433), (587, 26463), (593, 26484), (595, 26496), (597, 26505), (601, 26517), (609, 26544), (619, 26577), (621, 26583), (626, 26601), (633, 26631), (662, 26739), (683, 26829), (688, 26850), (717, 26961), (729, 27006), (740, 27063), (746, 27096), (771, 27240), (780, 27303), (790, 27369), (795, 27402), (798, 27414), (805, 27477), (813, 27498), (815, 27510), (819, 27531), (849, 27672), (865, 27759), (871, 27777), (879, 27807), (886, 27825), (887, 27828), (889, 27834), (890, 27840), (898, 27867), (915, 27978), (920, 28041), (923, 28053), (933, 28122), (938, 28155), (943, 28179), (961, 28296), (975, 28386),

Gene: Bilo_19 Start: 14007, Stop: 19235, Start Num: 19

Candidate Starts for Bilo_19:

(Start: 18 @13986 has 2 MA's), (Start: 19 @14007 has 170 MA's), (Start: 23 @14037 has 3 MA's), (45, 14190), (60, 14292), (61, 14298), (79, 14481), (85, 14562), (87, 14607), (90, 14643), (96, 14682), (103, 14715), (108, 14754), (110, 14772), (154, 15159), (177, 15309), (182, 15333), (194, 15405), (243, 15636), (258, 15684), (265, 15714), (270, 15732), (279, 15768), (344, 16017), (355, 16086), (370, 16149), (377, 16173), (390, 16230), (392, 16239), (399, 16281), (411, 16341), (413, 16347), (415, 16353), (423, 16377), (433, 16425), (459, 16548), (469, 16599), (479, 16644), (480, 16653), (485, 16683), (498, 16728), (504, 16749), (514, 16791), (515, 16794), (519, 16815), (520, 16824), (528, 16860), (537, 16893), (571, 17022), (573, 17028), (574, 17031), (587, 17073), (597, 17103), (611, 17148), (615, 17163), (625, 17196), (630, 17217), (632, 17226), (634, 17235), (640, 17259), (641, 17262), (649, 17292), (658, 17325), (669, 17370), (674, 17391), (684, 17433), (687, 17448), (704, 17514), (708, 17529), (722, 17583), (725, 17592), (726, 17595), (729, 17607), (730, 17610), (733, 17628), (759, 17775), (787, 17883), (790, 17898), (827, 18096), (878, 18330), (899, 18405), (930, 18642), (936, 18684), (937, 18687), (940, 18708), (947, 18756), (949, 18762), (964, 18870), (973, 18942), (983, 19044), (993, 19197),

Gene: Bing_24 Start: 16028, Stop: 21496, Start Num: 2

Candidate Starts for Bing_24:

(1, 16007), (Start: 2 @16028 has 33 MA's), (3, 16058), (8, 16133), (14, 16214), (15, 16217), (35, 16385), (60, 16571), (71, 16637), (79, 16760), (85, 16841), (87, 16886), (93, 16946), (96, 16961), (105, 17009), (110, 17051), (133, 17243), (138, 17309), (154, 17438), (166, 17519), (167, 17522), (177, 17588), (241, 17906), (246, 17924), (258, 17963), (270, 18011), (274, 18020), (279, 18047), (292, 18098), (300, 18131), (302, 18143), (306, 18161), (313, 18194), (316, 18200), (317, 18203), (344, 18293), (353, 18350), (355, 18362), (370, 18425), (389, 18503), (390, 18506), (392, 18515), (416, 18632), (423, 18653), (441, 18743), (459, 18824), (469, 18875), (479, 18920), (480, 18929), (497, 19001), (506, 19034), (512, 19061), (514, 19067), (517, 19082), (520, 19100), (528, 19136), (563, 19250), (567, 19262), (571, 19298), (573, 19304), (576, 19319), (587, 19349), (611, 19424), (615, 19439), (620, 19454), (623, 19466), (625, 19472), (628, 19487), (632, 19502), (638, 19526), (652, 19580), (653, 19583), (658, 19601), (664, 19622), (672, 19661), (677, 19676), (684, 19709), (704, 19790), (718, 19841), (722, 19859), (725, 19868), (733, 19904), (752, 19997), (783, 20135), (787, 20159), (788, 20162), (796, 20207), (827, 20372), (890, 20645), (934, 20948), (937, 20963), (940, 20984), (949, 21038), (957, 21089),

Gene: Biscute_27 Start: 20578, Stop: 25209, Start Num: 19

Candidate Starts for Biscute_27:

(Start: 18 @20557 has 2 MA's), (Start: 19 @20578 has 170 MA's), (Start: 23 @20608 has 3 MA's), (30, 20662), (34, 20683), (40, 20719), (49, 20887), (60, 20947), (71, 21013), (72, 21034), (79, 21136), (80, 21154), (84, 21196), (89, 21283), (96, 21337), (99, 21352), (105, 21385), (117, 21463), (119, 21478), (131, 21568), (137, 21637), (146, 21724), (151, 21745), (157, 21799), (163, 21850), (164, 21853), (175, 21922), (185, 21964), (194, 22024), (195, 22030), (198, 22039), (203, 22054), (204, 22063), (224, 22162), (225, 22174), (228, 22195), (281, 22402), (289, 22426), (301, 22480), (317, 22549), (342, 22678), (344, 22687), (358, 22765), (367, 22810), (369, 22816), (370, 22819), (377, 22843), (381, 22861), (392, 22909), (395, 22918), (399, 22951), (416, 23026), (423, 23047), (426, 23068), (430, 23089), (436, 23116), (442, 23149), (444, 23164), (460, 23224), (482, 23341), (507, 23440), (508, 23443), (520, 23500), (525, 23527), (528, 23536), (537, 23569), (539, 23578), (544, 23590), (552, 23611), (557, 23632), (559, 23638), (568, 23671), (572, 23701), (587, 23749), (597, 23779), (606, 23809), (615, 23839), (618, 23848), (640, 23935), (641, 23938), (642, 23941), (646, 23959), (650, 23974), (655, 23989), (666, 24028), (672, 24061), (674, 24067), (676, 24073), (679, 24085), (691, 24139), (699, 24175), (708, 24205), (709, 24208), (714, 24226), (720, 24250), (721, 24253), (742, 24355), (749, 24385), (752, 24397), (762, 24463), (781, 24580), (787, 24625), (826, 24829), (830, 24853), (840, 24898), (843, 24904), (850, 24943), (856, 24973), (859, 24991),

Gene: BlackHoleSun_27 Start: 18691, Stop: 23244, Start Num: 19

Candidate Starts for BlackHoleSun_27:

(Start: 18 @18670 has 2 MA's), (Start: 19 @18691 has 170 MA's), (Start: 23 @18721 has 3 MA's), (30, 18775), (34, 18796), (61, 18976), (71, 19036), (72, 19057), (78, 19117), (79, 19159), (84, 19219), (96, 19360), (99, 19375), (105, 19408), (109, 19447), (110, 19450), (117, 19486), (119, 19501), (126, 19549), (146, 19747), (163, 19873), (167, 19885), (175, 19945), (181, 19966), (185, 19987), (194, 20047), (195, 20053), (198, 20062), (203, 20077), (204, 20086), (224, 20185), (225, 20197), (226, 20206), (228, 20218), (301, 20503), (317, 20572), (330, 20632), (344, 20713), (356, 20785), (358, 20791), (367, 20836), (370, 20845), (377, 20869), (381, 20887), (387, 20917), (391, 20932), (392, 20935), (395, 20944), (412, 21040), (420, 21064), (423, 21073), (426, 21094), (434, 21130), (436, 21142), (442, 21175), (444, 21190), (448, 21211), (469, 21298), (470, 21301), (471, 21307), (486, 21385), (507, 21466), (510, 21475), (520, 21526), (528, 21562), (537, 21595), (539, 21604), (544, 21616), (552, 21637), (567, 21688), (568, 21697), (576, 21745), (577, 21748), (587, 21775), (597, 21805), (615, 21865), (623, 21892), (636, 21943), (639, 21955), (642, 21967), (646, 21985), (653, 22009), (658, 22027), (666, 22054), (674, 22093), (676, 22099), (684, 22135), (709, 22234), (714, 22252), (716, 22261), (720, 22276), (721, 22279), (727, 22300), (733, 22330), (736, 22351), (752, 22423), (759, 22477), (781, 22606), (787, 22651), (823, 22834), (826, 22855), (830, 22879), (843, 22930), (847, 22954), (856, 22999), (859, 23017), (895, 23131), (897, 23137), (906, 23206),

Gene: Blanky_32 Start: 24491, Stop: 29593, Start Num: 19

Candidate Starts for Blanky_32:

(Start: 19 @24491 has 170 MA's), (Start: 23 @24521 has 3 MA's), (28, 24566), (48, 24704), (49, 24710), (61, 24776), (68, 24806), (79, 24971), (84, 25031), (89, 25118), (92, 25142), (96, 25172), (99, 25187), (105, 25220), (115, 25313), (137, 25481), (151, 25589), (152, 25601), (158, 25658), (163, 25694), (164, 25697), (175, 25766), (177, 25772), (Start: 213 @25955 has 1 MA's), (214, 25961), (233, 26057), (236, 26075), (272, 26231), (298, 26357), (300, 26366), (344, 26597), (345, 26603), (355, 26666), (357, 26672), (360, 26684), (365, 26711), (370, 26729), (373, 26738), (386, 26798), (393, 26822), (395, 26828), (398, 26849), (400, 26867), (401, 26870), (415, 26933), (430, 26999), (436, 27026), (442, 27059), (446, 27086), (451, 27104), (452, 27107), (455, 27116), (458, 27128), (460, 27134), (461, 27137), (463, 27149), (482, 27245), (491, 27278), (496, 27299), (499, 27308), (502, 27320), (505, 27329), (508, 27344), (510, 27350), (511, 27356), (513, 27365), (517, 27383), (519, 27392), (520, 27401), (528, 27437), (534, 27458), (539, 27479), (556, 27524), (557, 27530), (565, 27554), (567, 27560), (568, 27569), (569, 27584), (570, 27590), (579, 27626), (587, 27656), (593, 27677), (595, 27689), (601, 27710), (602, 27713), (609, 27737), (612, 27746), (619, 27770), (621, 27776), (626, 27794), (627, 27803), (628, 27806), (642, 27860), (651, 27893), (660, 27923), (703, 28103), (709, 28124), (729, 28199), (759, 28367), (765, 28397), (770, 28430), (795, 28595), (798,

28607), (799, 28616), (805, 28670), (818, 28718), (831, 28781), (843, 28832), (865, 28952), (871, 28970), (879, 29000), (887, 29021), (889, 29027), (890, 29033), (898, 29060), (903, 29087), (915, 29171), (920, 29234), (923, 29246), (933, 29315), (939, 29357), (944, 29375), (951, 29423), (975, 29579),

Gene: BluerMoon_32 Start: 23509, Stop: 28623, Start Num: 19

Candidate Starts for BluerMoon_32:

(Start: 19 @23509 has 170 MA's), (Start: 23 @23539 has 3 MA's), (28, 23584), (49, 23728), (60, 23788), (61, 23794), (71, 23854), (72, 23875), (79, 23977), (87, 24103), (90, 24139), (96, 24178), (105, 24226), (110, 24268), (117, 24340), (122, 24388), (137, 24514), (145, 24589), (146, 24601), (151, 24622), (163, 24727), (164, 24730), (207, 24952), (220, 25018), (236, 25108), (247, 25144), (260, 25195), (267, 25243), (271, 25255), (300, 25399), (308, 25438), (313, 25465), (344, 25627), (351, 25675), (355, 25696), (360, 25714), (371, 25762), (386, 25828), (398, 25879), (399, 25891), (402, 25909), (415, 25963), (426, 26008), (430, 26029), (433, 26038), (437, 26059), (441, 26080), (451, 26134), (452, 26137), (455, 26146), (461, 26167), (463, 26179), (467, 26200), (469, 26206), (473, 26224), (480, 26260), (485, 26290), (499, 26338), (502, 26350), (504, 26356), (505, 26359), (507, 26371), (508, 26374), (513, 26395), (520, 26431), (533, 26485), (534, 26488), (539, 26509), (545, 26521), (547, 26524), (561, 26572), (566, 26587), (567, 26590), (568, 26599), (570, 26620), (576, 26647), (577, 26650), (583, 26674), (587, 26686), (593, 26707), (595, 26719), (597, 26728), (601, 26740), (609, 26767), (619, 26800), (621, 26806), (626, 26824), (639, 26878), (643, 26893), (662, 26962), (688, 27073), (717, 27184), (729, 27229), (746, 27319), (767, 27442), (771, 27463), (780, 27526), (783, 27553), (795, 27625), (798, 27637), (799, 27646), (805, 27700), (813, 27721), (815, 27733), (819, 27754), (849, 27895), (865, 27982), (871, 28000), (879, 28030), (886, 28048), (887, 28051), (890, 28063), (898, 28090), (915, 28201), (923, 28276), (938, 28378), (944, 28405), (961, 28519), (975, 28609),

Gene: Boog_23 Start: 17241, Stop: 21791, Start Num: 19

Candidate Starts for Boog_23:

(Start: 18 @17220 has 2 MA's), (Start: 19 @17241 has 170 MA's), (Start: 23 @17271 has 3 MA's), (26, 17304), (49, 17460), (66, 17544), (68, 17556), (71, 17586), (78, 17667), (79, 17709), (80, 17727), (84, 17769), (86, 17799), (88, 17844), (89, 17856), (96, 17910), (99, 17925), (105, 17958), (112, 18021), (119, 18051), (122, 18084), (126, 18099), (132, 18147), (146, 18297), (151, 18318), (164, 18426), (167, 18435), (173, 18483), (210, 18660), (230, 18774), (242, 18825), (246, 18837), (262, 18918), (283, 19002), (288, 19020), (298, 19065), (308, 19110), (310, 19113), (311, 19119), (322, 19152), (344, 19263), (355, 19332), (356, 19335), (365, 19377), (367, 19386), (370, 19395), (379, 19425), (386, 19464), (388, 19470), (392, 19485), (399, 19527), (423, 19623), (426, 19644), (431, 19668), (442, 19725), (444, 19740), (451, 19770), (455, 19782), (462, 19809), (464, 19824), (475, 19872), (480, 19902), (482, 19917), (491, 19950), (493, 19956), (502, 19995), (505, 20004), (507, 20016), (512, 20037), (525, 20103), (528, 20112), (537, 20145), (538, 20151), (539, 20154), (544, 20166), (545, 20169), (553, 20190), (558, 20211), (568, 20247), (576, 20295), (587, 20325), (615, 20415), (631, 20472), (642, 20517), (646, 20535), (654, 20562), (656, 20571), (658, 20577), (672, 20637), (676, 20649), (679, 20661), (691, 20715), (701, 20757), (703, 20763), (705, 20769), (715, 20805), (721, 20829), (722, 20835), (724, 20841), (725, 20844), (735, 20895), (738, 20907), (744, 20937), (745, 20946), (768, 21078), (781, 21156), (787, 21201), (793, 21234), (803, 21291), (822, 21381), (826, 21405), (830, 21429), (832, 21441), (834, 21450), (837, 21462), (840, 21474), (850, 21519), (856, 21549), (859, 21567), (869, 21606), (895, 21684),

Gene: Bouchard_27 Start: 20253, Stop: 24839, Start Num: 19

Candidate Starts for Bouchard_27:

(Start: 18 @20232 has 2 MA's), (Start: 19 @20253 has 170 MA's), (Start: 23 @20283 has 3 MA's), (30, 20337), (68, 20568), (71, 20598), (78, 20679), (79, 20721), (80, 20739), (84, 20781), (89, 20868), (96, 20922), (99, 20937), (100, 20943), (105, 20970), (117, 21048), (119, 21063), (122, 21096), (126, 21111), (127, 21120), (130, 21147), (132, 21159), (136, 21213), (146, 21309), (151, 21330), (164,

21438), (167, 21447), (174, 21504), (176, 21510), (203, 21639), (207, 21660), (210, 21672), (260, 21909), (283, 22005), (306, 22107), (308, 22113), (317, 22149), (344, 22293), (353, 22350), (362, 22395), (367, 22416), (370, 22425), (371, 22428), (377, 22449), (392, 22515), (394, 22521), (402, 22575), (416, 22632), (423, 22653), (425, 22671), (426, 22674), (430, 22695), (432, 22701), (437, 22725), (444, 22770), (446, 22782), (472, 22893), (475, 22902), (477, 22914), (480, 22932), (494, 22989), (502, 23025), (503, 23028), (505, 23034), (507, 23046), (508, 23049), (512, 23067), (515, 23076), (525, 23133), (539, 23184), (544, 23196), (553, 23220), (554, 23223), (567, 23268), (568, 23277), (584, 23346), (587, 23355), (600, 23394), (603, 23406), (615, 23445), (642, 23547), (648, 23571), (649, 23574), (658, 23607), (659, 23610), (660, 23613), (661, 23616), (673, 23670), (674, 23673), (680, 23694), (703, 23793), (712, 23823), (715, 23835), (718, 23847), (722, 23865), (725, 23874), (726, 23877), (756, 24033), (762, 24069), (787, 24231), (789, 24243), (797, 24285), (812, 24369), (826, 24435), (830, 24459), (843, 24510), (856, 24579), (857, 24582), (862, 24606), (906, 24789),

Gene: Bowling_22 Start: 17384, Stop: 21862, Start Num: 19

Candidate Starts for Bowling_22:

(Start: 18 @17363 has 2 MA's), (Start: 19 @17384 has 170 MA's), (Start: 23 @17414 has 3 MA's), (26, 17447), (30, 17468), (68, 17699), (71, 17729), (72, 17750), (78, 17810), (79, 17852), (80, 17870), (84, 17912), (89, 17999), (96, 18053), (99, 18068), (105, 18101), (119, 18194), (126, 18242), (128, 18257), (133, 18299), (137, 18353), (145, 18428), (151, 18461), (164, 18569), (174, 18635), (182, 18668), (184, 18677), (185, 18680), (187, 18698), (246, 18980), (255, 19004), (260, 19034), (302, 19193), (317, 19253), (344, 19382), (358, 19460), (364, 19490), (367, 19505), (370, 19514), (377, 19538), (383, 19565), (386, 19583), (392, 19604), (405, 19679), (409, 19700), (413, 19712), (423, 19742), (430, 19784), (442, 19844), (443, 19850), (451, 19889), (470, 19970), (475, 19991), (480, 20021), (485, 20051), (491, 20069), (502, 20117), (508, 20141), (512, 20159), (515, 20168), (516, 20177), (518, 20183), (521, 20204), (528, 20234), (537, 20267), (538, 20273), (539, 20276), (544, 20288), (552, 20309), (567, 20360), (568, 20369), (572, 20399), (574, 20405), (584, 20438), (587, 20447), (597, 20477), (600, 20486), (603, 20498), (610, 20519), (615, 20537), (623, 20564), (625, 20570), (626, 20573), (629, 20588), (636, 20615), (640, 20633), (644, 20645), (653, 20681), (679, 20783), (694, 20846), (702, 20882), (703, 20885), (705, 20891), (709, 20906), (714, 20924), (724, 20963), (725, 20966), (730, 20984), (735, 21017), (740, 21038), (752, 21095), (759, 21149), (761, 21158), (781, 21212), (784, 21239), (787, 21257), (796, 21305), (797, 21311), (807, 21383), (826, 21461), (828, 21476), (836, 21515), (843, 21539), (855, 21608), (859, 21629), (885, 21722), (911, 21851),

Gene: Breylor17_27 Start: 20680, Stop: 25269, Start Num: 19

Candidate Starts for Breylor17_27:

(Start: 18 @20659 has 2 MA's), (Start: 19 @20680 has 170 MA's), (Start: 23 @20710 has 3 MA's), (30, 20764), (34, 20785), (40, 20821), (49, 20899), (60, 20959), (66, 20983), (68, 20995), (71, 21025), (74, 21076), (78, 21106), (79, 21148), (80, 21166), (84, 21208), (86, 21238), (88, 21283), (89, 21295), (96, 21349), (99, 21364), (101, 21376), (105, 21397), (119, 21490), (122, 21523), (126, 21538), (132, 21586), (146, 21736), (151, 21757), (166, 21871), (167, 21874), (173, 21922), (194, 22036), (201, 22060), (204, 22075), (207, 22087), (239, 22255), (244, 22270), (246, 22276), (253, 22294), (265, 22366), (278, 22417), (283, 22432), (290, 22462), (306, 22534), (308, 22540), (316, 22573), (317, 22576), (323, 22603), (344, 22717), (353, 22774), (355, 22786), (367, 22840), (370, 22849), (371, 22852), (377, 22873), (386, 22918), (392, 22939), (399, 22981), (402, 22999), (416, 23056), (423, 23077), (426, 23098), (442, 23179), (444, 23194), (445, 23197), (452, 23227), (464, 23278), (480, 23356), (482, 23371), (483, 23374), (487, 23392), (489, 23398), (491, 23404), (494, 23413), (502, 23449), (505, 23458), (512, 23491), (523, 23545), (524, 23548), (528, 23566), (532, 23578), (539, 23608), (544, 23623), (550, 23632), (552, 23644), (557, 23665), (568, 23704), (579, 23761), (584, 23773), (587, 23782), (600, 23821), (603, 23833), (613, 23863), (615, 23872), (626, 23908), (635, 23947), (636, 23950), (642, 23974), (648, 23998), (658, 24034), (661, 24043), (667, 24064), (673, 24097), (674, 24100), (705, 24226), (706, 24229), (712, 24250), (720, 24283), (721, 24286), (722, 24292), (725, 24301), (731, 24328), (740, 24373), (754, 24439), (760, 24490), (762, 24496), (772,

24556), (777, 24580), (784, 24640), (787, 24658), (789, 24670), (797, 24712), (820, 24829), (822, 24838), (830, 24886), (837, 24919), (840, 24931), (843, 24937), (846, 24958), (847, 24961), (848, 24967), (856, 25006), (862, 25033), (906, 25219), (910, 25246),

Gene: BronxBay_23 Start: 17240, Stop: 21790, Start Num: 19

Candidate Starts for BronxBay_23:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 170 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (243, 18827), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (344, 19262), (355, 19331), (356, 19334), (365, 19376), (367, 19385), (370, 19394), (379, 19424), (386, 19463), (388, 19469), (392, 19484), (399, 19526), (423, 19622), (426, 19643), (427, 19646), (431, 19667), (442, 19724), (444, 19739), (451, 19769), (455, 19781), (462, 19808), (464, 19823), (475, 19871), (480, 19901), (482, 19916), (491, 19949), (493, 19955), (502, 19994), (505, 20003), (507, 20015), (512, 20036), (525, 20102), (528, 20111), (537, 20144), (538, 20150), (539, 20153), (544, 20165), (545, 20168), (553, 20189), (558, 20210), (568, 20246), (576, 20294), (587, 20324), (615, 20414), (631, 20471), (642, 20516), (646, 20534), (654, 20561), (656, 20570), (658, 20576), (672, 20636), (676, 20648), (679, 20660), (691, 20714), (701, 20756), (703, 20762), (705, 20768), (714, 20801), (715, 20804), (721, 20828), (722, 20834), (724, 20840), (725, 20843), (735, 20894), (738, 20906), (745, 20945), (768, 21077), (776, 21113), (781, 21155), (787, 21200), (803, 21290), (822, 21380), (826, 21404), (830, 21428), (832, 21440), (834, 21449), (837, 21461), (840, 21473), (850, 21518), (856, 21548), (859, 21566), (869, 21605),

Gene: Brunswick_26 Start: 20146, Stop: 24735, Start Num: 19

Candidate Starts for Brunswick_26:

(Start: 18 @20125 has 2 MA's), (Start: 19 @20146 has 170 MA's), (Start: 23 @20176 has 3 MA's), (30, 20230), (34, 20251), (40, 20287), (49, 20365), (60, 20425), (66, 20449), (68, 20461), (71, 20491), (74, 20542), (78, 20572), (79, 20614), (80, 20632), (84, 20674), (86, 20704), (88, 20749), (89, 20761), (96, 20815), (99, 20830), (101, 20842), (105, 20863), (119, 20956), (122, 20989), (126, 21004), (132, 21052), (146, 21202), (151, 21223), (164, 21331), (166, 21337), (167, 21340), (173, 21388), (194, 21502), (201, 21526), (204, 21541), (207, 21553), (222, 21628), (228, 21673), (239, 21721), (244, 21736), (246, 21742), (253, 21760), (265, 21832), (277, 21874), (278, 21883), (290, 21928), (306, 22000), (308, 22006), (316, 22039), (317, 22042), (323, 22069), (344, 22183), (353, 22240), (355, 22252), (367, 22306), (370, 22315), (371, 22318), (377, 22339), (386, 22384), (392, 22405), (414, 22516), (416, 22522), (423, 22543), (425, 22561), (426, 22564), (430, 22585), (442, 22645), (444, 22660), (445, 22663), (451, 22690), (452, 22693), (460, 22720), (480, 22822), (482, 22837), (483, 22840), (487, 22858), (489, 22864), (490, 22867), (494, 22879), (502, 22915), (505, 22924), (512, 22957), (523, 23011), (524, 23014), (528, 23032), (532, 23044), (539, 23074), (544, 23089), (550, 23098), (552, 23110), (568, 23170), (577, 23221), (579, 23227), (584, 23239), (587, 23248), (600, 23287), (603, 23299), (607, 23311), (613, 23329), (615, 23338), (635, 23413), (636, 23416), (640, 23434), (658, 23500), (660, 23506), (661, 23509), (673, 23563), (674, 23566), (705, 23692), (706, 23695), (712, 23716), (720, 23749), (722, 23758), (740, 23839), (746, 23872), (754, 23905), (762, 23962), (772, 24022), (777, 24046), (787, 24124), (789, 24136), (812, 24262), (822, 24304), (830, 24352), (837, 24385), (840, 24397), (843, 24403), (846, 24424), (847, 24427), (848, 24433), (856, 24472), (862, 24499), (867, 24526), (906, 24685), (910, 24712),

Gene: Bugg_30 Start: 20548, Stop: 25650, Start Num: 19

Candidate Starts for Bugg_30:

(Start: 19 @20548 has 170 MA's), (Start: 23 @20578 has 3 MA's), (44, 20716), (49, 20767), (51, 20776), (53, 20791), (56, 20812), (61, 20833), (68, 20863), (71, 20893), (72, 20914), (79, 21016), (84, 21076), (88, 21151), (89, 21163), (92, 21187), (96, 21217), (99, 21232), (105, 21265), (110, 21307),

(115, 21358), (124, 21412), (125, 21415), (135, 21514), (138, 21538), (151, 21634), (160, 21718), (163, 21739), (164, 21742), (175, 21811), (177, 21817), (178, 21823), (Start: 213 @22000 has 1 MA's), (224, 22051), (233, 22102), (247, 22156), (248, 22159), (276, 22291), (283, 22330), (300, 22411), (301, 22414), (318, 22489), (332, 22546), (342, 22630), (344, 22639), (355, 22708), (357, 22714), (360, 22726), (362, 22741), (363, 22744), (368, 22765), (381, 22813), (386, 22840), (392, 22861), (395, 22870), (398, 22891), (399, 22903), (401, 22912), (402, 22921), (415, 22975), (416, 22978), (423, 22999), (430, 23041), (439, 23077), (441, 23092), (442, 23101), (444, 23116), (446, 23128), (448, 23137), (458, 23170), (461, 23179), (479, 23263), (480, 23272), (482, 23287), (487, 23308), (499, 23350), (505, 23371), (508, 23386), (510, 23392), (518, 23428), (520, 23443), (534, 23500), (537, 23512), (539, 23521), (545, 23533), (551, 23545), (552, 23551), (557, 23572), (561, 23584), (567, 23602), (568, 23611), (569, 23626), (570, 23632), (573, 23644), (583, 23686), (584, 23689), (587, 23698), (593, 23719), (595, 23731), (609, 23779), (612, 23788), (619, 23812), (621, 23818), (626, 23836), (627, 23845), (651, 23935), (656, 23953), (657, 23956), (662, 23974), (703, 24145), (717, 24196), (748, 24340), (771, 24475), (779, 24526), (798, 24649), (805, 24712), (818, 24760), (819, 24766), (821, 24775), (831, 24823), (846, 24895), (858, 24955), (863, 24976), (864, 24979), (872, 25030), (875, 25039), (879, 25057), (887, 25078), (890, 25090), (907, 25183), (915, 25228), (923, 25303), (925, 25321), (927, 25342), (943, 25429), (960, 25540), (975, 25636),

Gene: Burley_32 Start: 23250, Stop: 28361, Start Num: 19

Candidate Starts for Burley_32:

(Start: 19 @23250 has 170 MA's), (Start: 23 @23280 has 3 MA's), (28, 23325), (34, 23355), (49, 23469), (61, 23535), (71, 23595), (72, 23616), (79, 23718), (87, 23844), (90, 23880), (96, 23919), (101, 23946), (105, 23967), (110, 24009), (120, 24108), (122, 24129), (137, 24255), (145, 24330), (146, 24342), (151, 24363), (163, 24468), (164, 24471), (233, 24831), (260, 24936), (272, 25005), (277, 25026), (291, 25107), (293, 25110), (300, 25137), (308, 25176), (313, 25203), (344, 25365), (351, 25413), (355, 25434), (360, 25452), (371, 25500), (375, 25512), (386, 25566), (398, 25617), (399, 25629), (401, 25638), (402, 25647), (415, 25701), (426, 25746), (429, 25761), (430, 25767), (433, 25776), (434, 25782), (438, 25800), (439, 25803), (440, 25809), (441, 25818), (451, 25872), (452, 25875), (455, 25884), (460, 25902), (461, 25905), (463, 25917), (467, 25938), (469, 25944), (470, 25947), (475, 25968), (480, 25998), (482, 26013), (491, 26046), (495, 26061), (499, 26076), (502, 26088), (504, 26094), (505, 26097), (507, 26109), (508, 26112), (520, 26169), (533, 26223), (534, 26226), (539, 26247), (545, 26259), (547, 26262), (561, 26310), (566, 26325), (567, 26328), (568, 26337), (570, 26358), (576, 26385), (577, 26388), (583, 26412), (587, 26424), (593, 26445), (595, 26457), (601, 26478), (609, 26505), (619, 26538), (621, 26544), (626, 26562), (633, 26592), (643, 26631), (688, 26811), (691, 26823), (709, 26892), (746, 27057), (767, 27180), (771, 27201), (790, 27330), (795, 27363), (798, 27375), (805, 27438), (813, 27459), (815, 27471), (818, 27486), (831, 27549), (849, 27633), (865, 27720), (871, 27738), (879, 27768), (886, 27786), (887, 27789), (889, 27795), (890, 27801), (898, 27828), (915, 27939), (923, 28014), (925, 28032), (938, 28116), (943, 28140), (961, 28257), (975, 28347),

Gene: CWormy_32 Start: 22950, Stop: 28061, Start Num: 19

Candidate Starts for CWormy_32:

(Start: 19 @22950 has 170 MA's), (Start: 23 @22980 has 3 MA's), (28, 23025), (49, 23169), (61, 23235), (71, 23295), (72, 23316), (79, 23418), (86, 23508), (87, 23544), (90, 23580), (96, 23619), (101, 23646), (105, 23667), (110, 23709), (122, 23829), (137, 23955), (145, 24030), (146, 24042), (151, 24063), (159, 24135), (163, 24168), (164, 24171), (184, 24279), (233, 24531), (260, 24636), (272, 24705), (291, 24807), (293, 24810), (300, 24837), (308, 24876), (313, 24903), (344, 25065), (351, 25113), (355, 25134), (360, 25152), (371, 25200), (375, 25212), (386, 25266), (398, 25317), (399, 25329), (401, 25338), (402, 25347), (415, 25401), (426, 25446), (429, 25461), (430, 25467), (433, 25476), (434, 25482), (438, 25500), (439, 25503), (440, 25509), (441, 25518), (451, 25572), (452, 25575), (455, 25584), (460, 25602), (461, 25605), (463, 25617), (467, 25638), (469, 25644), (470, 25647), (475, 25668), (480, 25698), (482, 25713), (491, 25746), (499, 25776), (502, 25788), (504, 25794), (505, 25797), (507, 25809), (508, 25812), (520, 25869), (533, 25923), (539, 25947), (545,

25959), (547, 25962), (560, 26007), (561, 26010), (566, 26025), (567, 26028), (568, 26037), (569, 26052), (570, 26058), (571, 26064), (576, 26085), (577, 26088), (581, 26100), (584, 26115), (587, 26124), (593, 26145), (595, 26157), (601, 26178), (609, 26205), (619, 26238), (621, 26244), (626, 26262), (633, 26292), (643, 26331), (662, 26400), (709, 26592), (729, 26667), (746, 26757), (771, 26901), (780, 26964), (790, 27030), (795, 27063), (798, 27075), (805, 27138), (813, 27159), (815, 27171), (819, 27192), (831, 27249), (849, 27333), (865, 27420), (871, 27438), (879, 27468), (886, 27486), (887, 27489), (889, 27495), (890, 27501), (898, 27528), (915, 27639), (923, 27714), (933, 27783), (938, 27816), (943, 27840), (961, 27957), (975, 28047),

Gene: Camille_24 Start: 16246, Stop: 20454, Start Num: 19

Candidate Starts for Camille_24:

(Start: 18 @16225 has 2 MA's), (Start: 19 @16246 has 170 MA's), (22, 16258), (Start: 23 @16279 has 3 MA's), (44, 16417), (46, 16438), (57, 16516), (61, 16534), (71, 16594), (79, 16717), (84, 16777), (92, 16888), (95, 16912), (96, 16918), (99, 16933), (105, 16966), (112, 17029), (118, 17056), (119, 17059), (121, 17080), (122, 17092), (128, 17122), (152, 17338), (156, 17374), (165, 17437), (168, 17446), (177, 17509), (187, 17563), (191, 17587), (210, 17668), (214, 17698), (231, 17788), (243, 17836), (285, 17917), (290, 17938), (313, 18043), (318, 18055), (328, 18085), (342, 18154), (344, 18163), (355, 18232), (356, 18235), (367, 18286), (370, 18295), (377, 18319), (379, 18325), (380, 18328), (382, 18340), (385, 18358), (386, 18364), (392, 18385), (396, 18406), (398, 18415), (399, 18427), (401, 18436), (409, 18481), (416, 18502), (424, 18532), (433, 18574), (435, 18586), (440, 18607), (442, 18625), (447, 18655), (458, 18694), (467, 18733), (474, 18760), (479, 18784), (515, 18850), (519, 18871), (552, 18901), (574, 18997), (584, 19030), (587, 19039), (591, 19054), (592, 19057), (603, 19096), (604, 19099), (605, 19102), (611, 19120), (615, 19135), (625, 19168), (635, 19210), (636, 19213), (646, 19255), (654, 19282), (658, 19297), (667, 19327), (675, 19366), (681, 19390), (683, 19402), (684, 19405), (693, 19441), (694, 19444), (702, 19480), (717, 19534), (724, 19561), (726, 19567), (739, 19633), (741, 19645), (742, 19651), (751, 19690), (754, 19702), (756, 19723), (781, 19810), (787, 19855), (797, 19909), (806, 19975), (810, 19987), (814, 20005), (826, 20059), (828, 20074), (830, 20083), (834, 20104), (837, 20116), (838, 20122), (853, 20194), (870, 20263), (881, 20299), (888, 20314), (907, 20419), (910, 20434),

Gene: CapnMurica_26 Start: 21235, Stop: 25824, Start Num: 19

Candidate Starts for CapnMurica_26:

(Start: 18 @21214 has 2 MA's), (Start: 19 @21235 has 170 MA's), (Start: 23 @21265 has 3 MA's), (30, 21319), (34, 21340), (40, 21376), (60, 21514), (68, 21550), (71, 21580), (79, 21703), (80, 21721), (84, 21763), (91, 21871), (96, 21904), (99, 21919), (105, 21952), (117, 22030), (119, 22045), (121, 22066), (122, 22078), (127, 22102), (133, 22150), (141, 22246), (145, 22279), (151, 22312), (160, 22396), (164, 22420), (167, 22429), (207, 22642), (214, 22684), (222, 22717), (239, 22810), (244, 22825), (246, 22831), (253, 22849), (254, 22858), (260, 22891), (261, 22900), (278, 22972), (290, 23017), (306, 23089), (308, 23095), (316, 23128), (317, 23131), (323, 23158), (344, 23272), (353, 23329), (355, 23341), (367, 23395), (370, 23404), (371, 23407), (377, 23428), (386, 23473), (392, 23494), (414, 23605), (416, 23611), (423, 23632), (425, 23650), (426, 23653), (430, 23674), (442, 23734), (444, 23749), (445, 23752), (451, 23779), (452, 23782), (460, 23809), (477, 23893), (480, 23911), (482, 23926), (483, 23929), (487, 23947), (489, 23953), (490, 23956), (494, 23968), (495, 23974), (502, 24004), (505, 24013), (512, 24046), (523, 24100), (524, 24103), (528, 24121), (539, 24163), (544, 24178), (550, 24187), (552, 24199), (568, 24259), (579, 24316), (584, 24328), (587, 24337), (600, 24376), (603, 24388), (605, 24394), (609, 24406), (613, 24418), (615, 24427), (635, 24502), (636, 24505), (640, 24523), (658, 24589), (661, 24598), (673, 24652), (674, 24655), (705, 24781), (712, 24805), (720, 24838), (722, 24847), (727, 24862), (731, 24883), (740, 24928), (754, 24994), (762, 25051), (772, 25111), (783, 25189), (787, 25213), (789, 25225), (812, 25351), (822, 25393), (830, 25441), (837, 25474), (840, 25486), (843, 25492), (846, 25513), (847, 25516), (848, 25522), (856, 25561), (862, 25588), (906, 25774),

Gene: Captrips_29 Start: 20541, Stop: 25643, Start Num: 19

Candidate Starts for Captrips_29:

(Start: 19 @20541 has 170 MA's), (Start: 23 @20571 has 3 MA's), (44, 20709), (48, 20754), (49, 20760), (51, 20769), (53, 20784), (56, 20805), (61, 20826), (68, 20856), (71, 20886), (72, 20907), (79, 21009), (84, 21069), (88, 21144), (89, 21156), (92, 21180), (96, 21210), (99, 21225), (105, 21258), (110, 21300), (115, 21351), (124, 21405), (125, 21408), (135, 21507), (138, 21531), (151, 21627), (163, 21732), (164, 21735), (175, 21804), (177, 21810), (178, 21816), (Start: 213 @21993 has 1 MA's), (224, 22044), (233, 22095), (247, 22149), (248, 22152), (283, 22323), (300, 22404), (301, 22407), (318, 22482), (332, 22539), (342, 22623), (344, 22632), (354, 22695), (355, 22701), (357, 22707), (360, 22719), (362, 22734), (363, 22737), (368, 22758), (381, 22806), (386, 22833), (392, 22854), (395, 22863), (398, 22884), (399, 22896), (401, 22905), (402, 22914), (415, 22968), (416, 22971), (423, 22992), (430, 23034), (439, 23070), (441, 23085), (442, 23094), (444, 23109), (446, 23121), (448, 23130), (458, 23163), (461, 23172), (479, 23256), (480, 23265), (482, 23280), (483, 23283), (487, 23301), (499, 23343), (505, 23364), (508, 23379), (518, 23421), (520, 23436), (534, 23493), (537, 23505), (539, 23514), (545, 23526), (551, 23538), (552, 23544), (557, 23565), (561, 23577), (567, 23595), (568, 23604), (569, 23619), (570, 23625), (573, 23637), (583, 23679), (584, 23682), (587, 23691), (593, 23712), (595, 23724), (609, 23772), (612, 23781), (619, 23805), (621, 23811), (626, 23829), (627, 23838), (633, 23859), (651, 23928), (662, 23967), (703, 24138), (717, 24189), (748, 24333), (771, 24468), (779, 24519), (798, 24642), (805, 24705), (818, 24753), (819, 24759), (821, 24768), (831, 24816), (846, 24888), (858, 24948), (863, 24969), (864, 24972), (872, 25023), (875, 25032), (879, 25050), (887, 25071), (890, 25083), (907, 25176), (915, 25221), (923, 25296), (925, 25314), (927, 25335), (943, 25422), (960, 25533), (975, 25629),

Gene: Capybara_29 Start: 20616, Stop: 25718, Start Num: 19

Candidate Starts for Capybara_29:

(Start: 19 @20616 has 170 MA's), (Start: 23 @20646 has 3 MA's), (44, 20784), (48, 20829), (49, 20835), (51, 20844), (53, 20859), (56, 20880), (61, 20901), (68, 20931), (71, 20961), (72, 20982), (79, 21084), (84, 21144), (88, 21219), (89, 21231), (92, 21255), (96, 21285), (99, 21300), (105, 21333), (110, 21375), (115, 21426), (124, 21480), (125, 21483), (135, 21582), (138, 21606), (151, 21702), (163, 21807), (164, 21810), (175, 21879), (177, 21885), (178, 21891), (Start: 213 @22068 has 1 MA's), (224, 22119), (233, 22170), (247, 22224), (248, 22227), (276, 22359), (295, 22461), (300, 22479), (301, 22482), (318, 22557), (332, 22614), (342, 22698), (344, 22707), (360, 22794), (368, 22833), (381, 22881), (386, 22908), (392, 22929), (395, 22938), (398, 22959), (399, 22971), (401, 22980), (402, 22989), (407, 23016), (415, 23043), (416, 23046), (423, 23067), (430, 23109), (436, 23136), (439, 23145), (441, 23160), (442, 23169), (444, 23184), (446, 23196), (448, 23205), (452, 23217), (458, 23238), (461, 23247), (479, 23331), (480, 23340), (482, 23355), (483, 23358), (487, 23376), (491, 23388), (492, 23391), (499, 23418), (505, 23439), (508, 23454), (518, 23496), (520, 23511), (534, 23568), (537, 23580), (539, 23589), (545, 23601), (551, 23613), (552, 23619), (557, 23640), (561, 23652), (567, 23670), (568, 23679), (569, 23694), (570, 23700), (573, 23712), (583, 23754), (584, 23757), (587, 23766), (593, 23787), (595, 23799), (609, 23847), (612, 23856), (619, 23880), (621, 23886), (626, 23904), (627, 23913), (633, 23934), (651, 24003), (656, 24021), (657, 24024), (662, 24042), (692, 24168), (703, 24213), (717, 24264), (748, 24408), (771, 24543), (779, 24594), (790, 24672), (798, 24717), (805, 24780), (811, 24798), (818, 24828), (819, 24834), (831, 24891), (846, 24963), (858, 25023), (863, 25044), (864, 25047), (872, 25098), (875, 25107), (887, 25146), (890, 25158), (907, 25251), (915, 25296), (923, 25371), (927, 25410), (933, 25440), (943, 25497), (960, 25608), (975, 25704),

Gene: CastorTray_28 Start: 20538, Stop: 25127, Start Num: 19

Candidate Starts for CastorTray_28:

(Start: 18 @20517 has 2 MA's), (Start: 19 @20538 has 170 MA's), (Start: 23 @20568 has 3 MA's), (30, 20622), (34, 20643), (40, 20679), (49, 20757), (60, 20817), (66, 20841), (68, 20853), (71, 20883), (74, 20934), (78, 20964), (79, 21006), (80, 21024), (84, 21066), (86, 21096), (88, 21141), (89, 21153), (96, 21207), (99, 21222), (101, 21234), (105, 21255), (119, 21348), (122, 21381), (126, 21396), (132, 21444), (146, 21594), (151, 21615), (166, 21729), (167, 21732), (194, 21894), (201, 21918), (204,

21933), (207, 21945), (239, 22113), (244, 22128), (246, 22134), (253, 22152), (265, 22224), (278, 22275), (283, 22290), (290, 22320), (306, 22392), (308, 22398), (316, 22431), (317, 22434), (323, 22461), (344, 22575), (353, 22632), (355, 22644), (367, 22698), (370, 22707), (371, 22710), (377, 22731), (386, 22776), (392, 22797), (399, 22839), (402, 22857), (416, 22914), (423, 22935), (426, 22956), (442, 23037), (444, 23052), (445, 23055), (451, 23082), (452, 23085), (464, 23136), (480, 23214), (482, 23229), (483, 23232), (487, 23250), (489, 23256), (491, 23262), (494, 23271), (502, 23307), (503, 23310), (505, 23316), (506, 23322), (512, 23349), (523, 23403), (524, 23406), (528, 23424), (532, 23436), (539, 23466), (544, 23481), (550, 23490), (552, 23502), (557, 23523), (568, 23562), (579, 23619), (584, 23631), (587, 23640), (600, 23679), (603, 23691), (613, 23721), (615, 23730), (626, 23766), (635, 23805), (636, 23808), (640, 23826), (642, 23832), (658, 23892), (659, 23895), (661, 23901), (667, 23922), (673, 23955), (674, 23958), (705, 24084), (706, 24087), (712, 24108), (720, 24141), (721, 24144), (722, 24150), (725, 24159), (731, 24186), (737, 24219), (740, 24231), (754, 24297), (760, 24348), (762, 24354), (772, 24414), (777, 24438), (784, 24498), (787, 24516), (789, 24528), (797, 24570), (820, 24687), (822, 24696), (830, 24744), (837, 24777), (840, 24789), (843, 24795), (846, 24816), (847, 24819), (848, 24825), (856, 24864), (862, 24891), (906, 25077), (910, 25104),

Gene: Caterpillar_24 Start: 19324, Stop: 23907, Start Num: 19

Candidate Starts for Caterpillar_24:

(Start: 18 @19303 has 2 MA's), (Start: 19 @19324 has 170 MA's), (Start: 23 @19354 has 3 MA's), (30, 19408), (40, 19465), (46, 19513), (68, 19639), (71, 19669), (78, 19750), (79, 19792), (80, 19810), (84, 19852), (86, 19882), (88, 19927), (89, 19939), (96, 19993), (99, 20008), (100, 20014), (105, 20041), (112, 20104), (117, 20119), (119, 20134), (122, 20167), (126, 20182), (127, 20191), (132, 20230), (141, 20335), (151, 20401), (158, 20470), (164, 20509), (167, 20518), (175, 20578), (176, 20581), (201, 20704), (202, 20707), (210, 20743), (243, 20911), (246, 20920), (254, 20941), (260, 20974), (283, 21070), (296, 21124), (306, 21172), (308, 21178), (309, 21181), (317, 21214), (344, 21361), (362, 21463), (367, 21484), (370, 21493), (371, 21496), (377, 21517), (392, 21583), (405, 21658), (408, 21673), (414, 21694), (416, 21700), (423, 21721), (426, 21742), (430, 21763), (442, 21823), (444, 21838), (445, 21841), (450, 21865), (456, 21883), (471, 21955), (480, 22000), (482, 22015), (483, 22018), (487, 22036), (489, 22042), (491, 22048), (502, 22093), (505, 22102), (508, 22117), (512, 22135), (517, 22156), (523, 22189), (524, 22192), (528, 22210), (544, 22267), (550, 22276), (552, 22288), (557, 22309), (559, 22315), (560, 22318), (567, 22339), (568, 22348), (577, 22399), (579, 22405), (584, 22417), (587, 22426), (598, 22459), (615, 22516), (634, 22588), (635, 22591), (636, 22594), (640, 22612), (642, 22618), (648, 22642), (658, 22678), (660, 22684), (664, 22699), (672, 22738), (684, 22786), (694, 22825), (712, 22894), (722, 22936), (725, 22945), (754, 23083), (755, 23092), (756, 23104), (761, 23137), (762, 23140), (781, 23257), (783, 23278), (789, 23314), (797, 23356), (807, 23428), (830, 23530), (840, 23575), (843, 23581), (856, 23650), (862, 23677), (906, 23857), (908, 23866),

Gene: Cheesy_22 Start: 17385, Stop: 21863, Start Num: 19

Candidate Starts for Cheesy_22:

(Start: 18 @17364 has 2 MA's), (Start: 19 @17385 has 170 MA's), (Start: 23 @17415 has 3 MA's), (26, 17448), (30, 17469), (68, 17700), (71, 17730), (78, 17811), (79, 17853), (80, 17871), (84, 17913), (89, 18000), (96, 18054), (99, 18069), (105, 18102), (117, 18180), (119, 18195), (126, 18243), (133, 18300), (137, 18354), (141, 18396), (145, 18429), (151, 18462), (164, 18570), (174, 18636), (182, 18669), (184, 18678), (185, 18681), (187, 18699), (246, 18981), (255, 19005), (260, 19035), (302, 19194), (310, 19227), (317, 19254), (344, 19383), (358, 19461), (367, 19506), (370, 19515), (374, 19527), (377, 19539), (383, 19566), (386, 19584), (392, 19605), (405, 19680), (409, 19701), (410, 19704), (413, 19713), (423, 19743), (426, 19764), (430, 19785), (442, 19845), (443, 19851), (451, 19890), (452, 19893), (457, 19908), (470, 19971), (475, 19992), (480, 20022), (485, 20052), (491, 20070), (502, 20118), (508, 20142), (512, 20160), (515, 20169), (516, 20178), (518, 20184), (521, 20205), (528, 20235), (537, 20268), (538, 20274), (539, 20277), (544, 20289), (552, 20310), (567, 20361), (568, 20370), (572, 20400), (574, 20406), (584, 20439), (587, 20448), (597, 20478), (600,

20487), (603, 20499), (615, 20538), (623, 20565), (625, 20571), (626, 20574), (629, 20589), (636, 20616), (644, 20646), (653, 20682), (679, 20784), (694, 20847), (702, 20883), (703, 20886), (709, 20907), (714, 20925), (724, 20964), (726, 20970), (730, 20985), (734, 21006), (735, 21018), (759, 21150), (761, 21159), (781, 21213), (784, 21240), (787, 21258), (796, 21306), (797, 21312), (807, 21384), (826, 21462), (832, 21498), (836, 21516), (843, 21540), (847, 21564), (855, 21609), (859, 21630), (911, 21852),

Gene: CherryBlossom_23 Start: 16177, Stop: 21663, Start Num: 2

Candidate Starts for CherryBlossom_23:

(1, 16156), (Start: 2 @16177 has 33 MA's), (3, 16207), (14, 16351), (42, 16561), (54, 16681), (61, 16720), (68, 16750), (70, 16774), (71, 16780), (72, 16801), (73, 16816), (79, 16903), (86, 16993), (87, 17029), (88, 17038), (90, 17065), (96, 17104), (97, 17113), (101, 17131), (105, 17152), (110, 17194), (111, 17203), (122, 17311), (134, 17416), (145, 17512), (154, 17578), (177, 17728), (192, 17812), (196, 17833), (207, 17875), (232, 18010), (267, 18142), (270, 18151), (279, 18187), (281, 18196), (292, 18238), (300, 18271), (340, 18424), (344, 18445), (354, 18508), (355, 18514), (357, 18520), (362, 18547), (367, 18568), (369, 18574), (370, 18577), (377, 18601), (386, 18646), (389, 18655), (390, 18658), (392, 18667), (405, 18742), (411, 18769), (416, 18784), (417, 18787), (423, 18805), (426, 18823), (430, 18844), (441, 18895), (455, 18961), (459, 18976), (477, 19063), (480, 19081), (484, 19108), (509, 19198), (510, 19201), (519, 19243), (520, 19252), (528, 19288), (533, 19306), (534, 19309), (552, 19363), (553, 19366), (567, 19414), (571, 19450), (573, 19456), (578, 19477), (587, 19501), (597, 19531), (615, 19591), (625, 19624), (626, 19627), (629, 19642), (638, 19678), (649, 19720), (652, 19732), (653, 19735), (667, 19783), (672, 19813), (677, 19828), (684, 19861), (687, 19876), (703, 19939), (724, 20017), (725, 20020), (733, 20056), (745, 20122), (760, 20209), (761, 20212), (787, 20311), (796, 20359), (797, 20365), (827, 20524), (890, 20797), (909, 20899), (924, 21022), (937, 21115), (940, 21136), (947, 21184), (949, 21190), (950, 21196), (957, 21241), (970, 21349), (973, 21370), (979, 21418), (986, 21505), (992, 21607), (993, 21616),

Gene: ChickyNuggy_30 Start: 20253, Stop: 25355, Start Num: 19

Candidate Starts for ChickyNuggy_30:

(Start: 19 @20253 has 170 MA's), (Start: 23 @20283 has 3 MA's), (44, 20421), (49, 20472), (51, 20481), (53, 20496), (56, 20517), (61, 20538), (68, 20568), (71, 20598), (72, 20619), (79, 20721), (84, 20781), (88, 20856), (89, 20868), (92, 20892), (96, 20922), (99, 20937), (105, 20970), (110, 21012), (115, 21063), (124, 21117), (125, 21120), (135, 21219), (138, 21243), (151, 21339), (160, 21423), (163, 21444), (164, 21447), (175, 21516), (177, 21522), (178, 21528), (Start: 213 @21705 has 1 MA's), (224, 21756), (233, 21807), (247, 21861), (248, 21864), (276, 21996), (283, 22035), (300, 22116), (301, 22119), (318, 22194), (320, 22203), (332, 22251), (342, 22335), (344, 22344), (355, 22413), (357, 22419), (360, 22431), (362, 22446), (363, 22449), (368, 22470), (381, 22518), (386, 22545), (392, 22566), (395, 22575), (398, 22596), (399, 22608), (401, 22617), (402, 22626), (415, 22680), (416, 22683), (423, 22704), (430, 22746), (436, 22773), (439, 22782), (441, 22797), (442, 22806), (444, 22821), (446, 22833), (448, 22842), (458, 22875), (461, 22884), (479, 22968), (480, 22977), (482, 22992), (483, 22995), (487, 23013), (499, 23055), (505, 23076), (508, 23091), (518, 23133), (520, 23148), (534, 23205), (537, 23217), (539, 23226), (545, 23238), (551, 23250), (552, 23256), (557, 23277), (561, 23289), (567, 23307), (568, 23316), (569, 23331), (570, 23337), (573, 23349), (583, 23391), (584, 23394), (587, 23403), (593, 23424), (595, 23436), (609, 23484), (612, 23493), (619, 23517), (621, 23523), (626, 23541), (627, 23550), (633, 23571), (651, 23640), (662, 23679), (703, 23850), (717, 23901), (748, 24045), (771, 24180), (779, 24231), (798, 24354), (805, 24417), (818, 24465), (819, 24471), (821, 24480), (831, 24528), (846, 24600), (858, 24660), (863, 24681), (864, 24684), (872, 24735), (875, 24744), (879, 24762), (887, 24783), (890, 24795), (907, 24888), (915, 24933), (923, 25008), (925, 25026), (927, 25047), (943, 25134), (960, 25245), (975, 25341),

Gene: Chikenjars_32 Start: 23502, Stop: 28613, Start Num: 19

Candidate Starts for Chikenjars_32:

(Start: 19 @23502 has 170 MA's), (Start: 23 @23532 has 3 MA's), (28, 23577), (49, 23721), (61, 23787), (71, 23847), (72, 23868), (79, 23970), (86, 24060), (87, 24096), (90, 24132), (96, 24171), (105, 24219), (110, 24261), (117, 24333), (122, 24381), (137, 24507), (145, 24582), (151, 24615), (163, 24720), (164, 24723), (207, 24945), (220, 25011), (221, 25014), (233, 25083), (260, 25188), (272, 25257), (291, 25359), (293, 25362), (300, 25389), (308, 25428), (313, 25455), (344, 25617), (351, 25665), (355, 25686), (360, 25704), (371, 25752), (386, 25818), (394, 25845), (395, 25848), (397, 25866), (398, 25869), (401, 25890), (402, 25899), (412, 25944), (415, 25953), (426, 25998), (430, 26019), (433, 26028), (440, 26061), (441, 26070), (444, 26094), (451, 26124), (452, 26127), (455, 26136), (458, 26148), (461, 26157), (463, 26169), (467, 26190), (469, 26196), (480, 26250), (499, 26328), (502, 26340), (504, 26346), (505, 26349), (508, 26364), (513, 26385), (520, 26421), (533, 26475), (534, 26478), (537, 26490), (539, 26499), (545, 26511), (547, 26514), (552, 26529), (559, 26556), (561, 26562), (566, 26577), (567, 26580), (568, 26589), (569, 26604), (570, 26610), (574, 26625), (576, 26637), (577, 26640), (583, 26664), (587, 26676), (593, 26697), (595, 26709), (597, 26718), (601, 26730), (609, 26757), (616, 26781), (619, 26790), (621, 26796), (626, 26814), (643, 26883), (662, 26952), (698, 27108), (746, 27309), (771, 27453), (780, 27516), (783, 27543), (795, 27615), (798, 27627), (799, 27636), (805, 27690), (813, 27711), (815, 27723), (849, 27885), (865, 27972), (871, 27990), (879, 28020), (886, 28038), (887, 28041), (890, 28053), (898, 28080), (915, 28191), (923, 28266), (929, 28314), (938, 28368), (944, 28395), (961, 28509), (975, 28599),

Gene: Chlochlo_27 Start: 20283, Stop: 24878, Start Num: 19

Candidate Starts for Chlochlo_27:

(Start: 18 @20262 has 2 MA's), (Start: 19 @20283 has 170 MA's), (Start: 23 @20313 has 3 MA's), (30, 20367), (68, 20598), (71, 20628), (78, 20709), (79, 20751), (80, 20769), (84, 20811), (89, 20898), (96, 20952), (99, 20967), (100, 20973), (105, 21000), (117, 21078), (119, 21093), (122, 21126), (126, 21141), (127, 21150), (130, 21177), (132, 21189), (136, 21243), (146, 21339), (151, 21360), (167, 21477), (174, 21534), (176, 21540), (187, 21597), (203, 21669), (210, 21702), (211, 21705), (260, 21939), (281, 22032), (283, 22035), (288, 22053), (306, 22137), (308, 22143), (317, 22179), (344, 22326), (352, 22380), (353, 22383), (367, 22449), (370, 22458), (371, 22461), (377, 22482), (383, 22509), (392, 22548), (393, 22551), (416, 22665), (423, 22686), (425, 22704), (426, 22707), (444, 22803), (446, 22815), (475, 22935), (480, 22965), (482, 22980), (494, 23022), (499, 23043), (502, 23058), (505, 23067), (507, 23079), (512, 23100), (523, 23154), (528, 23175), (537, 23208), (538, 23214), (539, 23217), (547, 23235), (549, 23238), (552, 23256), (567, 23307), (568, 23316), (578, 23370), (587, 23394), (598, 23427), (615, 23484), (634, 23556), (635, 23559), (640, 23580), (646, 23604), (649, 23613), (658, 23646), (659, 23649), (661, 23655), (671, 23700), (672, 23706), (684, 23754), (712, 23862), (722, 23904), (725, 23913), (756, 24072), (759, 24096), (761, 24105), (768, 24147), (772, 24168), (776, 24183), (787, 24270), (789, 24282), (797, 24324), (812, 24408), (826, 24474), (830, 24498), (840, 24543), (843, 24549), (856, 24618), (857, 24621), (862, 24645), (906, 24828),

Gene: Circum_22 Start: 17392, Stop: 21870, Start Num: 19

Candidate Starts for Circum_22:

(Start: 18 @17371 has 2 MA's), (Start: 19 @17392 has 170 MA's), (Start: 23 @17422 has 3 MA's), (26, 17455), (30, 17476), (68, 17707), (71, 17737), (78, 17818), (79, 17860), (80, 17878), (84, 17920), (89, 18007), (96, 18061), (99, 18076), (105, 18109), (117, 18187), (119, 18202), (126, 18250), (133, 18307), (137, 18361), (141, 18403), (145, 18436), (151, 18469), (164, 18577), (174, 18643), (182, 18676), (184, 18685), (185, 18688), (187, 18706), (246, 18988), (255, 19012), (260, 19042), (302, 19201), (317, 19261), (344, 19390), (351, 19438), (362, 19492), (365, 19504), (367, 19513), (370, 19522), (377, 19546), (386, 19591), (392, 19612), (405, 19687), (413, 19720), (423, 19750), (430, 19792), (442, 19852), (443, 19858), (451, 19897), (457, 19915), (470, 19978), (475, 19999), (480, 20029), (485, 20059), (491, 20077), (502, 20125), (508, 20149), (512, 20167), (515, 20176), (516, 20185), (518, 20191), (521, 20212), (528, 20242), (537, 20275), (538, 20281), (539, 20284), (544, 20296), (552, 20317), (567, 20368), (568, 20377), (572, 20407), (574, 20413), (584, 20446), (587, 20455), (597, 20485), (600, 20494), (603, 20506), (615, 20545), (623, 20572), (625, 20578), (626,

20581), (629, 20596), (636, 20623), (640, 20641), (644, 20653), (653, 20689), (679, 20791), (702, 20890), (703, 20893), (705, 20899), (709, 20914), (714, 20932), (720, 20956), (724, 20971), (725, 20974), (730, 20992), (735, 21025), (740, 21046), (764, 21178), (781, 21220), (787, 21265), (789, 21277), (797, 21319), (807, 21391), (822, 21445), (826, 21469), (830, 21493), (832, 21505), (836, 21523), (847, 21571), (855, 21616), (859, 21637), (885, 21730), (911, 21859),

Gene: Citrus_31 Start: 23506, Stop: 28617, Start Num: 19

Candidate Starts for Citrus_31:

(Start: 19 @23506 has 170 MA's), (Start: 23 @23536 has 3 MA's), (28, 23581), (49, 23725), (61, 23791), (71, 23851), (72, 23872), (79, 23974), (86, 24064), (87, 24100), (90, 24136), (96, 24175), (105, 24223), (110, 24265), (122, 24385), (137, 24511), (145, 24586), (146, 24598), (151, 24619), (163, 24724), (164, 24727), (207, 24949), (220, 25015), (221, 25018), (233, 25087), (260, 25192), (272, 25261), (277, 25282), (291, 25363), (293, 25366), (300, 25393), (308, 25432), (313, 25459), (344, 25621), (351, 25669), (355, 25690), (360, 25708), (371, 25756), (386, 25822), (394, 25849), (395, 25852), (397, 25870), (398, 25873), (401, 25894), (402, 25903), (415, 25957), (426, 26002), (430, 26023), (433, 26032), (440, 26065), (441, 26074), (444, 26098), (451, 26128), (452, 26131), (455, 26140), (458, 26152), (461, 26161), (463, 26173), (467, 26194), (469, 26200), (480, 26254), (485, 26284), (499, 26332), (502, 26344), (504, 26350), (505, 26353), (508, 26368), (513, 26389), (520, 26425), (533, 26479), (537, 26494), (539, 26503), (545, 26515), (547, 26518), (552, 26533), (559, 26560), (561, 26566), (566, 26581), (567, 26584), (568, 26593), (569, 26608), (570, 26614), (574, 26629), (576, 26641), (577, 26644), (587, 26680), (593, 26701), (595, 26713), (597, 26722), (601, 26734), (609, 26761), (616, 26785), (619, 26794), (621, 26800), (626, 26818), (643, 26887), (662, 26956), (698, 27112), (746, 27313), (771, 27457), (780, 27520), (783, 27547), (795, 27619), (798, 27631), (799, 27640), (805, 27694), (813, 27715), (815, 27727), (849, 27889), (865, 27976), (871, 27994), (879, 28024), (886, 28042), (887, 28045), (890, 28057), (898, 28084), (915, 28195), (923, 28270), (929, 28318), (938, 28372), (944, 28399), (961, 28513), (975, 28603),

Gene: ClubPenguin_22 Start: 15929, Stop: 21244, Start Num: 16

Candidate Starts for ClubPenguin_22:

(14, 15908), (Start: 16 @15929 has 1 MA's), (17, 15959), (45, 16181), (47, 16202), (79, 16472), (86, 16562), (87, 16598), (96, 16673), (105, 16721), (107, 16730), (110, 16763), (154, 17150), (155, 17153), (166, 17231), (182, 17324), (192, 17384), (203, 17426), (261, 17696), (278, 17756), (293, 17813), (317, 17915), (344, 18023), (367, 18146), (370, 18155), (386, 18224), (389, 18233), (390, 18236), (401, 18296), (416, 18362), (420, 18374), (423, 18383), (426, 18401), (430, 18422), (447, 18512), (469, 18605), (479, 18650), (480, 18659), (485, 18689), (496, 18728), (497, 18731), (507, 18770), (514, 18797), (519, 18821), (520, 18830), (527, 18863), (528, 18866), (532, 18878), (537, 18899), (551, 18935), (555, 18950), (571, 19028), (576, 19049), (578, 19055), (584, 19070), (587, 19079), (615, 19169), (625, 19202), (637, 19253), (640, 19265), (652, 19310), (684, 19439), (694, 19478), (702, 19514), (708, 19535), (718, 19571), (722, 19589), (725, 19598), (733, 19634), (735, 19649), (736, 19655), (745, 19700), (781, 19844), (786, 19880), (787, 19889), (804, 20003), (826, 20096), (844, 20180), (905, 20447), (912, 20501), (919, 20582), (932, 20663), (937, 20696), (940, 20717), (948, 20768), (955, 20807), (957, 20822), (963, 20870), (964, 20879), (965, 20891), (973, 20951), (979, 20999), (981, 21023), (984, 21068),

Gene: Conley_30 Start: 21600, Stop: 26687, Start Num: 19

Candidate Starts for Conley_30:

(Start: 19 @21600 has 170 MA's), (Start: 23 @21630 has 3 MA's), (44, 21768), (53, 21843), (56, 21864), (61, 21885), (68, 21915), (71, 21945), (72, 21966), (79, 22068), (84, 22128), (88, 22203), (89, 22215), (92, 22239), (96, 22269), (99, 22284), (105, 22317), (106, 22323), (110, 22359), (115, 22410), (124, 22464), (125, 22467), (135, 22566), (151, 22686), (157, 22740), (160, 22770), (163, 22791), (164, 22794), (175, 22863), (177, 22869), (Start: 213 @23052 has 1 MA's), (235, 23160), (236, 23172), (239, 23184), (247, 23208), (254, 23226), (300, 23463), (301, 23466), (308, 23502), (318, 23541), (320, 23550), (332, 23598), (342, 23682), (344, 23691), (354, 23754), (355, 23760), (357, 23766),

(360, 23778), (363, 23796), (375, 23838), (381, 23865), (386, 23892), (392, 23913), (395, 23922), (398, 23943), (399, 23955), (400, 23961), (401, 23964), (402, 23973), (416, 24030), (423, 24051), (430, 24093), (436, 24120), (438, 24126), (441, 24144), (442, 24153), (444, 24168), (446, 24180), (448, 24189), (458, 24222), (461, 24231), (479, 24315), (480, 24324), (482, 24339), (487, 24360), (499, 24402), (502, 24414), (505, 24423), (508, 24438), (518, 24480), (520, 24495), (534, 24552), (537, 24564), (539, 24573), (545, 24585), (551, 24597), (552, 24603), (557, 24624), (561, 24636), (564, 24645), (567, 24654), (568, 24663), (569, 24678), (570, 24684), (573, 24696), (576, 24711), (579, 24720), (583, 24738), (593, 24771), (595, 24783), (609, 24831), (612, 24840), (619, 24864), (621, 24870), (626, 24888), (627, 24897), (628, 24900), (633, 24918), (651, 24987), (662, 25026), (686, 25131), (687, 25134), (688, 25137), (703, 25197), (729, 25293), (731, 25305), (740, 25350), (748, 25392), (771, 25527), (795, 25689), (805, 25764), (819, 25818), (825, 25839), (846, 25947), (858, 26007), (865, 26046), (871, 26064), (872, 26067), (879, 26094), (881, 26100), (887, 26115), (889, 26121), (890, 26127), (896, 26145), (897, 26148), (913, 26253), (915, 26265), (923, 26340), (925, 26358), (927, 26379), (930, 26391), (943, 26466), (953, 26526), (967, 26622), (975, 26673),

Gene: Correa_21 Start: 16900, Stop: 21378, Start Num: 19

Candidate Starts for Correa_21:

(Start: 18 @16879 has 2 MA's), (Start: 19 @16900 has 170 MA's), (Start: 23 @16930 has 3 MA's), (26, 16963), (30, 16984), (68, 17215), (71, 17245), (78, 17326), (79, 17368), (80, 17386), (84, 17428), (89, 17515), (96, 17569), (99, 17584), (105, 17617), (119, 17710), (126, 17758), (128, 17773), (133, 17815), (137, 17869), (145, 17944), (151, 17977), (164, 18085), (174, 18151), (182, 18184), (184, 18193), (185, 18196), (187, 18214), (246, 18496), (255, 18520), (260, 18550), (302, 18709), (317, 18769), (344, 18898), (358, 18976), (364, 19006), (367, 19021), (370, 19030), (377, 19054), (383, 19081), (386, 19099), (392, 19120), (405, 19195), (409, 19216), (413, 19228), (423, 19258), (430, 19300), (442, 19360), (443, 19366), (451, 19405), (456, 19420), (457, 19423), (468, 19480), (470, 19486), (475, 19507), (480, 19537), (485, 19567), (491, 19585), (502, 19633), (508, 19657), (512, 19675), (515, 19684), (518, 19699), (521, 19720), (528, 19750), (537, 19783), (538, 19789), (539, 19792), (544, 19804), (552, 19825), (567, 19876), (568, 19885), (572, 19915), (574, 19921), (584, 19954), (587, 19963), (597, 19993), (600, 20002), (603, 20014), (609, 20032), (615, 20053), (623, 20080), (625, 20086), (626, 20089), (629, 20104), (636, 20131), (644, 20161), (653, 20197), (679, 20299), (694, 20362), (702, 20398), (703, 20401), (709, 20422), (714, 20440), (724, 20479), (726, 20485), (730, 20500), (734, 20521), (735, 20533), (759, 20665), (781, 20728), (784, 20755), (787, 20773), (796, 20821), (797, 20827), (807, 20899), (826, 20977), (832, 21013), (836, 21031), (845, 21064), (847, 21079), (855, 21124), (911, 21367),

Gene: Count_30 Start: 23420, Stop: 27673, Start Num: 19

Candidate Starts for Count_30:

(Start: 18 @23399 has 2 MA's), (Start: 19 @23420 has 170 MA's), (Start: 23 @23453 has 3 MA's), (38, 23555), (57, 23690), (62, 23711), (71, 23768), (79, 23891), (84, 23951), (92, 24062), (95, 24086), (96, 24092), (99, 24107), (105, 24140), (106, 24146), (119, 24233), (121, 24254), (122, 24266), (126, 24281), (145, 24467), (152, 24512), (165, 24611), (168, 24620), (187, 24737), (191, 24761), (198, 24794), (242, 25007), (302, 25166), (306, 25184), (327, 25268), (337, 25310), (355, 25433), (356, 25436), (367, 25487), (370, 25496), (376, 25517), (389, 25574), (396, 25607), (398, 25616), (401, 25637), (402, 25646), (409, 25682), (416, 25703), (424, 25733), (430, 25766), (432, 25772), (435, 25787), (440, 25808), (442, 25826), (448, 25862), (452, 25874), (455, 25883), (458, 25895), (467, 25934), (471, 25949), (472, 25955), (477, 25976), (480, 25994), (512, 26042), (515, 26051), (517, 26063), (519, 26072), (552, 26114), (553, 26117), (567, 26165), (568, 26174), (571, 26201), (584, 26243), (587, 26252), (599, 26294), (605, 26315), (611, 26333), (613, 26339), (615, 26348), (625, 26381), (626, 26384), (653, 26492), (654, 26495), (658, 26510), (660, 26516), (675, 26579), (679, 26594), (684, 26618), (693, 26654), (694, 26657), (702, 26693), (709, 26717), (710, 26720), (716, 26744), (717, 26747), (735, 26828), (744, 26870), (764, 26981), (781, 27023), (787, 27068), (804, 27182), (808, 27200), (828, 27290), (840, 27344), (856, 27419), (907, 27632),

Gene: CricKo_21 Start: 15072, Stop: 20549, Start Num: 2

Candidate Starts for CricKo_21:

(Start: 2 @15072 has 33 MA's), (3, 15102), (9, 15183), (10, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (118, 16173), (133, 16281), (151, 16443), (154, 16476), (163, 16548), (177, 16626), (207, 16773), (279, 17085), (281, 17094), (299, 17157), (344, 17331), (350, 17373), (355, 17400), (358, 17409), (370, 17463), (377, 17487), (390, 17544), (412, 17658), (423, 17691), (430, 17730), (440, 17772), (441, 17781), (446, 17817), (459, 17862), (469, 17913), (477, 17949), (480, 17967), (485, 17997), (496, 18036), (497, 18039), (507, 18078), (508, 18081), (515, 18108), (519, 18129), (520, 18138), (527, 18171), (528, 18174), (534, 18195), (555, 18258), (571, 18336), (573, 18342), (584, 18378), (585, 18381), (586, 18384), (587, 18387), (606, 18447), (609, 18456), (615, 18477), (624, 18507), (625, 18510), (640, 18573), (641, 18576), (642, 18579), (653, 18621), (658, 18639), (667, 18669), (677, 18714), (679, 18723), (684, 18747), (702, 18822), (704, 18828), (718, 18879), (725, 18906), (729, 18921), (731, 18933), (733, 18942), (737, 18966), (751, 19032), (760, 19095), (765, 19119), (787, 19197), (796, 19245), (803, 19287), (827, 19410), (851, 19527), (878, 19644), (900, 19725), (906, 19770), (914, 19815), (937, 20001), (940, 20022), (942, 20034), (949, 20076), (957, 20127), (963, 20175), (968, 20214), (976, 20265), (985, 20388), (990, 20427),

Gene: Crocheter_32 Start: 23642, Stop: 28753, Start Num: 19

Candidate Starts for Crocheter_32:

(Start: 19 @23642 has 170 MA's), (Start: 23 @23672 has 3 MA's), (28, 23717), (49, 23861), (60, 23921), (61, 23927), (71, 23987), (72, 24008), (79, 24110), (87, 24236), (90, 24272), (96, 24311), (101, 24338), (105, 24359), (110, 24401), (117, 24473), (122, 24521), (137, 24647), (145, 24722), (146, 24734), (151, 24755), (163, 24860), (164, 24863), (184, 24971), (233, 25223), (260, 25328), (272, 25397), (277, 25418), (291, 25499), (293, 25502), (300, 25529), (308, 25568), (313, 25595), (340, 25736), (344, 25757), (354, 25820), (355, 25826), (360, 25844), (361, 25850), (371, 25892), (375, 25904), (377, 25913), (386, 25958), (396, 26000), (398, 26009), (399, 26021), (401, 26030), (402, 26039), (426, 26138), (430, 26159), (433, 26168), (438, 26192), (439, 26195), (451, 26264), (452, 26267), (455, 26276), (460, 26294), (461, 26297), (463, 26309), (467, 26330), (469, 26336), (470, 26339), (475, 26360), (480, 26390), (482, 26405), (485, 26420), (499, 26468), (502, 26480), (504, 26486), (505, 26489), (507, 26501), (508, 26504), (520, 26561), (533, 26615), (539, 26639), (545, 26651), (547, 26654), (560, 26699), (561, 26702), (566, 26717), (567, 26720), (568, 26729), (569, 26744), (570, 26750), (571, 26756), (576, 26777), (577, 26780), (581, 26792), (584, 26807), (587, 26816), (593, 26837), (595, 26849), (601, 26870), (609, 26897), (619, 26930), (621, 26936), (626, 26954), (633, 26984), (643, 27023), (662, 27092), (688, 27203), (691, 27215), (709, 27284), (729, 27359), (746, 27449), (771, 27593), (780, 27656), (790, 27722), (795, 27755), (798, 27767), (805, 27830), (813, 27851), (815, 27863), (819, 27884), (831, 27941), (849, 28025), (865, 28112), (871, 28130), (879, 28160), (886, 28178), (887, 28181), (889, 28187), (890, 28193), (898, 28220), (915, 28331), (923, 28406), (933, 28475), (938, 28508), (943, 28532), (961, 28649), (975, 28739),

Gene: Daddyjeff_25 Start: 18508, Stop: 23112, Start Num: 19

Candidate Starts for Daddyjeff_25:

(Start: 19 @18508 has 170 MA's), (Start: 23 @18541 has 3 MA's), (34, 18616), (43, 18664), (45, 18688), (57, 18778), (61, 18796), (65, 18808), (71, 18853), (79, 18976), (84, 19036), (92, 19147), (96, 19177), (99, 19192), (105, 19225), (109, 19264), (118, 19315), (119, 19318), (121, 19339), (122, 19351), (133, 19423), (140, 19513), (150, 19582), (152, 19597), (154, 19618), (157, 19639), (180, 19780), (184, 19801), (187, 19822), (197, 19876), (224, 20014), (233, 20065), (244, 20110), (316, 20416), (321, 20434), (344, 20578), (348, 20608), (367, 20701), (369, 20707), (370, 20710), (374, 20722), (383, 20761), (400, 20848), (423, 20938), (426, 20959), (432, 20986), (440, 21022), (466, 21151), (481, 21223), (484, 21244), (490, 21262), (499, 21295), (502, 21313), (507, 21334), (508, 21337), (520, 21394), (522, 21406), (528, 21430), (530, 21436), (537, 21463), (555, 21520), (567, 21562), (568, 21571), (571, 21598), (572, 21601), (579, 21628), (584, 21640), (587, 21649), (591, 21658), (611, 21724), (615, 21739), (623, 21766), (664, 21922), (676, 21973), (684, 22009), (694,

22048), (699, 22075), (703, 22087), (708, 22105), (714, 22126), (721, 22153), (726, 22171), (735, 22219), (749, 22285), (769, 22405), (774, 22429), (776, 22438), (781, 22480), (787, 22525), (797, 22579), (807, 22651), (814, 22675), (826, 22729), (828, 22744), (830, 22753), (832, 22765), (834, 22774), (837, 22786), (839, 22795), (856, 22873), (857, 22876), (874, 22948), (911, 23101),

Gene: Damascus_24 Start: 16928, Stop: 21136, Start Num: 19

Candidate Starts for Damascus_24:

(Start: 18 @16907 has 2 MA's), (Start: 19 @16928 has 170 MA's), (Start: 23 @16961 has 3 MA's), (46, 17120), (57, 17198), (71, 17276), (79, 17399), (84, 17459), (92, 17570), (95, 17594), (96, 17600), (99, 17615), (105, 17648), (118, 17738), (119, 17741), (121, 17762), (122, 17774), (137, 17900), (152, 18020), (160, 18092), (164, 18116), (185, 18227), (198, 18302), (214, 18380), (232, 18473), (243, 18518), (281, 18587), (298, 18653), (302, 18674), (328, 18767), (342, 18836), (344, 18845), (355, 18914), (367, 18968), (370, 18977), (375, 18992), (377, 19001), (380, 19010), (385, 19040), (386, 19046), (392, 19067), (396, 19088), (399, 19109), (401, 19118), (402, 19127), (407, 19154), (409, 19163), (416, 19184), (417, 19187), (421, 19199), (442, 19307), (446, 19334), (452, 19355), (457, 19370), (464, 19397), (465, 19400), (467, 19415), (472, 19436), (477, 19457), (480, 19475), (515, 19532), (517, 19544), (518, 19547), (519, 19553), (552, 19583), (568, 19643), (572, 19673), (584, 19712), (587, 19721), (594, 19751), (603, 19778), (604, 19781), (605, 19784), (615, 19817), (625, 19850), (636, 19895), (646, 19937), (658, 19979), (659, 19982), (660, 19985), (675, 20048), (684, 20087), (693, 20123), (694, 20126), (702, 20162), (736, 20303), (764, 20450), (781, 20492), (787, 20537), (797, 20591), (812, 20675), (822, 20717), (823, 20720), (834, 20786), (837, 20798), (843, 20816), (853, 20876), (870, 20945), (881, 20981), (894, 21020), (910, 21116),

Gene: Dancer_29 Start: 20241, Stop: 25343, Start Num: 19

Candidate Starts for Dancer_29:

(Start: 19 @20241 has 170 MA's), (Start: 23 @20271 has 3 MA's), (44, 20409), (49, 20460), (51, 20469), (53, 20484), (56, 20505), (61, 20526), (68, 20556), (71, 20586), (72, 20607), (79, 20709), (84, 20769), (88, 20844), (89, 20856), (92, 20880), (96, 20910), (99, 20925), (105, 20958), (110, 21000), (115, 21051), (124, 21105), (125, 21108), (135, 21207), (138, 21231), (151, 21327), (160, 21411), (163, 21432), (164, 21435), (175, 21504), (177, 21510), (178, 21516), (Start: 213 @21693 has 1 MA's), (224, 21744), (233, 21795), (247, 21849), (248, 21852), (276, 21984), (283, 22023), (300, 22104), (301, 22107), (318, 22182), (332, 22239), (342, 22323), (344, 22332), (355, 22401), (357, 22407), (360, 22419), (362, 22434), (363, 22437), (368, 22458), (381, 22506), (386, 22533), (392, 22554), (395, 22563), (398, 22584), (399, 22596), (401, 22605), (402, 22614), (415, 22668), (416, 22671), (423, 22692), (430, 22734), (439, 22770), (441, 22785), (442, 22794), (444, 22809), (446, 22821), (448, 22830), (458, 22863), (461, 22872), (479, 22956), (480, 22965), (482, 22980), (487, 23001), (499, 23043), (505, 23064), (508, 23079), (510, 23085), (518, 23121), (520, 23136), (534, 23193), (537, 23205), (539, 23214), (545, 23226), (551, 23238), (552, 23244), (557, 23265), (561, 23277), (567, 23295), (568, 23304), (569, 23319), (570, 23325), (573, 23337), (583, 23379), (584, 23382), (587, 23391), (593, 23412), (595, 23424), (609, 23472), (612, 23481), (619, 23505), (621, 23511), (626, 23529), (627, 23538), (651, 23628), (656, 23646), (657, 23649), (662, 23667), (703, 23838), (717, 23889), (748, 24033), (759, 24102), (771, 24168), (779, 24219), (798, 24342), (805, 24405), (818, 24453), (819, 24459), (821, 24468), (831, 24516), (846, 24588), (858, 24648), (863, 24669), (864, 24672), (872, 24723), (875, 24732), (879, 24750), (887, 24771), (890, 24783), (907, 24876), (915, 24921), (923, 24996), (925, 25014), (927, 25035), (943, 25122), (960, 25233), (975, 25329),

Gene: Darby_26 Start: 19984, Stop: 24573, Start Num: 19

Candidate Starts for Darby_26:

(Start: 18 @19963 has 2 MA's), (Start: 19 @19984 has 170 MA's), (Start: 23 @20014 has 3 MA's), (30, 20068), (34, 20089), (40, 20125), (49, 20203), (60, 20263), (66, 20287), (68, 20299), (71, 20329), (74, 20380), (78, 20410), (79, 20452), (80, 20470), (84, 20512), (86, 20542), (88, 20587), (89, 20599), (96, 20653), (99, 20668), (101, 20680), (105, 20701), (119, 20794), (122, 20827), (126, 20842), (132, 20890), (146, 21040), (151, 21061), (153, 21082), (166, 21175), (167, 21178), (173, 21226), (194,

21340), (201, 21364), (207, 21391), (222, 21466), (239, 21559), (244, 21574), (246, 21580), (253, 21598), (265, 21670), (278, 21721), (283, 21736), (290, 21766), (306, 21838), (308, 21844), (312, 21862), (316, 21877), (317, 21880), (323, 21907), (344, 22021), (353, 22078), (355, 22090), (367, 22144), (370, 22153), (371, 22156), (377, 22177), (386, 22222), (392, 22243), (399, 22285), (402, 22303), (416, 22360), (423, 22381), (426, 22402), (442, 22483), (444, 22498), (445, 22501), (451, 22528), (452, 22531), (464, 22582), (480, 22660), (482, 22675), (483, 22678), (487, 22696), (489, 22702), (491, 22708), (494, 22717), (502, 22753), (505, 22762), (512, 22795), (523, 22849), (524, 22852), (528, 22870), (532, 22882), (539, 22912), (544, 22927), (550, 22936), (552, 22948), (557, 22969), (568, 23008), (579, 23065), (584, 23077), (587, 23086), (600, 23125), (603, 23137), (613, 23167), (615, 23176), (635, 23251), (640, 23272), (642, 23278), (658, 23338), (661, 23347), (673, 23401), (674, 23404), (705, 23530), (706, 23533), (712, 23554), (720, 23587), (721, 23590), (722, 23596), (725, 23605), (731, 23632), (740, 23677), (754, 23743), (760, 23794), (762, 23800), (772, 23860), (777, 23884), (784, 23944), (787, 23962), (789, 23974), (797, 24016), (820, 24133), (822, 24142), (830, 24190), (837, 24223), (840, 24235), (843, 24241), (846, 24262), (847, 24265), (848, 24271), (856, 24310), (862, 24337), (906, 24523), (910, 24550),

Gene: Demure_31 Start: 22605, Stop: 27719, Start Num: 19

Candidate Starts for Demure_31:

(Start: 19 @22605 has 170 MA's), (Start: 23 @22635 has 3 MA's), (28, 22680), (49, 22824), (56, 22869), (57, 22872), (60, 22884), (61, 22890), (71, 22950), (72, 22971), (79, 23073), (81, 23109), (87, 23199), (96, 23274), (101, 23301), (105, 23322), (108, 23346), (110, 23364), (122, 23484), (139, 23640), (145, 23685), (151, 23718), (163, 23823), (164, 23826), (174, 23892), (177, 23901), (204, 24036), (220, 24114), (236, 24204), (260, 24291), (267, 24339), (283, 24414), (300, 24495), (308, 24534), (313, 24561), (340, 24702), (344, 24723), (354, 24786), (355, 24792), (360, 24810), (361, 24816), (371, 24858), (375, 24870), (377, 24879), (386, 24924), (396, 24966), (398, 24975), (399, 24987), (401, 24996), (402, 25005), (415, 25059), (426, 25104), (430, 25125), (433, 25134), (438, 25158), (439, 25161), (440, 25167), (451, 25230), (452, 25233), (455, 25242), (458, 25254), (460, 25260), (461, 25263), (463, 25275), (467, 25296), (469, 25302), (470, 25305), (475, 25326), (480, 25356), (482, 25371), (485, 25386), (499, 25434), (502, 25446), (504, 25452), (505, 25455), (507, 25467), (508, 25470), (520, 25527), (533, 25581), (539, 25605), (545, 25617), (547, 25620), (560, 25665), (561, 25668), (566, 25683), (567, 25686), (568, 25695), (569, 25710), (570, 25716), (571, 25722), (576, 25743), (577, 25746), (581, 25758), (584, 25773), (587, 25782), (593, 25803), (595, 25815), (601, 25836), (609, 25863), (619, 25896), (621, 25902), (626, 25920), (633, 25950), (643, 25989), (662, 26058), (709, 26250), (729, 26325), (746, 26415), (771, 26559), (780, 26622), (790, 26688), (795, 26721), (798, 26733), (805, 26796), (813, 26817), (815, 26829), (819, 26850), (849, 26991), (865, 27078), (871, 27096), (879, 27126), (886, 27144), (887, 27147), (890, 27159), (898, 27186), (915, 27297), (923, 27372), (933, 27441), (938, 27474), (943, 27498), (961, 27615), (975, 27705),

Gene: DevitoJr_26 Start: 20152, Stop: 24744, Start Num: 19

Candidate Starts for DevitoJr_26:

(Start: 18 @20131 has 2 MA's), (Start: 19 @20152 has 170 MA's), (Start: 23 @20182 has 3 MA's), (30, 20236), (34, 20257), (40, 20293), (49, 20371), (60, 20431), (66, 20455), (68, 20467), (71, 20497), (74, 20548), (78, 20578), (79, 20620), (80, 20638), (84, 20680), (86, 20710), (88, 20755), (89, 20767), (96, 20821), (99, 20836), (101, 20848), (105, 20869), (119, 20962), (122, 20995), (126, 21010), (132, 21058), (151, 21229), (166, 21343), (167, 21346), (173, 21394), (194, 21508), (201, 21532), (204, 21547), (239, 21727), (244, 21742), (246, 21748), (253, 21766), (265, 21838), (283, 21904), (306, 22006), (308, 22012), (316, 22045), (317, 22048), (323, 22075), (344, 22192), (353, 22249), (355, 22261), (367, 22315), (370, 22324), (371, 22327), (377, 22348), (386, 22393), (392, 22414), (414, 22525), (416, 22531), (423, 22552), (425, 22570), (430, 22594), (442, 22654), (444, 22669), (445, 22672), (451, 22699), (452, 22702), (480, 22831), (482, 22846), (483, 22849), (487, 22867), (489, 22873), (490, 22876), (494, 22888), (502, 22924), (505, 22933), (512, 22966), (523, 23020), (524, 23023), (528, 23041), (532, 23053), (539, 23083), (544, 23098), (550, 23107), (552, 23119), (568,

23179), (579, 23236), (584, 23248), (587, 23257), (600, 23296), (603, 23308), (613, 23338), (615, 23347), (635, 23422), (636, 23425), (640, 23443), (658, 23509), (660, 23515), (661, 23518), (673, 23572), (674, 23575), (705, 23701), (706, 23704), (712, 23725), (720, 23758), (722, 23767), (740, 23848), (746, 23881), (754, 23914), (762, 23971), (772, 24031), (777, 24055), (787, 24133), (789, 24145), (812, 24271), (822, 24313), (830, 24361), (837, 24394), (840, 24406), (843, 24412), (846, 24433), (847, 24436), (848, 24442), (856, 24481), (862, 24508), (906, 24694), (910, 24721),

Gene: Dialga_33 Start: 23664, Stop: 28775, Start Num: 19

Candidate Starts for Dialga_33:

(Start: 19 @23664 has 170 MA's), (Start: 23 @23694 has 3 MA's), (28, 23739), (49, 23883), (60, 23943), (61, 23949), (71, 24009), (72, 24030), (79, 24132), (87, 24258), (90, 24294), (96, 24333), (101, 24360), (105, 24381), (110, 24423), (117, 24495), (122, 24543), (137, 24669), (145, 24744), (146, 24756), (151, 24777), (163, 24882), (164, 24885), (184, 24993), (233, 25245), (260, 25350), (272, 25419), (277, 25440), (291, 25521), (293, 25524), (300, 25551), (308, 25590), (313, 25617), (340, 25758), (344, 25779), (354, 25842), (355, 25848), (360, 25866), (361, 25872), (371, 25914), (375, 25926), (377, 25935), (386, 25980), (396, 26022), (398, 26031), (399, 26043), (401, 26052), (402, 26061), (426, 26160), (430, 26181), (433, 26190), (438, 26214), (439, 26217), (451, 26286), (452, 26289), (455, 26298), (460, 26316), (461, 26319), (463, 26331), (467, 26352), (469, 26358), (470, 26361), (475, 26382), (480, 26412), (482, 26427), (485, 26442), (499, 26490), (502, 26502), (504, 26508), (505, 26511), (507, 26523), (508, 26526), (520, 26583), (533, 26637), (539, 26661), (545, 26673), (547, 26676), (560, 26721), (561, 26724), (566, 26739), (567, 26742), (568, 26751), (569, 26766), (570, 26772), (571, 26778), (576, 26799), (577, 26802), (581, 26814), (584, 26829), (587, 26838), (593, 26859), (595, 26871), (601, 26892), (609, 26919), (619, 26952), (621, 26958), (626, 26976), (633, 27006), (643, 27045), (662, 27114), (688, 27225), (691, 27237), (709, 27306), (729, 27381), (746, 27471), (771, 27615), (780, 27678), (790, 27744), (795, 27777), (798, 27789), (805, 27852), (813, 27873), (815, 27885), (819, 27906), (849, 28047), (865, 28134), (871, 28152), (879, 28182), (886, 28200), (887, 28203), (890, 28215), (898, 28242), (915, 28353), (923, 28428), (933, 28497), (938, 28530), (943, 28554), (961, 28671), (975, 28761),

Gene: Dinallo_27 Start: 21223, Stop: 25812, Start Num: 19

Candidate Starts for Dinallo_27:

(Start: 18 @21202 has 2 MA's), (Start: 19 @21223 has 170 MA's), (Start: 23 @21253 has 3 MA's), (30, 21307), (34, 21328), (40, 21364), (60, 21502), (68, 21538), (71, 21568), (79, 21691), (80, 21709), (84, 21751), (91, 21859), (96, 21892), (99, 21907), (105, 21940), (117, 22018), (119, 22033), (121, 22054), (122, 22066), (127, 22090), (133, 22138), (141, 22234), (145, 22267), (151, 22300), (160, 22384), (164, 22408), (167, 22417), (200, 22600), (207, 22630), (222, 22705), (223, 22711), (239, 22798), (244, 22813), (246, 22819), (253, 22837), (254, 22846), (260, 22879), (261, 22888), (278, 22960), (290, 23005), (306, 23077), (308, 23083), (316, 23116), (317, 23119), (323, 23146), (344, 23260), (353, 23317), (355, 23329), (367, 23383), (370, 23392), (371, 23395), (377, 23416), (386, 23461), (392, 23482), (414, 23593), (416, 23599), (423, 23620), (425, 23638), (430, 23662), (442, 23722), (444, 23737), (445, 23740), (451, 23767), (452, 23770), (460, 23797), (477, 23881), (480, 23899), (482, 23914), (483, 23917), (487, 23935), (489, 23941), (490, 23944), (494, 23956), (495, 23962), (502, 23992), (505, 24001), (512, 24034), (523, 24088), (524, 24091), (528, 24109), (539, 24151), (544, 24166), (550, 24175), (552, 24187), (568, 24247), (579, 24304), (584, 24316), (587, 24325), (600, 24364), (603, 24376), (605, 24382), (609, 24394), (613, 24406), (615, 24415), (635, 24490), (636, 24493), (640, 24511), (658, 24577), (661, 24586), (673, 24640), (674, 24643), (705, 24769), (712, 24793), (720, 24826), (722, 24835), (727, 24850), (731, 24871), (740, 24916), (746, 24949), (754, 24982), (762, 25039), (772, 25099), (783, 25177), (787, 25201), (789, 25213), (812, 25339), (822, 25381), (830, 25429), (837, 25462), (840, 25474), (843, 25480), (846, 25501), (847, 25504), (848, 25510), (856, 25549), (862, 25576), (906, 25762), (910, 25789),

Gene: Ditters_19 Start: 13979, Stop: 19201, Start Num: 19

Candidate Starts for Ditters_19:

(Start: 18 @13958 has 2 MA's), (Start: 19 @13979 has 170 MA's), (Start: 23 @14009 has 3 MA's), (61, 14270), (66, 14288), (74, 14381), (79, 14453), (87, 14579), (90, 14615), (96, 14654), (108, 14726), (110, 14744), (136, 14981), (154, 15131), (159, 15170), (177, 15281), (182, 15305), (192, 15365), (206, 15422), (243, 15608), (258, 15656), (265, 15686), (270, 15704), (279, 15740), (281, 15749), (305, 15851), (317, 15896), (335, 15932), (341, 15974), (344, 15986), (355, 16055), (370, 16118), (375, 16133), (377, 16142), (378, 16145), (383, 16169), (390, 16199), (407, 16295), (423, 16346), (440, 16427), (447, 16475), (456, 16505), (459, 16517), (469, 16568), (479, 16613), (480, 16622), (485, 16652), (498, 16697), (504, 16718), (507, 16733), (514, 16760), (515, 16763), (519, 16784), (520, 16793), (528, 16829), (537, 16862), (571, 16991), (573, 16997), (584, 17033), (587, 17042), (597, 17072), (603, 17093), (605, 17099), (609, 17111), (611, 17117), (615, 17132), (625, 17165), (630, 17186), (632, 17195), (634, 17204), (641, 17231), (649, 17261), (652, 17273), (653, 17276), (658, 17294), (660, 17300), (669, 17339), (677, 17369), (680, 17381), (682, 17396), (684, 17402), (687, 17417), (718, 17534), (722, 17552), (725, 17561), (726, 17564), (729, 17576), (733, 17597), (734, 17600), (755, 17708), (765, 17774), (787, 17852), (790, 17867), (827, 18065), (833, 18095), (851, 18182), (878, 18299), (899, 18374), (906, 18425), (921, 18551), (937, 18656), (940, 18677), (941, 18680), (949, 18731), (952, 18749), (961, 18815), (963, 18830), (970, 18890), (973, 18911), (978, 18950), (981, 18983), (993, 19163),

Gene: DizzyRudy_24 Start: 16857, Stop: 21065, Start Num: 19

Candidate Starts for DizzyRudy_24:

(Start: 18 @16836 has 2 MA's), (Start: 19 @16857 has 170 MA's), (Start: 23 @16890 has 3 MA's), (46, 17049), (71, 17205), (79, 17328), (84, 17388), (92, 17499), (95, 17523), (96, 17529), (99, 17544), (105, 17577), (118, 17667), (119, 17670), (121, 17691), (122, 17703), (137, 17829), (152, 17949), (160, 18021), (164, 18045), (185, 18156), (198, 18231), (214, 18309), (221, 18336), (232, 18402), (281, 18516), (298, 18582), (302, 18603), (328, 18696), (342, 18765), (344, 18774), (355, 18843), (367, 18897), (370, 18906), (375, 18921), (377, 18930), (380, 18939), (385, 18969), (386, 18975), (392, 18996), (396, 19017), (399, 19038), (401, 19047), (402, 19056), (407, 19083), (409, 19092), (416, 19113), (417, 19116), (421, 19128), (442, 19236), (446, 19263), (452, 19284), (465, 19329), (467, 19344), (472, 19365), (477, 19386), (480, 19404), (515, 19461), (517, 19473), (518, 19476), (519, 19482), (552, 19512), (568, 19572), (572, 19602), (584, 19641), (587, 19650), (594, 19680), (603, 19707), (604, 19710), (605, 19713), (615, 19746), (625, 19779), (634, 19818), (636, 19824), (646, 19866), (654, 19893), (658, 19908), (659, 19911), (660, 19914), (675, 19977), (678, 19986), (684, 20016), (693, 20052), (694, 20055), (702, 20091), (736, 20232), (764, 20379), (781, 20421), (787, 20466), (797, 20520), (812, 20604), (822, 20646), (823, 20649), (834, 20715), (837, 20727), (843, 20745), (853, 20805), (870, 20874), (881, 20910), (894, 20949), (910, 21045),

Gene: Djungelskog_23 Start: 17240, Stop: 21790, Start Num: 19

Candidate Starts for Djungelskog_23:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 170 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (344, 19262), (355, 19331), (356, 19334), (365, 19376), (367, 19385), (370, 19394), (379, 19424), (386, 19463), (388, 19469), (392, 19484), (399, 19526), (423, 19622), (426, 19643), (427, 19646), (431, 19667), (442, 19724), (444, 19739), (451, 19769), (455, 19781), (462, 19808), (464, 19823), (475, 19871), (480, 19901), (482, 19916), (491, 19949), (493, 19955), (502, 19994), (505, 20003), (507, 20015), (512, 20036), (525, 20102), (528, 20111), (537, 20144), (538, 20150), (539, 20153), (544, 20165), (545, 20168), (553, 20189), (558, 20210), (568, 20246), (576, 20294), (587, 20324), (615, 20414), (631, 20471), (642, 20516), (646, 20534), (654, 20561), (656, 20570), (658, 20576), (672, 20636), (676, 20648), (679, 20660), (691, 20714), (701, 20756), (703, 20762), (705, 20768), (714, 20801), (715, 20804), (721, 20828), (722, 20834), (724, 20840), (725, 20843),

(735, 20894), (738, 20906), (745, 20945), (768, 21077), (776, 21113), (781, 21155), (787, 21200), (803, 21290), (822, 21380), (826, 21404), (830, 21428), (832, 21440), (834, 21449), (837, 21461), (840, 21473), (850, 21518), (856, 21548), (859, 21566), (869, 21605),

Gene: DoctorPepper_23 Start: 17240, Stop: 21790, Start Num: 19

Candidate Starts for DoctorPepper_23:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 170 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (344, 19262), (355, 19331), (356, 19334), (365, 19376), (367, 19385), (370, 19394), (379, 19424), (386, 19463), (388, 19469), (392, 19484), (399, 19526), (423, 19622), (426, 19643), (427, 19646), (431, 19667), (442, 19724), (444, 19739), (451, 19769), (455, 19781), (462, 19808), (464, 19823), (475, 19871), (480, 19901), (482, 19916), (491, 19949), (493, 19955), (502, 19994), (505, 20003), (507, 20015), (512, 20036), (525, 20102), (528, 20111), (537, 20144), (538, 20150), (539, 20153), (544, 20165), (545, 20168), (553, 20189), (558, 20210), (568, 20246), (576, 20294), (587, 20324), (615, 20414), (621, 20432), (631, 20471), (642, 20516), (646, 20534), (654, 20561), (656, 20570), (658, 20576), (672, 20636), (676, 20648), (679, 20660), (691, 20714), (699, 20750), (701, 20756), (703, 20762), (705, 20768), (715, 20804), (721, 20828), (722, 20834), (724, 20840), (725, 20843), (735, 20894), (738, 20906), (745, 20945), (768, 21077), (776, 21113), (781, 21155), (787, 21200), (803, 21290), (822, 21380), (826, 21404), (830, 21428), (832, 21440), (834, 21449), (837, 21461), (840, 21473), (850, 21518), (856, 21548), (859, 21566), (869, 21605), (895, 21683),

Gene: Doxi13_19 Start: 13488, Stop: 18716, Start Num: 19

Candidate Starts for Doxi13_19:

(Start: 18 @13467 has 2 MA's), (Start: 19 @13488 has 170 MA's), (Start: 23 @13518 has 3 MA's), (42, 13620), (45, 13671), (61, 13779), (79, 13962), (87, 14088), (90, 14124), (96, 14163), (110, 14253), (154, 14640), (177, 14790), (182, 14814), (194, 14886), (243, 15117), (265, 15195), (270, 15213), (273, 15216), (279, 15249), (305, 15357), (321, 15417), (344, 15498), (355, 15567), (367, 15621), (389, 15708), (390, 15711), (411, 15822), (423, 15858), (426, 15876), (437, 15927), (459, 16029), (462, 16041), (464, 16056), (479, 16125), (480, 16134), (485, 16164), (498, 16209), (504, 16230), (511, 16260), (514, 16272), (515, 16275), (519, 16296), (520, 16305), (528, 16341), (537, 16374), (563, 16455), (564, 16458), (571, 16503), (572, 16506), (573, 16509), (587, 16554), (597, 16584), (611, 16629), (615, 16644), (625, 16677), (630, 16698), (632, 16707), (634, 16716), (640, 16740), (641, 16743), (669, 16851), (680, 16893), (682, 16908), (684, 16914), (704, 16995), (718, 17046), (720, 17055), (722, 17064), (725, 17073), (726, 17076), (729, 17088), (730, 17091), (731, 17100), (733, 17109), (737, 17133), (752, 17202), (759, 17256), (787, 17364), (790, 17379), (797, 17418), (827, 17577), (878, 17811), (899, 17886), (905, 17919), (930, 18123), (936, 18165), (937, 18168), (940, 18189), (947, 18237), (949, 18243), (964, 18351), (973, 18423), (983, 18525), (993, 18678),

Gene: DrGrey_23 Start: 16676, Stop: 22156, Start Num: 2

Candidate Starts for DrGrey_23:

(1, 16655), (Start: 2 @16676 has 33 MA's), (3, 16706), (14, 16850), (17, 16901), (25, 16985), (42, 17060), (53, 17177), (54, 17180), (60, 17213), (68, 17249), (71, 17279), (79, 17402), (87, 17528), (90, 17564), (96, 17603), (98, 17615), (105, 17651), (110, 17693), (133, 17885), (138, 17951), (146, 18026), (151, 18047), (154, 18080), (162, 18143), (163, 18152), (177, 18230), (207, 18377), (231, 18509), (246, 18566), (267, 18644), (270, 18653), (274, 18662), (279, 18689), (298, 18764), (300, 18773), (315, 18839), (316, 18842), (336, 18881), (344, 18935), (355, 19004), (367, 19058), (377, 19091), (386, 19136), (389, 19145), (392, 19157), (405, 19232), (407, 19244), (419, 19283), (423, 19295), (430, 19334), (437, 19364), (440, 19376), (447, 19424), (459, 19466), (468, 19514), (480, 19571), (510, 19691), (519, 19733), (520, 19742), (528, 19778), (533, 19796), (534, 19799), (537,

19811), (552, 19853), (553, 19856), (567, 19904), (571, 19940), (573, 19946), (578, 19967), (587, 19991), (615, 20081), (625, 20114), (629, 20132), (632, 20144), (634, 20153), (649, 20210), (652, 20222), (653, 20225), (658, 20243), (672, 20303), (677, 20318), (684, 20351), (687, 20366), (706, 20438), (718, 20483), (722, 20501), (725, 20510), (733, 20546), (736, 20567), (737, 20570), (781, 20756), (783, 20777), (784, 20783), (787, 20801), (788, 20804), (790, 20816), (796, 20849), (797, 20855), (826, 21005), (827, 21014), (890, 21287), (909, 21389), (937, 21605), (940, 21626), (947, 21674), (949, 21680), (950, 21686), (957, 21731), (973, 21860), (979, 21908), (992, 22100), (993, 22109),

Gene: Duffington_32 Start: 23487, Stop: 28601, Start Num: 19

Candidate Starts for Duffington_32:

(Start: 19 @23487 has 170 MA's), (Start: 23 @23517 has 3 MA's), (28, 23562), (49, 23706), (61, 23772), (71, 23832), (72, 23853), (79, 23955), (87, 24081), (90, 24117), (96, 24156), (105, 24204), (110, 24246), (117, 24318), (122, 24366), (137, 24492), (145, 24567), (146, 24579), (151, 24600), (163, 24705), (164, 24708), (207, 24930), (220, 24996), (236, 25086), (247, 25122), (260, 25173), (267, 25221), (271, 25233), (300, 25377), (308, 25416), (313, 25443), (344, 25605), (351, 25653), (354, 25668), (355, 25674), (360, 25692), (371, 25740), (386, 25806), (398, 25857), (399, 25869), (402, 25887), (415, 25941), (426, 25986), (430, 26007), (433, 26016), (437, 26037), (441, 26058), (451, 26112), (452, 26115), (455, 26124), (461, 26145), (463, 26157), (467, 26178), (469, 26184), (473, 26202), (480, 26238), (485, 26268), (499, 26316), (502, 26328), (504, 26334), (505, 26337), (507, 26349), (508, 26352), (513, 26373), (520, 26409), (533, 26463), (534, 26466), (539, 26487), (545, 26499), (547, 26502), (561, 26550), (566, 26565), (567, 26568), (568, 26577), (570, 26598), (576, 26625), (577, 26628), (583, 26652), (587, 26664), (593, 26685), (595, 26697), (597, 26706), (601, 26718), (609, 26745), (619, 26778), (621, 26784), (626, 26802), (643, 26871), (662, 26940), (688, 27051), (717, 27162), (729, 27207), (746, 27297), (771, 27441), (780, 27504), (783, 27531), (795, 27603), (798, 27615), (799, 27624), (805, 27678), (813, 27699), (815, 27711), (849, 27873), (865, 27960), (871, 27978), (879, 28008), (886, 28026), (887, 28029), (890, 28041), (898, 28068), (915, 28179), (923, 28254), (929, 28302), (938, 28356), (944, 28383), (961, 28497), (975, 28587),

Gene: Dynamite_21 Start: 17193, Stop: 21671, Start Num: 19

Candidate Starts for Dynamite_21:

(Start: 18 @17172 has 2 MA's), (Start: 19 @17193 has 170 MA's), (Start: 23 @17223 has 3 MA's), (26, 17256), (30, 17277), (68, 17508), (71, 17538), (72, 17559), (78, 17619), (79, 17661), (80, 17679), (84, 17721), (89, 17808), (96, 17862), (99, 17877), (105, 17910), (119, 18003), (126, 18051), (128, 18066), (133, 18108), (137, 18162), (145, 18237), (151, 18270), (164, 18378), (174, 18444), (182, 18477), (184, 18486), (185, 18489), (187, 18507), (246, 18789), (255, 18813), (260, 18843), (302, 19002), (317, 19062), (344, 19191), (358, 19269), (364, 19299), (367, 19314), (370, 19323), (377, 19347), (383, 19374), (386, 19392), (392, 19413), (405, 19488), (409, 19509), (413, 19521), (423, 19551), (430, 19593), (442, 19653), (443, 19659), (451, 19698), (470, 19779), (475, 19800), (480, 19830), (485, 19860), (491, 19878), (502, 19926), (508, 19950), (512, 19968), (515, 19977), (516, 19986), (518, 19992), (521, 20013), (528, 20043), (537, 20076), (538, 20082), (539, 20085), (544, 20097), (552, 20118), (567, 20169), (568, 20178), (572, 20208), (574, 20214), (584, 20247), (587, 20256), (597, 20286), (600, 20295), (603, 20307), (610, 20328), (615, 20346), (623, 20373), (625, 20379), (626, 20382), (629, 20397), (636, 20424), (640, 20442), (644, 20454), (653, 20490), (679, 20592), (694, 20655), (702, 20691), (703, 20694), (705, 20700), (709, 20715), (714, 20733), (724, 20772), (725, 20775), (730, 20793), (735, 20826), (740, 20847), (752, 20904), (759, 20958), (761, 20967), (781, 21021), (784, 21048), (787, 21066), (796, 21114), (797, 21120), (807, 21192), (826, 21270), (828, 21285), (836, 21324), (843, 21348), (855, 21417), (859, 21438), (885, 21531), (911, 21660),

Gene: Eddiemania_33 Start: 24148, Stop: 29262, Start Num: 19

Candidate Starts for Eddiemania_33:

(Start: 19 @24148 has 170 MA's), (Start: 23 @24178 has 3 MA's), (28, 24223), (49, 24367), (61, 24433), (71, 24493), (72, 24514), (79, 24616), (87, 24742), (90, 24778), (96, 24817), (101, 24844),

(105, 24865), (110, 24907), (122, 25027), (145, 25228), (146, 25240), (151, 25261), (160, 25345), (163, 25366), (164, 25369), (184, 25477), (204, 25579), (236, 25747), (247, 25783), (260, 25834), (267, 25882), (300, 26038), (308, 26077), (312, 26095), (313, 26104), (344, 26266), (354, 26329), (355, 26335), (360, 26353), (361, 26359), (371, 26401), (386, 26467), (398, 26518), (399, 26530), (402, 26548), (415, 26602), (426, 26647), (430, 26668), (433, 26677), (437, 26698), (440, 26710), (441, 26719), (444, 26743), (451, 26773), (452, 26776), (455, 26785), (460, 26803), (461, 26806), (463, 26818), (467, 26839), (469, 26845), (470, 26848), (473, 26863), (475, 26869), (480, 26899), (482, 26914), (485, 26929), (498, 26974), (499, 26977), (502, 26989), (504, 26995), (505, 26998), (507, 27010), (508, 27013), (512, 27031), (520, 27070), (533, 27124), (539, 27148), (545, 27160), (547, 27163), (561, 27211), (566, 27226), (567, 27229), (568, 27238), (569, 27253), (570, 27259), (576, 27286), (577, 27289), (581, 27301), (584, 27316), (587, 27325), (593, 27346), (595, 27358), (601, 27379), (609, 27406), (619, 27439), (621, 27445), (626, 27463), (633, 27493), (643, 27532), (691, 27724), (709, 27793), (746, 27958), (771, 28102), (780, 28165), (790, 28231), (795, 28264), (798, 28276), (805, 28339), (813, 28360), (815, 28372), (818, 28387), (831, 28450), (849, 28534), (865, 28621), (871, 28639), (879, 28669), (886, 28687), (889, 28696), (890, 28702), (898, 28729), (915, 28840), (923, 28915), (933, 28984), (938, 29017), (943, 29041), (961, 29158), (975, 29248),

Gene: Eevee_26 Start: 20575, Stop: 25152, Start Num: 19

Candidate Starts for Eevee_26:

(Start: 19 @20575 has 170 MA's), (Start: 23 @20608 has 3 MA's), (45, 20755), (57, 20845), (58, 20848), (79, 21043), (87, 21169), (96, 21244), (105, 21292), (110, 21334), (122, 21454), (136, 21571), (146, 21667), (177, 21871), (180, 21883), (193, 21964), (221, 22099), (238, 22192), (254, 22255), (264, 22294), (280, 22357), (286, 22372), (333, 22576), (344, 22627), (360, 22714), (366, 22744), (369, 22756), (370, 22759), (374, 22771), (377, 22783), (383, 22810), (393, 22852), (400, 22897), (420, 22978), (422, 22984), (426, 23008), (428, 23014), (441, 23080), (446, 23116), (453, 23140), (462, 23173), (466, 23200), (468, 23209), (472, 23227), (477, 23248), (482, 23281), (489, 23308), (490, 23311), (502, 23362), (510, 23392), (512, 23404), (528, 23479), (534, 23500), (536, 23506), (540, 23521), (567, 23605), (568, 23614), (571, 23641), (587, 23692), (599, 23728), (615, 23782), (636, 23860), (660, 23950), (668, 23980), (676, 24016), (684, 24052), (694, 24091), (708, 24148), (714, 24169), (720, 24193), (721, 24196), (724, 24208), (726, 24214), (744, 24304), (750, 24334), (751, 24337), (752, 24340), (760, 24400), (764, 24415), (773, 24469), (787, 24568), (806, 24688), (807, 24694), (830, 24796), (832, 24808), (834, 24817), (856, 24913), (857, 24916), (911, 25141),

Gene: Egad_23 Start: 17271, Stop: 21791, Start Num: 23

Candidate Starts for Egad_23:

(Start: 18 @17220 has 2 MA's), (Start: 19 @17241 has 170 MA's), (Start: 23 @17271 has 3 MA's), (26, 17304), (49, 17460), (66, 17544), (68, 17556), (71, 17586), (78, 17667), (79, 17709), (80, 17727), (84, 17769), (86, 17799), (88, 17844), (89, 17856), (96, 17910), (99, 17925), (105, 17958), (112, 18021), (119, 18051), (122, 18084), (126, 18099), (132, 18147), (146, 18297), (151, 18318), (164, 18426), (167, 18435), (173, 18483), (210, 18660), (230, 18774), (242, 18825), (246, 18837), (262, 18918), (283, 19002), (288, 19020), (298, 19065), (308, 19110), (310, 19113), (311, 19119), (322, 19152), (344, 19263), (355, 19332), (356, 19335), (365, 19377), (367, 19386), (370, 19395), (379, 19425), (386, 19464), (388, 19470), (392, 19485), (399, 19527), (423, 19623), (426, 19644), (427, 19647), (431, 19668), (442, 19725), (444, 19740), (451, 19770), (455, 19782), (462, 19809), (464, 19824), (475, 19872), (480, 19902), (482, 19917), (491, 19950), (493, 19956), (502, 19995), (505, 20004), (507, 20016), (512, 20037), (525, 20103), (528, 20112), (537, 20145), (538, 20151), (539, 20154), (544, 20166), (545, 20169), (553, 20190), (558, 20211), (568, 20247), (576, 20295), (587, 20325), (615, 20415), (631, 20472), (642, 20517), (646, 20535), (654, 20562), (656, 20571), (658, 20577), (672, 20637), (676, 20649), (679, 20661), (691, 20715), (699, 20751), (701, 20757), (703, 20763), (705, 20769), (715, 20805), (721, 20829), (722, 20835), (724, 20841), (725, 20844), (735, 20895), (738, 20907), (745, 20946), (768, 21078), (776, 21114), (781, 21156), (787, 21201), (803, 21291), (822, 21381), (826, 21405), (830, 21429), (832, 21441), (834, 21450), (837, 21462), (840, 21474), (850, 21519), (856, 21549), (859, 21567), (869, 21606),

Gene: ElephantMan_26 Start: 20686, Stop: 25275, Start Num: 19

Candidate Starts for ElephantMan_26:

(Start: 18 @20665 has 2 MA's), (Start: 19 @20686 has 170 MA's), (Start: 23 @20716 has 3 MA's), (30, 20770), (34, 20791), (40, 20827), (49, 20905), (60, 20965), (66, 20989), (68, 21001), (71, 21031), (78, 21112), (79, 21154), (80, 21172), (84, 21214), (86, 21244), (88, 21289), (89, 21301), (96, 21355), (99, 21370), (101, 21382), (105, 21403), (119, 21496), (122, 21529), (126, 21544), (132, 21592), (146, 21742), (151, 21763), (164, 21871), (166, 21877), (167, 21880), (173, 21928), (194, 22042), (201, 22066), (204, 22081), (207, 22093), (222, 22168), (228, 22213), (239, 22261), (244, 22276), (246, 22282), (253, 22300), (265, 22372), (277, 22414), (278, 22423), (290, 22468), (306, 22540), (308, 22546), (316, 22579), (317, 22582), (323, 22609), (344, 22723), (351, 22771), (353, 22780), (355, 22792), (367, 22846), (370, 22855), (371, 22858), (377, 22879), (386, 22924), (392, 22945), (414, 23056), (416, 23062), (423, 23083), (425, 23101), (426, 23104), (430, 23125), (442, 23185), (444, 23200), (445, 23203), (451, 23230), (452, 23233), (480, 23362), (482, 23377), (483, 23380), (487, 23398), (489, 23404), (494, 23419), (502, 23455), (505, 23464), (512, 23497), (523, 23551), (524, 23554), (528, 23572), (532, 23584), (539, 23614), (544, 23629), (550, 23638), (552, 23650), (568, 23710), (577, 23761), (579, 23767), (584, 23779), (587, 23788), (600, 23827), (603, 23839), (607, 23851), (613, 23869), (615, 23878), (635, 23953), (636, 23956), (640, 23974), (658, 24040), (660, 24046), (661, 24049), (673, 24103), (674, 24106), (705, 24232), (706, 24235), (712, 24256), (720, 24289), (722, 24298), (740, 24379), (746, 24412), (754, 24445), (762, 24502), (772, 24562), (777, 24586), (787, 24664), (789, 24676), (812, 24802), (822, 24844), (830, 24892), (837, 24925), (840, 24937), (843, 24943), (846, 24964), (847, 24967), (856, 25012), (862, 25039), (867, 25066), (869, 25069), (906, 25225), (910, 25252),

Gene: Elsa_22 Start: 17670, Stop: 22148, Start Num: 19

Candidate Starts for Elsa_22:

(Start: 18 @17649 has 2 MA's), (Start: 19 @17670 has 170 MA's), (Start: 23 @17700 has 3 MA's), (26, 17733), (30, 17754), (68, 17985), (71, 18015), (78, 18096), (79, 18138), (80, 18156), (84, 18198), (89, 18285), (96, 18339), (99, 18354), (105, 18387), (119, 18480), (126, 18528), (128, 18543), (133, 18585), (137, 18639), (145, 18714), (151, 18747), (164, 18855), (174, 18921), (182, 18954), (184, 18963), (185, 18966), (187, 18984), (246, 19266), (255, 19290), (260, 19320), (302, 19479), (317, 19539), (344, 19668), (351, 19716), (362, 19770), (365, 19782), (367, 19791), (370, 19800), (377, 19824), (386, 19869), (392, 19890), (405, 19965), (413, 19998), (423, 20028), (426, 20049), (430, 20070), (442, 20130), (443, 20136), (451, 20175), (452, 20178), (457, 20193), (470, 20256), (475, 20277), (480, 20307), (485, 20337), (491, 20355), (502, 20403), (508, 20427), (512, 20445), (515, 20454), (516, 20463), (518, 20469), (521, 20490), (528, 20520), (537, 20553), (538, 20559), (539, 20562), (544, 20574), (552, 20595), (567, 20646), (568, 20655), (572, 20685), (574, 20691), (584, 20724), (587, 20733), (597, 20763), (600, 20772), (603, 20784), (615, 20823), (623, 20850), (625, 20856), (626, 20859), (629, 20874), (636, 20901), (640, 20919), (644, 20931), (653, 20967), (679, 21069), (694, 21132), (702, 21168), (703, 21171), (705, 21177), (709, 21192), (714, 21210), (720, 21234), (724, 21249), (725, 21252), (730, 21270), (735, 21303), (740, 21324), (752, 21381), (759, 21435), (761, 21444), (781, 21498), (784, 21525), (787, 21543), (796, 21591), (797, 21597), (807, 21669), (826, 21747), (828, 21762), (836, 21801), (843, 21825), (855, 21894), (859, 21915), (885, 22008), (911, 22137),

Gene: Elver_40 Start: 29219, Stop: 33769, Start Num: 19

Candidate Starts for Elver_40:

(Start: 19 @29219 has 170 MA's), (Start: 23 @29249 has 3 MA's), (34, 29324), (40, 29360), (49, 29438), (79, 29687), (87, 29813), (92, 29858), (93, 29873), (96, 29888), (101, 29915), (105, 29936), (108, 29960), (110, 29978), (122, 30095), (129, 30140), (132, 30158), (144, 30281), (146, 30308), (149, 30320), (152, 30341), (182, 30536), (198, 30623), (200, 30629), (210, 30671), (219, 30722), (230, 30785), (250, 30860), (252, 30869), (282, 30989), (304, 31067), (305, 31076), (344, 31244), (358, 31322), (367, 31367), (370, 31376), (377, 31400), (386, 31445), (392, 31466), (409, 31562),

(420, 31595), (426, 31625), (442, 31706), (444, 31721), (445, 31724), (464, 31805), (470, 31832), (480, 31883), (484, 31910), (491, 31931), (492, 31934), (502, 31976), (523, 32072), (528, 32093), (532, 32105), (537, 32126), (539, 32135), (544, 32147), (557, 32189), (567, 32219), (568, 32228), (576, 32276), (577, 32279), (584, 32297), (587, 32306), (603, 32357), (606, 32366), (615, 32396), (626, 32432), (632, 32459), (653, 32540), (654, 32543), (674, 32624), (678, 32636), (684, 32666), (687, 32681), (690, 32690), (694, 32705), (703, 32744), (714, 32783), (718, 32798), (720, 32807), (723, 32819), (726, 32828), (727, 32831), (735, 32876), (736, 32882), (748, 32939), (752, 32954), (756, 32984), (772, 33080), (781, 33137), (787, 33182), (801, 33251), (814, 33332), (820, 33353), (826, 33386), (834, 33431), (836, 33440), (840, 33455), (843, 33461), (855, 33530), (859, 33548), (873, 33599),

Gene: EndAve_32 Start: 23502, Stop: 28613, Start Num: 19

Candidate Starts for EndAve_32:

(Start: 19 @23502 has 170 MA's), (Start: 23 @23532 has 3 MA's), (28, 23577), (49, 23721), (61, 23787), (71, 23847), (72, 23868), (79, 23970), (86, 24060), (87, 24096), (90, 24132), (96, 24171), (105, 24219), (110, 24261), (117, 24333), (122, 24381), (137, 24507), (145, 24582), (146, 24594), (151, 24615), (163, 24720), (164, 24723), (207, 24945), (220, 25011), (221, 25014), (233, 25083), (236, 25101), (260, 25188), (272, 25257), (291, 25359), (293, 25362), (300, 25389), (308, 25428), (313, 25455), (344, 25617), (351, 25665), (355, 25686), (360, 25704), (362, 25719), (371, 25752), (386, 25818), (397, 25866), (398, 25869), (401, 25890), (402, 25899), (415, 25953), (426, 25998), (430, 26019), (433, 26028), (440, 26061), (441, 26070), (444, 26094), (451, 26124), (452, 26127), (455, 26136), (458, 26148), (461, 26157), (463, 26169), (467, 26190), (469, 26196), (480, 26250), (485, 26280), (499, 26328), (502, 26340), (504, 26346), (505, 26349), (508, 26364), (513, 26385), (520, 26421), (533, 26475), (534, 26478), (537, 26490), (539, 26499), (545, 26511), (547, 26514), (552, 26529), (559, 26556), (561, 26562), (566, 26577), (567, 26580), (568, 26589), (569, 26604), (570, 26610), (574, 26625), (576, 26637), (577, 26640), (587, 26676), (593, 26697), (595, 26709), (597, 26718), (601, 26730), (609, 26757), (616, 26781), (619, 26790), (621, 26796), (626, 26814), (643, 26883), (662, 26952), (698, 27108), (746, 27309), (771, 27453), (780, 27516), (783, 27543), (795, 27615), (798, 27627), (799, 27636), (805, 27690), (813, 27711), (815, 27723), (849, 27885), (865, 27972), (871, 27990), (879, 28020), (886, 28038), (887, 28041), (890, 28053), (898, 28080), (915, 28191), (923, 28266), (929, 28314), (938, 28368), (944, 28395), (961, 28509), (975, 28599),

Gene: Esketit_23 Start: 16160, Stop: 21646, Start Num: 2

Candidate Starts for Esketit_23:

(1, 16139), (Start: 2 @16160 has 33 MA's), (3, 16190), (14, 16334), (42, 16544), (54, 16664), (61, 16703), (68, 16733), (70, 16757), (71, 16763), (72, 16784), (73, 16799), (79, 16886), (86, 16976), (87, 17012), (88, 17021), (90, 17048), (96, 17087), (97, 17096), (101, 17114), (105, 17135), (110, 17177), (111, 17186), (122, 17294), (134, 17399), (145, 17495), (154, 17561), (177, 17711), (192, 17795), (196, 17816), (207, 17858), (232, 17993), (246, 18047), (270, 18134), (279, 18170), (281, 18179), (292, 18221), (300, 18254), (306, 18284), (340, 18407), (344, 18428), (354, 18491), (355, 18497), (357, 18503), (362, 18530), (367, 18551), (369, 18557), (370, 18560), (377, 18584), (386, 18629), (389, 18638), (390, 18641), (392, 18650), (405, 18725), (411, 18752), (417, 18770), (423, 18788), (426, 18806), (430, 18827), (441, 18878), (455, 18944), (459, 18959), (477, 19046), (480, 19064), (484, 19091), (510, 19184), (519, 19226), (520, 19235), (528, 19271), (529, 19274), (533, 19289), (534, 19292), (537, 19304), (552, 19346), (553, 19349), (567, 19397), (571, 19433), (573, 19439), (578, 19460), (587, 19484), (597, 19514), (615, 19574), (625, 19607), (626, 19610), (629, 19625), (632, 19637), (638, 19661), (649, 19703), (652, 19715), (653, 19718), (667, 19766), (672, 19796), (677, 19811), (684, 19844), (687, 19859), (703, 19922), (722, 19994), (724, 20000), (725, 20003), (733, 20039), (745, 20105), (760, 20192), (761, 20195), (787, 20294), (796, 20342), (797, 20348), (827, 20507), (890, 20780), (899, 20816), (909, 20882), (924, 21005), (937, 21098), (940, 21119), (947, 21167), (949, 21173), (950, 21179), (957, 21224), (970, 21332), (973, 21353), (979, 21401), (986, 21488), (992, 21590), (993, 21599),

Gene: Espio_23 Start: 16677, Stop: 22157, Start Num: 2

Candidate Starts for Espio_23:

(1, 16656), (Start: 2 @16677 has 33 MA's), (3, 16707), (14, 16851), (17, 16902), (25, 16986), (42, 17061), (53, 17178), (54, 17181), (60, 17214), (68, 17250), (71, 17280), (79, 17403), (87, 17529), (90, 17565), (96, 17604), (98, 17616), (105, 17652), (110, 17694), (133, 17886), (138, 17952), (146, 18027), (151, 18048), (154, 18081), (162, 18144), (163, 18153), (177, 18231), (207, 18378), (231, 18510), (246, 18567), (267, 18645), (270, 18654), (274, 18663), (279, 18690), (298, 18765), (300, 18774), (315, 18840), (316, 18843), (336, 18882), (344, 18936), (355, 19005), (367, 19059), (377, 19092), (386, 19137), (389, 19146), (392, 19158), (405, 19233), (419, 19284), (423, 19296), (430, 19335), (437, 19365), (440, 19377), (447, 19425), (459, 19467), (468, 19515), (480, 19572), (510, 19692), (519, 19734), (520, 19743), (528, 19779), (533, 19797), (534, 19800), (537, 19812), (552, 19854), (553, 19857), (567, 19905), (571, 19941), (573, 19947), (578, 19968), (587, 19992), (615, 20082), (625, 20115), (629, 20133), (632, 20145), (634, 20154), (649, 20211), (652, 20223), (653, 20226), (658, 20244), (672, 20304), (677, 20319), (684, 20352), (687, 20367), (706, 20439), (718, 20484), (722, 20502), (725, 20511), (733, 20547), (736, 20568), (737, 20571), (781, 20757), (783, 20778), (784, 20784), (787, 20802), (788, 20805), (790, 20817), (796, 20850), (797, 20856), (826, 21006), (827, 21015), (890, 21288), (909, 21390), (937, 21606), (940, 21627), (947, 21675), (949, 21681), (950, 21687), (957, 21732), (973, 21861), (979, 21909), (992, 22101), (993, 22110),

Gene: Fazel_30 Start: 22536, Stop: 27638, Start Num: 19

Candidate Starts for Fazel_30:

(Start: 19 @22536 has 170 MA's), (Start: 23 @22566 has 3 MA's), (28, 22611), (48, 22749), (49, 22755), (61, 22821), (68, 22851), (79, 23016), (84, 23076), (89, 23163), (92, 23187), (96, 23217), (99, 23232), (105, 23265), (115, 23358), (137, 23526), (151, 23634), (152, 23646), (158, 23703), (163, 23739), (164, 23742), (175, 23811), (177, 23817), (Start: 213 @24000 has 1 MA's), (214, 24006), (233, 24102), (236, 24120), (272, 24276), (298, 24402), (300, 24411), (344, 24642), (345, 24648), (355, 24711), (360, 24729), (365, 24756), (370, 24774), (386, 24843), (393, 24867), (395, 24873), (398, 24894), (400, 24912), (401, 24915), (415, 24978), (426, 25023), (430, 25044), (436, 25071), (442, 25104), (446, 25131), (451, 25149), (452, 25152), (455, 25161), (458, 25173), (460, 25179), (461, 25182), (463, 25194), (473, 25239), (482, 25290), (491, 25323), (496, 25344), (499, 25353), (502, 25365), (505, 25374), (508, 25389), (510, 25395), (511, 25401), (513, 25410), (516, 25425), (517, 25428), (519, 25437), (520, 25446), (528, 25482), (534, 25503), (539, 25524), (552, 25554), (556, 25569), (557, 25575), (565, 25599), (567, 25605), (568, 25614), (569, 25629), (570, 25635), (579, 25671), (583, 25689), (587, 25701), (593, 25722), (595, 25734), (601, 25755), (602, 25758), (609, 25782), (612, 25791), (619, 25815), (621, 25821), (626, 25839), (627, 25848), (628, 25851), (651, 25938), (660, 25968), (709, 26169), (729, 26244), (740, 26301), (746, 26334), (767, 26457), (795, 26640), (798, 26652), (799, 26661), (805, 26715), (818, 26763), (828, 26814), (839, 26865), (845, 26886), (852, 26934), (858, 26958), (865, 26997), (871, 27015), (886, 27063), (887, 27066), (890, 27078), (915, 27216), (923, 27291), (944, 27420), (951, 27468), (961, 27534), (967, 27573), (975, 27624),

Gene: FidgetOrca_23 Start: 16166, Stop: 21652, Start Num: 2

Candidate Starts for FidgetOrca_23:

(1, 16145), (Start: 2 @16166 has 33 MA's), (3, 16196), (14, 16340), (42, 16550), (54, 16670), (61, 16709), (68, 16739), (70, 16763), (71, 16769), (72, 16790), (73, 16805), (79, 16892), (86, 16982), (87, 17018), (88, 17027), (90, 17054), (96, 17093), (97, 17102), (101, 17120), (105, 17141), (110, 17183), (111, 17192), (122, 17300), (134, 17405), (145, 17501), (154, 17567), (177, 17717), (192, 17801), (196, 17822), (207, 17864), (232, 17999), (267, 18131), (270, 18140), (279, 18176), (281, 18185), (292, 18227), (300, 18260), (340, 18413), (344, 18434), (354, 18497), (355, 18503), (357, 18509), (362, 18536), (367, 18557), (369, 18563), (370, 18566), (377, 18590), (386, 18635), (389, 18644), (390, 18647), (392, 18656), (405, 18731), (411, 18758), (416, 18773), (417, 18776), (423, 18794), (426, 18812), (430, 18833), (441, 18884), (459, 18965), (477, 19052), (480, 19070), (484, 19097), (510, 19190), (519, 19232), (520, 19241), (528, 19277), (533, 19295), (534, 19298), (552, 19352),

(567, 19403), (571, 19439), (573, 19445), (578, 19466), (587, 19490), (597, 19520), (615, 19580), (625, 19613), (626, 19616), (629, 19631), (638, 19667), (649, 19709), (652, 19721), (653, 19724), (667, 19772), (672, 19802), (677, 19817), (684, 19850), (687, 19865), (703, 19928), (724, 20006), (733, 20045), (745, 20111), (760, 20198), (761, 20201), (787, 20300), (796, 20348), (797, 20354), (827, 20513), (890, 20786), (909, 20888), (924, 21011), (937, 21104), (940, 21125), (947, 21173), (949, 21179), (950, 21185), (957, 21230), (970, 21338), (973, 21359), (979, 21407), (986, 21494), (992, 21596), (993, 21605),

Gene: Figliar_32 Start: 23512, Stop: 28611, Start Num: 19

Candidate Starts for Figliar_32:

(Start: 19 @23512 has 170 MA's), (Start: 23 @23542 has 3 MA's), (28, 23587), (48, 23725), (49, 23731), (59, 23785), (61, 23797), (64, 23809), (68, 23827), (79, 23992), (84, 24052), (89, 24139), (92, 24163), (96, 24193), (99, 24208), (105, 24241), (115, 24334), (137, 24502), (151, 24610), (152, 24622), (154, 24643), (158, 24679), (163, 24715), (164, 24718), (175, 24787), (177, 24793), (192, 24877), (207, 24940), (Start: 213 @24976 has 1 MA's), (221, 25009), (235, 25084), (236, 25096), (247, 25132), (260, 25183), (267, 25231), (271, 25243), (300, 25387), (308, 25426), (313, 25453), (344, 25615), (351, 25663), (355, 25684), (360, 25702), (371, 25750), (386, 25816), (398, 25867), (399, 25879), (402, 25897), (415, 25951), (426, 25996), (430, 26017), (433, 26026), (436, 26044), (437, 26047), (441, 26068), (451, 26122), (452, 26125), (455, 26134), (461, 26155), (463, 26167), (467, 26188), (469, 26194), (473, 26212), (480, 26248), (485, 26278), (499, 26326), (502, 26338), (504, 26344), (505, 26347), (507, 26359), (508, 26362), (513, 26383), (520, 26419), (533, 26473), (534, 26476), (539, 26497), (545, 26509), (547, 26512), (561, 26560), (566, 26575), (567, 26578), (568, 26587), (570, 26608), (576, 26635), (577, 26638), (583, 26662), (587, 26674), (593, 26695), (595, 26707), (597, 26716), (601, 26728), (609, 26755), (619, 26788), (621, 26794), (626, 26812), (639, 26866), (643, 26881), (662, 26950), (688, 27061), (717, 27172), (729, 27217), (746, 27307), (771, 27451), (780, 27514), (783, 27541), (795, 27613), (798, 27625), (799, 27634), (805, 27688), (813, 27709), (815, 27721), (849, 27883), (865, 27970), (871, 27988), (879, 28018), (886, 28036), (887, 28039), (890, 28051), (898, 28078), (915, 28189), (920, 28252), (923, 28264), (929, 28312), (938, 28366), (944, 28393), (961, 28507), (975, 28597),

Gene: Football_30 Start: 20253, Stop: 25355, Start Num: 19

Candidate Starts for Football_30:

(Start: 19 @20253 has 170 MA's), (Start: 23 @20283 has 3 MA's), (44, 20421), (49, 20472), (51, 20481), (53, 20496), (56, 20517), (61, 20538), (68, 20568), (71, 20598), (72, 20619), (79, 20721), (84, 20781), (88, 20856), (89, 20868), (92, 20892), (96, 20922), (99, 20937), (105, 20970), (110, 21012), (115, 21063), (124, 21117), (125, 21120), (135, 21219), (138, 21243), (151, 21339), (160, 21423), (163, 21444), (164, 21447), (175, 21516), (177, 21522), (178, 21528), (Start: 213 @21705 has 1 MA's), (224, 21756), (233, 21807), (247, 21861), (248, 21864), (276, 21996), (283, 22035), (300, 22116), (301, 22119), (318, 22194), (332, 22251), (342, 22335), (344, 22344), (355, 22413), (357, 22419), (360, 22431), (362, 22446), (363, 22449), (368, 22470), (381, 22518), (386, 22545), (392, 22566), (395, 22575), (398, 22596), (399, 22608), (401, 22617), (402, 22626), (415, 22680), (416, 22683), (423, 22704), (430, 22746), (439, 22782), (441, 22797), (442, 22806), (444, 22821), (446, 22833), (448, 22842), (458, 22875), (461, 22884), (479, 22968), (480, 22977), (482, 22992), (487, 23013), (499, 23055), (505, 23076), (508, 23091), (510, 23097), (518, 23133), (520, 23148), (534, 23205), (537, 23217), (539, 23226), (545, 23238), (551, 23250), (552, 23256), (557, 23277), (561, 23289), (567, 23307), (568, 23316), (569, 23331), (570, 23337), (573, 23349), (583, 23391), (584, 23394), (587, 23403), (593, 23424), (595, 23436), (609, 23484), (612, 23493), (619, 23517), (621, 23523), (626, 23541), (627, 23550), (651, 23640), (656, 23658), (657, 23661), (662, 23679), (703, 23850), (717, 23901), (748, 24045), (771, 24180), (779, 24231), (798, 24354), (805, 24417), (818, 24465), (819, 24471), (821, 24480), (831, 24528), (846, 24600), (858, 24660), (863, 24681), (864, 24684), (872, 24735), (875, 24744), (879, 24762), (887, 24783), (890, 24795), (907, 24888), (915, 24933), (923, 25008), (925, 25026), (927, 25047), (943, 25134), (960, 25245), (975, 25341),

Gene: FortCran_29 Start: 20505, Stop: 25607, Start Num: 19

Candidate Starts for FortCran_29:

(Start: 19 @20505 has 170 MA's), (Start: 23 @20535 has 3 MA's), (44, 20673), (48, 20718), (49, 20724), (51, 20733), (53, 20748), (56, 20769), (61, 20790), (68, 20820), (71, 20850), (72, 20871), (79, 20973), (84, 21033), (88, 21108), (89, 21120), (92, 21144), (96, 21174), (99, 21189), (105, 21222), (110, 21264), (115, 21315), (124, 21369), (125, 21372), (135, 21471), (138, 21495), (151, 21591), (163, 21696), (164, 21699), (175, 21768), (177, 21774), (178, 21780), (Start: 213 @21957 has 1 MA's), (224, 22008), (233, 22059), (247, 22113), (248, 22116), (300, 22368), (301, 22371), (318, 22446), (332, 22503), (342, 22587), (344, 22596), (357, 22671), (360, 22683), (362, 22698), (363, 22701), (368, 22722), (381, 22770), (386, 22797), (392, 22818), (395, 22827), (398, 22848), (399, 22860), (401, 22869), (402, 22878), (415, 22932), (416, 22935), (423, 22956), (430, 22998), (436, 23025), (439, 23034), (441, 23049), (442, 23058), (444, 23073), (446, 23085), (448, 23094), (458, 23127), (461, 23136), (479, 23220), (480, 23229), (482, 23244), (483, 23247), (487, 23265), (499, 23307), (505, 23328), (508, 23343), (510, 23349), (518, 23385), (520, 23400), (534, 23457), (537, 23469), (539, 23478), (545, 23490), (551, 23502), (552, 23508), (557, 23529), (561, 23541), (567, 23559), (568, 23568), (569, 23583), (570, 23589), (573, 23601), (583, 23643), (584, 23646), (587, 23655), (593, 23676), (595, 23688), (609, 23736), (612, 23745), (619, 23769), (621, 23775), (626, 23793), (627, 23802), (633, 23823), (651, 23892), (656, 23910), (662, 23931), (703, 24102), (717, 24153), (748, 24297), (759, 24366), (771, 24432), (779, 24483), (798, 24606), (805, 24669), (818, 24717), (819, 24723), (821, 24732), (831, 24780), (846, 24852), (858, 24912), (863, 24933), (864, 24936), (872, 24987), (875, 24996), (879, 25014), (887, 25035), (890, 25047), (907, 25140), (915, 25185), (923, 25260), (925, 25278), (927, 25299), (943, 25386), (960, 25497), (975, 25593),

Gene: FrodoSwaggins_23 Start: 16676, Stop: 22156, Start Num: 2

Candidate Starts for FrodoSwaggins_23:

(1, 16655), (Start: 2 @16676 has 33 MA's), (3, 16706), (14, 16850), (17, 16901), (25, 16985), (42, 17060), (53, 17177), (54, 17180), (60, 17213), (68, 17249), (71, 17279), (79, 17402), (87, 17528), (90, 17564), (96, 17603), (98, 17615), (105, 17651), (110, 17693), (133, 17885), (138, 17951), (146, 18026), (151, 18047), (154, 18080), (162, 18143), (163, 18152), (177, 18230), (207, 18377), (231, 18509), (246, 18566), (267, 18644), (270, 18653), (274, 18662), (279, 18689), (298, 18764), (300, 18773), (315, 18839), (316, 18842), (336, 18881), (344, 18935), (355, 19004), (367, 19058), (377, 19091), (386, 19136), (389, 19145), (392, 19157), (405, 19232), (419, 19283), (423, 19295), (430, 19334), (437, 19364), (440, 19376), (447, 19424), (459, 19466), (468, 19514), (480, 19571), (510, 19691), (519, 19733), (520, 19742), (528, 19778), (533, 19796), (534, 19799), (537, 19811), (552, 19853), (553, 19856), (567, 19904), (571, 19940), (573, 19946), (578, 19967), (587, 19991), (615, 20081), (625, 20114), (629, 20132), (632, 20144), (634, 20153), (649, 20210), (652, 20222), (653, 20225), (658, 20243), (672, 20303), (677, 20318), (684, 20351), (687, 20366), (706, 20438), (718, 20483), (722, 20501), (725, 20510), (733, 20546), (736, 20567), (737, 20570), (781, 20756), (783, 20777), (784, 20783), (787, 20801), (788, 20804), (790, 20816), (796, 20849), (797, 20855), (826, 21005), (827, 21014), (890, 21287), (909, 21389), (937, 21605), (940, 21626), (947, 21674), (949, 21680), (950, 21686), (957, 21731), (973, 21860), (979, 21908), (992, 22100), (993, 22109),

Gene: FromIndy_22 Start: 15060, Stop: 20537, Start Num: 2

Candidate Starts for FromIndy_22:

(Start: 2 @15060 has 33 MA's), (3, 15090), (6, 15144), (9, 15171), (10, 15201), (12, 15204), (14, 15234), (79, 15786), (87, 15912), (96, 15987), (104, 16029), (110, 16077), (118, 16161), (133, 16269), (151, 16431), (154, 16464), (163, 16536), (177, 16614), (207, 16761), (279, 17073), (281, 17082), (299, 17145), (313, 17208), (344, 17319), (350, 17361), (355, 17388), (358, 17397), (370, 17451), (377, 17475), (390, 17532), (392, 17541), (412, 17646), (415, 17655), (423, 17679), (440, 17760), (459, 17850), (469, 17901), (477, 17937), (480, 17955), (485, 17985), (496, 18024), (497, 18027), (507, 18066), (515, 18096), (519, 18117), (520, 18126), (527, 18159), (528, 18162), (534, 18183), (555, 18246), (571, 18324), (573, 18330), (584, 18366), (585, 18369), (586, 18372), (587, 18375), (603, 18426), (606, 18435), (609, 18444), (615, 18465), (624, 18495), (625, 18498), (640, 18561),

(641, 18564), (642, 18567), (653, 18609), (658, 18627), (667, 18657), (677, 18702), (684, 18735), (702, 18810), (704, 18816), (713, 18846), (718, 18867), (725, 18894), (729, 18909), (733, 18930), (737, 18954), (751, 19020), (757, 19062), (760, 19083), (765, 19107), (787, 19185), (796, 19233), (827, 19398), (878, 19632), (900, 19713), (906, 19758), (914, 19803), (937, 19989), (940, 20010), (942, 20022), (949, 20064), (957, 20115), (963, 20163), (968, 20202), (976, 20253), (985, 20376), (990, 20415),

Gene: Gandionco_41 Start: 29771, Stop: 34291, Start Num: 23

Candidate Starts for Gandionco_41:

(Start: 19 @29741 has 170 MA's), (Start: 23 @29771 has 3 MA's), (34, 29846), (40, 29882), (49, 29960), (78, 30167), (79, 30209), (87, 30335), (92, 30380), (93, 30395), (96, 30410), (101, 30437), (105, 30458), (108, 30482), (110, 30500), (122, 30617), (129, 30662), (132, 30680), (144, 30803), (146, 30830), (149, 30842), (152, 30863), (182, 31058), (198, 31145), (200, 31151), (210, 31193), (219, 31244), (250, 31382), (252, 31391), (282, 31511), (304, 31589), (305, 31598), (344, 31766), (358, 31844), (367, 31889), (370, 31898), (377, 31922), (386, 31967), (387, 31970), (392, 31988), (409, 32084), (420, 32117), (426, 32147), (432, 32174), (442, 32228), (444, 32243), (445, 32246), (464, 32327), (470, 32354), (480, 32405), (484, 32432), (491, 32453), (492, 32456), (502, 32498), (523, 32594), (528, 32615), (532, 32627), (537, 32648), (539, 32657), (544, 32669), (557, 32711), (567, 32741), (568, 32750), (576, 32798), (577, 32801), (584, 32819), (587, 32828), (603, 32879), (606, 32888), (615, 32918), (626, 32954), (653, 33062), (654, 33065), (674, 33146), (678, 33158), (684, 33188), (687, 33203), (694, 33227), (703, 33266), (714, 33305), (718, 33320), (720, 33329), (723, 33341), (726, 33350), (727, 33353), (735, 33398), (736, 33404), (748, 33461), (752, 33476), (756, 33506), (772, 33602), (781, 33659), (787, 33704), (801, 33773), (814, 33854), (820, 33875), (826, 33908), (834, 33953), (836, 33962), (840, 33977), (843, 33983), (855, 34052), (859, 34070), (873, 34121),

Gene: GantcherGoblin_25 Start: 19002, Stop: 23639, Start Num: 19

Candidate Starts for GantcherGoblin_25:

(Start: 18 @18981 has 2 MA's), (Start: 19 @19002 has 170 MA's), (Start: 23 @19032 has 3 MA's), (30, 19086), (31, 19095), (61, 19365), (62, 19368), (71, 19425), (72, 19446), (78, 19506), (79, 19548), (84, 19608), (89, 19695), (93, 19734), (96, 19749), (99, 19764), (105, 19797), (109, 19836), (110, 19839), (117, 19875), (119, 19890), (126, 19938), (163, 20262), (167, 20274), (175, 20334), (185, 20376), (194, 20436), (195, 20442), (198, 20451), (203, 20466), (204, 20475), (224, 20574), (225, 20586), (226, 20595), (228, 20607), (301, 20892), (313, 20952), (317, 20961), (344, 21102), (351, 21150), (356, 21174), (358, 21180), (367, 21225), (370, 21234), (377, 21258), (381, 21276), (391, 21321), (392, 21324), (395, 21333), (405, 21399), (416, 21441), (420, 21453), (423, 21462), (426, 21483), (437, 21534), (442, 21564), (444, 21579), (455, 21621), (460, 21639), (469, 21687), (470, 21690), (481, 21747), (486, 21774), (507, 21855), (510, 21864), (520, 21915), (528, 21951), (537, 21984), (539, 21993), (544, 22005), (554, 22032), (559, 22053), (567, 22077), (568, 22086), (584, 22155), (585, 22158), (586, 22161), (587, 22164), (597, 22194), (603, 22215), (610, 22236), (615, 22254), (618, 22263), (623, 22281), (638, 22341), (646, 22374), (650, 22389), (652, 22395), (653, 22398), (666, 22443), (672, 22476), (673, 22479), (674, 22482), (679, 22500), (708, 22620), (709, 22623), (714, 22641), (723, 22677), (733, 22719), (737, 22743), (752, 22812), (759, 22866), (762, 22878), (781, 22995), (787, 23040), (796, 23088), (823, 23223), (826, 23244), (830, 23268), (843, 23319), (856, 23388), (859, 23406),

Gene: GermyBearimy_25 Start: 17673, Stop: 22733, Start Num: 5

Candidate Starts for GermyBearimy_25:

(5, 17673), (7, 17703), (11, 17757), (13, 17778), (31, 17985), (32, 17991), (33, 17994), (49, 18114), (55, 18147), (61, 18180), (72, 18261), (76, 18300), (77, 18312), (79, 18363), (87, 18489), (89, 18510), (96, 18564), (102, 18594), (119, 18696), (121, 18717), (127, 18753), (132, 18792), (145, 18930), (151, 18963), (159, 19035), (161, 19056), (163, 19068), (164, 19071), (172, 19122), (179, 19155), (185, 19182), (187, 19200), (204, 19281), (216, 19416), (221, 19452), (227, 19497), (245, 19602), (266,

19737), (293, 19899), (294, 19902), (303, 19962), (314, 20025), (315, 20031), (337, 20145), (344, 20199), (348, 20229), (359, 20283), (369, 20328), (370, 20331), (373, 20340), (377, 20355), (386, 20400), (392, 20421), (395, 20430), (401, 20472), (423, 20559), (430, 20601), (444, 20676), (455, 20718), (467, 20778), (475, 20808), (491, 20886), (494, 20895), (500, 20925), (507, 20955), (528, 21051), (537, 21084), (539, 21093), (544, 21105), (545, 21108), (552, 21126), (557, 21147), (567, 21177), (568, 21186), (579, 21243), (581, 21249), (587, 21264), (593, 21279), (600, 21303), (602, 21309), (610, 21336), (612, 21342), (615, 21354), (636, 21432), (638, 21441), (648, 21480), (649, 21483), (656, 21510), (664, 21537), (669, 21561), (682, 21618), (684, 21624), (685, 21633), (718, 21756), (720, 21765), (725, 21783), (726, 21786), (732, 21816), (733, 21819), (752, 21912), (781, 22095), (783, 22116), (787, 22140), (789, 22152), (793, 22173), (796, 22188), (834, 22389), (838, 22407), (841, 22416), (843, 22422), (848, 22452), (855, 22491), (860, 22518), (908, 22707),

Gene: Giantsbane_27 Start: 19149, Stop: 23738, Start Num: 19

Candidate Starts for Giantsbane_27:

(Start: 18 @19128 has 2 MA's), (Start: 19 @19149 has 170 MA's), (Start: 23 @19179 has 3 MA's), (30, 19233), (40, 19290), (60, 19428), (68, 19464), (71, 19494), (78, 19575), (79, 19617), (80, 19635), (84, 19677), (89, 19764), (96, 19818), (99, 19833), (100, 19839), (105, 19866), (117, 19944), (119, 19959), (122, 19992), (126, 20007), (127, 20016), (130, 20043), (132, 20055), (136, 20109), (151, 20226), (164, 20334), (167, 20343), (174, 20400), (176, 20406), (199, 20523), (203, 20535), (207, 20556), (210, 20568), (214, 20598), (228, 20676), (246, 20745), (260, 20805), (283, 20901), (296, 20955), (306, 21003), (308, 21009), (317, 21045), (344, 21189), (346, 21201), (353, 21246), (355, 21258), (367, 21312), (370, 21321), (371, 21324), (377, 21345), (392, 21411), (403, 21477), (405, 21486), (406, 21489), (407, 21498), (414, 21522), (416, 21528), (423, 21549), (425, 21567), (426, 21570), (430, 21591), (442, 21651), (444, 21666), (445, 21669), (450, 21693), (451, 21696), (452, 21699), (462, 21735), (480, 21828), (482, 21843), (483, 21846), (487, 21864), (489, 21870), (494, 21885), (502, 21921), (505, 21930), (512, 21963), (523, 22017), (524, 22020), (528, 22038), (544, 22095), (550, 22104), (552, 22116), (557, 22137), (559, 22143), (560, 22146), (568, 22176), (579, 22233), (584, 22245), (586, 22251), (587, 22254), (615, 22344), (626, 22380), (642, 22446), (648, 22470), (649, 22473), (658, 22506), (659, 22509), (660, 22512), (661, 22515), (673, 22569), (674, 22572), (703, 22692), (712, 22722), (715, 22734), (722, 22764), (725, 22773), (727, 22779), (745, 22875), (756, 22932), (762, 22968), (773, 23031), (787, 23130), (789, 23142), (807, 23256), (830, 23358), (840, 23403), (843, 23409), (847, 23433), (850, 23448), (856, 23478), (862, 23505), (867, 23532), (881, 23577),

Gene: Gill_29 Start: 20616, Stop: 25730, Start Num: 19

Candidate Starts for Gill_29:

(Start: 19 @20616 has 170 MA's), (Start: 23 @20646 has 3 MA's), (45, 20793), (48, 20829), (49, 20835), (56, 20880), (61, 20901), (68, 20931), (79, 21096), (84, 21156), (88, 21231), (92, 21267), (93, 21282), (96, 21297), (99, 21312), (105, 21345), (115, 21438), (124, 21492), (125, 21495), (151, 21714), (163, 21819), (164, 21822), (175, 21891), (177, 21897), (Start: 213 @22080 has 1 MA's), (224, 22131), (233, 22182), (247, 22236), (248, 22239), (276, 22371), (295, 22473), (300, 22491), (301, 22494), (318, 22569), (332, 22626), (342, 22710), (344, 22719), (360, 22806), (368, 22845), (381, 22893), (386, 22920), (392, 22941), (395, 22950), (398, 22971), (399, 22983), (401, 22992), (402, 23001), (407, 23028), (415, 23055), (416, 23058), (423, 23079), (430, 23121), (436, 23148), (439, 23157), (441, 23172), (442, 23181), (444, 23196), (446, 23208), (448, 23217), (452, 23229), (458, 23250), (461, 23259), (479, 23343), (480, 23352), (482, 23367), (483, 23370), (487, 23388), (491, 23400), (492, 23403), (499, 23430), (505, 23451), (508, 23466), (518, 23508), (520, 23523), (534, 23580), (537, 23592), (539, 23601), (545, 23613), (551, 23625), (552, 23631), (557, 23652), (561, 23664), (567, 23682), (568, 23691), (569, 23706), (570, 23712), (573, 23724), (583, 23766), (584, 23769), (587, 23778), (593, 23799), (595, 23811), (609, 23859), (612, 23868), (619, 23892), (621, 23898), (626, 23916), (627, 23925), (633, 23946), (651, 24015), (656, 24033), (657, 24036), (662, 24054), (692, 24180), (703, 24225), (717, 24276), (748, 24420), (771, 24555), (779, 24606), (790, 24684), (798, 24729), (805, 24792), (811, 24810), (818, 24840), (819, 24846), (831, 24903), (846,

24975), (858, 25035), (863, 25056), (864, 25059), (872, 25110), (875, 25119), (887, 25158), (890, 25170), (907, 25263), (915, 25308), (923, 25383), (927, 25422), (933, 25452), (943, 25509), (960, 25620), (975, 25716),

Gene: GirlPower_22 Start: 17641, Stop: 23130, Start Num: 2

Candidate Starts for GirlPower_22:

(1, 17620), (Start: 2 @17641 has 33 MA's), (3, 17671), (14, 17815), (34, 17983), (49, 18118), (61, 18184), (68, 18214), (71, 18244), (79, 18367), (85, 18448), (86, 18457), (87, 18493), (96, 18568), (101, 18595), (104, 18610), (105, 18616), (110, 18658), (113, 18709), (133, 18847), (154, 19042), (166, 19123), (177, 19192), (196, 19297), (208, 19342), (246, 19528), (270, 19615), (279, 19651), (281, 19660), (340, 19888), (344, 19909), (354, 19972), (355, 19978), (357, 19984), (367, 20032), (369, 20038), (370, 20041), (377, 20065), (386, 20110), (389, 20119), (390, 20122), (395, 20140), (415, 20245), (423, 20269), (438, 20341), (441, 20359), (459, 20440), (480, 20545), (510, 20665), (519, 20707), (520, 20716), (528, 20752), (534, 20773), (553, 20830), (567, 20878), (571, 20914), (578, 20941), (587, 20965), (597, 20995), (615, 21055), (625, 21088), (629, 21106), (634, 21127), (644, 21163), (649, 21184), (652, 21196), (653, 21199), (658, 21217), (660, 21223), (672, 21277), (677, 21292), (684, 21325), (687, 21340), (703, 21403), (724, 21481), (725, 21484), (733, 21520), (745, 21586), (750, 21607), (760, 21673), (763, 21685), (787, 21775), (796, 21823), (826, 21979), (827, 21988), (901, 22309), (914, 22393), (937, 22579), (940, 22600), (946, 22624), (947, 22648), (949, 22654), (950, 22660), (957, 22705), (970, 22813), (979, 22882), (986, 22969), (992, 23074), (993, 23083),

Gene: Glintora_32 Start: 23473, Stop: 28560, Start Num: 19

Candidate Starts for Glintora_32:

(Start: 19 @23473 has 170 MA's), (Start: 23 @23503 has 3 MA's), (28, 23548), (61, 23758), (71, 23818), (72, 23839), (79, 23941), (84, 24001), (93, 24127), (96, 24142), (99, 24157), (105, 24190), (115, 24283), (124, 24337), (125, 24340), (128, 24355), (145, 24526), (151, 24559), (152, 24571), (158, 24628), (160, 24643), (173, 24724), (177, 24742), (Start: 213 @24925 has 1 MA's), (233, 25027), (236, 25045), (247, 25081), (260, 25132), (271, 25192), (295, 25318), (300, 25336), (308, 25375), (313, 25402), (344, 25564), (351, 25612), (355, 25633), (360, 25651), (371, 25699), (386, 25765), (398, 25816), (399, 25828), (402, 25846), (415, 25900), (426, 25945), (430, 25966), (433, 25975), (438, 25999), (439, 26002), (441, 26017), (451, 26071), (452, 26074), (455, 26083), (461, 26104), (463, 26116), (467, 26137), (469, 26143), (473, 26161), (480, 26197), (482, 26212), (483, 26215), (485, 26227), (499, 26275), (502, 26287), (504, 26293), (505, 26296), (508, 26311), (513, 26332), (520, 26368), (534, 26425), (539, 26446), (545, 26458), (547, 26461), (560, 26506), (561, 26509), (566, 26524), (567, 26527), (568, 26536), (570, 26557), (576, 26584), (587, 26623), (589, 26632), (593, 26644), (595, 26656), (601, 26677), (609, 26704), (619, 26737), (621, 26743), (626, 26761), (627, 26770), (633, 26791), (660, 26890), (662, 26899), (709, 27091), (717, 27121), (729, 27166), (740, 27223), (746, 27256), (771, 27400), (780, 27463), (783, 27490), (795, 27562), (798, 27574), (799, 27583), (805, 27637), (813, 27658), (815, 27670), (818, 27685), (819, 27691), (849, 27832), (865, 27919), (871, 27937), (879, 27967), (889, 27994), (890, 28000), (898, 28027), (903, 28054), (915, 28138), (923, 28213), (938, 28315), (961, 28456), (975, 28546),

Gene: GoCrazy_20 Start: 17193, Stop: 21671, Start Num: 19

Candidate Starts for GoCrazy_20:

(Start: 18 @17172 has 2 MA's), (Start: 19 @17193 has 170 MA's), (Start: 23 @17223 has 3 MA's), (30, 17277), (40, 17334), (68, 17508), (71, 17538), (78, 17619), (79, 17661), (80, 17679), (84, 17721), (89, 17808), (96, 17862), (99, 17877), (105, 17910), (117, 17988), (119, 18003), (126, 18051), (133, 18108), (141, 18204), (145, 18237), (151, 18270), (164, 18378), (174, 18444), (182, 18477), (184, 18486), (185, 18489), (187, 18507), (246, 18789), (255, 18813), (260, 18843), (302, 19002), (317, 19062), (344, 19191), (351, 19239), (358, 19269), (362, 19293), (365, 19305), (367, 19314), (370, 19323), (377, 19347), (386, 19392), (392, 19413), (405, 19488), (409, 19509), (410, 19512), (413, 19521), (423, 19551), (430, 19593), (442, 19653), (443, 19659), (444, 19668), (452, 19701), (456,

19713), (457, 19716), (470, 19779), (475, 19800), (480, 19830), (485, 19860), (491, 19878), (502, 19926), (508, 19950), (512, 19968), (515, 19977), (521, 20013), (528, 20043), (537, 20076), (538, 20082), (539, 20085), (544, 20097), (552, 20118), (567, 20169), (568, 20178), (574, 20214), (584, 20247), (587, 20256), (597, 20286), (600, 20295), (603, 20307), (615, 20346), (623, 20373), (625, 20379), (626, 20382), (629, 20397), (636, 20424), (644, 20454), (653, 20490), (679, 20592), (694, 20655), (702, 20691), (709, 20715), (714, 20733), (724, 20772), (726, 20778), (730, 20793), (734, 20814), (735, 20826), (759, 20958), (781, 21021), (784, 21048), (787, 21066), (796, 21114), (797, 21120), (807, 21192), (826, 21270), (832, 21306), (836, 21324), (843, 21348), (847, 21372), (855, 21417), (859, 21438), (911, 21660),

Gene: GoblinVoyage_19 Start: 13488, Stop: 18716, Start Num: 19

Candidate Starts for GoblinVoyage_19:

(Start: 18 @13467 has 2 MA's), (Start: 19 @13488 has 170 MA's), (Start: 23 @13518 has 3 MA's), (42, 13620), (45, 13671), (61, 13779), (79, 13962), (87, 14088), (90, 14124), (96, 14163), (110, 14253), (154, 14640), (177, 14790), (182, 14814), (194, 14886), (243, 15117), (265, 15195), (270, 15213), (273, 15216), (279, 15249), (305, 15357), (321, 15417), (344, 15498), (355, 15567), (367, 15621), (389, 15708), (390, 15711), (411, 15822), (423, 15858), (426, 15876), (437, 15927), (459, 16029), (462, 16041), (464, 16056), (479, 16125), (480, 16134), (485, 16164), (498, 16209), (504, 16230), (511, 16260), (514, 16272), (515, 16275), (519, 16296), (520, 16305), (528, 16341), (537, 16374), (564, 16458), (571, 16503), (572, 16506), (573, 16509), (587, 16554), (597, 16584), (611, 16629), (615, 16644), (625, 16677), (630, 16698), (632, 16707), (634, 16716), (640, 16740), (641, 16743), (669, 16851), (680, 16893), (682, 16908), (684, 16914), (704, 16995), (718, 17046), (720, 17055), (721, 17058), (722, 17064), (725, 17073), (726, 17076), (729, 17088), (730, 17091), (731, 17100), (733, 17109), (737, 17133), (752, 17202), (759, 17256), (787, 17364), (790, 17379), (797, 17418), (827, 17577), (878, 17811), (899, 17886), (905, 17919), (930, 18123), (936, 18165), (937, 18168), (940, 18189), (947, 18237), (949, 18243), (964, 18351), (973, 18423), (983, 18525), (993, 18678),

Gene: Gordon_26 Start: 21257, Stop: 25849, Start Num: 19

Candidate Starts for Gordon_26:

(Start: 18 @21236 has 2 MA's), (Start: 19 @21257 has 170 MA's), (Start: 23 @21287 has 3 MA's), (30, 21341), (40, 21398), (49, 21476), (60, 21536), (68, 21572), (71, 21602), (79, 21725), (80, 21743), (84, 21785), (96, 21926), (99, 21941), (105, 21974), (117, 22052), (119, 22067), (121, 22088), (122, 22100), (127, 22124), (133, 22172), (141, 22268), (145, 22301), (151, 22334), (156, 22382), (164, 22442), (167, 22451), (173, 22499), (190, 22580), (194, 22613), (201, 22637), (204, 22652), (207, 22664), (239, 22832), (246, 22853), (253, 22871), (260, 22913), (265, 22943), (278, 22994), (283, 23009), (290, 23039), (306, 23111), (308, 23117), (316, 23150), (317, 23153), (344, 23297), (353, 23354), (355, 23366), (367, 23420), (370, 23429), (371, 23432), (377, 23453), (386, 23498), (392, 23519), (399, 23561), (402, 23579), (416, 23636), (423, 23657), (426, 23678), (430, 23699), (442, 23759), (444, 23774), (445, 23777), (451, 23804), (452, 23807), (464, 23858), (480, 23936), (482, 23951), (483, 23954), (487, 23972), (489, 23978), (490, 23981), (491, 23984), (494, 23993), (502, 24029), (505, 24038), (512, 24071), (523, 24125), (524, 24128), (528, 24146), (532, 24158), (539, 24188), (544, 24203), (550, 24212), (552, 24224), (557, 24245), (568, 24284), (579, 24341), (584, 24353), (587, 24362), (600, 24401), (603, 24413), (613, 24443), (615, 24452), (626, 24488), (635, 24527), (636, 24530), (640, 24548), (642, 24554), (658, 24614), (661, 24623), (673, 24677), (674, 24680), (705, 24806), (706, 24809), (712, 24830), (721, 24866), (722, 24872), (725, 24881), (731, 24908), (737, 24941), (740, 24953), (754, 25019), (762, 25076), (772, 25136), (777, 25160), (787, 25238), (789, 25250), (812, 25376), (820, 25409), (822, 25418), (830, 25466), (837, 25499), (840, 25511), (843, 25517), (846, 25538), (847, 25541), (848, 25547), (856, 25586), (862, 25613), (906, 25799), (910, 25826),

Gene: Gravy_29 Start: 20616, Stop: 25730, Start Num: 19

Candidate Starts for Gravy_29:

(Start: 19 @20616 has 170 MA's), (Start: 23 @20646 has 3 MA's), (45, 20793), (48, 20829), (49, 20835), (56, 20880), (61, 20901), (68, 20931), (79, 21096), (84, 21156), (88, 21231), (92, 21267), (93, 21282), (96, 21297), (99, 21312), (105, 21345), (115, 21438), (124, 21492), (125, 21495), (151, 21714), (163, 21819), (164, 21822), (175, 21891), (177, 21897), (Start: 213 @22080 has 1 MA's), (224, 22131), (233, 22182), (247, 22236), (248, 22239), (276, 22371), (295, 22473), (300, 22491), (301, 22494), (318, 22569), (332, 22626), (342, 22710), (344, 22719), (360, 22806), (368, 22845), (381, 22893), (386, 22920), (392, 22941), (395, 22950), (398, 22971), (399, 22983), (401, 22992), (402, 23001), (407, 23028), (415, 23055), (416, 23058), (423, 23079), (430, 23121), (436, 23148), (439, 23157), (441, 23172), (442, 23181), (444, 23196), (446, 23208), (448, 23217), (452, 23229), (458, 23250), (461, 23259), (479, 23343), (480, 23352), (482, 23367), (483, 23370), (487, 23388), (491, 23400), (492, 23403), (499, 23430), (505, 23451), (508, 23466), (518, 23508), (520, 23523), (534, 23580), (537, 23592), (539, 23601), (545, 23613), (551, 23625), (552, 23631), (557, 23652), (561, 23664), (567, 23682), (568, 23691), (569, 23706), (570, 23712), (573, 23724), (583, 23766), (584, 23769), (587, 23778), (593, 23799), (595, 23811), (609, 23859), (612, 23868), (619, 23892), (621, 23898), (626, 23916), (627, 23925), (633, 23946), (651, 24015), (656, 24033), (657, 24036), (662, 24054), (692, 24180), (703, 24225), (717, 24276), (748, 24420), (771, 24555), (779, 24606), (790, 24684), (798, 24729), (805, 24792), (811, 24810), (818, 24840), (819, 24846), (831, 24903), (846, 24975), (858, 25035), (863, 25056), (864, 25059), (872, 25110), (875, 25119), (887, 25158), (890, 25170), (907, 25263), (915, 25308), (923, 25383), (927, 25422), (933, 25452), (943, 25509), (960, 25620), (975, 25716),

Gene: Gusicorn_32 Start: 23289, Stop: 28400, Start Num: 19

Candidate Starts for Gusicorn_32:

(Start: 19 @23289 has 170 MA's), (Start: 23 @23319 has 3 MA's), (28, 23364), (49, 23508), (61, 23574), (71, 23634), (72, 23655), (79, 23757), (87, 23883), (90, 23919), (96, 23958), (101, 23985), (105, 24006), (110, 24048), (122, 24168), (135, 24282), (137, 24294), (145, 24369), (151, 24402), (163, 24507), (164, 24510), (233, 24870), (236, 24888), (272, 25044), (291, 25146), (293, 25149), (300, 25176), (308, 25215), (313, 25242), (320, 25263), (325, 25287), (344, 25404), (354, 25467), (355, 25473), (360, 25491), (361, 25497), (367, 25527), (375, 25551), (386, 25605), (393, 25629), (397, 25653), (398, 25656), (401, 25677), (402, 25686), (412, 25731), (415, 25740), (426, 25785), (430, 25806), (433, 25815), (434, 25821), (437, 25836), (439, 25842), (441, 25857), (451, 25911), (452, 25914), (455, 25923), (458, 25935), (461, 25944), (463, 25956), (467, 25977), (469, 25983), (475, 26007), (480, 26037), (482, 26052), (499, 26115), (502, 26127), (504, 26133), (505, 26136), (507, 26148), (508, 26151), (520, 26208), (533, 26262), (534, 26265), (539, 26286), (545, 26298), (547, 26301), (561, 26349), (566, 26364), (567, 26367), (568, 26376), (569, 26391), (570, 26397), (576, 26424), (577, 26427), (579, 26433), (587, 26463), (593, 26484), (595, 26496), (597, 26505), (601, 26517), (609, 26544), (619, 26577), (621, 26583), (626, 26601), (633, 26631), (662, 26739), (683, 26829), (688, 26850), (717, 26961), (729, 27006), (740, 27063), (746, 27096), (771, 27240), (780, 27303), (790, 27369), (795, 27402), (798, 27414), (805, 27477), (813, 27498), (815, 27510), (819, 27531), (849, 27672), (865, 27759), (871, 27777), (879, 27807), (886, 27825), (887, 27828), (889, 27834), (890, 27840), (898, 27867), (915, 27978), (920, 28041), (923, 28053), (933, 28122), (938, 28155), (943, 28179), (961, 28296), (975, 28386),

Gene: Hankly_20 Start: 16415, Stop: 20893, Start Num: 19

Candidate Starts for Hankly_20:

(Start: 18 @16394 has 2 MA's), (Start: 19 @16415 has 170 MA's), (Start: 23 @16445 has 3 MA's), (30, 16499), (40, 16556), (68, 16730), (71, 16760), (78, 16841), (79, 16883), (80, 16901), (84, 16943), (89, 17030), (93, 17069), (96, 17084), (99, 17099), (105, 17132), (117, 17210), (119, 17225), (126, 17273), (128, 17288), (133, 17330), (141, 17426), (145, 17459), (151, 17492), (164, 17600), (174, 17666), (182, 17699), (184, 17708), (185, 17711), (187, 17729), (246, 18011), (255, 18035), (260, 18065), (302, 18224), (317, 18284), (344, 18413), (351, 18461), (358, 18491), (362, 18515), (365, 18527), (367, 18536), (370, 18545), (377, 18569), (386, 18614), (392, 18635), (405, 18710), (413, 18743), (423, 18773), (426, 18794), (430, 18815), (442, 18875), (443, 18881), (451, 18920), (457, 18938),

(475, 19022), (480, 19052), (485, 19082), (491, 19100), (502, 19148), (508, 19172), (512, 19190), (515, 19199), (516, 19208), (518, 19214), (521, 19235), (528, 19265), (537, 19298), (538, 19304), (543, 19313), (552, 19340), (559, 19367), (568, 19400), (571, 19427), (573, 19433), (580, 19460), (587, 19478), (597, 19508), (600, 19517), (603, 19529), (605, 19535), (606, 19538), (610, 19550), (615, 19568), (623, 19595), (625, 19601), (642, 19670), (649, 19697), (653, 19712), (679, 19814), (702, 19913), (703, 19916), (705, 19922), (709, 19937), (714, 19955), (724, 19994), (725, 19997), (730, 20015), (735, 20048), (740, 20069), (752, 20126), (759, 20180), (781, 20243), (784, 20270), (787, 20288), (796, 20336), (797, 20342), (807, 20414), (826, 20492), (828, 20507), (836, 20546), (843, 20570), (847, 20594), (855, 20639), (859, 20660), (911, 20882),

Gene: HazuAndZazu_23 Start: 16677, Stop: 22163, Start Num: 2

Candidate Starts for HazuAndZazu_23:

(1, 16656), (Start: 2 @16677 has 33 MA's), (3, 16707), (14, 16851), (42, 17061), (53, 17178), (54, 17181), (60, 17214), (68, 17250), (71, 17280), (79, 17403), (87, 17529), (96, 17604), (105, 17652), (110, 17694), (133, 17883), (154, 18078), (163, 18150), (177, 18228), (196, 18333), (207, 18375), (232, 18510), (267, 18642), (270, 18651), (279, 18687), (292, 18738), (300, 18771), (340, 18924), (344, 18945), (354, 19008), (355, 19014), (357, 19020), (362, 19047), (367, 19068), (370, 19077), (377, 19101), (386, 19146), (389, 19155), (390, 19158), (392, 19167), (405, 19242), (411, 19269), (416, 19284), (417, 19287), (423, 19305), (426, 19323), (430, 19344), (441, 19395), (455, 19461), (459, 19476), (477, 19563), (480, 19581), (484, 19608), (509, 19698), (510, 19701), (519, 19743), (520, 19752), (528, 19788), (533, 19806), (534, 19809), (552, 19863), (553, 19866), (567, 19914), (571, 19950), (578, 19977), (587, 20001), (597, 20031), (615, 20091), (625, 20124), (626, 20127), (629, 20142), (632, 20154), (638, 20178), (649, 20220), (652, 20232), (653, 20235), (667, 20283), (672, 20313), (677, 20328), (684, 20361), (687, 20376), (703, 20439), (724, 20517), (725, 20520), (733, 20556), (745, 20622), (760, 20709), (761, 20712), (787, 20811), (796, 20859), (797, 20865), (827, 21024), (890, 21297), (899, 21333), (909, 21399), (924, 21522), (937, 21615), (940, 21636), (947, 21684), (949, 21690), (950, 21696), (957, 21741), (970, 21849), (973, 21870), (979, 21918), (986, 22005), (992, 22107), (993, 22116),

Gene: Heisenberger_21 Start: 17063, Stop: 21541, Start Num: 19

Candidate Starts for Heisenberger_21:

(Start: 18 @17042 has 2 MA's), (Start: 19 @17063 has 170 MA's), (Start: 23 @17093 has 3 MA's), (26, 17126), (30, 17147), (68, 17378), (71, 17408), (78, 17489), (79, 17531), (80, 17549), (84, 17591), (89, 17678), (96, 17732), (99, 17747), (105, 17780), (117, 17858), (119, 17873), (126, 17921), (133, 17978), (137, 18032), (141, 18074), (142, 18077), (145, 18107), (151, 18140), (164, 18248), (174, 18314), (182, 18347), (184, 18356), (185, 18359), (187, 18377), (246, 18659), (255, 18683), (260, 18713), (302, 18872), (317, 18932), (344, 19061), (351, 19109), (358, 19139), (365, 19175), (367, 19184), (370, 19193), (377, 19217), (386, 19262), (392, 19283), (405, 19358), (413, 19391), (423, 19421), (426, 19442), (430, 19463), (442, 19523), (443, 19529), (451, 19568), (452, 19571), (457, 19586), (470, 19649), (475, 19670), (480, 19700), (485, 19730), (491, 19748), (502, 19796), (508, 19820), (512, 19838), (515, 19847), (516, 19856), (518, 19862), (521, 19883), (528, 19913), (537, 19946), (538, 19952), (539, 19955), (544, 19967), (552, 19988), (567, 20039), (568, 20048), (572, 20078), (574, 20084), (584, 20117), (587, 20126), (597, 20156), (600, 20165), (603, 20177), (615, 20216), (623, 20243), (625, 20249), (626, 20252), (629, 20267), (636, 20294), (640, 20312), (644, 20324), (653, 20360), (679, 20462), (694, 20525), (702, 20561), (703, 20564), (705, 20570), (709, 20585), (714, 20603), (720, 20627), (724, 20642), (725, 20645), (730, 20663), (735, 20696), (740, 20717), (752, 20774), (759, 20828), (761, 20837), (781, 20891), (784, 20918), (787, 20936), (796, 20984), (797, 20990), (807, 21062), (826, 21140), (828, 21155), (836, 21194), (843, 21218), (855, 21287), (859, 21308), (911, 21530),

Gene: Hemma_23 Start: 16594, Stop: 21183, Start Num: 19

Candidate Starts for Hemma_23:

(Start: 18 @16573 has 2 MA's), (Start: 19 @16594 has 170 MA's), (Start: 23 @16624 has 3 MA's), (30, 16678), (68, 16909), (71, 16939), (72, 16960), (78, 17020), (79, 17062), (80, 17080), (83, 17116), (84, 17122), (86, 17152), (88, 17197), (89, 17209), (96, 17263), (99, 17278), (105, 17311), (117, 17389), (119, 17404), (122, 17437), (126, 17452), (127, 17461), (132, 17500), (143, 17611), (145, 17638), (151, 17671), (152, 17683), (158, 17740), (160, 17755), (164, 17779), (166, 17785), (167, 17788), (175, 17848), (182, 17878), (194, 17950), (210, 18013), (221, 18070), (239, 18169), (241, 18172), (249, 18202), (257, 18238), (270, 18307), (273, 18310), (295, 18406), (298, 18418), (308, 18463), (309, 18466), (312, 18481), (325, 18532), (344, 18625), (356, 18697), (360, 18712), (365, 18739), (370, 18757), (372, 18763), (377, 18781), (386, 18826), (392, 18847), (399, 18889), (402, 18907), (408, 18937), (420, 18976), (423, 18985), (426, 19006), (431, 19030), (442, 19087), (444, 19102), (445, 19105), (451, 19132), (452, 19135), (462, 19171), (480, 19264), (498, 19339), (502, 19357), (505, 19366), (507, 19378), (523, 19453), (525, 19465), (528, 19474), (537, 19507), (539, 19516), (546, 19537), (553, 19558), (567, 19606), (568, 19615), (571, 19642), (573, 19648), (574, 19651), (579, 19672), (587, 19693), (588, 19696), (615, 19783), (640, 19879), (642, 19885), (647, 19906), (654, 19930), (658, 19945), (660, 19951), (667, 19975), (671, 19999), (680, 20032), (684, 20053), (685, 20062), (691, 20083), (705, 20137), (707, 20143), (722, 20203), (731, 20239), (734, 20251), (740, 20284), (745, 20314), (754, 20350), (755, 20359), (756, 20371), (772, 20467), (781, 20524), (787, 20569), (789, 20581), (812, 20707), (830, 20797), (840, 20842), (843, 20848), (847, 20872), (856, 20917), (862, 20944), (902, 21094), (906, 21133), (910, 21160),

Gene: HerbBucket_22 Start: 17241, Stop: 21791, Start Num: 19

Candidate Starts for HerbBucket_22:

(Start: 18 @17220 has 2 MA's), (Start: 19 @17241 has 170 MA's), (Start: 23 @17271 has 3 MA's), (26, 17304), (49, 17460), (66, 17544), (68, 17556), (71, 17586), (78, 17667), (79, 17709), (80, 17727), (84, 17769), (86, 17799), (88, 17844), (89, 17856), (96, 17910), (99, 17925), (105, 17958), (112, 18021), (119, 18051), (122, 18084), (126, 18099), (132, 18147), (146, 18297), (151, 18318), (164, 18426), (167, 18435), (173, 18483), (210, 18660), (230, 18774), (242, 18825), (246, 18837), (262, 18918), (283, 19002), (288, 19020), (298, 19065), (308, 19110), (310, 19113), (311, 19119), (322, 19152), (344, 19263), (355, 19332), (356, 19335), (365, 19377), (367, 19386), (370, 19395), (379, 19425), (386, 19464), (388, 19470), (392, 19485), (399, 19527), (423, 19623), (426, 19644), (427, 19647), (431, 19668), (442, 19725), (444, 19740), (451, 19770), (455, 19782), (462, 19809), (464, 19824), (475, 19872), (480, 19902), (482, 19917), (491, 19950), (493, 19956), (502, 19995), (505, 20004), (507, 20016), (512, 20037), (525, 20103), (528, 20112), (537, 20145), (538, 20151), (539, 20154), (544, 20166), (545, 20169), (553, 20190), (558, 20211), (568, 20247), (576, 20295), (587, 20325), (615, 20415), (621, 20433), (631, 20472), (642, 20517), (646, 20535), (654, 20562), (656, 20571), (658, 20577), (672, 20637), (679, 20661), (691, 20715), (699, 20751), (701, 20757), (703, 20763), (705, 20769), (715, 20805), (722, 20835), (724, 20841), (725, 20844), (735, 20895), (738, 20907), (745, 20946), (768, 21078), (776, 21114), (781, 21156), (787, 21201), (803, 21291), (822, 21381), (826, 21405), (830, 21429), (832, 21441), (834, 21450), (837, 21462), (840, 21474), (850, 21519), (856, 21549), (859, 21567), (869, 21606), (895, 21684),

Gene: Hortihabitatio_32 Start: 22913, Stop: 28030, Start Num: 19

Candidate Starts for Hortihabitatio_32:

(Start: 19 @22913 has 170 MA's), (Start: 23 @22943 has 3 MA's), (28, 22988), (49, 23132), (51, 23141), (60, 23192), (61, 23198), (69, 23237), (71, 23258), (72, 23279), (79, 23381), (87, 23507), (90, 23543), (96, 23582), (105, 23630), (110, 23672), (117, 23744), (122, 23792), (137, 23918), (141, 23960), (145, 23993), (151, 24026), (155, 24062), (160, 24110), (163, 24131), (164, 24134), (217, 24410), (233, 24494), (298, 24794), (300, 24803), (305, 24833), (320, 24890), (344, 25034), (345, 25040), (355, 25103), (360, 25121), (362, 25136), (370, 25166), (386, 25235), (393, 25259), (395, 25265), (396, 25277), (398, 25286), (399, 25298), (401, 25307), (409, 25352), (415, 25370), (426, 25415), (430, 25436), (436, 25463), (441, 25487), (442, 25496), (444, 25511), (448, 25532), (452, 25544), (455, 25553), (458, 25565), (461, 25574), (465, 25592), (467, 25607), (470, 25616), (475, 25637), (480, 25667), (496, 25736), (499, 25745), (502, 25757), (504, 25763), (505, 25766), (508,

25781), (511, 25793), (516, 25817), (518, 25823), (520, 25838), (525, 25865), (532, 25886), (534, 25895), (539, 25916), (552, 25946), (559, 25973), (560, 25976), (567, 25997), (570, 26027), (571, 26033), (576, 26054), (577, 26057), (579, 26063), (587, 26093), (593, 26114), (595, 26126), (601, 26147), (609, 26174), (612, 26183), (619, 26207), (621, 26213), (622, 26216), (626, 26231), (627, 26240), (628, 26243), (633, 26261), (642, 26297), (651, 26330), (654, 26339), (660, 26360), (662, 26369), (691, 26492), (695, 26504), (703, 26540), (709, 26561), (722, 26612), (746, 26726), (759, 26804), (767, 26849), (795, 27032), (798, 27044), (805, 27107), (809, 27119), (813, 27128), (815, 27140), (819, 27161), (828, 27206), (858, 27350), (865, 27389), (879, 27437), (886, 27455), (887, 27458), (890, 27470), (915, 27608), (920, 27671), (923, 27683), (925, 27701), (933, 27752), (944, 27812), (951, 27860), (967, 27965), (975, 28016),

Gene: Hoshi_23 Start: 16160, Stop: 21646, Start Num: 2

Candidate Starts for Hoshi_23:

(1, 16139), (Start: 2 @16160 has 33 MA's), (3, 16190), (14, 16334), (42, 16544), (54, 16664), (61, 16703), (68, 16733), (70, 16757), (71, 16763), (72, 16784), (73, 16799), (79, 16886), (86, 16976), (87, 17012), (88, 17021), (90, 17048), (96, 17087), (97, 17096), (101, 17114), (105, 17135), (110, 17177), (111, 17186), (122, 17294), (134, 17399), (145, 17495), (154, 17561), (177, 17711), (192, 17795), (196, 17816), (207, 17858), (232, 17993), (246, 18047), (270, 18134), (279, 18170), (281, 18179), (292, 18221), (300, 18254), (306, 18284), (340, 18407), (344, 18428), (354, 18491), (355, 18497), (357, 18503), (362, 18530), (367, 18551), (369, 18557), (370, 18560), (377, 18584), (386, 18629), (389, 18638), (390, 18641), (392, 18650), (405, 18725), (411, 18752), (417, 18770), (423, 18788), (426, 18806), (430, 18827), (441, 18878), (455, 18944), (459, 18959), (477, 19046), (480, 19064), (484, 19091), (510, 19184), (519, 19226), (520, 19235), (528, 19271), (529, 19274), (533, 19289), (534, 19292), (537, 19304), (552, 19346), (553, 19349), (567, 19397), (571, 19433), (573, 19439), (578, 19460), (587, 19484), (597, 19514), (615, 19574), (625, 19607), (626, 19610), (629, 19625), (632, 19637), (638, 19661), (649, 19703), (652, 19715), (653, 19718), (667, 19766), (672, 19796), (677, 19811), (684, 19844), (687, 19859), (703, 19922), (722, 19994), (724, 20000), (725, 20003), (733, 20039), (745, 20105), (760, 20192), (761, 20195), (787, 20294), (796, 20342), (797, 20348), (827, 20507), (890, 20780), (899, 20816), (909, 20882), (924, 21005), (937, 21098), (940, 21119), (947, 21167), (949, 21173), (950, 21179), (957, 21224), (970, 21332), (973, 21353), (979, 21401), (986, 21488), (992, 21590), (993, 21599),

Gene: HotFries_18 Start: 13486, Stop: 18714, Start Num: 19

Candidate Starts for HotFries_18:

(Start: 18 @13465 has 2 MA's), (Start: 19 @13486 has 170 MA's), (Start: 23 @13516 has 3 MA's), (42, 13618), (45, 13669), (61, 13777), (79, 13960), (87, 14086), (90, 14122), (96, 14161), (110, 14251), (154, 14638), (177, 14788), (182, 14812), (194, 14884), (243, 15115), (265, 15193), (270, 15211), (273, 15214), (279, 15247), (305, 15355), (321, 15415), (344, 15496), (355, 15565), (367, 15619), (374, 15640), (389, 15706), (390, 15709), (411, 15820), (423, 15856), (426, 15874), (437, 15925), (459, 16027), (462, 16039), (464, 16054), (479, 16123), (480, 16132), (485, 16162), (504, 16228), (511, 16258), (514, 16270), (515, 16273), (519, 16294), (520, 16303), (528, 16339), (537, 16372), (564, 16456), (571, 16501), (572, 16504), (573, 16507), (587, 16552), (597, 16582), (611, 16627), (615, 16642), (625, 16675), (630, 16696), (632, 16705), (634, 16714), (640, 16738), (641, 16741), (649, 16771), (652, 16783), (669, 16849), (674, 16870), (680, 16891), (682, 16906), (684, 16912), (718, 17044), (720, 17053), (722, 17062), (725, 17071), (726, 17074), (729, 17086), (730, 17089), (731, 17098), (733, 17107), (752, 17200), (759, 17254), (787, 17362), (790, 17377), (797, 17416), (827, 17575), (878, 17809), (899, 17884), (936, 18163), (937, 18166), (940, 18187), (947, 18235), (949, 18241), (964, 18349), (973, 18421), (978, 18460), (979, 18469), (983, 18523), (993, 18676),

Gene: Hydrus_33 Start: 24017, Stop: 29128, Start Num: 19

Candidate Starts for Hydrus_33:

(Start: 19 @24017 has 170 MA's), (Start: 23 @24047 has 3 MA's), (28, 24092), (49, 24236), (60, 24296), (61, 24302), (71, 24362), (72, 24383), (79, 24485), (87, 24611), (90, 24647), (96, 24686), (105,

24734), (110, 24776), (117, 24848), (122, 24896), (137, 25022), (145, 25097), (146, 25109), (151, 25130), (159, 25202), (163, 25235), (164, 25238), (184, 25346), (233, 25598), (260, 25703), (272, 25772), (277, 25793), (291, 25874), (293, 25877), (300, 25904), (308, 25943), (313, 25970), (340, 26111), (344, 26132), (354, 26195), (355, 26201), (360, 26219), (361, 26225), (371, 26267), (375, 26279), (377, 26288), (386, 26333), (396, 26375), (398, 26384), (399, 26396), (401, 26405), (402, 26414), (426, 26513), (430, 26534), (433, 26543), (438, 26567), (439, 26570), (451, 26639), (452, 26642), (455, 26651), (460, 26669), (461, 26672), (463, 26684), (467, 26705), (469, 26711), (470, 26714), (475, 26735), (480, 26765), (482, 26780), (485, 26795), (499, 26843), (502, 26855), (504, 26861), (505, 26864), (507, 26876), (508, 26879), (520, 26936), (533, 26990), (539, 27014), (545, 27026), (547, 27029), (560, 27074), (561, 27077), (566, 27092), (567, 27095), (568, 27104), (569, 27119), (570, 27125), (571, 27131), (576, 27152), (577, 27155), (581, 27167), (584, 27182), (587, 27191), (593, 27212), (595, 27224), (601, 27245), (609, 27272), (619, 27305), (621, 27311), (626, 27329), (633, 27359), (643, 27398), (662, 27467), (688, 27578), (691, 27590), (709, 27659), (729, 27734), (746, 27824), (771, 27968), (780, 28031), (790, 28097), (795, 28130), (798, 28142), (805, 28205), (813, 28226), (815, 28238), (819, 28259), (831, 28316), (849, 28400), (865, 28487), (871, 28505), (879, 28535), (886, 28553), (887, 28556), (889, 28562), (890, 28568), (898, 28595), (915, 28706), (923, 28781), (933, 28850), (938, 28883), (943, 28907), (961, 29024), (975, 29114),

Gene: IceWarrior_23 Start: 16160, Stop: 21646, Start Num: 2

Candidate Starts for IceWarrior_23:

(1, 16139), (Start: 2 @16160 has 33 MA's), (3, 16190), (14, 16334), (42, 16544), (53, 16661), (68, 16733), (71, 16763), (79, 16886), (87, 17012), (96, 17087), (105, 17135), (110, 17177), (133, 17366), (154, 17561), (163, 17633), (177, 17711), (192, 17795), (196, 17816), (207, 17858), (232, 17993), (246, 18047), (270, 18134), (279, 18170), (281, 18179), (292, 18221), (300, 18254), (306, 18284), (340, 18407), (344, 18428), (354, 18491), (355, 18497), (357, 18503), (362, 18530), (367, 18551), (369, 18557), (370, 18560), (377, 18584), (386, 18629), (389, 18638), (390, 18641), (392, 18650), (405, 18725), (411, 18752), (417, 18770), (423, 18788), (426, 18806), (430, 18827), (441, 18878), (455, 18944), (459, 18959), (477, 19046), (480, 19064), (484, 19091), (510, 19184), (519, 19226), (520, 19235), (528, 19271), (529, 19274), (533, 19289), (534, 19292), (537, 19304), (552, 19346), (553, 19349), (567, 19397), (571, 19433), (573, 19439), (578, 19460), (587, 19484), (597, 19514), (615, 19574), (625, 19607), (626, 19610), (629, 19625), (632, 19637), (638, 19661), (649, 19703), (652, 19715), (653, 19718), (667, 19766), (672, 19796), (677, 19811), (684, 19844), (687, 19859), (703, 19922), (722, 19994), (724, 20000), (725, 20003), (733, 20039), (745, 20105), (760, 20192), (761, 20195), (787, 20294), (796, 20342), (797, 20348), (827, 20507), (890, 20780), (899, 20816), (909, 20882), (924, 21005), (937, 21098), (940, 21119), (947, 21167), (949, 21173), (950, 21179), (957, 21224), (970, 21332), (973, 21353), (979, 21401), (986, 21488), (992, 21590), (993, 21599),

Gene: Indigenous_23 Start: 16160, Stop: 21646, Start Num: 2

Candidate Starts for Indigenous_23:

(1, 16139), (Start: 2 @16160 has 33 MA's), (3, 16190), (14, 16334), (42, 16544), (54, 16664), (61, 16703), (68, 16733), (70, 16757), (71, 16763), (72, 16784), (73, 16799), (79, 16886), (86, 16976), (87, 17012), (88, 17021), (90, 17048), (96, 17087), (97, 17096), (101, 17114), (105, 17135), (110, 17177), (111, 17186), (122, 17294), (134, 17399), (145, 17495), (154, 17561), (177, 17711), (192, 17795), (196, 17816), (207, 17858), (232, 17993), (267, 18125), (270, 18134), (279, 18170), (281, 18179), (292, 18221), (300, 18254), (340, 18407), (344, 18428), (354, 18491), (355, 18497), (357, 18503), (362, 18530), (367, 18551), (369, 18557), (370, 18560), (377, 18584), (386, 18629), (389, 18638), (390, 18641), (392, 18650), (405, 18725), (411, 18752), (417, 18770), (423, 18788), (426, 18806), (430, 18827), (441, 18878), (455, 18944), (459, 18959), (477, 19046), (480, 19064), (484, 19091), (510, 19184), (519, 19226), (520, 19235), (528, 19271), (529, 19274), (533, 19289), (534, 19292), (537, 19304), (552, 19346), (553, 19349), (567, 19397), (571, 19433), (573, 19439), (578, 19460), (587, 19484), (597, 19514), (615, 19574), (625, 19607), (626, 19610), (629, 19625), (632, 19637), (638, 19661), (649, 19703), (652, 19715), (653, 19718), (667, 19766), (672, 19796), (677, 19811), (684, 19844), (687, 19859), (703, 19922), (722, 19994), (724, 20000), (725, 20003), (733, 20039),

(745, 20105), (760, 20192), (761, 20195), (787, 20294), (796, 20342), (797, 20348), (827, 20507), (890, 20780), (899, 20816), (909, 20882), (924, 21005), (937, 21098), (940, 21119), (947, 21167), (949, 21173), (950, 21179), (957, 21224), (970, 21332), (973, 21353), (979, 21401), (986, 21488), (992, 21590), (993, 21599),

Gene: Ingrid_26 Start: 19877, Stop: 24463, Start Num: 19

Candidate Starts for Ingrid_26:

(Start: 18 @19856 has 2 MA's), (Start: 19 @19877 has 170 MA's), (Start: 23 @19907 has 3 MA's), (30, 19961), (40, 20018), (46, 20066), (60, 20156), (68, 20192), (71, 20222), (79, 20345), (84, 20405), (88, 20480), (96, 20546), (99, 20561), (105, 20594), (117, 20672), (119, 20687), (121, 20708), (122, 20720), (129, 20765), (133, 20792), (136, 20837), (141, 20888), (145, 20921), (151, 20954), (167, 21071), (173, 21119), (174, 21128), (197, 21245), (201, 21257), (202, 21260), (244, 21467), (260, 21527), (283, 21623), (296, 21677), (306, 21725), (308, 21731), (317, 21767), (344, 21911), (353, 21968), (355, 21980), (367, 22034), (370, 22043), (371, 22046), (377, 22067), (378, 22070), (387, 22115), (392, 22133), (405, 22208), (406, 22211), (408, 22223), (416, 22250), (423, 22271), (425, 22289), (426, 22292), (430, 22313), (442, 22373), (444, 22388), (445, 22391), (450, 22415), (451, 22418), (452, 22421), (460, 22448), (464, 22472), (466, 22484), (480, 22550), (482, 22565), (483, 22568), (487, 22586), (489, 22592), (490, 22595), (491, 22598), (502, 22643), (503, 22646), (505, 22652), (507, 22664), (512, 22685), (523, 22739), (524, 22742), (531, 22769), (538, 22799), (544, 22817), (550, 22826), (552, 22838), (557, 22859), (567, 22889), (568, 22898), (576, 22946), (579, 22955), (581, 22961), (587, 22976), (590, 22982), (597, 23006), (600, 23015), (613, 23057), (615, 23066), (626, 23102), (636, 23144), (640, 23162), (642, 23168), (648, 23192), (658, 23228), (672, 23288), (684, 23336), (685, 23345), (694, 23375), (712, 23444), (722, 23486), (725, 23495), (755, 23642), (756, 23654), (762, 23690), (776, 23765), (781, 23807), (787, 23852), (789, 23864), (797, 23906), (826, 24056), (830, 24080), (840, 24125), (842, 24128), (843, 24131), (847, 24155), (850, 24170), (856, 24200), (862, 24227), (908, 24422), (910, 24440),

Gene: Inked_28 Start: 20894, Stop: 25474, Start Num: 19

Candidate Starts for Inked_28:

(Start: 18 @20873 has 2 MA's), (Start: 19 @20894 has 170 MA's), (Start: 23 @20924 has 3 MA's), (40, 21035), (60, 21173), (68, 21209), (71, 21239), (79, 21362), (80, 21380), (84, 21422), (96, 21563), (99, 21578), (105, 21611), (117, 21689), (119, 21704), (121, 21725), (122, 21737), (133, 21809), (145, 21938), (151, 21971), (164, 22079), (167, 22088), (180, 22166), (185, 22190), (205, 22292), (210, 22313), (222, 22376), (247, 22493), (260, 22544), (265, 22574), (283, 22640), (306, 22742), (308, 22748), (311, 22763), (312, 22766), (317, 22784), (344, 22928), (352, 22982), (353, 22985), (362, 23030), (370, 23060), (371, 23063), (377, 23084), (378, 23087), (392, 23150), (394, 23156), (403, 23216), (405, 23225), (408, 23240), (416, 23267), (418, 23273), (423, 23288), (426, 23309), (430, 23330), (442, 23390), (444, 23405), (445, 23408), (450, 23432), (451, 23435), (452, 23438), (464, 23489), (471, 23522), (480, 23567), (482, 23582), (483, 23585), (489, 23609), (491, 23615), (494, 23624), (502, 23660), (505, 23669), (512, 23702), (523, 23756), (524, 23759), (528, 23777), (539, 23819), (543, 23828), (544, 23834), (550, 23843), (552, 23855), (553, 23858), (556, 23870), (557, 23876), (559, 23882), (560, 23885), (568, 23915), (578, 23969), (579, 23972), (586, 23990), (587, 23993), (588, 23996), (597, 24023), (598, 24026), (615, 24083), (626, 24119), (634, 24155), (635, 24158), (636, 24161), (642, 24185), (643, 24188), (648, 24209), (659, 24248), (660, 24251), (672, 24305), (684, 24353), (685, 24362), (712, 24461), (722, 24503), (724, 24509), (725, 24512), (733, 24548), (754, 24650), (756, 24671), (762, 24707), (768, 24746), (781, 24824), (789, 24881), (830, 25097), (840, 25142), (856, 25217), (882, 25316), (906, 25424), (910, 25451),

Gene: Issa_26 Start: 19961, Stop: 24553, Start Num: 19

Candidate Starts for Issa_26:

(Start: 18 @19940 has 2 MA's), (Start: 19 @19961 has 170 MA's), (Start: 23 @19991 has 3 MA's), (30, 20045), (34, 20066), (40, 20102), (49, 20180), (60, 20240), (66, 20264), (68, 20276), (71, 20306), (74, 20357), (78, 20387), (79, 20429), (80, 20447), (84, 20489), (86, 20519), (88, 20564), (89, 20576), (96,

20630), (99, 20645), (101, 20657), (105, 20678), (119, 20771), (122, 20804), (126, 20819), (132, 20867), (151, 21038), (166, 21152), (167, 21155), (173, 21203), (194, 21317), (201, 21341), (204, 21356), (239, 21536), (244, 21551), (246, 21557), (253, 21575), (265, 21647), (283, 21713), (306, 21815), (308, 21821), (316, 21854), (317, 21857), (323, 21884), (344, 22001), (353, 22058), (355, 22070), (367, 22124), (370, 22133), (371, 22136), (377, 22157), (392, 22223), (414, 22334), (416, 22340), (423, 22361), (425, 22379), (430, 22403), (442, 22463), (444, 22478), (445, 22481), (451, 22508), (452, 22511), (480, 22640), (482, 22655), (483, 22658), (487, 22676), (489, 22682), (490, 22685), (494, 22697), (502, 22733), (505, 22742), (512, 22775), (523, 22829), (524, 22832), (528, 22850), (532, 22862), (539, 22892), (544, 22907), (550, 22916), (552, 22928), (568, 22988), (579, 23045), (584, 23057), (587, 23066), (600, 23105), (603, 23117), (613, 23147), (615, 23156), (635, 23231), (636, 23234), (640, 23252), (658, 23318), (660, 23324), (661, 23327), (673, 23381), (674, 23384), (705, 23510), (706, 23513), (712, 23534), (720, 23567), (722, 23576), (740, 23657), (746, 23690), (754, 23723), (762, 23780), (772, 23840), (777, 23864), (787, 23942), (789, 23954), (812, 24080), (822, 24122), (830, 24170), (837, 24203), (840, 24215), (843, 24221), (846, 24242), (847, 24245), (848, 24251), (856, 24290), (862, 24317), (906, 24503), (910, 24530),

Gene: JEGGS_21 Start: 17117, Stop: 21595, Start Num: 19

Candidate Starts for JEGGS_21:

(Start: 18 @17096 has 2 MA's), (Start: 19 @17117 has 170 MA's), (Start: 23 @17147 has 3 MA's), (26, 17180), (30, 17201), (49, 17336), (51, 17345), (57, 17384), (68, 17432), (71, 17462), (78, 17543), (79, 17585), (80, 17603), (84, 17645), (89, 17732), (96, 17786), (99, 17801), (105, 17834), (117, 17912), (119, 17927), (126, 17975), (133, 18032), (137, 18086), (141, 18128), (145, 18161), (151, 18194), (164, 18302), (174, 18368), (182, 18401), (184, 18410), (185, 18413), (187, 18431), (246, 18713), (255, 18737), (260, 18767), (302, 18926), (317, 18986), (344, 19115), (351, 19163), (358, 19193), (365, 19229), (367, 19238), (370, 19247), (377, 19271), (386, 19316), (392, 19337), (405, 19412), (413, 19445), (423, 19475), (426, 19496), (430, 19517), (442, 19577), (443, 19583), (451, 19622), (452, 19625), (457, 19640), (470, 19703), (475, 19724), (480, 19754), (485, 19784), (491, 19802), (502, 19850), (508, 19874), (512, 19892), (515, 19901), (516, 19910), (518, 19916), (521, 19937), (528, 19967), (537, 20000), (538, 20006), (539, 20009), (544, 20021), (552, 20042), (567, 20093), (568, 20102), (572, 20132), (574, 20138), (584, 20171), (587, 20180), (597, 20210), (600, 20219), (603, 20231), (615, 20270), (623, 20297), (625, 20303), (626, 20306), (629, 20321), (636, 20348), (640, 20366), (644, 20378), (653, 20414), (679, 20516), (694, 20579), (702, 20615), (703, 20618), (705, 20624), (709, 20639), (714, 20657), (720, 20681), (724, 20696), (725, 20699), (730, 20717), (735, 20750), (740, 20771), (752, 20828), (759, 20882), (761, 20891), (781, 20945), (784, 20972), (787, 20990), (796, 21038), (797, 21044), (807, 21116), (826, 21194), (828, 21209), (836, 21248), (843, 21272), (855, 21341), (859, 21362), (885, 21455), (911, 21584),

Gene: Jaylociraptor_23 Start: 16160, Stop: 21646, Start Num: 2

Candidate Starts for Jaylociraptor_23:

(1, 16139), (Start: 2 @16160 has 33 MA's), (3, 16190), (14, 16334), (42, 16544), (54, 16664), (61, 16703), (68, 16733), (70, 16757), (71, 16763), (72, 16784), (73, 16799), (79, 16886), (86, 16976), (87, 17012), (88, 17021), (90, 17048), (96, 17087), (97, 17096), (101, 17114), (105, 17135), (110, 17177), (111, 17186), (122, 17294), (134, 17399), (145, 17495), (154, 17561), (177, 17711), (192, 17795), (196, 17816), (207, 17858), (232, 17993), (267, 18125), (270, 18134), (279, 18170), (281, 18179), (292, 18221), (300, 18254), (340, 18407), (344, 18428), (354, 18491), (355, 18497), (357, 18503), (362, 18530), (367, 18551), (369, 18557), (370, 18560), (377, 18584), (386, 18629), (389, 18638), (390, 18641), (392, 18650), (405, 18725), (411, 18752), (417, 18770), (423, 18788), (426, 18806), (430, 18827), (441, 18878), (455, 18944), (459, 18959), (477, 19046), (480, 19064), (484, 19091), (510, 19184), (519, 19226), (520, 19235), (528, 19271), (529, 19274), (533, 19289), (534, 19292), (537, 19304), (552, 19346), (553, 19349), (567, 19397), (571, 19433), (573, 19439), (578, 19460), (587, 19484), (597, 19514), (615, 19574), (625, 19607), (626, 19610), (629, 19625), (632, 19637), (638, 19661), (649, 19703), (652, 19715), (653, 19718), (667, 19766), (672, 19796), (677, 19811), (684, 19844), (687, 19859), (703, 19922), (722, 19994), (724, 20000), (725, 20003), (733, 20039),

(745, 20105), (760, 20192), (761, 20195), (787, 20294), (796, 20342), (797, 20348), (827, 20507), (890, 20780), (899, 20816), (909, 20882), (924, 21005), (937, 21098), (940, 21119), (947, 21167), (949, 21173), (950, 21179), (957, 21224), (970, 21332), (973, 21353), (979, 21401), (986, 21488), (992, 21590), (993, 21599),

Gene: Jazzy4900_24 Start: 18500, Stop: 23560, Start Num: 5

Candidate Starts for Jazzy4900_24:

(5, 18500), (7, 18530), (11, 18584), (13, 18605), (31, 18812), (33, 18821), (34, 18824), (49, 18941), (55, 18974), (61, 19007), (69, 19046), (72, 19088), (79, 19190), (81, 19226), (86, 19280), (87, 19316), (89, 19337), (96, 19391), (119, 19523), (120, 19535), (121, 19544), (127, 19580), (145, 19757), (151, 19790), (159, 19862), (163, 19895), (164, 19898), (179, 19982), (212, 20207), (216, 20243), (218, 20267), (221, 20279), (240, 20405), (268, 20573), (293, 20726), (294, 20729), (314, 20852), (315, 20858), (327, 20909), (337, 20972), (344, 21026), (348, 21056), (362, 21128), (370, 21158), (373, 21167), (377, 21182), (386, 21227), (392, 21248), (394, 21254), (401, 21299), (423, 21386), (430, 21428), (444, 21503), (462, 21572), (475, 21635), (480, 21665), (491, 21713), (494, 21722), (507, 21782), (528, 21878), (537, 21911), (539, 21920), (544, 21932), (545, 21935), (552, 21953), (557, 21974), (567, 22004), (568, 22013), (571, 22040), (579, 22070), (587, 22091), (602, 22136), (610, 22163), (615, 22181), (636, 22259), (648, 22307), (649, 22310), (659, 22346), (669, 22388), (677, 22418), (678, 22421), (682, 22445), (684, 22451), (685, 22460), (707, 22541), (720, 22592), (725, 22610), (732, 22643), (733, 22646), (745, 22712), (759, 22793), (781, 22922), (787, 22967), (803, 23057), (820, 23138), (822, 23147), (826, 23171), (834, 23216), (838, 23234), (843, 23249), (855, 23318), (886, 23429),

Gene: JeNeSaisPas_39 Start: 29784, Stop: 34304, Start Num: 23

Candidate Starts for JeNeSaisPas_39:

(Start: 19 @29754 has 170 MA's), (Start: 23 @29784 has 3 MA's), (34, 29859), (40, 29895), (49, 29973), (78, 30180), (79, 30222), (87, 30348), (92, 30393), (93, 30408), (96, 30423), (101, 30450), (105, 30471), (108, 30495), (110, 30513), (122, 30630), (129, 30675), (132, 30693), (144, 30816), (146, 30843), (149, 30855), (152, 30876), (182, 31071), (198, 31158), (210, 31206), (219, 31257), (250, 31395), (252, 31404), (282, 31524), (304, 31602), (305, 31611), (344, 31779), (358, 31857), (367, 31902), (370, 31911), (377, 31935), (386, 31980), (392, 32001), (409, 32097), (420, 32130), (426, 32160), (432, 32187), (442, 32241), (444, 32256), (445, 32259), (464, 32340), (470, 32367), (480, 32418), (484, 32445), (491, 32466), (492, 32469), (502, 32511), (523, 32607), (528, 32628), (532, 32640), (537, 32661), (539, 32670), (544, 32682), (557, 32724), (567, 32754), (568, 32763), (576, 32811), (577, 32814), (584, 32832), (587, 32841), (603, 32892), (606, 32901), (615, 32931), (626, 32967), (632, 32994), (653, 33075), (654, 33078), (674, 33159), (678, 33171), (684, 33201), (687, 33216), (690, 33225), (694, 33240), (703, 33279), (714, 33318), (718, 33333), (720, 33342), (723, 33354), (726, 33363), (727, 33366), (735, 33411), (736, 33417), (748, 33474), (752, 33489), (756, 33519), (772, 33615), (781, 33672), (787, 33717), (801, 33786), (814, 33867), (820, 33888), (826, 33921), (834, 33966), (836, 33975), (840, 33990), (843, 33996), (855, 34065), (859, 34083), (873, 34134),

Gene: Jeremy4pt0_23 Start: 17240, Stop: 21790, Start Num: 19

Candidate Starts for Jeremy4pt0_23:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 170 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (344, 19262), (355, 19331), (356, 19334), (365, 19376), (367, 19385), (370, 19394), (379, 19424), (386, 19463), (388, 19469), (392, 19484), (399, 19526), (423, 19622), (426, 19643), (427, 19646), (431, 19667), (442, 19724), (444, 19739), (451, 19769), (455, 19781), (462, 19808),

(464, 19823), (475, 19871), (480, 19901), (482, 19916), (491, 19949), (493, 19955), (502, 19994), (505, 20003), (507, 20015), (512, 20036), (525, 20102), (528, 20111), (537, 20144), (538, 20150), (539, 20153), (544, 20165), (545, 20168), (553, 20189), (558, 20210), (568, 20246), (576, 20294), (587, 20324), (615, 20414), (631, 20471), (642, 20516), (646, 20534), (654, 20561), (656, 20570), (658, 20576), (672, 20636), (676, 20648), (679, 20660), (691, 20714), (699, 20750), (701, 20756), (703, 20762), (705, 20768), (715, 20804), (721, 20828), (722, 20834), (724, 20840), (725, 20843), (735, 20894), (738, 20906), (745, 20945), (768, 21077), (776, 21113), (781, 21155), (787, 21200), (803, 21290), (822, 21380), (826, 21404), (830, 21428), (832, 21440), (834, 21449), (837, 21461), (840, 21473), (850, 21518), (856, 21548), (859, 21566), (869, 21605), (895, 21683),

Gene: Jodelie19_33 Start: 24936, Stop: 30050, Start Num: 19

Candidate Starts for Jodelie19_33:

(Start: 19 @24936 has 170 MA's), (Start: 23 @24966 has 3 MA's), (28, 25011), (49, 25155), (61, 25221), (71, 25281), (72, 25302), (79, 25404), (87, 25530), (90, 25566), (96, 25605), (105, 25653), (110, 25695), (117, 25767), (122, 25815), (137, 25941), (145, 26016), (146, 26028), (151, 26049), (163, 26154), (164, 26157), (207, 26379), (220, 26445), (236, 26535), (247, 26571), (260, 26622), (267, 26670), (271, 26682), (300, 26826), (308, 26865), (313, 26892), (344, 27054), (351, 27102), (354, 27117), (355, 27123), (360, 27141), (371, 27189), (386, 27255), (398, 27306), (399, 27318), (402, 27336), (415, 27390), (426, 27435), (430, 27456), (433, 27465), (437, 27486), (441, 27507), (451, 27561), (452, 27564), (455, 27573), (461, 27594), (463, 27606), (467, 27627), (469, 27633), (473, 27651), (480, 27687), (485, 27717), (499, 27765), (502, 27777), (504, 27783), (505, 27786), (507, 27798), (508, 27801), (513, 27822), (520, 27858), (533, 27912), (534, 27915), (537, 27927), (539, 27936), (545, 27948), (547, 27951), (561, 27999), (566, 28014), (567, 28017), (568, 28026), (570, 28047), (576, 28074), (577, 28077), (583, 28101), (587, 28113), (593, 28134), (595, 28146), (597, 28155), (601, 28167), (609, 28194), (612, 28203), (619, 28227), (621, 28233), (626, 28251), (639, 28305), (643, 28320), (662, 28389), (688, 28500), (717, 28611), (729, 28656), (746, 28746), (767, 28869), (771, 28890), (780, 28953), (783, 28980), (795, 29052), (798, 29064), (799, 29073), (805, 29127), (813, 29148), (815, 29160), (849, 29322), (865, 29409), (871, 29427), (879, 29457), (886, 29475), (887, 29478), (890, 29490), (898, 29517), (915, 29628), (923, 29703), (929, 29751), (938, 29805), (944, 29832), (961, 29946), (975, 30036),

Gene: JoyLin_26 Start: 20566, Stop: 25143, Start Num: 19

Candidate Starts for JoyLin_26:

(Start: 19 @20566 has 170 MA's), (Start: 23 @20599 has 3 MA's), (45, 20746), (57, 20836), (58, 20839), (79, 21034), (87, 21160), (96, 21235), (105, 21283), (110, 21325), (122, 21445), (136, 21562), (146, 21658), (177, 21862), (180, 21874), (193, 21955), (221, 22090), (238, 22183), (254, 22246), (264, 22285), (280, 22348), (286, 22363), (333, 22567), (344, 22618), (360, 22705), (366, 22735), (369, 22747), (370, 22750), (374, 22762), (377, 22774), (383, 22801), (393, 22843), (400, 22888), (420, 22969), (422, 22975), (426, 22999), (428, 23005), (441, 23071), (446, 23107), (453, 23131), (462, 23164), (466, 23191), (468, 23200), (472, 23218), (477, 23239), (482, 23272), (489, 23299), (490, 23302), (502, 23353), (510, 23383), (512, 23395), (528, 23470), (534, 23491), (536, 23497), (540, 23512), (567, 23596), (568, 23605), (571, 23632), (587, 23683), (599, 23719), (615, 23773), (636, 23851), (660, 23941), (668, 23971), (676, 24007), (684, 24043), (694, 24082), (708, 24139), (714, 24160), (720, 24184), (721, 24187), (724, 24199), (726, 24205), (744, 24295), (750, 24325), (751, 24328), (752, 24331), (760, 24391), (764, 24406), (768, 24436), (773, 24460), (787, 24559), (806, 24679), (807, 24685), (830, 24787), (832, 24799), (834, 24808), (856, 24904), (857, 24907), (911, 25132),

Gene: JulesRay_29 Start: 20535, Stop: 25637, Start Num: 19

Candidate Starts for JulesRay_29:

(Start: 19 @20535 has 170 MA's), (Start: 23 @20565 has 3 MA's), (44, 20703), (49, 20754), (51, 20763), (53, 20778), (56, 20799), (61, 20820), (68, 20850), (71, 20880), (72, 20901), (79, 21003), (84, 21063), (88, 21138), (89, 21150), (92, 21174), (96, 21204), (99, 21219), (105, 21252), (110, 21294),

(115, 21345), (124, 21399), (125, 21402), (135, 21501), (138, 21525), (151, 21621), (160, 21705), (163, 21726), (164, 21729), (175, 21798), (177, 21804), (178, 21810), (Start: 213 @21987 has 1 MA's), (224, 22038), (233, 22089), (247, 22143), (248, 22146), (276, 22278), (283, 22317), (300, 22398), (301, 22401), (318, 22476), (332, 22533), (342, 22617), (344, 22626), (355, 22695), (357, 22701), (360, 22713), (362, 22728), (363, 22731), (368, 22752), (381, 22800), (386, 22827), (392, 22848), (395, 22857), (398, 22878), (399, 22890), (401, 22899), (402, 22908), (415, 22962), (416, 22965), (423, 22986), (430, 23028), (439, 23064), (441, 23079), (442, 23088), (444, 23103), (446, 23115), (448, 23124), (458, 23157), (461, 23166), (479, 23250), (480, 23259), (482, 23274), (487, 23295), (499, 23337), (505, 23358), (508, 23373), (510, 23379), (518, 23415), (520, 23430), (534, 23487), (537, 23499), (539, 23508), (545, 23520), (551, 23532), (552, 23538), (557, 23559), (561, 23571), (567, 23589), (568, 23598), (569, 23613), (570, 23619), (573, 23631), (583, 23673), (584, 23676), (587, 23685), (593, 23706), (595, 23718), (609, 23766), (612, 23775), (619, 23799), (621, 23805), (626, 23823), (627, 23832), (651, 23922), (656, 23940), (657, 23943), (662, 23961), (703, 24132), (717, 24183), (748, 24327), (771, 24462), (779, 24513), (798, 24636), (805, 24699), (818, 24747), (819, 24753), (821, 24762), (831, 24810), (846, 24882), (858, 24942), (863, 24963), (864, 24966), (872, 25017), (875, 25026), (879, 25044), (887, 25065), (890, 25077), (907, 25170), (915, 25215), (923, 25290), (925, 25308), (927, 25329), (943, 25416), (960, 25527), (975, 25623),

Gene: Kardashian_22 Start: 16096, Stop: 21585, Start Num: 2

Candidate Starts for Kardashian_22:

(1, 16075), (Start: 2 @16096 has 33 MA's), (3, 16126), (14, 16270), (20, 16354), (25, 16405), (54, 16612), (68, 16681), (79, 16834), (81, 16870), (87, 16960), (96, 17035), (105, 17083), (110, 17125), (133, 17317), (138, 17383), (154, 17512), (166, 17593), (177, 17662), (193, 17755), (209, 17818), (Start: 213 @17845 has 1 MA's), (237, 17968), (270, 18085), (273, 18088), (275, 18097), (293, 18175), (300, 18205), (317, 18277), (326, 18292), (344, 18367), (354, 18430), (355, 18436), (358, 18445), (370, 18499), (389, 18577), (390, 18580), (411, 18691), (423, 18727), (426, 18745), (441, 18817), (447, 18856), (459, 18898), (469, 18949), (479, 18994), (496, 19072), (512, 19135), (514, 19141), (519, 19165), (520, 19174), (527, 19207), (528, 19210), (571, 19372), (572, 19375), (573, 19378), (576, 19393), (584, 19414), (587, 19423), (606, 19483), (611, 19498), (615, 19513), (625, 19546), (627, 19558), (630, 19567), (641, 19612), (644, 19621), (652, 19654), (653, 19657), (658, 19675), (684, 19783), (704, 19864), (706, 19870), (718, 19915), (725, 19942), (731, 19969), (733, 19978), (745, 20044), (760, 20131), (761, 20134), (778, 20167), (787, 20233), (796, 20281), (797, 20287), (803, 20323), (827, 20446), (878, 20680), (906, 20806), (917, 20893), (926, 20974), (931, 20995), (937, 21037), (940, 21058), (949, 21112), (957, 21163), (963, 21211), (969, 21265), (972, 21280), (989, 21454),

Gene: Kardesai_20 Start: 16796, Stop: 21274, Start Num: 19

Candidate Starts for Kardesai_20:

(Start: 18 @16775 has 2 MA's), (Start: 19 @16796 has 170 MA's), (Start: 23 @16826 has 3 MA's), (30, 16880), (40, 16937), (68, 17111), (71, 17141), (78, 17222), (79, 17264), (80, 17282), (84, 17324), (89, 17411), (93, 17450), (96, 17465), (99, 17480), (105, 17513), (117, 17591), (119, 17606), (126, 17654), (128, 17669), (133, 17711), (141, 17807), (145, 17840), (151, 17873), (164, 17981), (174, 18047), (182, 18080), (184, 18089), (185, 18092), (187, 18110), (246, 18392), (255, 18416), (260, 18446), (302, 18605), (317, 18665), (344, 18794), (351, 18842), (358, 18872), (362, 18896), (365, 18908), (367, 18917), (370, 18926), (377, 18950), (386, 18995), (392, 19016), (405, 19091), (413, 19124), (423, 19154), (426, 19175), (430, 19196), (442, 19256), (443, 19262), (451, 19301), (457, 19319), (475, 19403), (480, 19433), (485, 19463), (491, 19481), (502, 19529), (508, 19553), (512, 19571), (515, 19580), (516, 19589), (518, 19595), (521, 19616), (528, 19646), (537, 19679), (538, 19685), (543, 19694), (552, 19721), (559, 19748), (568, 19781), (571, 19808), (573, 19814), (580, 19841), (587, 19859), (597, 19889), (600, 19898), (603, 19910), (605, 19916), (606, 19919), (610, 19931), (615, 19949), (623, 19976), (625, 19982), (642, 20051), (649, 20078), (653, 20093), (679, 20195), (702, 20294), (703, 20297), (705, 20303), (709, 20318), (714, 20336), (724, 20375), (725, 20378), (730, 20396), (735, 20429), (740, 20450), (752, 20507), (759, 20561), (781, 20624), (784, 20651),

(787, 20669), (796, 20717), (797, 20723), (807, 20795), (826, 20873), (828, 20888), (836, 20927), (843, 20951), (847, 20975), (855, 21020), (859, 21041), (911, 21263),

Gene: KeaneyLin_20 Start: 17193, Stop: 21671, Start Num: 19

Candidate Starts for KeaneyLin_20:

(Start: 18 @17172 has 2 MA's), (Start: 19 @17193 has 170 MA's), (Start: 23 @17223 has 3 MA's), (30, 17277), (40, 17334), (68, 17508), (71, 17538), (78, 17619), (79, 17661), (80, 17679), (84, 17721), (89, 17808), (96, 17862), (99, 17877), (105, 17910), (117, 17988), (119, 18003), (126, 18051), (133, 18108), (141, 18204), (145, 18237), (151, 18270), (164, 18378), (174, 18444), (182, 18477), (184, 18486), (185, 18489), (187, 18507), (246, 18789), (255, 18813), (260, 18843), (302, 19002), (317, 19062), (344, 19191), (351, 19239), (358, 19269), (362, 19293), (365, 19305), (367, 19314), (370, 19323), (377, 19347), (386, 19392), (392, 19413), (405, 19488), (409, 19509), (410, 19512), (413, 19521), (423, 19551), (430, 19593), (442, 19653), (443, 19659), (444, 19668), (452, 19701), (456, 19713), (457, 19716), (470, 19779), (475, 19800), (480, 19830), (485, 19860), (491, 19878), (502, 19926), (508, 19950), (512, 19968), (515, 19977), (521, 20013), (528, 20043), (537, 20076), (538, 20082), (539, 20085), (544, 20097), (552, 20118), (567, 20169), (568, 20178), (574, 20214), (584, 20247), (587, 20256), (597, 20286), (600, 20295), (603, 20307), (615, 20346), (623, 20373), (625, 20379), (626, 20382), (629, 20397), (636, 20424), (644, 20454), (653, 20490), (679, 20592), (694, 20655), (702, 20691), (709, 20715), (714, 20733), (724, 20772), (726, 20778), (730, 20793), (734, 20814), (735, 20826), (759, 20958), (781, 21021), (784, 21048), (787, 21066), (796, 21114), (797, 21120), (807, 21192), (826, 21270), (832, 21306), (836, 21324), (843, 21348), (847, 21372), (855, 21417), (859, 21438), (911, 21660),

Gene: Kenosha_32 Start: 24052, Stop: 29163, Start Num: 19

Candidate Starts for Kenosha_32:

(Start: 19 @24052 has 170 MA's), (Start: 23 @24082 has 3 MA's), (28, 24127), (49, 24271), (60, 24331), (61, 24337), (71, 24397), (72, 24418), (79, 24520), (86, 24610), (87, 24646), (90, 24682), (96, 24721), (101, 24748), (105, 24769), (110, 24811), (117, 24883), (122, 24931), (137, 25057), (145, 25132), (146, 25144), (151, 25165), (163, 25270), (164, 25273), (184, 25381), (233, 25633), (260, 25738), (272, 25807), (277, 25828), (291, 25909), (293, 25912), (300, 25939), (308, 25978), (313, 26005), (340, 26146), (344, 26167), (354, 26230), (355, 26236), (360, 26254), (361, 26260), (371, 26302), (375, 26314), (377, 26323), (386, 26368), (398, 26419), (399, 26431), (401, 26440), (402, 26449), (426, 26548), (430, 26569), (433, 26578), (438, 26602), (439, 26605), (440, 26611), (451, 26674), (452, 26677), (455, 26686), (458, 26698), (460, 26704), (461, 26707), (463, 26719), (467, 26740), (469, 26746), (470, 26749), (475, 26770), (480, 26800), (482, 26815), (485, 26830), (499, 26878), (502, 26890), (504, 26896), (505, 26899), (507, 26911), (508, 26914), (520, 26971), (533, 27025), (534, 27028), (539, 27049), (545, 27061), (547, 27064), (560, 27109), (561, 27112), (566, 27127), (567, 27130), (568, 27139), (569, 27154), (570, 27160), (571, 27166), (576, 27187), (577, 27190), (581, 27202), (584, 27217), (587, 27226), (593, 27247), (595, 27259), (601, 27280), (609, 27307), (619, 27340), (621, 27346), (626, 27364), (633, 27394), (643, 27433), (691, 27625), (709, 27694), (729, 27769), (746, 27859), (771, 28003), (790, 28132), (795, 28165), (798, 28177), (799, 28186), (805, 28240), (813, 28261), (815, 28273), (818, 28288), (831, 28351), (849, 28435), (865, 28522), (871, 28540), (872, 28543), (879, 28570), (886, 28588), (887, 28591), (889, 28597), (890, 28603), (898, 28630), (915, 28741), (923, 28816), (933, 28885), (938, 28918), (943, 28942), (961, 29059), (975, 29149),

Gene: Kerry_29 Start: 20616, Stop: 25730, Start Num: 19

Candidate Starts for Kerry_29:

(Start: 19 @20616 has 170 MA's), (Start: 23 @20646 has 3 MA's), (45, 20793), (48, 20829), (49, 20835), (56, 20880), (61, 20901), (68, 20931), (79, 21096), (84, 21156), (88, 21231), (92, 21267), (93, 21282), (96, 21297), (99, 21312), (105, 21345), (115, 21438), (124, 21492), (125, 21495), (151, 21714), (163, 21819), (164, 21822), (175, 21891), (177, 21897), (Start: 213 @22080 has 1 MA's), (224, 22131), (233, 22182), (247, 22236), (248, 22239), (276, 22371), (295, 22473), (300, 22491), (301,

22494), (318, 22569), (332, 22626), (342, 22710), (344, 22719), (360, 22806), (368, 22845), (381, 22893), (386, 22920), (392, 22941), (395, 22950), (398, 22971), (399, 22983), (401, 22992), (402, 23001), (407, 23028), (415, 23055), (416, 23058), (423, 23079), (430, 23121), (436, 23148), (439, 23157), (441, 23172), (442, 23181), (444, 23196), (446, 23208), (448, 23217), (452, 23229), (458, 23250), (461, 23259), (479, 23343), (480, 23352), (482, 23367), (483, 23370), (487, 23388), (491, 23400), (492, 23403), (499, 23430), (505, 23451), (508, 23466), (518, 23508), (520, 23523), (534, 23580), (537, 23592), (539, 23601), (545, 23613), (551, 23625), (552, 23631), (557, 23652), (561, 23664), (567, 23682), (568, 23691), (569, 23706), (570, 23712), (573, 23724), (583, 23766), (584, 23769), (587, 23778), (593, 23799), (595, 23811), (609, 23859), (612, 23868), (619, 23892), (621, 23898), (626, 23916), (627, 23925), (633, 23946), (651, 24015), (656, 24033), (657, 24036), (662, 24054), (692, 24180), (703, 24225), (717, 24276), (748, 24420), (771, 24555), (779, 24606), (790, 24684), (798, 24729), (805, 24792), (811, 24810), (818, 24840), (819, 24846), (831, 24903), (846, 24975), (858, 25035), (863, 25056), (864, 25059), (872, 25110), (875, 25119), (887, 25158), (890, 25170), (907, 25263), (915, 25308), (923, 25383), (927, 25422), (933, 25452), (943, 25509), (960, 25620), (975, 25716),

Gene: KevinMinion_26 Start: 20096, Stop: 24733, Start Num: 19

Candidate Starts for KevinMinion_26:

(Start: 18 @20075 has 2 MA's), (Start: 19 @20096 has 170 MA's), (Start: 23 @20126 has 3 MA's), (30, 20180), (31, 20189), (61, 20459), (62, 20462), (71, 20519), (72, 20540), (78, 20600), (79, 20642), (84, 20702), (89, 20789), (93, 20828), (96, 20843), (99, 20858), (105, 20891), (109, 20930), (110, 20933), (117, 20969), (119, 20984), (126, 21032), (163, 21356), (167, 21368), (175, 21428), (185, 21470), (194, 21530), (195, 21536), (198, 21545), (203, 21560), (204, 21569), (224, 21668), (225, 21680), (226, 21689), (228, 21701), (301, 21986), (313, 22046), (317, 22055), (344, 22196), (351, 22244), (356, 22268), (358, 22274), (367, 22319), (370, 22328), (377, 22352), (381, 22370), (391, 22415), (392, 22418), (395, 22427), (405, 22493), (416, 22535), (420, 22547), (423, 22556), (426, 22577), (437, 22628), (442, 22658), (444, 22673), (455, 22715), (460, 22733), (469, 22781), (470, 22784), (481, 22841), (507, 22949), (510, 22958), (520, 23009), (528, 23045), (537, 23078), (539, 23087), (544, 23099), (552, 23120), (554, 23126), (559, 23147), (567, 23171), (568, 23180), (584, 23249), (585, 23252), (586, 23255), (587, 23258), (597, 23288), (603, 23309), (610, 23330), (615, 23348), (618, 23357), (623, 23375), (638, 23435), (646, 23468), (650, 23483), (652, 23489), (653, 23492), (666, 23537), (672, 23570), (674, 23576), (679, 23594), (708, 23714), (709, 23717), (714, 23735), (733, 23813), (737, 23837), (752, 23906), (759, 23960), (781, 24089), (787, 24134), (823, 24317), (826, 24338), (830, 24362), (843, 24413), (856, 24482), (859, 24500),

Gene: Kinny_28 Start: 20843, Stop: 25486, Start Num: 19

Candidate Starts for Kinny_28:

(Start: 18 @20822 has 2 MA's), (Start: 19 @20843 has 170 MA's), (Start: 23 @20873 has 3 MA's), (30, 20927), (34, 20948), (40, 20984), (49, 21152), (60, 21212), (71, 21278), (72, 21299), (79, 21401), (80, 21419), (84, 21461), (88, 21536), (89, 21548), (96, 21602), (99, 21617), (105, 21650), (117, 21728), (119, 21743), (131, 21833), (137, 21902), (151, 22010), (157, 22064), (163, 22115), (164, 22118), (175, 22187), (185, 22229), (194, 22289), (195, 22295), (198, 22304), (203, 22319), (204, 22328), (224, 22427), (225, 22439), (228, 22460), (281, 22667), (289, 22691), (301, 22745), (317, 22814), (344, 22955), (356, 23027), (358, 23033), (367, 23078), (369, 23084), (370, 23087), (377, 23111), (381, 23129), (392, 23177), (395, 23186), (416, 23294), (423, 23315), (426, 23336), (436, 23384), (442, 23417), (444, 23432), (448, 23453), (460, 23492), (482, 23609), (507, 23708), (508, 23711), (520, 23768), (525, 23795), (528, 23804), (537, 23837), (539, 23846), (544, 23858), (567, 23930), (568, 23939), (576, 23987), (584, 24008), (586, 24014), (587, 24017), (606, 24077), (615, 24107), (618, 24116), (640, 24203), (641, 24206), (642, 24209), (646, 24227), (655, 24257), (666, 24296), (672, 24329), (673, 24332), (674, 24335), (676, 24341), (679, 24353), (691, 24407), (699, 24443), (709, 24476), (714, 24494), (720, 24518), (721, 24521), (742, 24623), (749, 24653), (752, 24665), (759, 24719), (762, 24731), (781, 24848), (787, 24893), (800, 24962), (826, 25097), (830, 25121), (840, 25166), (843, 25172), (850, 25211), (856, 25241),

Gene: Kureo_41 Start: 28594, Stop: 33114, Start Num: 23

Candidate Starts for Kureo_41:

(Start: 19 @28564 has 170 MA's), (Start: 23 @28594 has 3 MA's), (34, 28669), (40, 28705), (49, 28783), (78, 28990), (79, 29032), (87, 29158), (92, 29203), (93, 29218), (96, 29233), (101, 29260), (105, 29281), (108, 29305), (110, 29323), (122, 29440), (129, 29485), (132, 29503), (144, 29626), (146, 29653), (149, 29665), (152, 29686), (182, 29881), (198, 29968), (200, 29974), (210, 30016), (219, 30067), (250, 30205), (252, 30214), (282, 30334), (304, 30412), (305, 30421), (344, 30589), (358, 30667), (367, 30712), (370, 30721), (377, 30745), (386, 30790), (387, 30793), (392, 30811), (409, 30907), (420, 30940), (426, 30970), (432, 30997), (442, 31051), (444, 31066), (445, 31069), (464, 31150), (470, 31177), (480, 31228), (484, 31255), (491, 31276), (492, 31279), (502, 31321), (505, 31330), (523, 31417), (528, 31438), (532, 31450), (537, 31471), (539, 31480), (544, 31492), (557, 31534), (567, 31564), (568, 31573), (576, 31621), (577, 31624), (584, 31642), (587, 31651), (603, 31702), (606, 31711), (615, 31741), (626, 31777), (632, 31804), (653, 31885), (654, 31888), (674, 31969), (678, 31981), (684, 32011), (687, 32026), (690, 32035), (694, 32050), (703, 32089), (714, 32128), (718, 32143), (720, 32152), (723, 32164), (726, 32173), (727, 32176), (735, 32221), (736, 32227), (748, 32284), (752, 32299), (756, 32329), (772, 32425), (781, 32482), (787, 32527), (801, 32596), (814, 32677), (820, 32698), (826, 32731), (834, 32776), (836, 32785), (840, 32800), (843, 32806), (855, 32875), (859, 32893), (873, 32944),

Gene: Leathea_26 Start: 18979, Stop: 23520, Start Num: 19

Candidate Starts for Leathea_26:

(Start: 18 @18958 has 2 MA's), (Start: 19 @18979 has 170 MA's), (Start: 23 @19009 has 3 MA's), (30, 19063), (49, 19198), (66, 19282), (71, 19324), (78, 19405), (79, 19447), (84, 19507), (88, 19582), (93, 19633), (96, 19648), (99, 19663), (105, 19696), (108, 19720), (117, 19774), (119, 19789), (126, 19837), (137, 19948), (146, 20035), (151, 20056), (164, 20164), (175, 20233), (185, 20275), (194, 20335), (195, 20341), (198, 20350), (204, 20374), (224, 20473), (225, 20485), (228, 20506), (301, 20791), (317, 20860), (344, 20998), (346, 21010), (358, 21076), (362, 21100), (367, 21121), (369, 21127), (370, 21130), (377, 21154), (381, 21172), (392, 21220), (395, 21229), (399, 21262), (420, 21349), (423, 21358), (426, 21379), (442, 21460), (469, 21583), (470, 21586), (471, 21592), (474, 21604), (475, 21607), (507, 21751), (508, 21754), (520, 21811), (528, 21847), (537, 21880), (539, 21889), (544, 21901), (559, 21949), (567, 21973), (568, 21982), (576, 22030), (584, 22051), (587, 22060), (605, 22117), (606, 22120), (610, 22132), (615, 22150), (638, 22237), (640, 22246), (641, 22249), (642, 22252), (646, 22270), (666, 22339), (672, 22372), (673, 22375), (676, 22384), (679, 22396), (699, 22486), (709, 22519), (714, 22537), (716, 22546), (720, 22561), (721, 22564), (752, 22708), (759, 22762), (762, 22774), (768, 22813), (781, 22891), (787, 22936), (822, 23116), (826, 23140), (830, 23164), (840, 23209), (843, 23215), (850, 23254), (856, 23284), (876, 23362), (877, 23371), (902, 23452),

Gene: Lewando_29 Start: 20912, Stop: 25555, Start Num: 19

Candidate Starts for Lewando_29:

(Start: 18 @20891 has 2 MA's), (Start: 19 @20912 has 170 MA's), (Start: 23 @20942 has 3 MA's), (30, 20996), (34, 21017), (40, 21053), (49, 21221), (51, 21230), (60, 21281), (71, 21347), (72, 21368), (79, 21470), (80, 21488), (84, 21530), (88, 21605), (89, 21617), (96, 21671), (99, 21686), (105, 21719), (117, 21797), (119, 21812), (131, 21902), (137, 21971), (151, 22079), (157, 22133), (164, 22187), (175, 22256), (185, 22298), (194, 22358), (195, 22364), (198, 22373), (203, 22388), (204, 22397), (224, 22496), (225, 22508), (228, 22529), (281, 22736), (289, 22760), (301, 22814), (317, 22883), (344, 23024), (356, 23096), (358, 23102), (367, 23147), (369, 23153), (370, 23156), (377, 23180), (381, 23198), (391, 23243), (392, 23246), (394, 23252), (395, 23255), (399, 23288), (402, 23306), (416, 23363), (423, 23384), (426, 23405), (436, 23453), (442, 23486), (444, 23501), (460, 23561), (471, 23618), (482, 23678), (507, 23777), (508, 23780), (520, 23837), (525, 23864), (528, 23873), (537, 23906), (539, 23915), (544, 23927), (552, 23948), (567, 23999), (568, 24008), (576, 24056), (584, 24077), (586, 24083), (587, 24086), (606, 24146), (615, 24176), (618, 24185), (640, 24272),

(641, 24275), (642, 24278), (646, 24296), (650, 24311), (655, 24326), (666, 24365), (672, 24398), (673, 24401), (674, 24404), (676, 24410), (679, 24422), (709, 24545), (714, 24563), (737, 24665), (752, 24734), (759, 24788), (781, 24917), (787, 24962), (800, 25031), (826, 25166), (830, 25190), (840, 25235), (843, 25241), (850, 25280), (856, 25310), (859, 25328),

Gene: LibertyBell_21 Start: 14934, Stop: 20459, Start Num: 2

Candidate Starts for LibertyBell_21:

(1, 14913), (Start: 2 @14934 has 33 MA's), (3, 14964), (4, 14988), (29, 15264), (35, 15306), (36, 15309), (41, 15339), (61, 15552), (79, 15735), (87, 15861), (90, 15897), (96, 15936), (103, 15969), (105, 15984), (110, 16026), (133, 16218), (134, 16251), (151, 16380), (177, 16563), (178, 16569), (193, 16656), (209, 16719), (236, 16866), (246, 16899), (265, 16968), (275, 16998), (279, 17022), (300, 17106), (302, 17118), (317, 17178), (337, 17214), (344, 17268), (355, 17337), (369, 17397), (370, 17400), (386, 17469), (390, 17481), (420, 17619), (423, 17628), (426, 17646), (459, 17799), (482, 17919), (487, 17940), (491, 17952), (496, 17973), (497, 17976), (507, 18015), (514, 18042), (517, 18057), (519, 18066), (520, 18075), (527, 18108), (528, 18111), (555, 18195), (571, 18273), (572, 18276), (573, 18279), (576, 18294), (581, 18309), (584, 18315), (585, 18318), (587, 18324), (606, 18384), (611, 18399), (615, 18414), (625, 18447), (629, 18465), (640, 18510), (641, 18513), (649, 18543), (652, 18555), (653, 18558), (658, 18576), (677, 18651), (684, 18684), (694, 18723), (702, 18759), (708, 18780), (719, 18822), (723, 18837), (726, 18846), (729, 18858), (731, 18870), (733, 18879), (735, 18894), (740, 18915), (787, 19134), (827, 19347), (878, 19581), (906, 19707), (922, 19836), (935, 19932), (937, 19938), (940, 19959), (957, 20064), (962, 20103), (964, 20121), (969, 20166), (977, 20211), (984, 20307),

Gene: LilHuddy_27 Start: 20332, Stop: 24921, Start Num: 19

Candidate Starts for LilHuddy_27:

(Start: 18 @20311 has 2 MA's), (Start: 19 @20332 has 170 MA's), (Start: 23 @20362 has 3 MA's), (30, 20416), (60, 20611), (66, 20635), (68, 20647), (71, 20677), (78, 20758), (79, 20800), (80, 20818), (84, 20860), (86, 20890), (88, 20935), (89, 20947), (96, 21001), (99, 21016), (100, 21022), (105, 21049), (112, 21112), (117, 21127), (119, 21142), (122, 21175), (126, 21190), (132, 21238), (141, 21343), (151, 21409), (158, 21478), (164, 21517), (167, 21526), (171, 21541), (174, 21583), (175, 21586), (186, 21637), (210, 21751), (221, 21808), (234, 21880), (243, 21919), (253, 21946), (260, 21988), (283, 22084), (306, 22186), (308, 22192), (317, 22228), (344, 22375), (346, 22387), (352, 22429), (353, 22432), (362, 22477), (367, 22498), (370, 22507), (371, 22510), (377, 22531), (392, 22597), (393, 22600), (416, 22714), (423, 22735), (425, 22753), (426, 22756), (444, 22852), (446, 22864), (475, 22984), (480, 23014), (494, 23071), (502, 23107), (505, 23116), (507, 23128), (512, 23149), (515, 23158), (526, 23218), (536, 23251), (538, 23263), (539, 23266), (544, 23278), (554, 23305), (557, 23320), (559, 23326), (560, 23329), (567, 23350), (568, 23359), (584, 23428), (587, 23437), (600, 23476), (615, 23527), (642, 23629), (648, 23653), (649, 23656), (658, 23689), (659, 23692), (660, 23695), (661, 23698), (673, 23752), (674, 23755), (680, 23776), (703, 23875), (712, 23905), (715, 23917), (718, 23929), (722, 23947), (725, 23956), (726, 23959), (756, 24115), (759, 24139), (761, 24148), (772, 24211), (776, 24226), (787, 24313), (789, 24325), (797, 24367), (812, 24451), (826, 24517), (830, 24541), (840, 24586), (842, 24589), (843, 24592), (856, 24661), (857, 24664), (862, 24688), (906, 24871),

Gene: Linda_23 Start: 17240, Stop: 21790, Start Num: 19

Candidate Starts for Linda_23:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 170 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (344, 19262), (355, 19331), (356, 19334), (365, 19376), (367, 19385), (370, 19394),

(379, 19424), (386, 19463), (388, 19469), (392, 19484), (399, 19526), (423, 19622), (426, 19643), (427, 19646), (431, 19667), (442, 19724), (444, 19739), (451, 19769), (455, 19781), (462, 19808), (464, 19823), (475, 19871), (480, 19901), (482, 19916), (491, 19949), (493, 19955), (502, 19994), (505, 20003), (507, 20015), (512, 20036), (525, 20102), (528, 20111), (537, 20144), (538, 20150), (539, 20153), (544, 20165), (545, 20168), (553, 20189), (558, 20210), (568, 20246), (576, 20294), (587, 20324), (615, 20414), (631, 20471), (642, 20516), (646, 20534), (654, 20561), (656, 20570), (658, 20576), (672, 20636), (676, 20648), (679, 20660), (691, 20714), (699, 20750), (701, 20756), (703, 20762), (705, 20768), (715, 20804), (721, 20828), (722, 20834), (724, 20840), (725, 20843), (735, 20894), (738, 20906), (745, 20945), (768, 21077), (776, 21113), (781, 21155), (787, 21200), (803, 21290), (822, 21380), (826, 21404), (830, 21428), (832, 21440), (834, 21449), (837, 21461), (840, 21473), (850, 21518), (856, 21548), (859, 21566), (869, 21605), (895, 21683),

Gene: Loretta_26 Start: 19877, Stop: 24463, Start Num: 19

Candidate Starts for Loretta_26:

(Start: 18 @19856 has 2 MA's), (Start: 19 @19877 has 170 MA's), (Start: 23 @19907 has 3 MA's), (30, 19961), (40, 20018), (46, 20066), (60, 20156), (68, 20192), (71, 20222), (79, 20345), (84, 20405), (88, 20480), (96, 20546), (99, 20561), (105, 20594), (117, 20672), (119, 20687), (121, 20708), (122, 20720), (129, 20765), (133, 20792), (136, 20837), (141, 20888), (145, 20921), (151, 20954), (167, 21071), (173, 21119), (174, 21128), (197, 21245), (201, 21257), (202, 21260), (244, 21467), (260, 21527), (283, 21623), (296, 21677), (306, 21725), (308, 21731), (317, 21767), (344, 21911), (353, 21968), (355, 21980), (367, 22034), (370, 22043), (371, 22046), (377, 22067), (378, 22070), (387, 22115), (392, 22133), (405, 22208), (406, 22211), (408, 22223), (416, 22250), (423, 22271), (425, 22289), (426, 22292), (430, 22313), (442, 22373), (444, 22388), (445, 22391), (450, 22415), (451, 22418), (452, 22421), (460, 22448), (464, 22472), (466, 22484), (480, 22550), (482, 22565), (483, 22568), (487, 22586), (489, 22592), (490, 22595), (491, 22598), (502, 22643), (503, 22646), (505, 22652), (507, 22664), (512, 22685), (523, 22739), (524, 22742), (531, 22769), (538, 22799), (544, 22817), (550, 22826), (552, 22838), (557, 22859), (567, 22889), (568, 22898), (576, 22946), (579, 22955), (581, 22961), (587, 22976), (590, 22982), (597, 23006), (600, 23015), (613, 23057), (615, 23066), (626, 23102), (636, 23144), (640, 23162), (642, 23168), (648, 23192), (658, 23228), (672, 23288), (684, 23336), (685, 23345), (694, 23375), (712, 23444), (722, 23486), (725, 23495), (755, 23642), (756, 23654), (762, 23690), (776, 23765), (781, 23807), (787, 23852), (789, 23864), (797, 23906), (826, 24056), (830, 24080), (840, 24125), (842, 24128), (843, 24131), (847, 24155), (850, 24170), (856, 24200), (862, 24227), (908, 24422), (910, 24440),

Gene: LucySwiss_26 Start: 19986, Stop: 24578, Start Num: 19

Candidate Starts for LucySwiss_26:

(Start: 18 @19965 has 2 MA's), (Start: 19 @19986 has 170 MA's), (Start: 23 @20016 has 3 MA's), (30, 20070), (34, 20091), (40, 20127), (49, 20205), (60, 20265), (66, 20289), (68, 20301), (71, 20331), (74, 20382), (78, 20412), (79, 20454), (80, 20472), (84, 20514), (86, 20544), (88, 20589), (89, 20601), (96, 20655), (99, 20670), (101, 20682), (105, 20703), (119, 20796), (122, 20829), (126, 20844), (132, 20892), (151, 21063), (166, 21177), (167, 21180), (173, 21228), (194, 21342), (201, 21366), (239, 21561), (244, 21576), (246, 21582), (253, 21600), (265, 21672), (283, 21738), (306, 21840), (308, 21846), (316, 21879), (317, 21882), (323, 21909), (344, 22026), (353, 22083), (355, 22095), (367, 22149), (370, 22158), (371, 22161), (377, 22182), (386, 22227), (392, 22248), (414, 22359), (416, 22365), (423, 22386), (425, 22404), (430, 22428), (442, 22488), (444, 22503), (445, 22506), (451, 22533), (452, 22536), (480, 22665), (482, 22680), (483, 22683), (487, 22701), (489, 22707), (490, 22710), (494, 22722), (502, 22758), (505, 22767), (512, 22800), (523, 22854), (524, 22857), (528, 22875), (532, 22887), (539, 22917), (544, 22932), (550, 22941), (552, 22953), (568, 23013), (579, 23070), (584, 23082), (587, 23091), (600, 23130), (603, 23142), (613, 23172), (615, 23181), (635, 23256), (636, 23259), (640, 23277), (658, 23343), (660, 23349), (661, 23352), (673, 23406), (674, 23409), (705, 23535), (706, 23538), (712, 23559), (720, 23592), (722, 23601), (740, 23682), (746, 23715), (754, 23748), (762, 23805), (772, 23865), (777, 23889), (787, 23967), (789, 23979), (812, 24105), (822, 24147), (830, 24195), (837, 24228), (840, 24240), (843, 24246), (846, 24267), (847,

24270), (848, 24276), (856, 24315), (862, 24342), (906, 24528), (910, 24555),

Gene: Luthien_33 Start: 23500, Stop: 28611, Start Num: 19

Candidate Starts for Luthien_33:

(Start: 19 @23500 has 170 MA's), (Start: 23 @23530 has 3 MA's), (28, 23575), (49, 23719), (61, 23785), (71, 23845), (72, 23866), (79, 23968), (86, 24058), (87, 24094), (90, 24130), (96, 24169), (105, 24217), (110, 24259), (117, 24331), (122, 24379), (137, 24505), (145, 24580), (146, 24592), (151, 24613), (163, 24718), (164, 24721), (207, 24943), (220, 25009), (221, 25012), (233, 25081), (260, 25186), (272, 25255), (291, 25357), (293, 25360), (300, 25387), (308, 25426), (313, 25453), (344, 25615), (351, 25663), (355, 25684), (360, 25702), (371, 25750), (386, 25816), (394, 25843), (395, 25846), (397, 25864), (398, 25867), (401, 25888), (402, 25897), (415, 25951), (426, 25996), (430, 26017), (433, 26026), (440, 26059), (441, 26068), (444, 26092), (451, 26122), (452, 26125), (455, 26134), (458, 26146), (461, 26155), (463, 26167), (467, 26188), (469, 26194), (480, 26248), (499, 26326), (502, 26338), (504, 26344), (505, 26347), (508, 26362), (513, 26383), (520, 26419), (533, 26473), (534, 26476), (537, 26488), (539, 26497), (545, 26509), (547, 26512), (552, 26527), (559, 26554), (561, 26560), (566, 26575), (567, 26578), (568, 26587), (569, 26602), (570, 26608), (574, 26623), (576, 26635), (577, 26638), (587, 26674), (593, 26695), (595, 26707), (597, 26716), (601, 26728), (609, 26755), (616, 26779), (619, 26788), (621, 26794), (626, 26812), (643, 26881), (662, 26950), (698, 27106), (746, 27307), (771, 27451), (780, 27514), (783, 27541), (795, 27613), (798, 27625), (799, 27634), (805, 27688), (813, 27709), (815, 27721), (849, 27883), (865, 27970), (871, 27988), (879, 28018), (886, 28036), (887, 28039), (890, 28051), (898, 28078), (915, 28189), (923, 28264), (929, 28312), (938, 28366), (944, 28393), (961, 28507), (975, 28597),

Gene: Madamoto_23 Start: 16133, Stop: 21622, Start Num: 2

Candidate Starts for Madamoto_23:

(1, 16112), (Start: 2 @16133 has 33 MA's), (3, 16163), (14, 16307), (24, 16433), (42, 16517), (49, 16610), (51, 16619), (61, 16676), (68, 16706), (71, 16736), (72, 16757), (79, 16859), (87, 16985), (96, 17060), (105, 17108), (110, 17150), (133, 17339), (154, 17534), (161, 17594), (162, 17597), (167, 17618), (177, 17684), (207, 17831), (232, 17966), (270, 18107), (279, 18143), (281, 18152), (292, 18194), (300, 18227), (302, 18239), (313, 18290), (340, 18383), (344, 18404), (355, 18473), (357, 18479), (367, 18527), (370, 18536), (377, 18560), (386, 18605), (389, 18614), (390, 18617), (392, 18626), (411, 18728), (416, 18743), (423, 18764), (430, 18803), (432, 18809), (459, 18935), (469, 18986), (480, 19040), (496, 19109), (497, 19112), (508, 19154), (514, 19178), (519, 19202), (520, 19211), (528, 19247), (534, 19268), (567, 19373), (571, 19409), (573, 19415), (587, 19460), (615, 19550), (620, 19565), (625, 19583), (632, 19613), (636, 19628), (638, 19637), (644, 19658), (649, 19679), (652, 19691), (658, 19712), (677, 19787), (684, 19820), (703, 19898), (718, 19952), (722, 19970), (725, 19979), (733, 20015), (736, 20036), (781, 20225), (787, 20270), (827, 20483), (890, 20756), (937, 21074), (940, 21095), (947, 21143), (949, 21149), (950, 21155), (957, 21200), (963, 21248), (970, 21308), (976, 21338), (979, 21377), (992, 21566), (993, 21575),

Gene: Madvan_32 Start: 23284, Stop: 28395, Start Num: 19

Candidate Starts for Madvan_32:

(Start: 19 @23284 has 170 MA's), (Start: 23 @23314 has 3 MA's), (28, 23359), (49, 23503), (60, 23563), (61, 23569), (71, 23629), (72, 23650), (79, 23752), (86, 23842), (87, 23878), (90, 23914), (96, 23953), (101, 23980), (105, 24001), (110, 24043), (122, 24163), (137, 24289), (145, 24364), (146, 24376), (151, 24397), (159, 24469), (163, 24502), (164, 24505), (184, 24613), (233, 24865), (260, 24970), (272, 25039), (291, 25141), (293, 25144), (300, 25171), (308, 25210), (313, 25237), (344, 25399), (351, 25447), (355, 25468), (360, 25486), (371, 25534), (375, 25546), (386, 25600), (398, 25651), (399, 25663), (401, 25672), (402, 25681), (415, 25735), (426, 25780), (429, 25795), (430, 25801), (433, 25810), (434, 25816), (438, 25834), (439, 25837), (440, 25843), (441, 25852), (451, 25906), (452, 25909), (455, 25918), (460, 25936), (461, 25939), (463, 25951), (467, 25972), (469, 25978), (470, 25981), (475, 26002), (480, 26032), (482, 26047), (491, 26080), (499, 26110), (502, 26122), (504, 26128), (505, 26131), (507, 26143), (508, 26146), (520, 26203), (533, 26257), (534,

26260), (539, 26281), (545, 26293), (547, 26296), (560, 26341), (561, 26344), (566, 26359), (567, 26362), (568, 26371), (569, 26386), (570, 26392), (571, 26398), (576, 26419), (577, 26422), (581, 26434), (584, 26449), (587, 26458), (593, 26479), (595, 26491), (601, 26512), (609, 26539), (619, 26572), (621, 26578), (626, 26596), (633, 26626), (643, 26665), (662, 26734), (709, 26926), (729, 27001), (746, 27091), (771, 27235), (780, 27298), (790, 27364), (795, 27397), (798, 27409), (805, 27472), (813, 27493), (815, 27505), (819, 27526), (831, 27583), (849, 27667), (865, 27754), (871, 27772), (879, 27802), (886, 27820), (887, 27823), (889, 27829), (890, 27835), (898, 27862), (915, 27973), (923, 28048), (933, 28117), (938, 28150), (943, 28174), (961, 28291), (975, 28381),

Gene: Magel_30 Start: 21988, Stop: 25638, Start Num: 213

Candidate Starts for Magel_30:

(Start: 213 @21988 has 1 MA's), (224, 22039), (233, 22090), (247, 22144), (248, 22147), (276, 22279), (295, 22381), (300, 22399), (301, 22402), (318, 22477), (332, 22534), (342, 22618), (344, 22627), (360, 22714), (368, 22753), (381, 22801), (386, 22828), (392, 22849), (395, 22858), (398, 22879), (399, 22891), (401, 22900), (402, 22909), (407, 22936), (415, 22963), (416, 22966), (423, 22987), (430, 23029), (436, 23056), (439, 23065), (441, 23080), (442, 23089), (444, 23104), (446, 23116), (448, 23125), (452, 23137), (458, 23158), (461, 23167), (479, 23251), (480, 23260), (482, 23275), (483, 23278), (487, 23296), (491, 23308), (492, 23311), (499, 23338), (505, 23359), (508, 23374), (518, 23416), (520, 23431), (534, 23488), (537, 23500), (539, 23509), (545, 23521), (551, 23533), (552, 23539), (557, 23560), (561, 23572), (567, 23590), (568, 23599), (569, 23614), (570, 23620), (573, 23632), (583, 23674), (584, 23677), (587, 23686), (593, 23707), (595, 23719), (609, 23767), (612, 23776), (619, 23800), (621, 23806), (626, 23824), (627, 23833), (633, 23854), (651, 23923), (656, 23941), (657, 23944), (662, 23962), (692, 24088), (703, 24133), (717, 24184), (748, 24328), (771, 24463), (779, 24514), (790, 24592), (798, 24637), (805, 24700), (811, 24718), (818, 24748), (819, 24754), (831, 24811), (846, 24883), (858, 24943), (863, 24964), (864, 24967), (872, 25018), (875, 25027), (887, 25066), (890, 25078), (907, 25171), (915, 25216), (923, 25291), (927, 25330), (933, 25360), (943, 25417), (960, 25528), (975, 25624),

Gene: MajinBuu_32 Start: 23507, Stop: 28621, Start Num: 19

Candidate Starts for MajinBuu_32:

(Start: 19 @23507 has 170 MA's), (Start: 23 @23537 has 3 MA's), (28, 23582), (49, 23726), (61, 23792), (71, 23852), (72, 23873), (79, 23975), (87, 24101), (90, 24137), (96, 24176), (105, 24224), (110, 24266), (117, 24338), (122, 24386), (137, 24512), (145, 24587), (146, 24599), (151, 24620), (163, 24725), (164, 24728), (207, 24950), (220, 25016), (236, 25106), (247, 25142), (260, 25193), (267, 25241), (271, 25253), (300, 25397), (308, 25436), (313, 25463), (344, 25625), (351, 25673), (354, 25688), (355, 25694), (360, 25712), (371, 25760), (386, 25826), (398, 25877), (399, 25889), (402, 25907), (415, 25961), (426, 26006), (430, 26027), (433, 26036), (437, 26057), (441, 26078), (451, 26132), (452, 26135), (455, 26144), (461, 26165), (463, 26177), (467, 26198), (469, 26204), (473, 26222), (480, 26258), (485, 26288), (499, 26336), (502, 26348), (504, 26354), (505, 26357), (507, 26369), (508, 26372), (513, 26393), (520, 26429), (533, 26483), (534, 26486), (539, 26507), (545, 26519), (547, 26522), (561, 26570), (566, 26585), (567, 26588), (568, 26597), (570, 26618), (576, 26645), (577, 26648), (583, 26672), (587, 26684), (593, 26705), (595, 26717), (597, 26726), (601, 26738), (609, 26765), (612, 26774), (619, 26798), (621, 26804), (626, 26822), (639, 26876), (643, 26891), (662, 26960), (677, 27020), (688, 27071), (717, 27182), (729, 27227), (746, 27317), (767, 27440), (771, 27461), (780, 27524), (783, 27551), (795, 27623), (798, 27635), (799, 27644), (805, 27698), (813, 27719), (815, 27731), (849, 27893), (865, 27980), (871, 27998), (879, 28028), (886, 28046), (887, 28049), (890, 28061), (898, 28088), (915, 28199), (923, 28274), (929, 28322), (938, 28376), (944, 28403), (961, 28517), (975, 28607),

Gene: Makai_26 Start: 20118, Stop: 24710, Start Num: 19

Candidate Starts for Makai_26:

(Start: 18 @20097 has 2 MA's), (Start: 19 @20118 has 170 MA's), (Start: 23 @20148 has 3 MA's), (30, 20202), (40, 20259), (49, 20337), (60, 20397), (66, 20421), (71, 20463), (79, 20586), (80, 20604), (84,

20646), (88, 20721), (89, 20733), (93, 20772), (96, 20787), (99, 20802), (105, 20835), (117, 20913), (119, 20928), (129, 21006), (137, 21087), (151, 21195), (167, 21312), (169, 21318), (192, 21462), (193, 21471), (210, 21537), (260, 21774), (275, 21834), (281, 21867), (283, 21870), (306, 21972), (308, 21978), (317, 22014), (344, 22158), (351, 22206), (352, 22212), (353, 22215), (362, 22260), (367, 22281), (370, 22290), (371, 22293), (377, 22314), (378, 22317), (392, 22380), (393, 22383), (416, 22497), (423, 22518), (425, 22536), (426, 22539), (437, 22590), (442, 22620), (444, 22635), (446, 22647), (472, 22758), (475, 22767), (480, 22797), (501, 22887), (502, 22890), (505, 22899), (507, 22911), (512, 22932), (516, 22950), (523, 22986), (528, 23007), (537, 23040), (555, 23097), (567, 23139), (568, 23148), (576, 23196), (584, 23217), (587, 23226), (597, 23256), (615, 23316), (626, 23352), (634, 23388), (646, 23436), (659, 23481), (661, 23487), (667, 23508), (672, 23538), (684, 23586), (694, 23625), (695, 23628), (722, 23736), (725, 23745), (732, 23778), (750, 23868), (758, 23916), (772, 24000), (787, 24102), (789, 24114), (797, 24156), (820, 24273), (822, 24282), (830, 24330), (840, 24375), (843, 24381), (856, 24450), (862, 24477), (906, 24660),

Gene: Mardi_27 Start: 19509, Stop: 24161, Start Num: 18

Candidate Starts for Mardi_27:

(Start: 18 @19509 has 2 MA's), (Start: 19 @19530 has 170 MA's), (Start: 23 @19560 has 3 MA's), (30, 19614), (31, 19623), (61, 19893), (62, 19896), (71, 19953), (72, 19974), (78, 20034), (79, 20076), (84, 20136), (88, 20211), (96, 20277), (99, 20292), (105, 20325), (109, 20364), (110, 20367), (117, 20403), (119, 20418), (126, 20466), (157, 20739), (164, 20793), (167, 20802), (175, 20862), (194, 20964), (195, 20970), (198, 20979), (203, 20994), (204, 21003), (224, 21102), (225, 21114), (226, 21123), (228, 21135), (301, 21420), (313, 21480), (317, 21489), (344, 21630), (351, 21678), (356, 21702), (358, 21708), (362, 21732), (367, 21753), (370, 21762), (377, 21786), (381, 21804), (391, 21849), (392, 21852), (395, 21861), (405, 21927), (416, 21969), (420, 21981), (423, 21990), (426, 22011), (437, 22062), (442, 22092), (444, 22107), (455, 22149), (460, 22167), (469, 22215), (470, 22218), (471, 22224), (486, 22302), (507, 22383), (510, 22392), (520, 22443), (528, 22479), (537, 22512), (539, 22521), (544, 22533), (552, 22554), (554, 22560), (559, 22581), (567, 22605), (568, 22614), (571, 22641), (584, 22683), (585, 22686), (586, 22689), (587, 22692), (603, 22743), (610, 22764), (615, 22782), (623, 22809), (641, 22881), (642, 22884), (646, 22902), (653, 22926), (666, 22971), (672, 23004), (673, 23007), (674, 23010), (679, 23028), (708, 23148), (709, 23151), (714, 23169), (716, 23178), (733, 23247), (737, 23271), (752, 23340), (759, 23394), (776, 23481), (781, 23523), (787, 23568), (796, 23616), (823, 23751), (826, 23772), (829, 23790), (830, 23796), (843, 23847), (856, 23916), (859, 23934),

Gene: Marianna39_41 Start: 29771, Stop: 34291, Start Num: 23

Candidate Starts for Marianna39_41:

(Start: 19 @29741 has 170 MA's), (Start: 23 @29771 has 3 MA's), (34, 29846), (40, 29882), (49, 29960), (79, 30209), (87, 30335), (92, 30380), (93, 30395), (96, 30410), (101, 30437), (105, 30458), (108, 30482), (110, 30500), (122, 30617), (129, 30662), (132, 30680), (144, 30803), (146, 30830), (149, 30842), (152, 30863), (182, 31058), (198, 31145), (200, 31151), (210, 31193), (219, 31244), (250, 31382), (252, 31391), (282, 31511), (304, 31589), (305, 31598), (344, 31766), (358, 31844), (367, 31889), (370, 31898), (377, 31922), (386, 31967), (387, 31970), (392, 31988), (409, 32084), (420, 32117), (426, 32147), (432, 32174), (442, 32228), (444, 32243), (445, 32246), (464, 32327), (470, 32354), (480, 32405), (484, 32432), (491, 32453), (492, 32456), (502, 32498), (523, 32594), (528, 32615), (532, 32627), (537, 32648), (539, 32657), (544, 32669), (557, 32711), (567, 32741), (568, 32750), (576, 32798), (577, 32801), (584, 32819), (587, 32828), (603, 32879), (606, 32888), (615, 32918), (626, 32954), (653, 33062), (654, 33065), (674, 33146), (678, 33158), (684, 33188), (687, 33203), (694, 33227), (703, 33266), (714, 33305), (718, 33320), (720, 33329), (723, 33341), (726, 33350), (727, 33353), (735, 33398), (736, 33404), (748, 33461), (752, 33476), (756, 33506), (772, 33602), (781, 33659), (787, 33704), (801, 33773), (814, 33854), (820, 33875), (826, 33908), (834, 33953), (836, 33962), (840, 33977), (843, 33983), (855, 34052), (859, 34070), (873, 34121),

Gene: Maya_23 Start: 16174, Stop: 21660, Start Num: 2

Candidate Starts for Maya_23:

(1, 16153), (Start: 2 @16174 has 33 MA's), (3, 16204), (14, 16348), (42, 16558), (54, 16678), (61, 16717), (68, 16747), (70, 16771), (71, 16777), (72, 16798), (73, 16813), (79, 16900), (86, 16990), (87, 17026), (88, 17035), (90, 17062), (96, 17101), (97, 17110), (101, 17128), (105, 17149), (110, 17191), (111, 17200), (122, 17308), (134, 17413), (145, 17509), (154, 17575), (177, 17725), (192, 17809), (196, 17830), (207, 17872), (232, 18007), (267, 18139), (270, 18148), (279, 18184), (281, 18193), (292, 18235), (300, 18268), (306, 18298), (340, 18421), (344, 18442), (354, 18505), (355, 18511), (357, 18517), (362, 18544), (367, 18565), (369, 18571), (370, 18574), (377, 18598), (386, 18643), (389, 18652), (390, 18655), (392, 18664), (405, 18739), (411, 18766), (417, 18784), (423, 18802), (426, 18820), (430, 18841), (441, 18892), (455, 18958), (459, 18973), (477, 19060), (480, 19078), (484, 19105), (510, 19198), (519, 19240), (520, 19249), (528, 19285), (529, 19288), (533, 19303), (534, 19306), (537, 19318), (552, 19360), (553, 19363), (567, 19411), (571, 19447), (573, 19453), (578, 19474), (587, 19498), (597, 19528), (615, 19588), (625, 19621), (626, 19624), (629, 19639), (632, 19651), (638, 19675), (649, 19717), (652, 19729), (653, 19732), (667, 19780), (672, 19810), (677, 19825), (684, 19858), (687, 19873), (703, 19936), (722, 20008), (724, 20014), (725, 20017), (733, 20053), (745, 20119), (760, 20206), (761, 20209), (787, 20308), (796, 20356), (797, 20362), (827, 20521), (890, 20794), (899, 20830), (909, 20896), (924, 21019), (937, 21112), (940, 21133), (947, 21181), (949, 21187), (950, 21193), (957, 21238), (970, 21346), (973, 21367), (979, 21415), (986, 21502), (992, 21604), (993, 21613),

Gene: MediumFry_24 Start: 19326, Stop: 23909, Start Num: 19

Candidate Starts for MediumFry_24:

(Start: 18 @19305 has 2 MA's), (Start: 19 @19326 has 170 MA's), (Start: 23 @19356 has 3 MA's), (30, 19410), (40, 19467), (46, 19515), (68, 19641), (71, 19671), (78, 19752), (79, 19794), (80, 19812), (84, 19854), (86, 19884), (88, 19929), (89, 19941), (96, 19995), (99, 20010), (100, 20016), (105, 20043), (112, 20106), (117, 20121), (119, 20136), (122, 20169), (126, 20184), (127, 20193), (132, 20232), (141, 20337), (158, 20472), (164, 20511), (167, 20520), (170, 20529), (175, 20580), (176, 20583), (201, 20706), (202, 20709), (210, 20745), (246, 20922), (254, 20943), (260, 20976), (283, 21072), (296, 21126), (306, 21174), (308, 21180), (317, 21216), (344, 21363), (362, 21465), (367, 21486), (370, 21495), (371, 21498), (377, 21519), (378, 21522), (392, 21585), (405, 21660), (408, 21675), (414, 21696), (416, 21702), (423, 21723), (426, 21744), (430, 21765), (442, 21825), (444, 21840), (445, 21843), (450, 21867), (451, 21870), (480, 22002), (482, 22017), (483, 22020), (487, 22038), (489, 22044), (491, 22050), (502, 22095), (503, 22098), (505, 22104), (508, 22119), (512, 22137), (517, 22158), (523, 22191), (524, 22194), (528, 22212), (544, 22269), (550, 22278), (552, 22290), (557, 22311), (559, 22317), (560, 22320), (567, 22341), (568, 22350), (577, 22401), (579, 22407), (584, 22419), (587, 22428), (598, 22461), (615, 22518), (634, 22590), (635, 22593), (636, 22596), (640, 22614), (642, 22620), (648, 22644), (658, 22680), (660, 22686), (664, 22701), (672, 22740), (684, 22788), (694, 22827), (703, 22866), (712, 22896), (722, 22938), (725, 22947), (754, 23085), (755, 23094), (756, 23106), (762, 23142), (781, 23259), (783, 23280), (789, 23316), (797, 23358), (807, 23430), (830, 23532), (840, 23577), (843, 23583), (856, 23652), (862, 23679), (906, 23859), (908, 23868),

Gene: Meibysrarus_23 Start: 16160, Stop: 21646, Start Num: 2

Candidate Starts for Meibysrarus_23:

(1, 16139), (Start: 2 @16160 has 33 MA's), (3, 16190), (14, 16334), (42, 16544), (54, 16664), (61, 16703), (68, 16733), (70, 16757), (71, 16763), (72, 16784), (73, 16799), (79, 16886), (86, 16976), (87, 17012), (88, 17021), (90, 17048), (96, 17087), (97, 17096), (101, 17114), (105, 17135), (110, 17177), (111, 17186), (122, 17294), (134, 17399), (145, 17495), (154, 17561), (177, 17711), (192, 17795), (207, 17858), (232, 17993), (246, 18047), (270, 18134), (279, 18170), (281, 18179), (292, 18221), (300, 18254), (306, 18284), (340, 18407), (344, 18428), (354, 18491), (355, 18497), (357, 18503), (362, 18530), (367, 18551), (369, 18557), (370, 18560), (377, 18584), (386, 18629), (389, 18638), (390, 18641), (392, 18650), (405, 18725), (411, 18752), (417, 18770), (423, 18788), (426, 18806), (430, 18827), (441, 18878), (455, 18944), (459, 18959), (477, 19046), (480, 19064), (484, 19091),

(510, 19184), (519, 19226), (520, 19235), (528, 19271), (529, 19274), (533, 19289), (534, 19292), (537, 19304), (552, 19346), (553, 19349), (567, 19397), (571, 19433), (573, 19439), (578, 19460), (587, 19484), (597, 19514), (615, 19574), (625, 19607), (626, 19610), (629, 19625), (632, 19637), (638, 19661), (649, 19703), (652, 19715), (653, 19718), (667, 19766), (672, 19796), (677, 19811), (684, 19844), (687, 19859), (703, 19922), (722, 19994), (724, 20000), (725, 20003), (733, 20039), (745, 20105), (760, 20192), (761, 20195), (787, 20294), (796, 20342), (797, 20348), (827, 20507), (890, 20780), (899, 20816), (909, 20882), (924, 21005), (937, 21098), (940, 21119), (947, 21167), (949, 21173), (950, 21179), (957, 21224), (970, 21332), (973, 21353), (979, 21401), (986, 21488), (992, 21590), (993, 21599),

Gene: Mema_24 Start: 19137, Stop: 23351, Start Num: 19

Candidate Starts for Mema_24:

(Start: 19 @19137 has 170 MA's), (Start: 23 @19170 has 3 MA's), (43, 19293), (45, 19317), (71, 19485), (79, 19608), (84, 19668), (92, 19779), (95, 19803), (96, 19809), (99, 19824), (105, 19857), (106, 19863), (119, 19950), (121, 19971), (122, 19983), (137, 20109), (152, 20229), (160, 20301), (172, 20376), (198, 20511), (214, 20589), (285, 20808), (302, 20883), (311, 20922), (328, 20976), (331, 20988), (342, 21045), (344, 21054), (356, 21126), (367, 21177), (370, 21186), (375, 21201), (377, 21210), (380, 21219), (385, 21249), (386, 21255), (388, 21261), (392, 21276), (396, 21297), (401, 21327), (407, 21363), (409, 21372), (424, 21423), (440, 21498), (448, 21552), (449, 21555), (452, 21564), (458, 21585), (467, 21624), (478, 21672), (479, 21675), (515, 21741), (519, 21762), (557, 21819), (558, 21822), (564, 21840), (568, 21858), (572, 21888), (576, 21906), (584, 21927), (587, 21936), (604, 21996), (605, 21999), (615, 22032), (625, 22065), (636, 22110), (648, 22158), (658, 22194), (659, 22197), (660, 22200), (681, 22287), (683, 22299), (684, 22302), (693, 22338), (694, 22341), (717, 22431), (724, 22458), (726, 22464), (739, 22530), (741, 22542), (751, 22587), (754, 22599), (781, 22707), (787, 22752), (797, 22806), (826, 22956), (840, 23025), (843, 23031), (846, 23052), (870, 23160), (884, 23208), (910, 23331),

Gene: Michelle_23 Start: 17240, Stop: 21790, Start Num: 19

Candidate Starts for Michelle_23:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 170 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (243, 18827), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (344, 19262), (355, 19331), (356, 19334), (365, 19376), (367, 19385), (370, 19394), (379, 19424), (386, 19463), (388, 19469), (392, 19484), (394, 19490), (399, 19526), (423, 19622), (426, 19643), (427, 19646), (431, 19667), (442, 19724), (444, 19739), (451, 19769), (455, 19781), (462, 19808), (464, 19823), (475, 19871), (480, 19901), (482, 19916), (491, 19949), (493, 19955), (502, 19994), (505, 20003), (507, 20015), (512, 20036), (525, 20102), (528, 20111), (537, 20144), (538, 20150), (539, 20153), (544, 20165), (545, 20168), (553, 20189), (558, 20210), (568, 20246), (576, 20294), (587, 20324), (615, 20414), (631, 20471), (642, 20516), (646, 20534), (654, 20561), (656, 20570), (658, 20576), (672, 20636), (676, 20648), (679, 20660), (691, 20714), (701, 20756), (703, 20762), (705, 20768), (714, 20801), (715, 20804), (721, 20828), (722, 20834), (724, 20840), (725, 20843), (735, 20894), (738, 20906), (745, 20945), (768, 21077), (776, 21113), (781, 21155), (787, 21200), (803, 21290), (822, 21380), (826, 21404), (830, 21428), (832, 21440), (834, 21449), (837, 21461), (840, 21473), (850, 21518), (856, 21548), (859, 21566), (869, 21605),

Gene: Miek_21 Start: 15072, Stop: 20549, Start Num: 2

Candidate Starts for Miek_21:

(Start: 2 @15072 has 33 MA's), (3, 15102), (9, 15183), (10, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (118, 16173), (133, 16281), (151, 16443), (154, 16476), (163, 16548), (177, 16626), (207, 16773), (279, 17085), (281, 17094),

(299, 17157), (344, 17331), (350, 17373), (355, 17400), (358, 17409), (370, 17463), (377, 17487), (390, 17544), (412, 17658), (423, 17691), (430, 17730), (440, 17772), (441, 17781), (446, 17817), (459, 17862), (469, 17913), (477, 17949), (480, 17967), (485, 17997), (496, 18036), (497, 18039), (507, 18078), (508, 18081), (515, 18108), (519, 18129), (520, 18138), (527, 18171), (528, 18174), (534, 18195), (555, 18258), (571, 18336), (573, 18342), (584, 18378), (585, 18381), (586, 18384), (587, 18387), (606, 18447), (609, 18456), (615, 18477), (624, 18507), (625, 18510), (640, 18573), (641, 18576), (642, 18579), (653, 18621), (658, 18639), (667, 18669), (677, 18714), (679, 18723), (684, 18747), (702, 18822), (704, 18828), (718, 18879), (725, 18906), (729, 18921), (731, 18933), (733, 18942), (737, 18966), (751, 19032), (760, 19095), (765, 19119), (787, 19197), (796, 19245), (803, 19287), (827, 19410), (851, 19527), (878, 19644), (900, 19725), (906, 19770), (914, 19815), (937, 20001), (940, 20022), (942, 20034), (949, 20076), (957, 20127), (963, 20175), (968, 20214), (976, 20265), (985, 20388), (990, 20427),

Gene: MiniBagel_26 Start: 21214, Stop: 25803, Start Num: 19

Candidate Starts for MiniBagel_26:

(Start: 18 @21193 has 2 MA's), (Start: 19 @21214 has 170 MA's), (Start: 23 @21244 has 3 MA's), (30, 21298), (34, 21319), (40, 21355), (60, 21493), (68, 21529), (71, 21559), (79, 21682), (80, 21700), (84, 21742), (91, 21850), (96, 21883), (99, 21898), (105, 21931), (117, 22009), (119, 22024), (121, 22045), (122, 22057), (127, 22081), (133, 22129), (141, 22225), (145, 22258), (151, 22291), (160, 22375), (167, 22408), (207, 22621), (222, 22696), (239, 22789), (244, 22804), (246, 22810), (253, 22828), (254, 22837), (260, 22870), (261, 22879), (278, 22951), (290, 22996), (306, 23068), (308, 23074), (316, 23107), (317, 23110), (323, 23137), (344, 23251), (353, 23308), (355, 23320), (367, 23374), (370, 23383), (371, 23386), (377, 23407), (386, 23452), (392, 23473), (414, 23584), (416, 23590), (423, 23611), (425, 23629), (430, 23653), (442, 23713), (444, 23728), (445, 23731), (451, 23758), (452, 23761), (460, 23788), (477, 23872), (480, 23890), (482, 23905), (483, 23908), (487, 23926), (489, 23932), (490, 23935), (494, 23947), (495, 23953), (502, 23983), (505, 23992), (512, 24025), (523, 24079), (524, 24082), (528, 24100), (539, 24142), (544, 24157), (550, 24166), (552, 24178), (568, 24238), (579, 24295), (584, 24307), (587, 24316), (600, 24355), (603, 24367), (605, 24373), (609, 24385), (613, 24397), (615, 24406), (635, 24481), (636, 24484), (640, 24502), (658, 24568), (661, 24577), (673, 24631), (674, 24634), (712, 24784), (720, 24817), (722, 24826), (727, 24841), (731, 24862), (740, 24907), (746, 24940), (754, 24973), (762, 25030), (772, 25090), (783, 25168), (787, 25192), (789, 25204), (812, 25330), (822, 25372), (830, 25420), (837, 25453), (840, 25465), (843, 25471), (846, 25492), (847, 25495), (848, 25501), (856, 25540), (862, 25567), (906, 25753), (910, 25780),

Gene: Monse_19 Start: 13515, Stop: 18743, Start Num: 19

Candidate Starts for Monse_19:

(Start: 18 @13494 has 2 MA's), (Start: 19 @13515 has 170 MA's), (Start: 23 @13545 has 3 MA's), (42, 13647), (45, 13698), (61, 13806), (79, 13989), (87, 14115), (90, 14151), (96, 14190), (108, 14262), (110, 14280), (118, 14364), (136, 14517), (151, 14634), (154, 14667), (177, 14817), (182, 14841), (192, 14901), (206, 14958), (243, 15144), (265, 15222), (270, 15240), (279, 15276), (281, 15285), (317, 15432), (321, 15447), (344, 15525), (351, 15573), (355, 15594), (370, 15657), (375, 15672), (377, 15681), (378, 15684), (390, 15738), (407, 15834), (423, 15885), (432, 15930), (433, 15933), (447, 16014), (459, 16056), (469, 16107), (479, 16152), (480, 16161), (485, 16191), (498, 16236), (504, 16257), (506, 16266), (514, 16299), (515, 16302), (519, 16323), (520, 16332), (528, 16368), (537, 16401), (571, 16530), (573, 16536), (584, 16572), (587, 16581), (609, 16650), (611, 16656), (615, 16671), (625, 16704), (630, 16725), (640, 16767), (641, 16770), (649, 16800), (652, 16812), (653, 16815), (664, 16854), (684, 16941), (687, 16956), (703, 17019), (705, 17025), (729, 17115), (733, 17136), (736, 17157), (750, 17223), (755, 17247), (760, 17289), (761, 17292), (787, 17391), (796, 17439), (827, 17604), (833, 17634), (878, 17838), (899, 17913), (906, 17964), (937, 18195), (940, 18216), (949, 18270), (954, 18300), (963, 18369), (965, 18390), (973, 18450), (978, 18489), (979, 18498), (980, 18501), (983, 18552), (992, 18696), (993, 18705),

Gene: Mooshroom_21 Start: 16796, Stop: 21274, Start Num: 19

Candidate Starts for Mooshroom_21:

(Start: 18 @16775 has 2 MA's), (Start: 19 @16796 has 170 MA's), (Start: 23 @16826 has 3 MA's), (30, 16880), (40, 16937), (68, 17111), (71, 17141), (78, 17222), (79, 17264), (80, 17282), (84, 17324), (89, 17411), (93, 17450), (96, 17465), (99, 17480), (105, 17513), (117, 17591), (119, 17606), (126, 17654), (128, 17669), (133, 17711), (141, 17807), (145, 17840), (151, 17873), (164, 17981), (174, 18047), (182, 18080), (184, 18089), (185, 18092), (187, 18110), (246, 18392), (255, 18416), (260, 18446), (302, 18605), (317, 18665), (344, 18794), (351, 18842), (358, 18872), (362, 18896), (365, 18908), (367, 18917), (370, 18926), (377, 18950), (386, 18995), (392, 19016), (405, 19091), (413, 19124), (423, 19154), (426, 19175), (430, 19196), (442, 19256), (443, 19262), (451, 19301), (457, 19319), (475, 19403), (480, 19433), (485, 19463), (491, 19481), (502, 19529), (508, 19553), (512, 19571), (515, 19580), (516, 19589), (518, 19595), (521, 19616), (528, 19646), (537, 19679), (538, 19685), (543, 19694), (552, 19721), (559, 19748), (568, 19781), (571, 19808), (573, 19814), (580, 19841), (587, 19859), (597, 19889), (600, 19898), (603, 19910), (605, 19916), (606, 19919), (610, 19931), (615, 19949), (623, 19976), (625, 19982), (642, 20051), (649, 20078), (653, 20093), (679, 20195), (702, 20294), (703, 20297), (705, 20303), (709, 20318), (714, 20336), (724, 20375), (725, 20378), (730, 20396), (735, 20429), (740, 20450), (752, 20507), (759, 20561), (781, 20624), (784, 20651), (787, 20669), (796, 20717), (797, 20723), (807, 20795), (826, 20873), (828, 20888), (836, 20927), (843, 20951), (847, 20975), (855, 21020), (859, 21041), (911, 21263),

Gene: Moozy_19 Start: 13482, Stop: 18731, Start Num: 18

Candidate Starts for Moozy_19:

(Start: 18 @13482 has 2 MA's), (Start: 19 @13503 has 170 MA's), (Start: 23 @13533 has 3 MA's), (42, 13635), (45, 13686), (61, 13794), (79, 13977), (87, 14103), (90, 14139), (96, 14178), (110, 14268), (154, 14655), (177, 14805), (182, 14829), (194, 14901), (243, 15132), (265, 15210), (270, 15228), (273, 15231), (279, 15264), (305, 15372), (321, 15432), (344, 15513), (355, 15582), (367, 15636), (389, 15723), (390, 15726), (392, 15735), (411, 15837), (423, 15873), (426, 15891), (437, 15942), (459, 16044), (462, 16056), (464, 16071), (479, 16140), (480, 16149), (485, 16179), (498, 16224), (504, 16245), (511, 16275), (514, 16287), (515, 16290), (519, 16311), (520, 16320), (528, 16356), (537, 16389), (564, 16473), (571, 16518), (572, 16521), (573, 16524), (587, 16569), (597, 16599), (611, 16644), (615, 16659), (625, 16692), (630, 16713), (632, 16722), (634, 16731), (640, 16755), (641, 16758), (644, 16767), (649, 16788), (652, 16800), (660, 16827), (669, 16866), (674, 16887), (682, 16923), (684, 16929), (718, 17061), (720, 17070), (722, 17079), (725, 17088), (726, 17091), (729, 17103), (730, 17106), (731, 17115), (733, 17124), (752, 17217), (759, 17271), (787, 17379), (790, 17394), (797, 17433), (827, 17592), (878, 17826), (899, 17901), (936, 18180), (937, 18183), (940, 18204), (947, 18252), (949, 18258), (964, 18366), (969, 18411), (973, 18438), (983, 18540), (993, 18693),

Gene: Mossy_33 Start: 24706, Stop: 29808, Start Num: 19

Candidate Starts for Mossy_33:

(Start: 19 @24706 has 170 MA's), (Start: 23 @24736 has 3 MA's), (28, 24781), (48, 24919), (49, 24925), (61, 24991), (68, 25021), (79, 25186), (84, 25246), (89, 25333), (92, 25357), (96, 25387), (99, 25402), (105, 25435), (115, 25528), (137, 25696), (151, 25804), (152, 25816), (158, 25873), (163, 25909), (164, 25912), (175, 25981), (177, 25987), (Start: 213 @26170 has 1 MA's), (214, 26176), (233, 26272), (236, 26290), (272, 26446), (298, 26572), (300, 26581), (340, 26791), (344, 26812), (345, 26818), (355, 26881), (360, 26899), (365, 26926), (370, 26944), (386, 27013), (393, 27037), (395, 27043), (398, 27064), (401, 27085), (415, 27148), (426, 27193), (430, 27214), (436, 27241), (438, 27247), (441, 27265), (442, 27274), (446, 27301), (451, 27319), (452, 27322), (455, 27331), (458, 27343), (460, 27349), (461, 27352), (463, 27364), (482, 27460), (491, 27493), (496, 27514), (498, 27520), (499, 27523), (502, 27535), (505, 27544), (508, 27559), (510, 27565), (511, 27571), (513, 27580), (516, 27595), (517, 27598), (520, 27616), (528, 27652), (534, 27673), (539, 27694), (552, 27724), (556, 27739), (557, 27745), (560, 27754), (562, 27760), (565, 27769), (567, 27775), (568, 27784), (569, 27799), (570, 27805), (575, 27829), (579, 27841), (587, 27871), (593, 27892), (595,

27904), (601, 27925), (602, 27928), (609, 27952), (612, 27961), (619, 27985), (621, 27991), (626, 28009), (627, 28018), (628, 28021), (642, 28075), (651, 28108), (688, 28258), (691, 28270), (695, 28282), (703, 28318), (709, 28339), (729, 28414), (759, 28582), (765, 28612), (770, 28645), (783, 28738), (795, 28810), (798, 28822), (799, 28831), (805, 28885), (818, 28933), (831, 28996), (843, 29047), (849, 29080), (865, 29167), (871, 29185), (879, 29215), (887, 29236), (889, 29242), (890, 29248), (898, 29275), (903, 29302), (915, 29386), (920, 29449), (923, 29461), (939, 29572), (944, 29590), (951, 29638), (975, 29794),

Gene: MrAaronian_23 Start: 17240, Stop: 21790, Start Num: 19

Candidate Starts for MrAaronian_23:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 170 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (344, 19262), (355, 19331), (356, 19334), (365, 19376), (367, 19385), (370, 19394), (379, 19424), (386, 19463), (388, 19469), (392, 19484), (399, 19526), (423, 19622), (426, 19643), (427, 19646), (431, 19667), (442, 19724), (444, 19739), (451, 19769), (455, 19781), (462, 19808), (464, 19823), (475, 19871), (480, 19901), (482, 19916), (491, 19949), (493, 19955), (502, 19994), (505, 20003), (507, 20015), (512, 20036), (525, 20102), (528, 20111), (537, 20144), (538, 20150), (539, 20153), (544, 20165), (545, 20168), (553, 20189), (558, 20210), (568, 20246), (576, 20294), (587, 20324), (615, 20414), (631, 20471), (642, 20516), (646, 20534), (654, 20561), (656, 20570), (658, 20576), (672, 20636), (676, 20648), (679, 20660), (691, 20714), (701, 20756), (703, 20762), (705, 20768), (714, 20801), (715, 20804), (721, 20828), (722, 20834), (724, 20840), (725, 20843), (735, 20894), (738, 20906), (745, 20945), (768, 21077), (776, 21113), (781, 21155), (787, 21200), (803, 21290), (822, 21380), (826, 21404), (830, 21428), (832, 21440), (834, 21449), (837, 21461), (840, 21473), (850, 21518), (856, 21548), (859, 21566), (869, 21605),

Gene: Mudcat_21 Start: 19094, Stop: 23572, Start Num: 19

Candidate Starts for Mudcat_21:

(Start: 18 @19073 has 2 MA's), (Start: 19 @19094 has 170 MA's), (Start: 23 @19124 has 3 MA's), (26, 19157), (30, 19178), (68, 19409), (71, 19439), (78, 19520), (79, 19562), (80, 19580), (84, 19622), (89, 19709), (96, 19763), (99, 19778), (105, 19811), (117, 19889), (119, 19904), (126, 19952), (128, 19967), (133, 20009), (137, 20063), (141, 20105), (142, 20108), (145, 20138), (151, 20171), (164, 20279), (174, 20345), (182, 20378), (184, 20387), (185, 20390), (187, 20408), (246, 20690), (255, 20714), (260, 20744), (302, 20903), (310, 20936), (317, 20963), (344, 21092), (358, 21170), (367, 21215), (370, 21224), (374, 21236), (377, 21248), (383, 21275), (386, 21293), (392, 21314), (405, 21389), (409, 21410), (410, 21413), (413, 21422), (423, 21452), (426, 21473), (430, 21494), (442, 21554), (443, 21560), (451, 21599), (452, 21602), (457, 21617), (470, 21680), (475, 21701), (480, 21731), (485, 21761), (491, 21779), (502, 21827), (508, 21851), (512, 21869), (515, 21878), (516, 21887), (518, 21893), (521, 21914), (528, 21944), (537, 21977), (538, 21983), (539, 21986), (544, 21998), (552, 22019), (567, 22070), (568, 22079), (572, 22109), (574, 22115), (584, 22148), (587, 22157), (597, 22187), (600, 22196), (603, 22208), (615, 22247), (623, 22274), (625, 22280), (626, 22283), (629, 22298), (636, 22325), (640, 22343), (644, 22355), (653, 22391), (679, 22493), (694, 22556), (702, 22592), (703, 22595), (705, 22601), (709, 22616), (714, 22634), (720, 22658), (724, 22673), (725, 22676), (730, 22694), (735, 22727), (740, 22748), (752, 22805), (759, 22859), (761, 22868), (781, 22922), (784, 22949), (787, 22967), (796, 23015), (797, 23021), (807, 23093), (826, 23171), (828, 23186), (836, 23225), (843, 23249), (855, 23318), (859, 23339), (911, 23561),

Gene: Muglass_28 Start: 20482, Stop: 25113, Start Num: 19

Candidate Starts for Muglass_28:

(Start: 18 @20461 has 2 MA's), (Start: 19 @20482 has 170 MA's), (Start: 23 @20512 has 3 MA's), (30, 20566), (34, 20587), (40, 20623), (49, 20791), (60, 20851), (71, 20917), (72, 20938), (79, 21040), (80, 21058), (84, 21100), (88, 21175), (89, 21187), (96, 21241), (99, 21256), (105, 21289), (117, 21367), (119, 21382), (131, 21472), (137, 21541), (151, 21649), (157, 21703), (164, 21757), (175, 21826), (185, 21868), (194, 21928), (195, 21934), (198, 21943), (203, 21958), (204, 21967), (224, 22066), (225, 22078), (228, 22099), (281, 22306), (289, 22330), (301, 22384), (317, 22453), (342, 22582), (344, 22591), (358, 22669), (367, 22714), (369, 22720), (370, 22723), (377, 22747), (381, 22765), (392, 22813), (395, 22822), (399, 22855), (416, 22930), (423, 22951), (426, 22972), (430, 22993), (436, 23020), (442, 23053), (444, 23068), (460, 23128), (482, 23245), (507, 23344), (508, 23347), (520, 23404), (525, 23431), (528, 23440), (537, 23473), (539, 23482), (544, 23494), (552, 23515), (557, 23536), (559, 23542), (568, 23575), (572, 23605), (587, 23653), (597, 23683), (606, 23713), (615, 23743), (618, 23752), (640, 23839), (641, 23842), (642, 23845), (646, 23863), (650, 23878), (655, 23893), (666, 23932), (672, 23965), (674, 23971), (676, 23977), (679, 23989), (691, 24043), (699, 24079), (708, 24109), (709, 24112), (714, 24130), (720, 24154), (721, 24157), (742, 24259), (749, 24289), (752, 24301), (762, 24367), (781, 24484), (787, 24529), (826, 24733), (830, 24757), (840, 24802), (843, 24808), (850, 24847), (856, 24877), (859, 24895),

Gene: Mysticmoon_31 Start: 23315, Stop: 28429, Start Num: 19

Candidate Starts for Mysticmoon_31:

(Start: 19 @23315 has 170 MA's), (Start: 23 @23345 has 3 MA's), (28, 23390), (49, 23534), (60, 23594), (61, 23600), (69, 23639), (71, 23660), (72, 23681), (79, 23783), (87, 23909), (90, 23945), (96, 23984), (101, 24011), (105, 24032), (110, 24074), (122, 24194), (145, 24395), (151, 24428), (154, 24461), (160, 24512), (163, 24533), (164, 24536), (177, 24611), (204, 24746), (217, 24812), (221, 24827), (233, 24896), (236, 24914), (246, 24947), (254, 24968), (256, 24977), (260, 25001), (272, 25070), (277, 25091), (283, 25124), (284, 25127), (298, 25196), (300, 25205), (320, 25292), (333, 25352), (339, 25403), (344, 25436), (345, 25442), (355, 25505), (360, 25523), (370, 25568), (386, 25637), (393, 25661), (395, 25667), (398, 25688), (402, 25718), (415, 25772), (416, 25775), (429, 25832), (430, 25838), (438, 25871), (441, 25889), (442, 25898), (444, 25913), (446, 25925), (451, 25943), (452, 25946), (455, 25955), (458, 25967), (460, 25973), (461, 25976), (467, 26009), (472, 26030), (480, 26069), (491, 26117), (495, 26132), (496, 26138), (499, 26147), (502, 26159), (505, 26168), (507, 26180), (508, 26183), (509, 26186), (510, 26189), (511, 26195), (513, 26204), (525, 26267), (532, 26288), (534, 26297), (539, 26318), (557, 26369), (565, 26393), (567, 26399), (569, 26423), (570, 26429), (576, 26456), (577, 26459), (587, 26495), (593, 26516), (595, 26528), (597, 26537), (601, 26549), (609, 26576), (612, 26585), (619, 26609), (621, 26615), (626, 26633), (633, 26663), (643, 26702), (651, 26732), (660, 26762), (691, 26894), (709, 26963), (746, 27128), (767, 27251), (795, 27434), (798, 27446), (799, 27455), (805, 27509), (818, 27557), (839, 27659), (845, 27680), (852, 27728), (865, 27791), (871, 27809), (886, 27857), (887, 27860), (890, 27872), (898, 27899), (915, 28010), (923, 28085), (938, 28187), (944, 28214), (945, 28217), (961, 28325), (967, 28364), (975, 28415),

Gene: Nadmeg_33 Start: 24715, Stop: 29826, Start Num: 19

Candidate Starts for Nadmeg_33:

(Start: 19 @24715 has 170 MA's), (Start: 23 @24745 has 3 MA's), (28, 24790), (49, 24934), (60, 24994), (61, 25000), (71, 25060), (72, 25081), (79, 25183), (86, 25273), (87, 25309), (90, 25345), (96, 25384), (101, 25411), (105, 25432), (110, 25474), (117, 25546), (122, 25594), (137, 25720), (145, 25795), (146, 25807), (151, 25828), (163, 25933), (164, 25936), (184, 26044), (233, 26296), (260, 26401), (272, 26470), (277, 26491), (291, 26572), (293, 26575), (300, 26602), (308, 26641), (313, 26668), (340, 26809), (344, 26830), (354, 26893), (355, 26899), (360, 26917), (361, 26923), (371, 26965), (377, 26986), (386, 27031), (398, 27082), (399, 27094), (401, 27103), (402, 27112), (426, 27211), (430, 27232), (433, 27241), (438, 27265), (439, 27268), (440, 27274), (451, 27337), (452, 27340), (455, 27349), (460, 27367), (461, 27370), (463, 27382), (467, 27403), (469, 27409), (470, 27412), (475, 27433), (480, 27463), (482, 27478), (485, 27493), (499, 27541), (502, 27553), (504, 27559), (505, 27562), (507, 27574), (508, 27577), (520, 27634), (533, 27688), (539, 27712), (545,

27724), (547, 27727), (560, 27772), (561, 27775), (566, 27790), (567, 27793), (568, 27802), (569, 27817), (570, 27823), (571, 27829), (576, 27850), (577, 27853), (581, 27865), (584, 27880), (587, 27889), (593, 27910), (595, 27922), (601, 27943), (609, 27970), (619, 28003), (621, 28009), (626, 28027), (633, 28057), (643, 28096), (709, 28357), (729, 28432), (746, 28522), (771, 28666), (780, 28729), (790, 28795), (795, 28828), (798, 28840), (805, 28903), (813, 28924), (815, 28936), (819, 28957), (831, 29014), (849, 29098), (865, 29185), (871, 29203), (879, 29233), (886, 29251), (887, 29254), (889, 29260), (890, 29266), (898, 29293), (915, 29404), (923, 29479), (933, 29548), (938, 29581), (943, 29605), (961, 29722), (975, 29812),

Gene: Namo_23 Start: 16166, Stop: 21652, Start Num: 2

Candidate Starts for Namo_23:

(1, 16145), (Start: 2 @16166 has 33 MA's), (3, 16196), (14, 16340), (42, 16550), (53, 16667), (68, 16739), (71, 16769), (79, 16892), (87, 17018), (96, 17093), (105, 17141), (110, 17183), (133, 17372), (154, 17567), (163, 17639), (177, 17717), (196, 17822), (207, 17864), (232, 17999), (246, 18053), (270, 18140), (279, 18176), (281, 18185), (292, 18227), (300, 18260), (306, 18290), (340, 18413), (344, 18434), (354, 18497), (355, 18503), (357, 18509), (362, 18536), (367, 18557), (369, 18563), (370, 18566), (377, 18590), (386, 18635), (389, 18644), (390, 18647), (392, 18656), (405, 18731), (411, 18758), (417, 18776), (423, 18794), (426, 18812), (430, 18833), (441, 18884), (455, 18950), (459, 18965), (477, 19052), (480, 19070), (484, 19097), (509, 19187), (510, 19190), (519, 19232), (520, 19241), (528, 19277), (533, 19295), (534, 19298), (552, 19352), (553, 19355), (567, 19403), (571, 19439), (573, 19445), (578, 19466), (587, 19490), (597, 19520), (615, 19580), (625, 19613), (626, 19616), (629, 19631), (638, 19667), (649, 19709), (652, 19721), (653, 19724), (667, 19772), (672, 19802), (677, 19817), (684, 19850), (687, 19865), (703, 19928), (724, 20006), (725, 20009), (733, 20045), (745, 20111), (760, 20198), (761, 20201), (787, 20300), (796, 20348), (797, 20354), (827, 20513), (890, 20786), (899, 20822), (909, 20888), (924, 21011), (931, 21062), (937, 21104), (940, 21125), (947, 21173), (949, 21179), (950, 21185), (957, 21230), (970, 21338), (973, 21359), (979, 21407), (986, 21494), (992, 21596), (993, 21605),

Gene: NapoleonB_21 Start: 17193, Stop: 21671, Start Num: 19

Candidate Starts for NapoleonB_21:

(Start: 18 @17172 has 2 MA's), (Start: 19 @17193 has 170 MA's), (Start: 23 @17223 has 3 MA's), (26, 17256), (30, 17277), (68, 17508), (71, 17538), (72, 17559), (78, 17619), (79, 17661), (80, 17679), (84, 17721), (89, 17808), (96, 17862), (99, 17877), (105, 17910), (119, 18003), (126, 18051), (128, 18066), (133, 18108), (137, 18162), (145, 18237), (151, 18270), (164, 18378), (174, 18444), (182, 18477), (184, 18486), (185, 18489), (187, 18507), (246, 18789), (255, 18813), (260, 18843), (302, 19002), (317, 19062), (344, 19191), (358, 19269), (364, 19299), (367, 19314), (370, 19323), (377, 19347), (383, 19374), (386, 19392), (392, 19413), (405, 19488), (409, 19509), (413, 19521), (423, 19551), (430, 19593), (442, 19653), (443, 19659), (451, 19698), (470, 19779), (475, 19800), (480, 19830), (485, 19860), (491, 19878), (502, 19926), (508, 19950), (512, 19968), (515, 19977), (516, 19986), (518, 19992), (521, 20013), (528, 20043), (537, 20076), (538, 20082), (539, 20085), (544, 20097), (552, 20118), (567, 20169), (568, 20178), (572, 20208), (574, 20214), (584, 20247), (587, 20256), (597, 20286), (600, 20295), (603, 20307), (610, 20328), (615, 20346), (623, 20373), (625, 20379), (626, 20382), (629, 20397), (636, 20424), (640, 20442), (644, 20454), (653, 20490), (679, 20592), (694, 20655), (702, 20691), (703, 20694), (705, 20700), (709, 20715), (714, 20733), (724, 20772), (725, 20775), (730, 20793), (735, 20826), (740, 20847), (752, 20904), (759, 20958), (761, 20967), (781, 21021), (784, 21048), (787, 21066), (796, 21114), (797, 21120), (807, 21192), (826, 21270), (828, 21285), (836, 21324), (843, 21348), (855, 21417), (859, 21438), (885, 21531), (911, 21660),

Gene: Nason_22 Start: 17670, Stop: 22148, Start Num: 19

Candidate Starts for Nason_22:

(Start: 18 @17649 has 2 MA's), (Start: 19 @17670 has 170 MA's), (Start: 23 @17700 has 3 MA's), (26, 17733), (30, 17754), (68, 17985), (71, 18015), (78, 18096), (79, 18138), (80, 18156), (84, 18198), (89, 18285), (96, 18339), (99, 18354), (105, 18387), (119, 18480), (126, 18528), (128, 18543), (133,

18585), (137, 18639), (145, 18714), (151, 18747), (164, 18855), (174, 18921), (182, 18954), (184, 18963), (185, 18966), (187, 18984), (246, 19266), (255, 19290), (260, 19320), (302, 19479), (317, 19539), (344, 19668), (351, 19716), (362, 19770), (365, 19782), (367, 19791), (370, 19800), (377, 19824), (386, 19869), (392, 19890), (405, 19965), (413, 19998), (423, 20028), (426, 20049), (430, 20070), (442, 20130), (443, 20136), (451, 20175), (452, 20178), (457, 20193), (470, 20256), (475, 20277), (480, 20307), (485, 20337), (491, 20355), (502, 20403), (508, 20427), (512, 20445), (515, 20454), (516, 20463), (518, 20469), (521, 20490), (528, 20520), (537, 20553), (538, 20559), (539, 20562), (544, 20574), (552, 20595), (567, 20646), (568, 20655), (572, 20685), (574, 20691), (584, 20724), (587, 20733), (597, 20763), (600, 20772), (603, 20784), (615, 20823), (623, 20850), (625, 20856), (626, 20859), (629, 20874), (636, 20901), (640, 20919), (644, 20931), (653, 20967), (679, 21069), (694, 21132), (702, 21168), (703, 21171), (705, 21177), (709, 21192), (714, 21210), (720, 21234), (724, 21249), (725, 21252), (730, 21270), (735, 21303), (740, 21324), (752, 21381), (759, 21435), (761, 21444), (781, 21498), (784, 21525), (787, 21543), (796, 21591), (797, 21597), (807, 21669), (826, 21747), (828, 21762), (836, 21801), (843, 21825), (855, 21894), (859, 21915), (885, 22008), (911, 22137),

Gene: Natasha_23 Start: 16651, Stop: 21195, Start Num: 19

Candidate Starts for Natasha_23:

(Start: 18 @16630 has 2 MA's), (Start: 19 @16651 has 170 MA's), (Start: 23 @16681 has 3 MA's), (64, 16948), (68, 16966), (71, 16996), (78, 17077), (79, 17119), (80, 17137), (84, 17179), (86, 17209), (88, 17254), (89, 17266), (96, 17320), (99, 17335), (100, 17341), (105, 17368), (112, 17431), (117, 17446), (119, 17461), (122, 17494), (126, 17509), (127, 17518), (132, 17557), (137, 17620), (145, 17695), (152, 17740), (154, 17761), (158, 17797), (164, 17836), (166, 17842), (175, 17905), (177, 17911), (198, 18022), (270, 18343), (283, 18391), (292, 18430), (298, 18454), (305, 18490), (306, 18493), (308, 18499), (317, 18535), (340, 18649), (344, 18670), (352, 18724), (360, 18757), (369, 18799), (370, 18802), (377, 18826), (384, 18862), (386, 18871), (389, 18880), (392, 18892), (401, 18943), (409, 18988), (416, 19009), (423, 19030), (426, 19051), (431, 19075), (440, 19114), (442, 19132), (444, 19147), (448, 19168), (460, 19207), (464, 19231), (475, 19279), (480, 19309), (482, 19324), (491, 19357), (493, 19363), (502, 19402), (507, 19423), (512, 19444), (515, 19453), (533, 19537), (537, 19552), (539, 19561), (544, 19573), (552, 19594), (567, 19645), (568, 19654), (584, 19723), (587, 19732), (597, 19762), (598, 19765), (611, 19807), (615, 19822), (629, 19873), (634, 19894), (648, 19948), (658, 19984), (659, 19987), (672, 20044), (673, 20047), (680, 20071), (689, 20113), (697, 20152), (699, 20158), (705, 20176), (707, 20182), (728, 20263), (735, 20302), (740, 20323), (743, 20341), (752, 20380), (754, 20389), (768, 20485), (772, 20506), (781, 20563), (787, 20608), (789, 20620), (793, 20641), (803, 20698), (806, 20728), (828, 20827), (843, 20887), (848, 20917), (856, 20956), (859, 20974),

Gene: Navi1117_26 Start: 19247, Stop: 23806, Start Num: 19

Candidate Starts for Navi1117_26:

(Start: 18 @19226 has 2 MA's), (Start: 19 @19247 has 170 MA's), (Start: 23 @19277 has 3 MA's), (30, 19331), (34, 19352), (61, 19532), (62, 19535), (71, 19592), (72, 19613), (78, 19673), (79, 19715), (84, 19775), (88, 19850), (96, 19916), (99, 19931), (105, 19964), (109, 20003), (110, 20006), (117, 20042), (119, 20057), (126, 20105), (157, 20378), (164, 20432), (167, 20441), (175, 20501), (185, 20543), (194, 20603), (195, 20609), (198, 20618), (203, 20633), (204, 20642), (224, 20741), (225, 20753), (226, 20762), (228, 20774), (301, 21059), (313, 21119), (317, 21128), (342, 21260), (344, 21269), (351, 21317), (352, 21323), (356, 21341), (358, 21347), (362, 21371), (367, 21392), (370, 21401), (377, 21425), (381, 21443), (389, 21479), (391, 21488), (392, 21491), (395, 21500), (412, 21596), (416, 21608), (420, 21620), (423, 21629), (426, 21650), (430, 21671), (436, 21698), (442, 21731), (466, 21842), (469, 21854), (470, 21857), (481, 21914), (507, 22022), (516, 22061), (520, 22082), (525, 22109), (528, 22118), (537, 22151), (539, 22160), (544, 22172), (552, 22193), (559, 22220), (567, 22244), (568, 22253), (584, 22322), (585, 22325), (586, 22328), (587, 22331), (597, 22361), (603, 22382), (610, 22403), (613, 22412), (615, 22421), (623, 22448), (646, 22541), (650, 22556), (653, 22565), (659, 22586), (666, 22610), (672, 22643), (673, 22646), (674, 22649), (679, 22667),

(709, 22790), (714, 22808), (727, 22856), (736, 22907), (752, 22979), (762, 23045), (776, 23120), (781, 23162), (787, 23207), (796, 23255), (823, 23390), (826, 23411), (830, 23435), (843, 23486), (856, 23555), (859, 23573),

Gene: Nightmare_27 Start: 20521, Stop: 25113, Start Num: 19

Candidate Starts for Nightmare_27:

(Start: 18 @20500 has 2 MA's), (Start: 19 @20521 has 170 MA's), (Start: 23 @20551 has 3 MA's), (30, 20605), (34, 20626), (40, 20662), (49, 20740), (60, 20800), (66, 20824), (68, 20836), (71, 20866), (74, 20917), (78, 20947), (79, 20989), (80, 21007), (84, 21049), (86, 21079), (88, 21124), (89, 21136), (96, 21190), (99, 21205), (101, 21217), (105, 21238), (119, 21331), (122, 21364), (126, 21379), (132, 21427), (151, 21598), (166, 21712), (167, 21715), (173, 21763), (194, 21877), (201, 21901), (239, 22096), (244, 22111), (246, 22117), (253, 22135), (265, 22207), (283, 22273), (306, 22375), (308, 22381), (316, 22414), (317, 22417), (323, 22444), (344, 22561), (353, 22618), (355, 22630), (367, 22684), (370, 22693), (371, 22696), (377, 22717), (386, 22762), (392, 22783), (414, 22894), (416, 22900), (423, 22921), (425, 22939), (430, 22963), (442, 23023), (444, 23038), (445, 23041), (451, 23068), (452, 23071), (480, 23200), (482, 23215), (483, 23218), (487, 23236), (489, 23242), (490, 23245), (494, 23257), (502, 23293), (505, 23302), (512, 23335), (523, 23389), (524, 23392), (528, 23410), (532, 23422), (539, 23452), (544, 23467), (550, 23476), (552, 23488), (568, 23548), (579, 23605), (584, 23617), (587, 23626), (600, 23665), (603, 23677), (613, 23707), (615, 23716), (635, 23791), (636, 23794), (640, 23812), (658, 23878), (660, 23884), (661, 23887), (673, 23941), (674, 23944), (705, 24070), (706, 24073), (712, 24094), (720, 24127), (722, 24136), (740, 24217), (746, 24250), (754, 24283), (762, 24340), (772, 24400), (777, 24424), (787, 24502), (789, 24514), (812, 24640), (822, 24682), (830, 24730), (837, 24763), (840, 24775), (843, 24781), (846, 24802), (847, 24805), (848, 24811), (856, 24850), (862, 24877), (906, 25063), (910, 25090),

Gene: Niktson_26 Start: 20686, Stop: 25275, Start Num: 19

Candidate Starts for Niktson_26:

(Start: 18 @20665 has 2 MA's), (Start: 19 @20686 has 170 MA's), (Start: 23 @20716 has 3 MA's), (30, 20770), (34, 20791), (40, 20827), (49, 20905), (60, 20965), (66, 20989), (68, 21001), (71, 21031), (78, 21112), (79, 21154), (80, 21172), (84, 21214), (86, 21244), (88, 21289), (89, 21301), (96, 21355), (99, 21370), (101, 21382), (105, 21403), (119, 21496), (122, 21529), (126, 21544), (132, 21592), (146, 21742), (151, 21763), (164, 21871), (166, 21877), (167, 21880), (173, 21928), (194, 22042), (201, 22066), (204, 22081), (207, 22093), (222, 22168), (228, 22213), (239, 22261), (244, 22276), (246, 22282), (253, 22300), (265, 22372), (277, 22414), (278, 22423), (290, 22468), (306, 22540), (308, 22546), (316, 22579), (317, 22582), (323, 22609), (344, 22723), (351, 22771), (353, 22780), (355, 22792), (367, 22846), (370, 22855), (371, 22858), (377, 22879), (386, 22924), (392, 22945), (414, 23056), (416, 23062), (423, 23083), (425, 23101), (426, 23104), (430, 23125), (442, 23185), (444, 23200), (445, 23203), (451, 23230), (452, 23233), (480, 23362), (482, 23377), (483, 23380), (487, 23398), (489, 23404), (494, 23419), (502, 23455), (505, 23464), (512, 23497), (523, 23551), (524, 23554), (528, 23572), (532, 23584), (539, 23614), (544, 23629), (550, 23638), (552, 23650), (568, 23710), (577, 23761), (579, 23767), (584, 23779), (587, 23788), (600, 23827), (603, 23839), (607, 23851), (613, 23869), (615, 23878), (635, 23953), (636, 23956), (640, 23974), (658, 24040), (660, 24046), (661, 24049), (673, 24103), (674, 24106), (705, 24232), (706, 24235), (712, 24256), (720, 24289), (722, 24298), (740, 24379), (746, 24412), (754, 24445), (762, 24502), (772, 24562), (777, 24586), (787, 24664), (789, 24676), (812, 24802), (822, 24844), (830, 24892), (837, 24925), (840, 24937), (843, 24943), (846, 24964), (847, 24967), (856, 25012), (862, 25039), (867, 25066), (869, 25069), (906, 25225), (910, 25252),

Gene: Nithya_32 Start: 23499, Stop: 28610, Start Num: 19

Candidate Starts for Nithya_32:

(Start: 19 @23499 has 170 MA's), (Start: 23 @23529 has 3 MA's), (28, 23574), (49, 23718), (61, 23784), (71, 23844), (72, 23865), (79, 23967), (86, 24057), (87, 24093), (90, 24129), (96, 24168), (105, 24216), (110, 24258), (117, 24330), (122, 24378), (137, 24504), (145, 24579), (146, 24591), (151,

24612), (163, 24717), (164, 24720), (207, 24942), (220, 25008), (221, 25011), (233, 25080), (260, 25185), (272, 25254), (291, 25356), (293, 25359), (300, 25386), (308, 25425), (313, 25452), (344, 25614), (351, 25662), (355, 25683), (360, 25701), (371, 25749), (386, 25815), (394, 25842), (395, 25845), (397, 25863), (398, 25866), (401, 25887), (402, 25896), (415, 25950), (426, 25995), (430, 26016), (433, 26025), (440, 26058), (441, 26067), (444, 26091), (451, 26121), (452, 26124), (455, 26133), (458, 26145), (461, 26154), (463, 26166), (467, 26187), (469, 26193), (480, 26247), (499, 26325), (502, 26337), (504, 26343), (505, 26346), (508, 26361), (513, 26382), (520, 26418), (533, 26472), (534, 26475), (537, 26487), (539, 26496), (545, 26508), (547, 26511), (552, 26526), (559, 26553), (561, 26559), (566, 26574), (567, 26577), (568, 26586), (569, 26601), (570, 26607), (574, 26622), (576, 26634), (577, 26637), (587, 26673), (593, 26694), (595, 26706), (597, 26715), (601, 26727), (609, 26754), (616, 26778), (619, 26787), (621, 26793), (626, 26811), (643, 26880), (662, 26949), (698, 27105), (746, 27306), (771, 27450), (780, 27513), (783, 27540), (795, 27612), (798, 27624), (799, 27633), (805, 27687), (813, 27708), (815, 27720), (849, 27882), (865, 27969), (871, 27987), (879, 28017), (886, 28035), (887, 28038), (890, 28050), (898, 28077), (915, 28188), (923, 28263), (929, 28311), (938, 28365), (944, 28392), (961, 28506), (975, 28596),

Gene: Nivinsha_26 Start: 20074, Stop: 24663, Start Num: 19

Candidate Starts for Nivinsha_26:

(Start: 18 @20053 has 2 MA's), (Start: 19 @20074 has 170 MA's), (Start: 23 @20104 has 3 MA's), (30, 20158), (34, 20179), (40, 20215), (49, 20293), (60, 20353), (66, 20377), (68, 20389), (71, 20419), (74, 20470), (78, 20500), (79, 20542), (80, 20560), (84, 20602), (86, 20632), (88, 20677), (89, 20689), (96, 20743), (99, 20758), (101, 20770), (105, 20791), (119, 20884), (122, 20917), (126, 20932), (132, 20980), (151, 21151), (166, 21265), (167, 21268), (194, 21430), (201, 21454), (204, 21469), (207, 21481), (222, 21556), (239, 21649), (244, 21664), (246, 21670), (253, 21688), (265, 21760), (278, 21811), (283, 21826), (290, 21856), (306, 21928), (308, 21934), (316, 21967), (317, 21970), (323, 21997), (344, 22111), (353, 22168), (355, 22180), (367, 22234), (370, 22243), (371, 22246), (377, 22267), (386, 22312), (392, 22333), (399, 22375), (402, 22393), (416, 22450), (423, 22471), (426, 22492), (442, 22573), (444, 22588), (445, 22591), (451, 22618), (452, 22621), (464, 22672), (480, 22750), (482, 22765), (483, 22768), (487, 22786), (489, 22792), (491, 22798), (494, 22807), (502, 22843), (505, 22852), (512, 22885), (523, 22939), (524, 22942), (528, 22960), (532, 22972), (539, 23002), (544, 23017), (550, 23026), (552, 23038), (557, 23059), (568, 23098), (579, 23155), (584, 23167), (587, 23176), (600, 23215), (603, 23227), (613, 23257), (615, 23266), (626, 23302), (635, 23341), (636, 23344), (640, 23362), (642, 23368), (658, 23428), (661, 23437), (673, 23491), (674, 23494), (677, 23503), (705, 23620), (706, 23623), (712, 23644), (720, 23677), (721, 23680), (722, 23686), (725, 23695), (731, 23722), (740, 23767), (754, 23833), (760, 23884), (762, 23890), (772, 23950), (784, 24034), (787, 24052), (789, 24064), (820, 24223), (822, 24232), (830, 24280), (837, 24313), (840, 24325), (843, 24331), (846, 24352), (847, 24355), (848, 24361), (856, 24400), (862, 24427), (906, 24613), (910, 24640),

Gene: NoPickles_29 Start: 20260, Stop: 25362, Start Num: 19

Candidate Starts for NoPickles_29:

(Start: 19 @20260 has 170 MA's), (Start: 23 @20290 has 3 MA's), (44, 20428), (48, 20473), (49, 20479), (51, 20488), (53, 20503), (56, 20524), (61, 20545), (68, 20575), (71, 20605), (72, 20626), (79, 20728), (84, 20788), (88, 20863), (89, 20875), (92, 20899), (96, 20929), (99, 20944), (105, 20977), (110, 21019), (115, 21070), (124, 21124), (125, 21127), (135, 21226), (138, 21250), (151, 21346), (163, 21451), (164, 21454), (175, 21523), (177, 21529), (178, 21535), (Start: 213 @21712 has 1 MA's), (224, 21763), (233, 21814), (247, 21868), (248, 21871), (283, 22042), (300, 22123), (301, 22126), (318, 22201), (332, 22258), (342, 22342), (344, 22351), (354, 22414), (355, 22420), (357, 22426), (360, 22438), (362, 22453), (363, 22456), (368, 22477), (381, 22525), (386, 22552), (392, 22573), (395, 22582), (398, 22603), (399, 22615), (401, 22624), (402, 22633), (407, 22660), (415, 22687), (416, 22690), (423, 22711), (430, 22753), (436, 22780), (439, 22789), (441, 22804), (442, 22813), (444, 22828), (446, 22840), (448, 22849), (452, 22861), (458, 22882), (461, 22891), (479, 22975), (480, 22984), (482, 22999), (483, 23002), (487, 23020), (491, 23032), (492, 23035), (499, 23062),

(505, 23083), (508, 23098), (518, 23140), (520, 23155), (534, 23212), (537, 23224), (539, 23233), (545, 23245), (551, 23257), (552, 23263), (557, 23284), (561, 23296), (567, 23314), (568, 23323), (569, 23338), (570, 23344), (573, 23356), (583, 23398), (584, 23401), (587, 23410), (593, 23431), (595, 23443), (609, 23491), (612, 23500), (619, 23524), (621, 23530), (626, 23548), (627, 23557), (633, 23578), (651, 23647), (656, 23665), (657, 23668), (662, 23686), (692, 23812), (703, 23857), (717, 23908), (748, 24052), (771, 24187), (779, 24238), (790, 24316), (798, 24361), (805, 24424), (811, 24442), (818, 24472), (819, 24478), (831, 24535), (846, 24607), (858, 24667), (863, 24688), (864, 24691), (872, 24742), (875, 24751), (887, 24790), (890, 24802), (907, 24895), (915, 24940), (923, 25015), (927, 25054), (933, 25084), (943, 25141), (960, 25252), (975, 25348),

Gene: Odesza_29 Start: 20616, Stop: 25730, Start Num: 19

Candidate Starts for Odesza_29:

(Start: 19 @20616 has 170 MA's), (Start: 23 @20646 has 3 MA's), (45, 20793), (48, 20829), (49, 20835), (56, 20880), (61, 20901), (68, 20931), (79, 21096), (84, 21156), (88, 21231), (92, 21267), (93, 21282), (96, 21297), (99, 21312), (105, 21345), (115, 21438), (124, 21492), (125, 21495), (151, 21714), (163, 21819), (164, 21822), (175, 21891), (177, 21897), (Start: 213 @22080 has 1 MA's), (224, 22131), (233, 22182), (247, 22236), (248, 22239), (276, 22371), (295, 22473), (300, 22491), (301, 22494), (318, 22569), (332, 22626), (342, 22710), (344, 22719), (360, 22806), (368, 22845), (381, 22893), (386, 22920), (392, 22941), (395, 22950), (398, 22971), (399, 22983), (401, 22992), (402, 23001), (407, 23028), (415, 23055), (416, 23058), (423, 23079), (430, 23121), (436, 23148), (439, 23157), (441, 23172), (442, 23181), (444, 23196), (446, 23208), (448, 23217), (452, 23229), (458, 23250), (461, 23259), (479, 23343), (480, 23352), (482, 23367), (483, 23370), (487, 23388), (491, 23400), (492, 23403), (499, 23430), (505, 23451), (508, 23466), (518, 23508), (520, 23523), (534, 23580), (537, 23592), (539, 23601), (545, 23613), (551, 23625), (552, 23631), (557, 23652), (561, 23664), (567, 23682), (568, 23691), (569, 23706), (570, 23712), (573, 23724), (583, 23766), (584, 23769), (587, 23778), (593, 23799), (595, 23811), (609, 23859), (612, 23868), (619, 23892), (621, 23898), (626, 23916), (627, 23925), (633, 23946), (651, 24015), (656, 24033), (657, 24036), (662, 24054), (692, 24180), (703, 24225), (717, 24276), (748, 24420), (771, 24555), (779, 24606), (790, 24684), (798, 24729), (805, 24792), (811, 24810), (818, 24840), (819, 24846), (831, 24903), (846, 24975), (858, 25035), (863, 25056), (864, 25059), (872, 25110), (875, 25119), (887, 25158), (890, 25170), (907, 25263), (915, 25308), (923, 25383), (927, 25422), (933, 25452), (943, 25509), (960, 25620), (975, 25716),

Gene: OhMyWard_32 Start: 24046, Stop: 29148, Start Num: 19

Candidate Starts for OhMyWard_32:

(Start: 19 @24046 has 170 MA's), (Start: 23 @24076 has 3 MA's), (28, 24121), (48, 24259), (49, 24265), (61, 24331), (68, 24361), (79, 24526), (84, 24586), (89, 24673), (92, 24697), (96, 24727), (99, 24742), (105, 24775), (115, 24868), (137, 25036), (151, 25144), (152, 25156), (158, 25213), (163, 25249), (164, 25252), (167, 25261), (175, 25321), (177, 25327), (Start: 213 @25510 has 1 MA's), (214, 25516), (233, 25612), (236, 25630), (272, 25786), (298, 25912), (300, 25921), (344, 26152), (345, 26158), (355, 26221), (360, 26239), (365, 26266), (370, 26284), (386, 26353), (393, 26377), (395, 26383), (398, 26404), (400, 26422), (401, 26425), (415, 26488), (426, 26533), (430, 26554), (436, 26581), (442, 26614), (446, 26641), (451, 26659), (452, 26662), (455, 26671), (460, 26689), (461, 26692), (463, 26704), (482, 26800), (491, 26833), (496, 26854), (499, 26863), (502, 26875), (505, 26884), (508, 26899), (510, 26905), (511, 26911), (513, 26920), (516, 26935), (517, 26938), (519, 26947), (520, 26956), (528, 26992), (534, 27013), (539, 27034), (552, 27064), (556, 27079), (557, 27085), (565, 27109), (567, 27115), (568, 27124), (569, 27139), (570, 27145), (579, 27181), (583, 27199), (587, 27211), (593, 27232), (595, 27244), (601, 27265), (602, 27268), (609, 27292), (612, 27301), (619, 27325), (621, 27331), (626, 27349), (627, 27358), (628, 27361), (651, 27448), (660, 27478), (691, 27610), (709, 27679), (746, 27844), (765, 27952), (770, 27985), (783, 28078), (795, 28150), (798, 28162), (799, 28171), (805, 28225), (818, 28273), (831, 28336), (843, 28387), (849, 28420), (865, 28507), (871, 28525), (879, 28555), (887, 28576), (889, 28582), (890, 28588), (898, 28615), (903, 28642), (915, 28726), (920, 28789), (923, 28801), (939, 28912), (944, 28930), (951,

28978), (975, 29134),

Gene: OlgasClover_32 Start: 24235, Stop: 29334, Start Num: 19

Candidate Starts for OlgasClover_32:

(Start: 19 @24235 has 170 MA's), (Start: 23 @24265 has 3 MA's), (28, 24310), (48, 24448), (49, 24454), (59, 24508), (61, 24520), (64, 24532), (68, 24550), (79, 24715), (84, 24775), (89, 24862), (92, 24886), (96, 24916), (99, 24931), (105, 24964), (115, 25057), (137, 25225), (151, 25333), (152, 25345), (158, 25402), (163, 25438), (164, 25441), (175, 25510), (177, 25516), (192, 25600), (207, 25663), (Start: 213 @25699 has 1 MA's), (221, 25732), (235, 25807), (236, 25819), (247, 25855), (260, 25906), (267, 25954), (271, 25966), (300, 26110), (308, 26149), (313, 26176), (344, 26338), (351, 26386), (355, 26407), (360, 26425), (371, 26473), (386, 26539), (398, 26590), (399, 26602), (402, 26620), (415, 26674), (426, 26719), (430, 26740), (433, 26749), (437, 26770), (440, 26782), (441, 26791), (451, 26845), (452, 26848), (455, 26857), (461, 26878), (463, 26890), (467, 26911), (469, 26917), (473, 26935), (480, 26971), (485, 27001), (499, 27049), (502, 27061), (504, 27067), (505, 27070), (507, 27082), (508, 27085), (513, 27106), (520, 27142), (533, 27196), (534, 27199), (539, 27220), (545, 27232), (547, 27235), (561, 27283), (566, 27298), (567, 27301), (568, 27310), (570, 27331), (576, 27358), (577, 27361), (583, 27385), (587, 27397), (593, 27418), (595, 27430), (597, 27439), (601, 27451), (609, 27478), (619, 27511), (621, 27517), (626, 27535), (628, 27547), (639, 27589), (643, 27604), (662, 27673), (688, 27784), (717, 27895), (729, 27940), (746, 28030), (771, 28174), (780, 28237), (783, 28264), (795, 28336), (798, 28348), (799, 28357), (805, 28411), (813, 28432), (815, 28444), (849, 28606), (865, 28693), (871, 28711), (879, 28741), (886, 28759), (887, 28762), (890, 28774), (898, 28801), (915, 28912), (923, 28987), (929, 29035), (938, 29089), (944, 29116), (961, 29230), (975, 29320),

Gene: OlympicHelado_23 Start: 16166, Stop: 21652, Start Num: 2

Candidate Starts for OlympicHelado_23:

(1, 16145), (Start: 2 @16166 has 33 MA's), (3, 16196), (14, 16340), (42, 16550), (53, 16667), (68, 16739), (71, 16769), (79, 16892), (87, 17018), (96, 17093), (105, 17141), (110, 17183), (133, 17372), (154, 17567), (163, 17639), (177, 17717), (192, 17801), (196, 17822), (207, 17864), (232, 17999), (246, 18053), (270, 18140), (279, 18176), (281, 18185), (292, 18227), (300, 18260), (306, 18290), (340, 18413), (344, 18434), (354, 18497), (355, 18503), (357, 18509), (362, 18536), (367, 18557), (369, 18563), (370, 18566), (377, 18590), (386, 18635), (389, 18644), (390, 18647), (405, 18731), (411, 18758), (416, 18773), (417, 18776), (423, 18794), (426, 18812), (430, 18833), (441, 18884), (455, 18950), (459, 18965), (477, 19052), (480, 19070), (484, 19097), (510, 19190), (519, 19232), (520, 19241), (528, 19277), (533, 19295), (534, 19298), (537, 19310), (552, 19352), (553, 19355), (567, 19403), (571, 19439), (573, 19445), (578, 19466), (587, 19490), (597, 19520), (615, 19580), (625, 19613), (626, 19616), (629, 19631), (638, 19667), (649, 19709), (652, 19721), (653, 19724), (667, 19772), (672, 19802), (677, 19817), (684, 19850), (687, 19865), (703, 19928), (723, 20003), (724, 20006), (725, 20009), (733, 20045), (745, 20111), (760, 20198), (761, 20201), (787, 20300), (796, 20348), (797, 20354), (826, 20504), (827, 20513), (890, 20786), (924, 21011), (937, 21104), (940, 21125), (946, 21149), (947, 21173), (949, 21179), (950, 21185), (957, 21230), (970, 21338), (979, 21407), (986, 21494), (992, 21596), (993, 21605),

Gene: Onestar_23 Start: 17044, Stop: 21576, Start Num: 23

Candidate Starts for Onestar_23:

(Start: 18 @16993 has 2 MA's), (Start: 19 @17014 has 170 MA's), (Start: 23 @17044 has 3 MA's), (26, 17077), (51, 17242), (66, 17317), (68, 17329), (71, 17359), (79, 17482), (80, 17500), (84, 17542), (86, 17572), (88, 17617), (89, 17629), (96, 17683), (99, 17698), (105, 17731), (109, 17770), (112, 17794), (117, 17809), (119, 17824), (122, 17857), (126, 17872), (128, 17887), (132, 17920), (164, 18199), (167, 18208), (173, 18256), (202, 18397), (210, 18433), (233, 18559), (243, 18601), (247, 18613), (262, 18697), (283, 18781), (288, 18799), (298, 18844), (315, 18922), (340, 19033), (344, 19054), (346, 19066), (355, 19123), (356, 19126), (367, 19177), (369, 19183), (370, 19186), (374, 19198), (381, 19228), (386, 19255), (392, 19276), (401, 19327), (412, 19381), (423, 19414), (426, 19435),

(432, 19462), (451, 19561), (455, 19573), (464, 19615), (475, 19663), (499, 19771), (502, 19786), (507, 19807), (515, 19837), (528, 19903), (537, 19936), (539, 19945), (544, 19957), (547, 19963), (553, 19981), (567, 20029), (568, 20038), (577, 20089), (585, 20110), (587, 20116), (615, 20206), (630, 20260), (634, 20278), (641, 20305), (642, 20308), (654, 20353), (658, 20368), (666, 20395), (672, 20428), (685, 20485), (691, 20506), (694, 20515), (701, 20548), (708, 20572), (717, 20605), (721, 20620), (722, 20626), (725, 20635), (726, 20638), (745, 20737), (746, 20740), (752, 20764), (781, 20947), (787, 20992), (792, 21022), (793, 21025), (797, 21046), (802, 21070), (803, 21082), (830, 21220), (837, 21253), (840, 21265), (856, 21340), (869, 21397), (895, 21469),

Gene: Paella_40 Start: 29221, Stop: 33771, Start Num: 19

Candidate Starts for Paella_40:

(Start: 19 @29221 has 170 MA's), (Start: 23 @29251 has 3 MA's), (34, 29326), (40, 29362), (49, 29440), (79, 29689), (87, 29815), (92, 29860), (93, 29875), (96, 29890), (101, 29917), (105, 29938), (108, 29962), (110, 29980), (122, 30097), (129, 30142), (132, 30160), (144, 30283), (146, 30310), (149, 30322), (152, 30343), (182, 30538), (198, 30625), (200, 30631), (210, 30673), (219, 30724), (230, 30787), (250, 30862), (252, 30871), (282, 30991), (304, 31069), (305, 31078), (344, 31246), (358, 31324), (367, 31369), (370, 31378), (377, 31402), (386, 31447), (392, 31468), (409, 31564), (420, 31597), (426, 31627), (442, 31708), (444, 31723), (445, 31726), (464, 31807), (470, 31834), (480, 31885), (484, 31912), (491, 31933), (492, 31936), (502, 31978), (523, 32074), (528, 32095), (532, 32107), (537, 32128), (539, 32137), (544, 32149), (557, 32191), (567, 32221), (568, 32230), (576, 32278), (577, 32281), (584, 32299), (587, 32308), (603, 32359), (606, 32368), (615, 32398), (626, 32434), (632, 32461), (653, 32542), (654, 32545), (674, 32626), (678, 32638), (684, 32668), (687, 32683), (690, 32692), (694, 32707), (703, 32746), (714, 32785), (718, 32800), (720, 32809), (723, 32821), (726, 32830), (727, 32833), (735, 32878), (736, 32884), (748, 32941), (752, 32956), (756, 32986), (772, 33082), (781, 33139), (787, 33184), (801, 33253), (814, 33334), (820, 33355), (826, 33388), (834, 33433), (836, 33442), (840, 33457), (843, 33463), (855, 33532), (859, 33550), (873, 33601),

Gene: Pepy6_035 Start: 30017, Stop: 35869, Start Num: 19

Candidate Starts for Pepy6_035:

(Start: 18 @29996 has 2 MA's), (Start: 19 @30017 has 170 MA's), (Start: 23 @30047 has 3 MA's), (28, 30092), (30, 30101), (34, 30122), (44, 30185), (49, 30236), (71, 30362), (72, 30383), (78, 30443), (79, 30485), (84, 30545), (92, 30656), (96, 30686), (99, 30701), (105, 30734), (110, 30776), (116, 30827), (123, 30881), (124, 30884), (128, 30899), (152, 31115), (159, 31175), (161, 31196), (167, 31220), (207, 31433), (Start: 213 @31469 has 1 MA's), (232, 31568), (287, 31826), (300, 31877), (308, 31916), (309, 31919), (319, 31961), (321, 31967), (331, 32012), (334, 32033), (340, 32087), (344, 32108), (365, 32222), (373, 32249), (377, 32264), (380, 32273), (384, 32300), (392, 32330), (393, 32333), (395, 32339), (400, 32378), (402, 32390), (412, 32435), (413, 32438), (426, 32489), (430, 32510), (433, 32519), (437, 32540), (442, 32570), (446, 32597), (448, 32606), (450, 32612), (461, 32648), (463, 32660), (472, 32702), (473, 32705), (476, 32717), (479, 32732), (484, 32768), (489, 32783), (499, 32819), (502, 32831), (509, 32858), (519, 32903), (520, 32912), (523, 32927), (532, 32960), (534, 32969), (536, 32975), (539, 32990), (553, 33023), (559, 33047), (564, 33062), (568, 33080), (574, 33116), (582, 33152), (584, 33158), (593, 33188), (595, 33200), (596, 33206), (601, 33221), (608, 33245), (612, 33257), (614, 33263), (616, 33272), (617, 33275), (633, 33335), (639, 33359), (660, 33434), (682, 33530), (747, 33806), (752, 33824), (753, 33830), (756, 33854), (765, 33908), (782, 34016), (785, 34043), (787, 34058), (794, 34112), (818, 34238), (829, 34298), (891, 34586), (928, 34850), (935, 34898), (953, 35000), (958, 35033), (969, 35132), (971, 35141), (982, 35246), (983, 35264), (986, 35300), (991, 35345), (995, 35627), (996, 35660), (997, 35855),

Gene: Perkunas_31 Start: 21027, Stop: 26129, Start Num: 19

Candidate Starts for Perkunas_31:

(Start: 19 @21027 has 170 MA's), (Start: 23 @21057 has 3 MA's), (44, 21195), (48, 21240), (56, 21291), (60, 21306), (61, 21312), (68, 21342), (71, 21372), (72, 21393), (79, 21495), (84, 21555), (92,

21666), (96, 21696), (99, 21711), (105, 21744), (110, 21786), (115, 21837), (124, 21891), (125, 21894), (135, 21993), (151, 22113), (163, 22218), (164, 22221), (175, 22290), (177, 22296), (204, 22431), (247, 22635), (248, 22638), (295, 22872), (300, 22890), (308, 22929), (313, 22956), (318, 22968), (320, 22977), (342, 23109), (344, 23118), (357, 23193), (360, 23205), (361, 23211), (381, 23292), (385, 23313), (386, 23319), (392, 23340), (395, 23349), (398, 23370), (399, 23382), (401, 23391), (402, 23400), (407, 23427), (415, 23454), (416, 23457), (423, 23478), (430, 23520), (438, 23553), (439, 23556), (441, 23571), (442, 23580), (446, 23607), (448, 23616), (452, 23628), (458, 23649), (461, 23658), (467, 23691), (479, 23742), (480, 23751), (482, 23766), (487, 23787), (492, 23802), (498, 23826), (499, 23829), (502, 23841), (504, 23847), (505, 23850), (518, 23907), (520, 23922), (534, 23979), (537, 23991), (539, 24000), (545, 24012), (551, 24024), (552, 24030), (560, 24060), (561, 24063), (564, 24072), (567, 24081), (568, 24090), (569, 24105), (570, 24111), (573, 24123), (583, 24165), (587, 24177), (593, 24198), (595, 24210), (612, 24267), (619, 24291), (621, 24297), (622, 24300), (626, 24315), (628, 24327), (633, 24345), (651, 24414), (657, 24435), (679, 24522), (703, 24624), (708, 24642), (735, 24756), (740, 24777), (748, 24819), (771, 24954), (798, 25128), (805, 25191), (811, 25209), (818, 25239), (819, 25245), (825, 25266), (846, 25374), (858, 25434), (863, 25455), (864, 25458), (872, 25509), (875, 25518), (879, 25536), (887, 25557), (890, 25569), (907, 25662), (915, 25707), (920, 25770), (923, 25782), (927, 25821), (933, 25851), (938, 25884), (943, 25908), (953, 25968), (975, 26115),

Gene: PerroGrande22_39 Start: 31343, Stop: 37222, Start Num: 19

Candidate Starts for PerroGrande22_39:

(Start: 19 @31343 has 170 MA's), (Start: 23 @31373 has 3 MA's), (28, 31418), (30, 31427), (34, 31448), (44, 31511), (48, 31556), (49, 31562), (52, 31577), (53, 31586), (56, 31607), (57, 31610), (61, 31628), (64, 31640), (71, 31688), (79, 31811), (86, 31901), (87, 31937), (90, 31973), (96, 32012), (105, 32060), (110, 32102), (149, 32447), (151, 32456), (155, 32492), (160, 32540), (163, 32561), (164, 32564), (166, 32570), (177, 32639), (214, 32828), (222, 32861), (230, 32912), (235, 32930), (239, 32954), (287, 33179), (300, 33230), (308, 33269), (313, 33296), (331, 33365), (337, 33407), (340, 33440), (344, 33461), (353, 33518), (365, 33575), (377, 33617), (380, 33626), (392, 33683), (393, 33686), (394, 33689), (395, 33692), (400, 33731), (402, 33743), (413, 33791), (426, 33842), (430, 33863), (433, 33872), (437, 33893), (442, 33923), (443, 33929), (454, 33977), (461, 34001), (463, 34013), (466, 34028), (472, 34055), (473, 34058), (476, 34070), (479, 34085), (489, 34136), (496, 34163), (499, 34172), (502, 34184), (508, 34208), (509, 34211), (519, 34256), (520, 34265), (523, 34280), (532, 34313), (534, 34322), (537, 34334), (539, 34343), (553, 34376), (557, 34394), (559, 34400), (564, 34415), (565, 34418), (568, 34433), (570, 34454), (574, 34469), (583, 34508), (593, 34541), (595, 34553), (596, 34559), (601, 34574), (608, 34598), (612, 34610), (614, 34616), (633, 34688), (660, 34787), (677, 34856), (682, 34883), (747, 35159), (752, 35177), (756, 35207), (761, 35240), (765, 35261), (782, 35369), (785, 35396), (798, 35480), (818, 35591), (829, 35651), (835, 35681), (854, 35780), (928, 36203), (935, 36251), (953, 36353), (971, 36494), (982, 36599), (986, 36653), (991, 36698), (992, 36764), (994, 36863), (995, 36980), (996, 37013), (997, 37208),

Gene: PestoPenguin_35 Start: 23289, Stop: 28400, Start Num: 19

Candidate Starts for PestoPenguin_35:

(Start: 19 @23289 has 170 MA's), (Start: 23 @23319 has 3 MA's), (28, 23364), (49, 23508), (61, 23574), (71, 23634), (72, 23655), (79, 23757), (87, 23883), (90, 23919), (96, 23958), (101, 23985), (105, 24006), (110, 24048), (122, 24168), (135, 24282), (137, 24294), (145, 24369), (151, 24402), (163, 24507), (164, 24510), (233, 24870), (236, 24888), (272, 25044), (291, 25146), (293, 25149), (300, 25176), (308, 25215), (313, 25242), (320, 25263), (325, 25287), (344, 25404), (354, 25467), (355, 25473), (360, 25491), (361, 25497), (367, 25527), (375, 25551), (386, 25605), (393, 25629), (397, 25653), (398, 25656), (401, 25677), (402, 25686), (412, 25731), (415, 25740), (426, 25785), (430, 25806), (433, 25815), (434, 25821), (437, 25836), (439, 25842), (441, 25857), (451, 25911), (452, 25914), (455, 25923), (458, 25935), (461, 25944), (463, 25956), (467, 25977), (469, 25983), (475, 26007), (480, 26037), (482, 26052), (499, 26115), (502, 26127), (504, 26133), (505, 26136), (507, 26148), (508, 26151), (520, 26208), (533, 26262), (534, 26265), (539, 26286), (545, 26298),

(547, 26301), (561, 26349), (566, 26364), (567, 26367), (568, 26376), (569, 26391), (570, 26397), (576, 26424), (577, 26427), (579, 26433), (587, 26463), (593, 26484), (595, 26496), (597, 26505), (601, 26517), (609, 26544), (619, 26577), (621, 26583), (626, 26601), (633, 26631), (662, 26739), (683, 26829), (688, 26850), (717, 26961), (729, 27006), (740, 27063), (746, 27096), (771, 27240), (780, 27303), (790, 27369), (795, 27402), (798, 27414), (805, 27477), (813, 27498), (815, 27510), (819, 27531), (849, 27672), (865, 27759), (871, 27777), (879, 27807), (886, 27825), (887, 27828), (889, 27834), (890, 27840), (898, 27867), (915, 27978), (920, 28041), (923, 28053), (933, 28122), (938, 28155), (943, 28179), (961, 28296), (975, 28386),

Gene: Petito_31 Start: 21794, Stop: 26884, Start Num: 19

Candidate Starts for Petito_31:

(Start: 19 @21794 has 170 MA's), (Start: 23 @21824 has 3 MA's), (44, 21962), (48, 22007), (49, 22013), (53, 22037), (56, 22058), (61, 22079), (68, 22109), (71, 22139), (72, 22160), (79, 22262), (84, 22322), (88, 22397), (89, 22409), (92, 22433), (96, 22463), (99, 22478), (105, 22511), (106, 22517), (110, 22553), (115, 22604), (124, 22658), (125, 22661), (135, 22760), (138, 22784), (151, 22880), (157, 22934), (160, 22964), (163, 22985), (164, 22988), (175, 23057), (177, 23063), (207, 23210), (Start: 213 @23246 has 1 MA's), (220, 23276), (233, 23348), (239, 23378), (247, 23402), (300, 23657), (318, 23735), (320, 23744), (332, 23792), (342, 23876), (344, 23885), (354, 23948), (360, 23972), (363, 23990), (368, 24011), (381, 24059), (386, 24086), (395, 24116), (398, 24137), (399, 24149), (401, 24158), (402, 24167), (415, 24221), (416, 24224), (423, 24245), (430, 24287), (436, 24314), (439, 24323), (441, 24338), (442, 24347), (444, 24362), (446, 24374), (448, 24383), (452, 24395), (458, 24416), (461, 24425), (473, 24482), (479, 24509), (480, 24518), (482, 24533), (483, 24536), (487, 24554), (499, 24596), (502, 24608), (505, 24617), (508, 24632), (518, 24674), (520, 24689), (534, 24746), (537, 24758), (539, 24767), (545, 24779), (551, 24791), (552, 24797), (557, 24818), (561, 24830), (564, 24839), (567, 24848), (568, 24857), (569, 24872), (570, 24878), (573, 24890), (579, 24914), (583, 24932), (587, 24944), (593, 24965), (595, 24977), (609, 25025), (612, 25034), (619, 25058), (621, 25064), (622, 25067), (626, 25082), (627, 25091), (628, 25094), (633, 25112), (651, 25181), (657, 25202), (677, 25280), (691, 25343), (696, 25364), (705, 25397), (731, 25499), (740, 25544), (748, 25586), (759, 25655), (771, 25721), (782, 25793), (795, 25883), (805, 25958), (819, 26012), (825, 26033), (831, 26069), (839, 26108), (843, 26120), (846, 26141), (864, 26225), (871, 26258), (879, 26288), (881, 26294), (887, 26309), (890, 26321), (913, 26447), (915, 26459), (923, 26534), (925, 26552), (927, 26573), (930, 26585), (943, 26660), (944, 26663), (975, 26870),

Gene: Phaby_27 Start: 20255, Stop: 24850, Start Num: 19

Candidate Starts for Phaby_27:

(Start: 18 @20234 has 2 MA's), (Start: 19 @20255 has 170 MA's), (Start: 23 @20285 has 3 MA's), (30, 20339), (68, 20570), (71, 20600), (78, 20681), (79, 20723), (80, 20741), (84, 20783), (89, 20870), (96, 20924), (99, 20939), (100, 20945), (105, 20972), (117, 21050), (119, 21065), (122, 21098), (126, 21113), (127, 21122), (130, 21149), (132, 21161), (136, 21215), (146, 21311), (151, 21332), (167, 21449), (174, 21506), (176, 21512), (187, 21569), (203, 21641), (210, 21674), (211, 21677), (260, 21911), (281, 22004), (283, 22007), (306, 22109), (308, 22115), (317, 22151), (344, 22298), (352, 22352), (353, 22355), (367, 22421), (370, 22430), (371, 22433), (377, 22454), (383, 22481), (392, 22520), (393, 22523), (416, 22637), (423, 22658), (425, 22676), (426, 22679), (444, 22775), (446, 22787), (475, 22907), (480, 22937), (482, 22952), (494, 22994), (499, 23015), (502, 23030), (505, 23039), (507, 23051), (512, 23072), (523, 23126), (528, 23147), (537, 23180), (538, 23186), (539, 23189), (547, 23207), (549, 23210), (552, 23228), (567, 23279), (568, 23288), (578, 23342), (587, 23366), (598, 23399), (605, 23423), (615, 23456), (634, 23528), (635, 23531), (640, 23552), (646, 23576), (649, 23585), (658, 23618), (659, 23621), (661, 23627), (671, 23672), (672, 23678), (684, 23726), (712, 23834), (722, 23876), (725, 23885), (756, 24044), (759, 24068), (761, 24077), (768, 24119), (772, 24140), (776, 24155), (787, 24242), (789, 24254), (797, 24296), (812, 24380), (826, 24446), (830, 24470), (840, 24515), (843, 24521), (856, 24590), (857, 24593), (862, 24617), (906, 24800),

Gene: Phaila_25 Start: 18580, Stop: 23217, Start Num: 19

Candidate Starts for Phaila_25:

(Start: 18 @18559 has 2 MA's), (Start: 19 @18580 has 170 MA's), (Start: 23 @18610 has 3 MA's), (30, 18664), (31, 18673), (61, 18943), (62, 18946), (71, 19003), (72, 19024), (78, 19084), (79, 19126), (84, 19186), (93, 19312), (96, 19327), (99, 19342), (105, 19375), (109, 19414), (110, 19417), (117, 19453), (119, 19468), (126, 19516), (157, 19789), (164, 19843), (167, 19852), (175, 19912), (185, 19954), (194, 20014), (195, 20020), (198, 20029), (203, 20044), (204, 20053), (224, 20152), (225, 20164), (226, 20173), (228, 20185), (301, 20470), (313, 20530), (317, 20539), (344, 20680), (351, 20728), (352, 20734), (358, 20758), (367, 20803), (370, 20812), (377, 20836), (381, 20854), (391, 20899), (392, 20902), (395, 20911), (405, 20977), (416, 21019), (420, 21031), (423, 21040), (426, 21061), (437, 21112), (442, 21142), (444, 21157), (455, 21199), (460, 21217), (469, 21265), (470, 21268), (481, 21325), (507, 21433), (510, 21442), (520, 21493), (523, 21508), (528, 21529), (537, 21562), (539, 21571), (544, 21583), (552, 21604), (554, 21610), (559, 21631), (567, 21655), (568, 21664), (584, 21733), (585, 21736), (586, 21739), (587, 21742), (597, 21772), (603, 21793), (610, 21814), (615, 21832), (618, 21841), (623, 21859), (638, 21919), (640, 21928), (646, 21952), (650, 21967), (652, 21973), (653, 21976), (666, 22021), (672, 22054), (673, 22057), (674, 22060), (679, 22078), (708, 22198), (709, 22201), (714, 22219), (733, 22297), (736, 22318), (752, 22390), (759, 22444), (762, 22456), (781, 22573), (787, 22618), (823, 22801), (826, 22822), (830, 22846), (843, 22897), (856, 22966), (859, 22984),

Gene: Phepper_32 Start: 23282, Stop: 28393, Start Num: 19

Candidate Starts for Phepper_32:

(Start: 19 @23282 has 170 MA's), (Start: 23 @23312 has 3 MA's), (28, 23357), (49, 23501), (61, 23567), (71, 23627), (72, 23648), (79, 23750), (87, 23876), (90, 23912), (96, 23951), (101, 23978), (105, 23999), (110, 24041), (122, 24161), (137, 24287), (145, 24362), (151, 24395), (163, 24500), (164, 24503), (233, 24863), (260, 24968), (272, 25037), (277, 25058), (291, 25139), (293, 25142), (300, 25169), (308, 25208), (313, 25235), (344, 25397), (351, 25445), (355, 25466), (360, 25484), (371, 25532), (375, 25544), (386, 25598), (398, 25649), (399, 25661), (401, 25670), (402, 25679), (415, 25733), (426, 25778), (429, 25793), (430, 25799), (433, 25808), (434, 25814), (438, 25832), (439, 25835), (440, 25841), (441, 25850), (451, 25904), (452, 25907), (455, 25916), (460, 25934), (461, 25937), (463, 25949), (467, 25970), (469, 25976), (470, 25979), (475, 26000), (480, 26030), (482, 26045), (491, 26078), (495, 26093), (499, 26108), (502, 26120), (504, 26126), (505, 26129), (507, 26141), (508, 26144), (520, 26201), (533, 26255), (534, 26258), (539, 26279), (545, 26291), (547, 26294), (561, 26342), (566, 26357), (567, 26360), (568, 26369), (570, 26390), (576, 26417), (577, 26420), (583, 26444), (587, 26456), (593, 26477), (595, 26489), (601, 26510), (609, 26537), (619, 26570), (621, 26576), (626, 26594), (633, 26624), (643, 26663), (688, 26843), (691, 26855), (709, 26924), (746, 27089), (767, 27212), (771, 27233), (790, 27362), (795, 27395), (798, 27407), (805, 27470), (813, 27491), (815, 27503), (818, 27518), (831, 27581), (849, 27665), (865, 27752), (871, 27770), (879, 27800), (886, 27818), (887, 27821), (889, 27827), (890, 27833), (898, 27860), (915, 27971), (923, 28046), (925, 28064), (938, 28148), (943, 28172), (961, 28289), (975, 28379),

Gene: Pherobrine_31 Start: 23313, Stop: 28427, Start Num: 19

Candidate Starts for Pherobrine_31:

(Start: 19 @23313 has 170 MA's), (Start: 23 @23343 has 3 MA's), (28, 23388), (49, 23532), (60, 23592), (61, 23598), (69, 23637), (71, 23658), (72, 23679), (79, 23781), (81, 23817), (87, 23907), (90, 23943), (96, 23982), (101, 24009), (105, 24030), (110, 24072), (122, 24192), (145, 24393), (151, 24426), (154, 24459), (160, 24510), (163, 24531), (164, 24534), (177, 24609), (204, 24744), (217, 24810), (221, 24825), (233, 24894), (236, 24912), (246, 24945), (254, 24966), (256, 24975), (260, 24999), (272, 25068), (277, 25089), (283, 25122), (284, 25125), (298, 25194), (300, 25203), (320, 25290), (333, 25350), (339, 25401), (344, 25434), (345, 25440), (355, 25503), (360, 25521), (370, 25566), (386, 25635), (393, 25659), (395, 25665), (398, 25686), (402, 25716), (415, 25770), (416, 25773), (429, 25830), (430, 25836), (438, 25869), (441, 25887), (442, 25896), (444, 25911), (446, 25923), (451, 25941), (452, 25944), (455, 25953), (458, 25965), (460, 25971), (461, 25974), (467,

26007), (472, 26028), (480, 26067), (491, 26115), (495, 26130), (496, 26136), (499, 26145), (502, 26157), (505, 26166), (507, 26178), (508, 26181), (509, 26184), (510, 26187), (511, 26193), (513, 26202), (525, 26265), (532, 26286), (534, 26295), (539, 26316), (557, 26367), (559, 26373), (560, 26376), (565, 26391), (567, 26397), (569, 26421), (570, 26427), (576, 26454), (577, 26457), (587, 26493), (593, 26514), (595, 26526), (597, 26535), (601, 26547), (609, 26574), (612, 26583), (619, 26607), (621, 26613), (626, 26631), (633, 26661), (643, 26700), (651, 26730), (660, 26760), (691, 26892), (709, 26961), (746, 27126), (765, 27234), (770, 27267), (783, 27360), (795, 27432), (798, 27444), (805, 27507), (818, 27555), (839, 27657), (845, 27678), (849, 27702), (852, 27726), (865, 27789), (871, 27807), (886, 27855), (887, 27858), (890, 27870), (898, 27897), (915, 28008), (923, 28083), (938, 28185), (944, 28212), (945, 28215), (961, 28323), (967, 28362), (975, 28413),

Gene: PherryCruz_18 Start: 13488, Stop: 18716, Start Num: 19

Candidate Starts for PherryCruz_18:

(Start: 18 @13467 has 2 MA's), (Start: 19 @13488 has 170 MA's), (Start: 23 @13518 has 3 MA's), (42, 13620), (45, 13671), (61, 13779), (79, 13962), (87, 14088), (90, 14124), (96, 14163), (110, 14253), (154, 14640), (177, 14790), (182, 14814), (194, 14886), (243, 15117), (265, 15195), (270, 15213), (273, 15216), (279, 15249), (305, 15357), (321, 15417), (344, 15498), (354, 15561), (355, 15567), (367, 15621), (374, 15642), (389, 15708), (390, 15711), (411, 15822), (423, 15858), (426, 15876), (437, 15927), (459, 16029), (462, 16041), (464, 16056), (479, 16125), (480, 16134), (485, 16164), (498, 16209), (504, 16230), (511, 16260), (514, 16272), (515, 16275), (519, 16296), (520, 16305), (528, 16341), (537, 16374), (563, 16455), (564, 16458), (571, 16503), (572, 16506), (573, 16509), (587, 16554), (597, 16584), (611, 16629), (615, 16644), (625, 16677), (630, 16698), (632, 16707), (634, 16716), (640, 16740), (641, 16743), (644, 16752), (649, 16773), (652, 16785), (660, 16812), (669, 16851), (674, 16872), (680, 16893), (682, 16908), (684, 16914), (718, 17046), (720, 17055), (722, 17064), (725, 17073), (726, 17076), (729, 17088), (730, 17091), (731, 17100), (733, 17109), (752, 17202), (759, 17256), (787, 17364), (790, 17379), (827, 17577), (878, 17811), (899, 17886), (936, 18165), (937, 18168), (940, 18189), (947, 18237), (949, 18243), (964, 18351), (973, 18423), (983, 18525), (993, 18678),

Gene: Pippin15_25 Start: 18211, Stop: 22791, Start Num: 19

Candidate Starts for Pippin15_25:

(Start: 19 @18211 has 170 MA's), (Start: 23 @18244 has 3 MA's), (45, 18391), (58, 18484), (79, 18679), (81, 18715), (87, 18805), (105, 18928), (110, 18970), (122, 19090), (156, 19372), (160, 19408), (167, 19441), (177, 19507), (207, 19654), (221, 19735), (238, 19828), (273, 19954), (286, 20008), (344, 20260), (369, 20389), (370, 20392), (374, 20404), (383, 20443), (396, 20503), (399, 20524), (413, 20590), (416, 20599), (426, 20641), (428, 20647), (430, 20662), (435, 20683), (456, 20782), (466, 20833), (472, 20860), (477, 20881), (480, 20899), (487, 20935), (493, 20953), (502, 20995), (508, 21019), (509, 21022), (512, 21037), (515, 21046), (528, 21115), (534, 21136), (537, 21148), (540, 21157), (544, 21169), (553, 21193), (567, 21241), (584, 21319), (587, 21328), (610, 21400), (613, 21409), (615, 21418), (634, 21490), (645, 21532), (652, 21559), (665, 21604), (675, 21649), (676, 21652), (684, 21688), (694, 21727), (700, 21757), (714, 21805), (726, 21850), (737, 21907), (756, 22006), (757, 22015), (761, 22039), (765, 22060), (781, 22159), (787, 22204), (824, 22390), (830, 22432), (832, 22444), (837, 22465), (840, 22477), (856, 22552), (857, 22555), (859, 22570), (893, 22681), (911, 22780),

Gene: Poco6_036 Start: 32036, Stop: 37891, Start Num: 19

Candidate Starts for Poco6_036:

(Start: 19 @32036 has 170 MA's), (Start: 23 @32066 has 3 MA's), (28, 32111), (30, 32120), (34, 32141), (44, 32204), (49, 32255), (53, 32279), (71, 32381), (72, 32402), (79, 32519), (84, 32579), (92, 32690), (96, 32720), (99, 32735), (105, 32768), (116, 32861), (124, 32909), (147, 33110), (152, 33140), (177, 33311), (194, 33407), (Start: 213 @33494 has 1 MA's), (287, 33851), (300, 33902), (308, 33941), (319, 33986), (331, 34037), (334, 34058), (340, 34112), (344, 34133), (353, 34190), (365, 34247), (373, 34274), (377, 34289), (380, 34298), (384, 34325), (392, 34355), (393, 34358), (395,

34364), (402, 34415), (413, 34463), (426, 34514), (430, 34535), (433, 34544), (437, 34565), (441, 34586), (450, 34637), (452, 34643), (458, 34664), (461, 34673), (463, 34685), (466, 34700), (472, 34727), (473, 34730), (479, 34757), (495, 34829), (499, 34844), (502, 34856), (509, 34883), (519, 34928), (520, 34937), (532, 34985), (534, 34994), (539, 35015), (553, 35048), (557, 35066), (559, 35072), (564, 35087), (565, 35090), (566, 35093), (568, 35105), (582, 35177), (584, 35183), (593, 35213), (595, 35225), (596, 35231), (599, 35240), (601, 35246), (608, 35270), (612, 35282), (614, 35288), (633, 35360), (639, 35384), (657, 35450), (660, 35459), (677, 35528), (682, 35555), (747, 35831), (752, 35849), (756, 35879), (761, 35912), (765, 35933), (782, 36041), (785, 36068), (794, 36137), (798, 36152), (872, 36542), (928, 36872), (935, 36920), (953, 37022), (971, 37163), (982, 37268), (986, 37322), (991, 37367), (992, 37433), (994, 37532), (995, 37649), (996, 37682), (997, 37877),

Gene: PoeMe_27 Start: 19861, Stop: 24495, Start Num: 19

Candidate Starts for PoeMe_27:

(Start: 18 @19840 has 2 MA's), (Start: 19 @19861 has 170 MA's), (Start: 23 @19891 has 3 MA's), (30, 19945), (31, 19954), (61, 20224), (62, 20227), (71, 20284), (72, 20305), (78, 20365), (79, 20407), (84, 20467), (88, 20542), (96, 20608), (99, 20623), (105, 20656), (109, 20695), (110, 20698), (117, 20734), (119, 20749), (126, 20797), (157, 21070), (164, 21124), (167, 21133), (175, 21193), (185, 21235), (194, 21295), (195, 21301), (198, 21310), (204, 21334), (224, 21433), (225, 21445), (226, 21454), (228, 21466), (263, 21601), (301, 21751), (313, 21811), (317, 21820), (344, 21958), (349, 21991), (351, 22006), (356, 22030), (358, 22036), (362, 22060), (367, 22081), (370, 22090), (377, 22114), (381, 22132), (391, 22177), (392, 22180), (395, 22189), (416, 22297), (420, 22309), (423, 22318), (426, 22339), (437, 22390), (442, 22420), (444, 22435), (455, 22477), (460, 22495), (469, 22543), (470, 22546), (486, 22630), (488, 22636), (507, 22711), (510, 22720), (520, 22771), (528, 22807), (537, 22840), (539, 22849), (544, 22861), (545, 22864), (557, 22903), (567, 22933), (568, 22942), (584, 23011), (587, 23020), (597, 23050), (603, 23071), (615, 23110), (635, 23185), (638, 23197), (646, 23230), (650, 23245), (653, 23254), (655, 23260), (666, 23299), (672, 23332), (673, 23335), (674, 23338), (679, 23356), (705, 23464), (709, 23479), (714, 23497), (716, 23506), (720, 23521), (721, 23524), (736, 23596), (752, 23668), (759, 23722), (772, 23794), (781, 23851), (787, 23896), (823, 24079), (826, 24100), (830, 24124), (843, 24175), (856, 24244), (859, 24262),

Gene: Popy_23 Start: 16676, Stop: 22156, Start Num: 2

Candidate Starts for Popy_23:

(1, 16655), (Start: 2 @16676 has 33 MA's), (3, 16706), (14, 16850), (17, 16901), (25, 16985), (42, 17060), (53, 17177), (54, 17180), (60, 17213), (68, 17249), (71, 17279), (79, 17402), (87, 17528), (90, 17564), (96, 17603), (98, 17615), (105, 17651), (110, 17693), (133, 17885), (138, 17951), (146, 18026), (151, 18047), (154, 18080), (162, 18143), (163, 18152), (177, 18230), (207, 18377), (231, 18509), (246, 18566), (267, 18644), (270, 18653), (274, 18662), (279, 18689), (298, 18764), (300, 18773), (315, 18839), (316, 18842), (336, 18881), (344, 18935), (355, 19004), (367, 19058), (377, 19091), (386, 19136), (389, 19145), (392, 19157), (405, 19232), (419, 19283), (423, 19295), (430, 19334), (437, 19364), (440, 19376), (447, 19424), (459, 19466), (468, 19514), (480, 19571), (510, 19691), (519, 19733), (520, 19742), (528, 19778), (533, 19796), (534, 19799), (537, 19811), (552, 19853), (553, 19856), (567, 19904), (571, 19940), (573, 19946), (578, 19967), (587, 19991), (615, 20081), (625, 20114), (629, 20132), (632, 20144), (634, 20153), (649, 20210), (652, 20222), (653, 20225), (658, 20243), (672, 20303), (677, 20318), (684, 20351), (687, 20366), (706, 20438), (718, 20483), (722, 20501), (725, 20510), (733, 20546), (736, 20567), (737, 20570), (781, 20756), (783, 20777), (784, 20783), (787, 20801), (788, 20804), (790, 20816), (796, 20849), (797, 20855), (826, 21005), (827, 21014), (890, 21287), (909, 21389), (937, 21605), (940, 21626), (947, 21674), (949, 21680), (950, 21686), (957, 21731), (973, 21860), (979, 21908), (992, 22100), (993, 22109),

Gene: Powelldog_24 Start: 17004, Stop: 21530, Start Num: 19

Candidate Starts for Powelldog_24:

(Start: 18 @16983 has 2 MA's), (Start: 19 @17004 has 170 MA's), (Start: 23 @17034 has 3 MA's), (29, 17085), (31, 17097), (40, 17145), (45, 17181), (50, 17229), (60, 17283), (61, 17289), (79, 17472), (80, 17490), (83, 17526), (84, 17532), (89, 17619), (91, 17640), (96, 17673), (99, 17688), (102, 17703), (105, 17721), (117, 17799), (119, 17814), (122, 17847), (126, 17862), (132, 17910), (135, 17961), (137, 17973), (146, 18060), (148, 18069), (149, 18072), (152, 18093), (157, 18135), (160, 18165), (164, 18189), (175, 18258), (182, 18288), (183, 18291), (187, 18318), (192, 18348), (204, 18399), (263, 18669), (277, 18720), (297, 18804), (301, 18819), (311, 18867), (329, 18915), (344, 18996), (353, 19053), (356, 19068), (359, 19080), (366, 19113), (367, 19119), (370, 19128), (377, 19152), (381, 19170), (386, 19197), (392, 19218), (395, 19227), (397, 19245), (401, 19269), (405, 19293), (423, 19356), (424, 19365), (442, 19458), (457, 19521), (460, 19533), (466, 19569), (480, 19635), (503, 19731), (507, 19749), (512, 19770), (517, 19791), (520, 19809), (523, 19824), (525, 19836), (528, 19845), (532, 19857), (537, 19878), (539, 19887), (544, 19899), (548, 19908), (555, 19929), (560, 19950), (567, 19971), (568, 19980), (573, 20013), (584, 20049), (586, 20055), (587, 20058), (597, 20088), (608, 20124), (609, 20127), (610, 20130), (615, 20148), (632, 20211), (636, 20226), (639, 20238), (642, 20250), (643, 20253), (648, 20274), (649, 20277), (652, 20289), (656, 20304), (658, 20310), (664, 20331), (676, 20382), (680, 20397), (682, 20412), (690, 20442), (702, 20493), (706, 20505), (708, 20514), (721, 20562), (730, 20595), (735, 20628), (736, 20634), (737, 20637), (745, 20679), (760, 20766), (773, 20835), (783, 20910), (787, 20934), (789, 20946), (807, 21060), (817, 21099), (837, 21195), (840, 21207), (843, 21213), (883, 21387), (904, 21459),

Gene: ProfFrink_23 Start: 17240, Stop: 21790, Start Num: 19

Candidate Starts for ProfFrink_23:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 170 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (344, 19262), (355, 19331), (356, 19334), (365, 19376), (367, 19385), (370, 19394), (379, 19424), (386, 19463), (388, 19469), (392, 19484), (399, 19526), (423, 19622), (426, 19643), (427, 19646), (431, 19667), (442, 19724), (444, 19739), (451, 19769), (455, 19781), (462, 19808), (464, 19823), (475, 19871), (480, 19901), (482, 19916), (491, 19949), (493, 19955), (502, 19994), (505, 20003), (507, 20015), (512, 20036), (525, 20102), (528, 20111), (537, 20144), (538, 20150), (539, 20153), (544, 20165), (545, 20168), (553, 20189), (558, 20210), (568, 20246), (576, 20294), (587, 20324), (615, 20414), (631, 20471), (642, 20516), (646, 20534), (654, 20561), (656, 20570), (658, 20576), (672, 20636), (676, 20648), (679, 20660), (691, 20714), (701, 20756), (703, 20762), (705, 20768), (714, 20801), (715, 20804), (721, 20828), (722, 20834), (724, 20840), (725, 20843), (735, 20894), (738, 20906), (745, 20945), (768, 21077), (776, 21113), (781, 21155), (787, 21200), (803, 21290), (822, 21380), (826, 21404), (830, 21428), (832, 21440), (834, 21449), (837, 21461), (840, 21473), (850, 21518), (856, 21548), (859, 21566), (869, 21605),

Gene: Qui_40 Start: 29221, Stop: 33771, Start Num: 19

Candidate Starts for Qui_40:

(Start: 19 @29221 has 170 MA's), (Start: 23 @29251 has 3 MA's), (34, 29326), (40, 29362), (49, 29440), (79, 29689), (87, 29815), (92, 29860), (93, 29875), (96, 29890), (101, 29917), (105, 29938), (108, 29962), (110, 29980), (122, 30097), (129, 30142), (132, 30160), (144, 30283), (146, 30310), (149, 30322), (152, 30343), (182, 30538), (198, 30625), (200, 30631), (210, 30673), (219, 30724), (230, 30787), (250, 30862), (252, 30871), (282, 30991), (304, 31069), (305, 31078), (344, 31246), (358, 31324), (367, 31369), (370, 31378), (377, 31402), (386, 31447), (392, 31468), (409, 31564), (420, 31597), (426, 31627), (442, 31708), (444, 31723), (445, 31726), (464, 31807), (470, 31834), (480, 31885), (484, 31912), (491, 31933), (492, 31936), (502, 31978), (523, 32074), (528, 32095), (532, 32107), (537, 32128), (539, 32137), (544, 32149), (557, 32191), (567, 32221), (568, 32230), (576, 32278), (577, 32281), (584, 32299), (587, 32308), (603, 32359), (606, 32368), (615, 32398),

(626, 32434), (632, 32461), (653, 32542), (654, 32545), (674, 32626), (678, 32638), (684, 32668), (687, 32683), (690, 32692), (694, 32707), (703, 32746), (714, 32785), (718, 32800), (720, 32809), (723, 32821), (726, 32830), (727, 32833), (735, 32878), (736, 32884), (748, 32941), (752, 32956), (756, 32986), (772, 33082), (781, 33139), (787, 33184), (801, 33253), (814, 33334), (820, 33355), (826, 33388), (834, 33433), (836, 33442), (840, 33457), (843, 33463), (855, 33532), (859, 33550), (873, 33601),

Gene: Rainydai_21 Start: 15072, Stop: 20549, Start Num: 2

Candidate Starts for Rainydai_21:

(Start: 2 @15072 has 33 MA's), (3, 15102), (9, 15183), (10, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (118, 16173), (133, 16281), (151, 16443), (154, 16476), (163, 16548), (177, 16626), (207, 16773), (279, 17085), (281, 17094), (299, 17157), (344, 17331), (350, 17373), (355, 17400), (358, 17409), (370, 17463), (377, 17487), (390, 17544), (412, 17658), (423, 17691), (430, 17730), (440, 17772), (441, 17781), (446, 17817), (459, 17862), (469, 17913), (477, 17949), (480, 17967), (485, 17997), (496, 18036), (497, 18039), (507, 18078), (508, 18081), (515, 18108), (519, 18129), (520, 18138), (527, 18171), (528, 18174), (534, 18195), (555, 18258), (571, 18336), (573, 18342), (584, 18378), (585, 18381), (586, 18384), (587, 18387), (606, 18447), (609, 18456), (615, 18477), (624, 18507), (625, 18510), (640, 18573), (641, 18576), (642, 18579), (653, 18621), (658, 18639), (667, 18669), (677, 18714), (679, 18723), (684, 18747), (702, 18822), (704, 18828), (718, 18879), (725, 18906), (729, 18921), (731, 18933), (733, 18942), (737, 18966), (751, 19032), (760, 19095), (765, 19119), (787, 19197), (796, 19245), (803, 19287), (827, 19410), (851, 19527), (878, 19644), (900, 19725), (906, 19770), (914, 19815), (937, 20001), (940, 20022), (942, 20034), (949, 20076), (957, 20127), (963, 20175), (968, 20214), (976, 20265), (985, 20388), (990, 20427),

Gene: Raunak_23 Start: 17270, Stop: 21790, Start Num: 23

Candidate Starts for Raunak_23:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 170 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (344, 19262), (355, 19331), (356, 19334), (358, 19340), (365, 19376), (367, 19385), (370, 19394), (379, 19424), (386, 19463), (388, 19469), (392, 19484), (399, 19526), (423, 19622), (426, 19643), (427, 19646), (431, 19667), (442, 19724), (444, 19739), (451, 19769), (455, 19781), (462, 19808), (464, 19823), (475, 19871), (480, 19901), (482, 19916), (491, 19949), (493, 19955), (502, 19994), (505, 20003), (507, 20015), (512, 20036), (525, 20102), (528, 20111), (537, 20144), (538, 20150), (539, 20153), (544, 20165), (545, 20168), (553, 20189), (558, 20210), (568, 20246), (576, 20294), (587, 20324), (615, 20414), (631, 20471), (642, 20516), (646, 20534), (654, 20561), (656, 20570), (658, 20576), (676, 20648), (679, 20660), (691, 20714), (699, 20750), (703, 20762), (705, 20768), (715, 20804), (722, 20834), (724, 20840), (725, 20843), (735, 20894), (738, 20906), (745, 20945), (768, 21077), (776, 21113), (781, 21155), (787, 21200), (803, 21290), (822, 21380), (826, 21404), (830, 21428), (832, 21440), (834, 21449), (837, 21461), (840, 21473), (850, 21518), (856, 21548), (859, 21566), (869, 21605), (895, 21683),

Gene: RavenPuff_18 Start: 13488, Stop: 18716, Start Num: 19

Candidate Starts for RavenPuff_18:

(Start: 18 @13467 has 2 MA's), (Start: 19 @13488 has 170 MA's), (Start: 23 @13518 has 3 MA's), (42, 13620), (45, 13671), (61, 13779), (79, 13962), (87, 14088), (90, 14124), (96, 14163), (110, 14253), (154, 14640), (177, 14790), (182, 14814), (194, 14886), (243, 15117), (265, 15195), (270, 15213), (273, 15216), (279, 15249), (305, 15357), (321, 15417), (344, 15498), (354, 15561), (355, 15567), (367, 15621), (374, 15642), (389, 15708), (390, 15711), (411, 15822), (423, 15858), (426, 15876),

(437, 15927), (459, 16029), (462, 16041), (464, 16056), (479, 16125), (480, 16134), (485, 16164), (498, 16209), (504, 16230), (511, 16260), (514, 16272), (515, 16275), (519, 16296), (520, 16305), (528, 16341), (537, 16374), (563, 16455), (564, 16458), (571, 16503), (572, 16506), (573, 16509), (587, 16554), (597, 16584), (611, 16629), (615, 16644), (625, 16677), (630, 16698), (632, 16707), (634, 16716), (640, 16740), (641, 16743), (644, 16752), (649, 16773), (652, 16785), (660, 16812), (669, 16851), (674, 16872), (680, 16893), (682, 16908), (684, 16914), (718, 17046), (720, 17055), (722, 17064), (725, 17073), (726, 17076), (729, 17088), (730, 17091), (731, 17100), (733, 17109), (752, 17202), (759, 17256), (787, 17364), (790, 17379), (827, 17577), (878, 17811), (899, 17886), (936, 18165), (937, 18168), (940, 18189), (947, 18237), (949, 18243), (964, 18351), (973, 18423), (983, 18525), (993, 18678),

Gene: Regigigas_22 Start: 15072, Stop: 20549, Start Num: 2

Candidate Starts for Regigigas_22:

(Start: 2 @15072 has 33 MA's), (3, 15102), (9, 15183), (10, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (118, 16173), (133, 16281), (151, 16443), (154, 16476), (163, 16548), (177, 16626), (207, 16773), (279, 17085), (281, 17094), (299, 17157), (344, 17331), (350, 17373), (355, 17400), (358, 17409), (370, 17463), (377, 17487), (390, 17544), (412, 17658), (423, 17691), (430, 17730), (440, 17772), (441, 17781), (446, 17817), (459, 17862), (469, 17913), (477, 17949), (480, 17967), (485, 17997), (496, 18036), (497, 18039), (507, 18078), (508, 18081), (515, 18108), (519, 18129), (520, 18138), (527, 18171), (528, 18174), (534, 18195), (555, 18258), (571, 18336), (573, 18342), (584, 18378), (585, 18381), (586, 18384), (587, 18387), (606, 18447), (609, 18456), (615, 18477), (624, 18507), (625, 18510), (640, 18573), (641, 18576), (642, 18579), (653, 18621), (658, 18639), (667, 18669), (677, 18714), (679, 18723), (684, 18747), (702, 18822), (704, 18828), (718, 18879), (725, 18906), (729, 18921), (731, 18933), (733, 18942), (737, 18966), (751, 19032), (760, 19095), (765, 19119), (787, 19197), (796, 19245), (803, 19287), (827, 19410), (851, 19527), (878, 19644), (900, 19725), (906, 19770), (914, 19815), (937, 20001), (940, 20022), (942, 20034), (949, 20076), (957, 20127), (963, 20175), (968, 20214), (976, 20265), (985, 20388), (990, 20427),

Gene: Renaldo_31 Start: 21026, Stop: 25564, Start Num: 34

Candidate Starts for Renaldo_31:

(Start: 18 @20900 has 2 MA's), (Start: 19 @20921 has 170 MA's), (Start: 23 @20951 has 3 MA's), (30, 21005), (34, 21026), (40, 21062), (49, 21230), (60, 21290), (71, 21356), (72, 21377), (79, 21479), (80, 21497), (84, 21539), (88, 21614), (89, 21626), (96, 21680), (99, 21695), (105, 21728), (117, 21806), (119, 21821), (131, 21911), (137, 21980), (157, 22142), (164, 22196), (175, 22265), (185, 22307), (194, 22367), (195, 22373), (198, 22382), (203, 22397), (204, 22406), (224, 22505), (225, 22517), (228, 22538), (281, 22745), (289, 22769), (301, 22823), (317, 22892), (344, 23033), (356, 23105), (358, 23111), (367, 23156), (369, 23162), (370, 23165), (377, 23189), (381, 23207), (391, 23252), (392, 23255), (394, 23261), (395, 23264), (399, 23297), (402, 23315), (416, 23372), (423, 23393), (426, 23414), (436, 23462), (442, 23495), (444, 23510), (460, 23570), (507, 23786), (508, 23789), (520, 23846), (523, 23861), (525, 23873), (528, 23882), (537, 23915), (539, 23924), (544, 23936), (552, 23957), (567, 24008), (568, 24017), (576, 24065), (584, 24086), (586, 24092), (587, 24095), (606, 24155), (615, 24185), (618, 24194), (640, 24281), (641, 24284), (642, 24287), (646, 24305), (650, 24320), (655, 24335), (666, 24374), (672, 24407), (673, 24410), (674, 24413), (676, 24419), (679, 24431), (709, 24554), (714, 24572), (737, 24674), (752, 24743), (759, 24797), (781, 24926), (787, 24971), (800, 25040), (826, 25175), (830, 25199), (840, 25244), (843, 25250), (850, 25289), (856, 25319),

Gene: Rickmore_31 Start: 21933, Stop: 27044, Start Num: 19

Candidate Starts for Rickmore_31:

(Start: 19 @21933 has 170 MA's), (Start: 23 @21963 has 3 MA's), (28, 22008), (49, 22152), (60, 22212), (61, 22218), (71, 22278), (72, 22299), (79, 22401), (86, 22491), (87, 22527), (90, 22563), (96, 22602), (98, 22614), (105, 22650), (110, 22692), (117, 22764), (122, 22812), (137, 22938), (141,

22980), (145, 23013), (146, 23025), (151, 23046), (163, 23151), (164, 23154), (207, 23376), (217, 23430), (267, 23667), (270, 23676), (277, 23709), (279, 23721), (291, 23790), (293, 23793), (300, 23820), (313, 23886), (344, 24048), (351, 24096), (354, 24111), (355, 24117), (358, 24126), (360, 24135), (386, 24249), (398, 24300), (399, 24312), (401, 24321), (402, 24330), (407, 24357), (426, 24429), (430, 24450), (433, 24459), (439, 24486), (441, 24501), (442, 24510), (451, 24555), (452, 24558), (461, 24588), (463, 24600), (468, 24624), (472, 24642), (473, 24645), (479, 24672), (480, 24681), (483, 24699), (491, 24729), (499, 24759), (502, 24771), (504, 24777), (505, 24780), (508, 24795), (510, 24801), (520, 24852), (533, 24906), (537, 24921), (539, 24930), (545, 24942), (547, 24945), (551, 24954), (560, 24990), (561, 24993), (566, 25008), (567, 25011), (568, 25020), (570, 25041), (576, 25068), (577, 25071), (584, 25098), (587, 25107), (593, 25128), (595, 25140), (601, 25161), (609, 25188), (619, 25221), (621, 25227), (626, 25245), (628, 25257), (633, 25275), (657, 25365), (662, 25383), (663, 25386), (706, 25563), (715, 25596), (746, 25740), (748, 25749), (767, 25863), (771, 25884), (783, 25974), (795, 26046), (798, 26058), (799, 26067), (805, 26121), (813, 26142), (818, 26169), (819, 26175), (831, 26232), (840, 26274), (865, 26403), (871, 26421), (879, 26451), (887, 26472), (890, 26484), (915, 26622), (923, 26697), (938, 26799), (943, 26823), (944, 26826), (954, 26892), (961, 26940), (975, 27030),

Gene: Rima_23 Start: 16166, Stop: 21652, Start Num: 2

Candidate Starts for Rima_23:

(1, 16145), (Start: 2 @16166 has 33 MA's), (3, 16196), (14, 16340), (42, 16550), (53, 16667), (68, 16739), (71, 16769), (79, 16892), (87, 17018), (96, 17093), (105, 17141), (110, 17183), (133, 17372), (154, 17567), (163, 17639), (177, 17717), (196, 17822), (207, 17864), (232, 17999), (246, 18053), (270, 18140), (279, 18176), (281, 18185), (292, 18227), (300, 18260), (306, 18290), (340, 18413), (344, 18434), (354, 18497), (355, 18503), (357, 18509), (362, 18536), (367, 18557), (369, 18563), (370, 18566), (377, 18590), (386, 18635), (389, 18644), (390, 18647), (392, 18656), (405, 18731), (411, 18758), (417, 18776), (423, 18794), (426, 18812), (430, 18833), (441, 18884), (455, 18950), (459, 18965), (477, 19052), (480, 19070), (484, 19097), (509, 19187), (510, 19190), (519, 19232), (520, 19241), (528, 19277), (533, 19295), (534, 19298), (552, 19352), (553, 19355), (567, 19403), (571, 19439), (573, 19445), (578, 19466), (587, 19490), (597, 19520), (615, 19580), (625, 19613), (626, 19616), (629, 19631), (638, 19667), (649, 19709), (652, 19721), (653, 19724), (667, 19772), (672, 19802), (677, 19817), (684, 19850), (687, 19865), (703, 19928), (724, 20006), (725, 20009), (733, 20045), (745, 20111), (760, 20198), (761, 20201), (787, 20300), (796, 20348), (797, 20354), (827, 20513), (890, 20786), (899, 20822), (909, 20888), (924, 21011), (931, 21062), (937, 21104), (940, 21125), (947, 21173), (949, 21179), (950, 21185), (957, 21230), (970, 21338), (973, 21359), (979, 21407), (986, 21494), (992, 21596), (993, 21605),

Gene: Roney_29 Start: 20616, Stop: 25730, Start Num: 19

Candidate Starts for Roney_29:

(Start: 19 @20616 has 170 MA's), (Start: 23 @20646 has 3 MA's), (45, 20793), (48, 20829), (49, 20835), (56, 20880), (61, 20901), (68, 20931), (79, 21096), (84, 21156), (88, 21231), (92, 21267), (93, 21282), (96, 21297), (99, 21312), (105, 21345), (115, 21438), (124, 21492), (125, 21495), (151, 21714), (163, 21819), (164, 21822), (175, 21891), (177, 21897), (Start: 213 @22080 has 1 MA's), (224, 22131), (233, 22182), (247, 22236), (248, 22239), (276, 22371), (295, 22473), (300, 22491), (301, 22494), (318, 22569), (332, 22626), (342, 22710), (344, 22719), (360, 22806), (368, 22845), (381, 22893), (386, 22920), (392, 22941), (395, 22950), (398, 22971), (399, 22983), (401, 22992), (402, 23001), (407, 23028), (415, 23055), (416, 23058), (423, 23079), (430, 23121), (436, 23148), (439, 23157), (441, 23172), (442, 23181), (444, 23196), (446, 23208), (448, 23217), (452, 23229), (458, 23250), (461, 23259), (479, 23343), (480, 23352), (482, 23367), (483, 23370), (487, 23388), (491, 23400), (492, 23403), (499, 23430), (505, 23451), (508, 23466), (512, 23484), (518, 23508), (520, 23523), (534, 23580), (537, 23592), (539, 23601), (545, 23613), (551, 23625), (552, 23631), (557, 23652), (561, 23664), (567, 23682), (568, 23691), (569, 23706), (570, 23712), (573, 23724), (583, 23766), (584, 23769), (587, 23778), (593, 23799), (595, 23811), (609, 23859), (612, 23868), (619, 23892), (621, 23898), (626, 23916), (627, 23925), (633, 23946), (651, 24015), (656, 24033), (657,

24036), (662, 24054), (692, 24180), (703, 24225), (717, 24276), (748, 24420), (771, 24555), (779, 24606), (790, 24684), (798, 24729), (805, 24792), (811, 24810), (818, 24840), (819, 24846), (831, 24903), (846, 24975), (858, 25035), (863, 25056), (864, 25059), (872, 25110), (875, 25119), (887, 25158), (890, 25170), (907, 25263), (915, 25308), (923, 25383), (927, 25422), (933, 25452), (943, 25509), (960, 25620), (975, 25716),

Gene: RosaAsantewaa_19 Start: 13292, Stop: 18511, Start Num: 19

Candidate Starts for RosaAsantewaa_19:

(Start: 18 @13271 has 2 MA's), (Start: 19 @13292 has 170 MA's), (Start: 23 @13322 has 3 MA's), (37, 13397), (39, 13403), (51, 13526), (76, 13703), (79, 13766), (87, 13892), (96, 13967), (103, 14000), (105, 14015), (110, 14057), (133, 14249), (136, 14294), (146, 14390), (154, 14444), (177, 14594), (193, 14687), (209, 14750), (267, 15008), (300, 15137), (315, 15203), (317, 15209), (338, 15257), (344, 15308), (351, 15356), (355, 15377), (370, 15440), (377, 15464), (386, 15509), (389, 15518), (413, 15638), (416, 15647), (423, 15668), (430, 15707), (448, 15803), (456, 15827), (459, 15839), (469, 15890), (479, 15935), (497, 16016), (507, 16055), (508, 16058), (512, 16076), (514, 16082), (515, 16085), (519, 16106), (520, 16115), (526, 16145), (528, 16151), (532, 16163), (571, 16313), (573, 16319), (587, 16364), (615, 16454), (617, 16460), (625, 16487), (641, 16553), (658, 16616), (676, 16688), (684, 16724), (687, 16739), (699, 16790), (722, 16874), (725, 16883), (729, 16898), (733, 16919), (734, 16922), (736, 16940), (751, 17009), (787, 17174), (791, 17198), (827, 17387), (861, 17558), (878, 17621), (899, 17696), (914, 17792), (937, 17978), (940, 17999), (949, 18053), (956, 18095), (959, 18116), (961, 18137), (965, 18173), (966, 18182), (968, 18191), (973, 18233), (981, 18305), (988, 18392),

Gene: Runhaar_32 Start: 23285, Stop: 28396, Start Num: 19

Candidate Starts for Runhaar_32:

(Start: 19 @23285 has 170 MA's), (Start: 23 @23315 has 3 MA's), (28, 23360), (34, 23390), (49, 23504), (61, 23570), (71, 23630), (72, 23651), (79, 23753), (87, 23879), (90, 23915), (96, 23954), (101, 23981), (105, 24002), (110, 24044), (120, 24143), (122, 24164), (137, 24290), (145, 24365), (146, 24377), (151, 24398), (163, 24503), (164, 24506), (233, 24866), (260, 24971), (272, 25040), (277, 25061), (291, 25142), (293, 25145), (300, 25172), (308, 25211), (313, 25238), (344, 25400), (351, 25448), (355, 25469), (360, 25487), (371, 25535), (375, 25547), (386, 25601), (398, 25652), (399, 25664), (401, 25673), (402, 25682), (415, 25736), (426, 25781), (429, 25796), (430, 25802), (433, 25811), (434, 25817), (438, 25835), (439, 25838), (440, 25844), (441, 25853), (451, 25907), (452, 25910), (455, 25919), (460, 25937), (461, 25940), (463, 25952), (467, 25973), (469, 25979), (470, 25982), (475, 26003), (480, 26033), (482, 26048), (491, 26081), (495, 26096), (499, 26111), (502, 26123), (504, 26129), (505, 26132), (507, 26144), (508, 26147), (520, 26204), (533, 26258), (534, 26261), (539, 26282), (545, 26294), (547, 26297), (561, 26345), (566, 26360), (567, 26363), (568, 26372), (570, 26393), (576, 26420), (577, 26423), (583, 26447), (587, 26459), (593, 26480), (595, 26492), (601, 26513), (609, 26540), (619, 26573), (621, 26579), (626, 26597), (633, 26627), (643, 26666), (688, 26846), (691, 26858), (709, 26927), (746, 27092), (767, 27215), (771, 27236), (790, 27365), (795, 27398), (798, 27410), (805, 27473), (813, 27494), (815, 27506), (818, 27521), (831, 27584), (849, 27668), (865, 27755), (871, 27773), (879, 27803), (886, 27821), (887, 27824), (889, 27830), (890, 27836), (898, 27863), (915, 27974), (923, 28049), (925, 28067), (938, 28151), (943, 28175), (961, 28292), (975, 28382),

Gene: RustyBoy_23 Start: 16633, Stop: 21177, Start Num: 19

Candidate Starts for RustyBoy_23:

(Start: 18 @16612 has 2 MA's), (Start: 19 @16633 has 170 MA's), (Start: 23 @16663 has 3 MA's), (64, 16930), (68, 16948), (71, 16978), (78, 17059), (79, 17101), (80, 17119), (84, 17161), (86, 17191), (88, 17236), (89, 17248), (96, 17302), (99, 17317), (100, 17323), (105, 17350), (112, 17413), (117, 17428), (119, 17443), (122, 17476), (126, 17491), (127, 17500), (132, 17539), (137, 17602), (145, 17677), (152, 17722), (154, 17743), (158, 17779), (164, 17818), (166, 17824), (175, 17887), (177, 17893), (198, 18004), (263, 18298), (270, 18325), (283, 18373), (290, 18403), (292, 18412), (298, 18436),

(305, 18472), (306, 18475), (308, 18481), (317, 18517), (340, 18631), (344, 18652), (352, 18706), (360, 18739), (369, 18781), (370, 18784), (377, 18808), (384, 18844), (386, 18853), (389, 18862), (392, 18874), (399, 18916), (401, 18925), (409, 18970), (416, 18991), (423, 19012), (426, 19033), (431, 19057), (440, 19096), (442, 19114), (444, 19129), (448, 19150), (460, 19189), (464, 19213), (475, 19261), (480, 19291), (482, 19306), (491, 19339), (493, 19345), (502, 19384), (507, 19405), (512, 19426), (515, 19435), (533, 19519), (537, 19534), (539, 19543), (544, 19555), (552, 19576), (567, 19627), (568, 19636), (584, 19705), (587, 19714), (597, 19744), (598, 19747), (611, 19789), (615, 19804), (629, 19855), (634, 19876), (648, 19930), (658, 19966), (659, 19969), (672, 20026), (673, 20029), (680, 20053), (689, 20095), (697, 20134), (699, 20140), (705, 20158), (707, 20164), (728, 20245), (735, 20284), (740, 20305), (743, 20323), (752, 20362), (754, 20371), (768, 20467), (772, 20488), (781, 20545), (787, 20590), (789, 20602), (793, 20623), (803, 20680), (806, 20710), (828, 20809), (843, 20869), (856, 20938), (859, 20956),

Gene: Salk_23 Start: 17240, Stop: 21790, Start Num: 19

Candidate Starts for Salk_23:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 170 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (344, 19262), (355, 19331), (356, 19334), (365, 19376), (367, 19385), (370, 19394), (379, 19424), (386, 19463), (388, 19469), (392, 19484), (399, 19526), (423, 19622), (426, 19643), (427, 19646), (431, 19667), (442, 19724), (444, 19739), (451, 19769), (455, 19781), (462, 19808), (464, 19823), (475, 19871), (480, 19901), (482, 19916), (491, 19949), (493, 19955), (502, 19994), (505, 20003), (507, 20015), (512, 20036), (525, 20102), (528, 20111), (537, 20144), (538, 20150), (539, 20153), (544, 20165), (545, 20168), (553, 20189), (558, 20210), (568, 20246), (576, 20294), (587, 20324), (615, 20414), (631, 20471), (642, 20516), (646, 20534), (654, 20561), (656, 20570), (658, 20576), (672, 20636), (676, 20648), (679, 20660), (691, 20714), (699, 20750), (701, 20756), (703, 20762), (705, 20768), (715, 20804), (721, 20828), (722, 20834), (724, 20840), (725, 20843), (735, 20894), (738, 20906), (745, 20945), (768, 21077), (776, 21113), (781, 21155), (787, 21200), (803, 21290), (822, 21380), (826, 21404), (830, 21428), (832, 21440), (834, 21449), (837, 21461), (840, 21473), (850, 21518), (856, 21548), (859, 21566), (869, 21605), (895, 21683),

Gene: Sangak_19 Start: 13489, Stop: 18717, Start Num: 19

Candidate Starts for Sangak_19:

(Start: 18 @13468 has 2 MA's), (Start: 19 @13489 has 170 MA's), (Start: 23 @13519 has 3 MA's), (42, 13621), (45, 13672), (61, 13780), (79, 13963), (87, 14089), (90, 14125), (96, 14164), (110, 14254), (154, 14641), (177, 14791), (182, 14815), (194, 14887), (243, 15118), (265, 15196), (270, 15214), (273, 15217), (279, 15250), (305, 15358), (321, 15418), (344, 15499), (355, 15568), (367, 15622), (389, 15709), (390, 15712), (411, 15823), (423, 15859), (426, 15877), (437, 15928), (459, 16030), (462, 16042), (464, 16057), (479, 16126), (480, 16135), (485, 16165), (498, 16210), (504, 16231), (511, 16261), (514, 16273), (515, 16276), (519, 16297), (520, 16306), (528, 16342), (537, 16375), (563, 16456), (564, 16459), (571, 16504), (572, 16507), (573, 16510), (587, 16555), (597, 16585), (611, 16630), (615, 16645), (625, 16678), (630, 16699), (632, 16708), (634, 16717), (640, 16741), (641, 16744), (669, 16852), (680, 16894), (682, 16909), (684, 16915), (704, 16996), (718, 17047), (720, 17056), (722, 17065), (725, 17074), (726, 17077), (729, 17089), (730, 17092), (731, 17101), (733, 17110), (737, 17134), (752, 17203), (759, 17257), (787, 17365), (790, 17380), (797, 17419), (827, 17578), (878, 17812), (899, 17887), (905, 17920), (930, 18124), (936, 18166), (937, 18169), (940, 18190), (947, 18238), (949, 18244), (964, 18352), (973, 18424), (983, 18526), (993, 18679),

Gene: Scap1_19 Start: 13425, Stop: 18671, Start Num: 18

Candidate Starts for Scap1_19:

(Start: 18 @13425 has 2 MA's), (Start: 19 @13446 has 170 MA's), (Start: 23 @13476 has 3 MA's), (45, 13629), (56, 13716), (61, 13737), (66, 13755), (74, 13848), (79, 13920), (87, 14046), (90, 14082), (96, 14121), (98, 14133), (108, 14193), (110, 14211), (136, 14448), (154, 14598), (177, 14748), (182, 14772), (206, 14889), (243, 15075), (258, 15123), (270, 15171), (279, 15207), (281, 15216), (315, 15357), (317, 15363), (344, 15456), (355, 15525), (370, 15588), (375, 15603), (377, 15612), (378, 15615), (390, 15669), (399, 15720), (417, 15798), (423, 15816), (440, 15897), (459, 15987), (469, 16038), (479, 16083), (480, 16092), (485, 16122), (498, 16167), (504, 16188), (507, 16203), (514, 16230), (515, 16233), (519, 16254), (520, 16263), (528, 16299), (571, 16461), (573, 16467), (584, 16503), (587, 16512), (597, 16542), (603, 16563), (605, 16569), (609, 16581), (611, 16587), (615, 16602), (625, 16635), (630, 16656), (632, 16665), (634, 16674), (641, 16701), (649, 16731), (652, 16743), (653, 16746), (677, 16839), (684, 16872), (687, 16887), (720, 17013), (722, 17022), (725, 17031), (726, 17034), (729, 17046), (733, 17067), (734, 17070), (755, 17178), (784, 17304), (787, 17322), (827, 17535), (833, 17565), (851, 17652), (887, 17796), (905, 17877), (916, 17973), (937, 18126), (940, 18147), (954, 18231), (961, 18285), (963, 18300), (970, 18360), (973, 18381), (974, 18384), (978, 18420), (981, 18453), (993, 18633),

Gene: Schwartz33_33 Start: 23640, Stop: 28727, Start Num: 19

Candidate Starts for Schwartz33_33:

(Start: 19 @23640 has 170 MA's), (21, 23646), (Start: 23 @23670 has 3 MA's), (45, 23817), (53, 23883), (56, 23904), (61, 23925), (68, 23955), (71, 23985), (72, 24006), (79, 24108), (84, 24168), (88, 24243), (92, 24279), (96, 24309), (99, 24324), (105, 24357), (115, 24450), (124, 24504), (125, 24507), (145, 24693), (151, 24726), (160, 24810), (163, 24831), (164, 24834), (175, 24903), (177, 24909), (178, 24915), (202, 25032), (204, 25044), (210, 25068), (220, 25122), (221, 25125), (229, 25179), (236, 25212), (300, 25503), (313, 25569), (331, 25635), (342, 25722), (343, 25728), (344, 25731), (354, 25794), (355, 25800), (360, 25818), (375, 25878), (386, 25932), (395, 25962), (399, 25995), (401, 26004), (402, 26013), (415, 26067), (417, 26073), (426, 26112), (430, 26133), (433, 26142), (438, 26166), (439, 26169), (440, 26175), (441, 26184), (444, 26208), (451, 26238), (452, 26241), (453, 26244), (461, 26271), (472, 26325), (480, 26364), (487, 26400), (499, 26442), (504, 26460), (505, 26463), (507, 26475), (508, 26478), (510, 26484), (513, 26499), (516, 26514), (520, 26535), (525, 26562), (534, 26592), (539, 26613), (557, 26664), (567, 26694), (568, 26703), (578, 26757), (587, 26790), (593, 26811), (595, 26823), (601, 26844), (609, 26871), (619, 26904), (621, 26910), (626, 26928), (627, 26937), (628, 26940), (651, 27027), (662, 27066), (663, 27069), (673, 27114), (691, 27189), (706, 27246), (711, 27264), (748, 27432), (753, 27453), (767, 27546), (782, 27639), (787, 27681), (795, 27729), (798, 27741), (805, 27804), (809, 27816), (815, 27837), (818, 27852), (819, 27858), (849, 27999), (868, 28095), (871, 28104), (886, 28152), (887, 28155), (890, 28167), (915, 28305), (923, 28380), (943, 28506), (975, 28713),

Gene: ScienceWizSam_28 Start: 20475, Stop: 25064, Start Num: 19

Candidate Starts for ScienceWizSam_28:

(Start: 18 @20454 has 2 MA's), (Start: 19 @20475 has 170 MA's), (Start: 23 @20505 has 3 MA's), (30, 20559), (34, 20580), (40, 20616), (49, 20694), (60, 20754), (66, 20778), (68, 20790), (71, 20820), (74, 20871), (78, 20901), (79, 20943), (80, 20961), (84, 21003), (86, 21033), (88, 21078), (89, 21090), (96, 21144), (99, 21159), (101, 21171), (105, 21192), (119, 21285), (122, 21318), (126, 21333), (132, 21381), (137, 21444), (151, 21552), (166, 21666), (167, 21669), (173, 21717), (194, 21831), (201, 21855), (204, 21870), (207, 21882), (239, 22050), (244, 22065), (246, 22071), (253, 22089), (265, 22161), (278, 22212), (283, 22227), (290, 22257), (306, 22329), (308, 22335), (312, 22353), (316, 22368), (317, 22371), (323, 22398), (344, 22512), (353, 22569), (355, 22581), (367, 22635), (370, 22644), (371, 22647), (377, 22668), (386, 22713), (392, 22734), (399, 22776), (402, 22794), (416, 22851), (423, 22872), (426, 22893), (442, 22974), (444, 22989), (445, 22992), (451, 23019), (452, 23022), (464, 23073), (480, 23151), (482, 23166), (483, 23169), (487, 23187), (489, 23193), (491, 23199), (494, 23208), (502, 23244), (503, 23247), (505, 23253), (506, 23259), (512, 23286), (523, 23340), (524, 23343), (528, 23361), (532, 23373), (539, 23403), (544, 23418), (550, 23427), (552, 23439), (557, 23460), (568, 23499), (579, 23556), (584, 23568), (587, 23577), (600, 23616), (603,

23628), (613, 23658), (615, 23667), (635, 23742), (636, 23745), (640, 23763), (642, 23769), (658, 23829), (659, 23832), (661, 23838), (667, 23859), (673, 23892), (674, 23895), (705, 24021), (706, 24024), (712, 24045), (720, 24078), (721, 24081), (722, 24087), (725, 24096), (731, 24123), (740, 24168), (754, 24234), (760, 24285), (762, 24291), (772, 24351), (777, 24375), (784, 24435), (787, 24453), (789, 24465), (820, 24624), (822, 24633), (830, 24681), (837, 24714), (840, 24726), (843, 24732), (846, 24753), (847, 24756), (848, 24762), (856, 24801), (862, 24828), (906, 25014), (910, 25041),

Gene: Secretariat_30 Start: 22365, Stop: 27458, Start Num: 19

Candidate Starts for Secretariat_30:

(Start: 19 @22365 has 170 MA's), (Start: 23 @22395 has 3 MA's), (27, 22434), (45, 22542), (49, 22584), (63, 22659), (67, 22677), (71, 22710), (78, 22803), (79, 22845), (84, 22905), (92, 23016), (96, 23046), (99, 23061), (105, 23094), (108, 23118), (114, 23184), (115, 23187), (124, 23241), (125, 23244), (128, 23259), (160, 23547), (163, 23568), (175, 23640), (221, 23862), (229, 23916), (235, 23937), (236, 23949), (258, 24024), (269, 24087), (277, 24126), (279, 24138), (283, 24159), (295, 24222), (300, 24240), (301, 24243), (307, 24276), (333, 24384), (339, 24435), (340, 24447), (342, 24459), (344, 24468), (355, 24537), (357, 24543), (360, 24555), (365, 24582), (371, 24603), (386, 24669), (393, 24693), (395, 24699), (399, 24732), (401, 24741), (402, 24750), (415, 24804), (426, 24849), (430, 24870), (433, 24879), (439, 24906), (441, 24921), (444, 24945), (451, 24975), (452, 24978), (458, 24999), (460, 25005), (461, 25008), (467, 25041), (480, 25101), (496, 25170), (499, 25179), (502, 25191), (504, 25197), (505, 25200), (506, 25206), (513, 25236), (517, 25254), (519, 25263), (520, 25272), (525, 25299), (532, 25320), (534, 25329), (545, 25362), (560, 25410), (567, 25431), (568, 25440), (569, 25455), (570, 25461), (587, 25527), (593, 25548), (595, 25560), (601, 25581), (609, 25608), (612, 25617), (614, 25623), (615, 25629), (621, 25647), (626, 25665), (633, 25695), (656, 25782), (660, 25794), (666, 25815), (667, 25818), (670, 25836), (702, 25971), (705, 25980), (706, 25983), (759, 26238), (762, 26250), (767, 26283), (780, 26367), (795, 26466), (805, 26541), (809, 26553), (813, 26562), (819, 26595), (828, 26640), (865, 26823), (871, 26841), (878, 26865), (887, 26892), (889, 26898), (890, 26904), (915, 27042), (918, 27081), (923, 27117), (925, 27135), (943, 27237), (975, 27444),

Gene: SendItCS_20 Start: 15072, Stop: 20549, Start Num: 2

Candidate Starts for SendItCS_20:

(Start: 2 @15072 has 33 MA's), (3, 15102), (9, 15183), (10, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (118, 16173), (133, 16281), (151, 16443), (154, 16476), (163, 16548), (177, 16626), (207, 16773), (279, 17085), (281, 17094), (299, 17157), (344, 17331), (350, 17373), (355, 17400), (358, 17409), (370, 17463), (377, 17487), (390, 17544), (412, 17658), (423, 17691), (430, 17730), (440, 17772), (441, 17781), (446, 17817), (459, 17862), (469, 17913), (477, 17949), (480, 17967), (485, 17997), (496, 18036), (497, 18039), (507, 18078), (508, 18081), (515, 18108), (519, 18129), (520, 18138), (527, 18171), (528, 18174), (534, 18195), (555, 18258), (571, 18336), (573, 18342), (584, 18378), (585, 18381), (586, 18384), (587, 18387), (606, 18447), (609, 18456), (615, 18477), (624, 18507), (625, 18510), (640, 18573), (641, 18576), (642, 18579), (653, 18621), (658, 18639), (667, 18669), (677, 18714), (679, 18723), (684, 18747), (702, 18822), (704, 18828), (718, 18879), (725, 18906), (729, 18921), (731, 18933), (733, 18942), (737, 18966), (751, 19032), (760, 19095), (765, 19119), (787, 19197), (796, 19245), (803, 19287), (827, 19410), (851, 19527), (878, 19644), (900, 19725), (906, 19770), (914, 19815), (937, 20001), (940, 20022), (942, 20034), (949, 20076), (957, 20127), (963, 20175), (968, 20214), (976, 20265), (985, 20388), (990, 20427),

Gene: Serenabeen_25 Start: 18537, Stop: 23141, Start Num: 19

Candidate Starts for Serenabeen_25:

(Start: 19 @18537 has 170 MA's), (Start: 23 @18570 has 3 MA's), (34, 18645), (43, 18693), (45, 18717), (57, 18807), (61, 18825), (65, 18837), (71, 18882), (75, 18939), (79, 19005), (84, 19065), (92, 19176), (96, 19206), (99, 19221), (118, 19344), (119, 19347), (121, 19368), (126, 19395), (133,

19452), (136, 19497), (140, 19542), (150, 19611), (152, 19626), (154, 19647), (157, 19668), (180, 19809), (184, 19830), (187, 19851), (197, 19905), (224, 20043), (233, 20094), (244, 20139), (316, 20445), (321, 20463), (344, 20607), (348, 20637), (367, 20730), (369, 20736), (370, 20739), (374, 20751), (383, 20790), (388, 20814), (400, 20877), (423, 20967), (426, 20988), (432, 21015), (440, 21051), (466, 21180), (484, 21273), (490, 21291), (499, 21324), (502, 21342), (507, 21363), (509, 21369), (512, 21384), (520, 21423), (528, 21459), (530, 21465), (537, 21492), (555, 21549), (567, 21591), (568, 21600), (571, 21627), (572, 21630), (579, 21657), (584, 21669), (587, 21678), (591, 21687), (606, 21738), (607, 21741), (615, 21768), (623, 21795), (664, 21951), (676, 22002), (684, 22038), (694, 22077), (699, 22104), (703, 22116), (708, 22134), (714, 22155), (721, 22182), (726, 22200), (735, 22248), (749, 22314), (769, 22434), (774, 22458), (776, 22467), (777, 22476), (781, 22509), (787, 22554), (797, 22608), (826, 22758), (830, 22782), (832, 22794), (834, 22803), (839, 22824), (856, 22902), (857, 22905), (874, 22977), (911, 23130),

Gene: ShaggyRogers_32 Start: 23288, Stop: 28399, Start Num: 19

Candidate Starts for ShaggyRogers_32:

(Start: 19 @23288 has 170 MA's), (Start: 23 @23318 has 3 MA's), (28, 23363), (49, 23507), (60, 23567), (61, 23573), (71, 23633), (72, 23654), (79, 23756), (87, 23882), (90, 23918), (96, 23957), (101, 23984), (105, 24005), (110, 24047), (122, 24167), (135, 24281), (137, 24293), (145, 24368), (146, 24380), (151, 24401), (163, 24506), (164, 24509), (233, 24869), (236, 24887), (272, 25043), (291, 25145), (293, 25148), (300, 25175), (308, 25214), (313, 25241), (320, 25262), (344, 25403), (354, 25466), (355, 25472), (360, 25490), (361, 25496), (371, 25538), (375, 25550), (386, 25604), (393, 25628), (396, 25646), (398, 25655), (399, 25667), (401, 25676), (402, 25685), (412, 25730), (415, 25739), (426, 25784), (430, 25805), (433, 25814), (439, 25841), (441, 25856), (451, 25910), (452, 25913), (455, 25922), (458, 25934), (461, 25943), (463, 25955), (467, 25976), (469, 25982), (475, 26006), (480, 26036), (482, 26051), (499, 26114), (502, 26126), (504, 26132), (505, 26135), (507, 26147), (508, 26150), (520, 26207), (533, 26261), (534, 26264), (539, 26285), (545, 26297), (547, 26300), (561, 26348), (566, 26363), (567, 26366), (568, 26375), (569, 26390), (570, 26396), (576, 26423), (577, 26426), (587, 26462), (593, 26483), (595, 26495), (597, 26504), (601, 26516), (609, 26543), (619, 26576), (621, 26582), (626, 26600), (633, 26630), (662, 26738), (688, 26849), (717, 26960), (729, 27005), (740, 27062), (746, 27095), (771, 27239), (780, 27302), (790, 27368), (795, 27401), (798, 27413), (805, 27476), (813, 27497), (815, 27509), (819, 27530), (849, 27671), (865, 27758), (871, 27776), (879, 27806), (886, 27824), (887, 27827), (889, 27833), (890, 27839), (898, 27866), (915, 27977), (920, 28040), (923, 28052), (933, 28121), (938, 28154), (943, 28178), (961, 28295), (975, 28385),

Gene: SheRa_19 Start: 13487, Stop: 18715, Start Num: 19

Candidate Starts for SheRa_19:

(Start: 18 @13466 has 2 MA's), (Start: 19 @13487 has 170 MA's), (Start: 23 @13517 has 3 MA's), (42, 13619), (45, 13670), (61, 13778), (79, 13961), (87, 14087), (90, 14123), (96, 14162), (110, 14252), (154, 14639), (177, 14789), (182, 14813), (194, 14885), (243, 15116), (265, 15194), (270, 15212), (273, 15215), (279, 15248), (305, 15356), (321, 15416), (344, 15497), (355, 15566), (367, 15620), (374, 15641), (389, 15707), (390, 15710), (411, 15821), (423, 15857), (426, 15875), (437, 15926), (459, 16028), (462, 16040), (464, 16055), (479, 16124), (480, 16133), (485, 16163), (504, 16229), (511, 16259), (514, 16271), (515, 16274), (519, 16295), (520, 16304), (528, 16340), (529, 16343), (537, 16373), (564, 16457), (571, 16502), (572, 16505), (573, 16508), (587, 16553), (597, 16583), (611, 16628), (615, 16643), (625, 16676), (630, 16697), (632, 16706), (634, 16715), (640, 16739), (641, 16742), (649, 16772), (652, 16784), (669, 16850), (674, 16871), (680, 16892), (682, 16907), (684, 16913), (718, 17045), (720, 17054), (722, 17063), (725, 17072), (726, 17075), (729, 17087), (730, 17090), (731, 17099), (733, 17108), (752, 17201), (759, 17255), (787, 17363), (790, 17378), (797, 17417), (827, 17576), (878, 17810), (899, 17885), (936, 18164), (937, 18167), (940, 18188), (947, 18236), (949, 18242), (964, 18350), (973, 18422), (978, 18461), (979, 18470), (983, 18524), (993, 18677),

Gene: Shepard_27 Start: 20329, Stop: 24918, Start Num: 19

Candidate Starts for Shepard_27:

(Start: 18 @20308 has 2 MA's), (Start: 19 @20329 has 170 MA's), (Start: 23 @20359 has 3 MA's), (30, 20413), (60, 20608), (66, 20632), (68, 20644), (71, 20674), (78, 20755), (79, 20797), (80, 20815), (84, 20857), (86, 20887), (88, 20932), (89, 20944), (96, 20998), (99, 21013), (100, 21019), (105, 21046), (112, 21109), (117, 21124), (119, 21139), (122, 21172), (126, 21187), (132, 21235), (141, 21340), (151, 21406), (158, 21475), (164, 21514), (167, 21523), (171, 21538), (174, 21580), (175, 21583), (186, 21634), (210, 21748), (221, 21805), (234, 21877), (243, 21916), (253, 21943), (260, 21985), (283, 22081), (306, 22183), (308, 22189), (317, 22225), (344, 22372), (346, 22384), (352, 22426), (353, 22429), (362, 22474), (367, 22495), (370, 22504), (371, 22507), (377, 22528), (392, 22594), (393, 22597), (416, 22711), (423, 22732), (425, 22750), (426, 22753), (444, 22849), (446, 22861), (475, 22981), (480, 23011), (494, 23068), (502, 23104), (505, 23113), (507, 23125), (512, 23146), (515, 23155), (526, 23215), (536, 23248), (538, 23260), (539, 23263), (544, 23275), (554, 23302), (557, 23317), (559, 23323), (560, 23326), (567, 23347), (568, 23356), (584, 23425), (587, 23434), (600, 23473), (615, 23524), (631, 23581), (642, 23626), (648, 23650), (649, 23653), (658, 23686), (659, 23689), (660, 23692), (661, 23695), (673, 23749), (674, 23752), (680, 23773), (703, 23872), (712, 23902), (715, 23914), (718, 23926), (722, 23944), (725, 23953), (726, 23956), (756, 24112), (759, 24136), (761, 24145), (772, 24208), (776, 24223), (787, 24310), (789, 24322), (797, 24364), (812, 24448), (826, 24514), (830, 24538), (840, 24583), (842, 24586), (843, 24589), (856, 24658), (857, 24661), (862, 24685), (906, 24868),

Gene: Shiba_23 Start: 17270, Stop: 21790, Start Num: 23

Candidate Starts for Shiba_23:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 170 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (243, 18827), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (344, 19262), (355, 19331), (356, 19334), (365, 19376), (367, 19385), (370, 19394), (379, 19424), (386, 19463), (388, 19469), (392, 19484), (399, 19526), (423, 19622), (426, 19643), (427, 19646), (431, 19667), (442, 19724), (444, 19739), (451, 19769), (455, 19781), (462, 19808), (464, 19823), (475, 19871), (480, 19901), (482, 19916), (491, 19949), (493, 19955), (502, 19994), (505, 20003), (507, 20015), (512, 20036), (525, 20102), (528, 20111), (537, 20144), (538, 20150), (539, 20153), (544, 20165), (545, 20168), (553, 20189), (558, 20210), (568, 20246), (576, 20294), (587, 20324), (615, 20414), (631, 20471), (642, 20516), (646, 20534), (654, 20561), (656, 20570), (658, 20576), (672, 20636), (676, 20648), (679, 20660), (691, 20714), (701, 20756), (703, 20762), (705, 20768), (714, 20801), (715, 20804), (721, 20828), (722, 20834), (724, 20840), (725, 20843), (735, 20894), (738, 20906), (745, 20945), (768, 21077), (776, 21113), (781, 21155), (787, 21200), (803, 21290), (822, 21380), (826, 21404), (830, 21428), (832, 21440), (834, 21449), (837, 21461), (840, 21473), (850, 21518), (856, 21548), (859, 21566), (869, 21605),

Gene: Sloopyjoe_23 Start: 17241, Stop: 21791, Start Num: 19

Candidate Starts for Sloopyjoe_23:

(Start: 18 @17220 has 2 MA's), (Start: 19 @17241 has 170 MA's), (Start: 23 @17271 has 3 MA's), (26, 17304), (49, 17460), (66, 17544), (68, 17556), (71, 17586), (78, 17667), (79, 17709), (80, 17727), (84, 17769), (86, 17799), (88, 17844), (89, 17856), (96, 17910), (99, 17925), (105, 17958), (112, 18021), (119, 18051), (122, 18084), (126, 18099), (132, 18147), (146, 18297), (151, 18318), (164, 18426), (167, 18435), (173, 18483), (200, 18618), (210, 18660), (230, 18774), (242, 18825), (246, 18837), (262, 18918), (283, 19002), (288, 19020), (298, 19065), (308, 19110), (310, 19113), (311, 19119), (322, 19152), (344, 19263), (355, 19332), (356, 19335), (365, 19377), (367, 19386), (370, 19395), (379, 19425), (386, 19464), (388, 19470), (392, 19485), (399, 19527), (423, 19623), (426, 19644), (427, 19647), (431, 19668), (442, 19725), (444, 19740), (451, 19770), (455, 19782), (462, 19809),

(464, 19824), (475, 19872), (480, 19902), (482, 19917), (491, 19950), (493, 19956), (502, 19995), (505, 20004), (507, 20016), (512, 20037), (525, 20103), (528, 20112), (537, 20145), (538, 20151), (539, 20154), (544, 20166), (545, 20169), (553, 20190), (558, 20211), (568, 20247), (576, 20295), (587, 20325), (615, 20415), (631, 20472), (642, 20517), (646, 20535), (654, 20562), (656, 20571), (658, 20577), (672, 20637), (676, 20649), (679, 20661), (691, 20715), (701, 20757), (703, 20763), (705, 20769), (714, 20802), (715, 20805), (721, 20829), (722, 20835), (724, 20841), (725, 20844), (735, 20895), (738, 20907), (745, 20946), (768, 21078), (776, 21114), (781, 21156), (787, 21201), (803, 21291), (822, 21381), (826, 21405), (830, 21429), (832, 21441), (834, 21450), (837, 21462), (840, 21474), (850, 21519), (856, 21549), (859, 21567), (869, 21606), (895, 21684),

Gene: Soshi_23 Start: 16685, Stop: 22165, Start Num: 2

Candidate Starts for Soshi_23:

(1, 16664), (Start: 2 @16685 has 33 MA's), (3, 16715), (14, 16859), (25, 16994), (42, 17069), (53, 17186), (54, 17189), (60, 17222), (68, 17258), (71, 17288), (77, 17360), (79, 17411), (87, 17537), (90, 17573), (96, 17612), (98, 17624), (105, 17660), (110, 17702), (133, 17894), (138, 17960), (146, 18035), (151, 18056), (154, 18089), (162, 18152), (163, 18161), (177, 18239), (207, 18386), (231, 18518), (246, 18575), (267, 18653), (270, 18662), (274, 18671), (279, 18698), (298, 18773), (300, 18782), (315, 18848), (316, 18851), (336, 18890), (344, 18944), (355, 19013), (367, 19067), (377, 19100), (386, 19145), (389, 19154), (392, 19166), (405, 19241), (407, 19253), (419, 19292), (423, 19304), (430, 19343), (437, 19373), (447, 19433), (459, 19475), (468, 19523), (469, 19526), (480, 19580), (510, 19700), (519, 19742), (520, 19751), (528, 19787), (534, 19808), (537, 19820), (552, 19862), (553, 19865), (557, 19883), (567, 19913), (571, 19949), (573, 19955), (578, 19976), (587, 20000), (597, 20030), (615, 20090), (625, 20123), (629, 20141), (632, 20153), (634, 20162), (649, 20219), (652, 20231), (653, 20234), (658, 20252), (667, 20282), (672, 20312), (684, 20360), (687, 20375), (706, 20447), (718, 20492), (722, 20510), (725, 20519), (733, 20555), (736, 20576), (737, 20579), (781, 20765), (783, 20786), (784, 20792), (787, 20810), (790, 20825), (796, 20858), (797, 20864), (826, 21014), (827, 21023), (890, 21296), (892, 21305), (924, 21521), (937, 21614), (940, 21635), (947, 21683), (949, 21689), (950, 21695), (957, 21740), (979, 21917), (992, 22109), (993, 22118),

Gene: Spain_22 Start: 17270, Stop: 21790, Start Num: 23

Candidate Starts for Spain_22:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 170 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (344, 19262), (355, 19331), (356, 19334), (365, 19376), (367, 19385), (370, 19394), (379, 19424), (386, 19463), (388, 19469), (392, 19484), (399, 19526), (423, 19622), (426, 19643), (427, 19646), (431, 19667), (442, 19724), (444, 19739), (451, 19769), (455, 19781), (462, 19808), (464, 19823), (475, 19871), (480, 19901), (482, 19916), (491, 19949), (493, 19955), (502, 19994), (505, 20003), (507, 20015), (512, 20036), (525, 20102), (528, 20111), (537, 20144), (538, 20150), (539, 20153), (544, 20165), (545, 20168), (553, 20189), (558, 20210), (568, 20246), (576, 20294), (587, 20324), (615, 20414), (631, 20471), (642, 20516), (646, 20534), (654, 20561), (656, 20570), (658, 20576), (672, 20636), (676, 20648), (679, 20660), (691, 20714), (701, 20756), (703, 20762), (705, 20768), (714, 20801), (715, 20804), (721, 20828), (722, 20834), (724, 20840), (725, 20843), (735, 20894), (738, 20906), (745, 20945), (768, 21077), (776, 21113), (781, 21155), (787, 21200), (803, 21290), (822, 21380), (826, 21404), (830, 21428), (832, 21440), (834, 21449), (837, 21461), (840, 21473), (850, 21518), (856, 21548), (859, 21566), (869, 21605),

Gene: Spectropatronm_23 Start: 16160, Stop: 21646, Start Num: 2

Candidate Starts for Spectropatronm_23:

(1, 16139), (Start: 2 @16160 has 33 MA's), (3, 16190), (14, 16334), (42, 16544), (54, 16664), (61, 16703), (68, 16733), (70, 16757), (71, 16763), (72, 16784), (73, 16799), (79, 16886), (86, 16976), (87, 17012), (88, 17021), (90, 17048), (96, 17087), (97, 17096), (101, 17114), (105, 17135), (110, 17177), (111, 17186), (122, 17294), (134, 17399), (145, 17495), (154, 17561), (177, 17711), (192, 17795), (196, 17816), (207, 17858), (232, 17993), (267, 18125), (270, 18134), (279, 18170), (281, 18179), (292, 18221), (300, 18254), (340, 18407), (344, 18428), (354, 18491), (355, 18497), (357, 18503), (362, 18530), (367, 18551), (369, 18557), (370, 18560), (377, 18584), (386, 18629), (389, 18638), (390, 18641), (392, 18650), (405, 18725), (411, 18752), (416, 18767), (417, 18770), (423, 18788), (426, 18806), (430, 18827), (441, 18878), (459, 18959), (477, 19046), (480, 19064), (484, 19091), (510, 19184), (519, 19226), (520, 19235), (528, 19271), (533, 19289), (534, 19292), (552, 19346), (567, 19397), (571, 19433), (573, 19439), (578, 19460), (587, 19484), (597, 19514), (615, 19574), (625, 19607), (626, 19610), (629, 19625), (638, 19661), (649, 19703), (652, 19715), (653, 19718), (667, 19766), (672, 19796), (677, 19811), (684, 19844), (687, 19859), (703, 19922), (724, 20000), (733, 20039), (745, 20105), (760, 20192), (761, 20195), (787, 20294), (796, 20342), (797, 20348), (827, 20507), (890, 20780), (899, 20816), (909, 20882), (924, 21005), (937, 21098), (940, 21119), (947, 21167), (949, 21173), (950, 21179), (957, 21224), (970, 21332), (973, 21353), (979, 21401), (986, 21488), (992, 21590), (993, 21599),

Gene: Sporto_24 Start: 18451, Stop: 23001, Start Num: 19

Candidate Starts for Sporto_24:

(Start: 18 @18430 has 2 MA's), (Start: 19 @18451 has 170 MA's), (Start: 23 @18481 has 3 MA's), (30, 18535), (45, 18628), (51, 18679), (54, 18697), (68, 18766), (71, 18796), (78, 18877), (79, 18919), (80, 18937), (84, 18979), (86, 19009), (88, 19054), (89, 19066), (96, 19120), (99, 19135), (100, 19141), (105, 19168), (112, 19231), (117, 19246), (119, 19261), (122, 19294), (126, 19309), (132, 19357), (137, 19420), (146, 19507), (148, 19516), (158, 19597), (159, 19600), (160, 19612), (164, 19636), (167, 19645), (172, 19687), (175, 19705), (198, 19822), (260, 20095), (283, 20191), (288, 20209), (298, 20254), (308, 20299), (317, 20335), (340, 20449), (344, 20470), (346, 20482), (347, 20497), (367, 20593), (370, 20602), (375, 20617), (377, 20626), (383, 20653), (387, 20674), (389, 20680), (392, 20692), (402, 20752), (405, 20767), (423, 20830), (426, 20851), (431, 20875), (442, 20932), (444, 20947), (445, 20950), (452, 20980), (455, 20989), (462, 21016), (464, 21031), (477, 21091), (480, 21109), (482, 21124), (491, 21157), (493, 21163), (502, 21202), (505, 21211), (507, 21223), (512, 21244), (517, 21265), (525, 21310), (528, 21319), (537, 21352), (538, 21358), (539, 21361), (544, 21373), (552, 21394), (555, 21403), (564, 21436), (568, 21454), (574, 21490), (576, 21502), (584, 21523), (587, 21532), (592, 21544), (603, 21583), (615, 21622), (626, 21658), (630, 21676), (642, 21724), (650, 21757), (654, 21769), (658, 21784), (672, 21844), (679, 21868), (690, 21916), (691, 21922), (697, 21952), (708, 21988), (721, 22036), (722, 22042), (724, 22048), (725, 22051), (735, 22102), (744, 22144), (752, 22180), (754, 22189), (756, 22210), (781, 22363), (787, 22408), (803, 22498), (814, 22558), (822, 22588), (830, 22636), (832, 22648), (840, 22681), (847, 22711), (869, 22816), (880, 22852), (911, 22990),

Gene: Sprinkle_23 Start: 17380, Stop: 21912, Start Num: 19

Candidate Starts for Sprinkle_23:

(Start: 18 @17359 has 2 MA's), (Start: 19 @17380 has 170 MA's), (Start: 23 @17410 has 3 MA's), (31, 17473), (49, 17599), (61, 17665), (66, 17683), (68, 17695), (71, 17725), (78, 17806), (79, 17848), (80, 17866), (84, 17908), (89, 17995), (93, 18034), (96, 18049), (99, 18064), (105, 18097), (119, 18190), (122, 18223), (126, 18238), (128, 18253), (132, 18286), (138, 18361), (152, 18469), (154, 18490), (158, 18526), (160, 18541), (164, 18565), (175, 18634), (193, 18733), (197, 18748), (198, 18751), (222, 18862), (225, 18886), (253, 18988), (283, 19120), (288, 19138), (298, 19183), (316, 19261), (342, 19372), (344, 19381), (360, 19468), (362, 19483), (370, 19513), (377, 19537), (386, 19582), (389, 19591), (392, 19603), (395, 19612), (416, 19720), (423, 19741), (426, 19762), (431, 19786), (442, 19843), (444, 19858), (462, 19927), (475, 19990), (480, 20020), (482, 20035), (493, 20074), (498, 20095), (502, 20113), (512, 20155), (515, 20164), (523, 20209), (528, 20230), (537, 20263), (538, 20269), (539, 20272), (544, 20284), (554, 20311), (567, 20356), (569, 20380), (584, 20434),

(587, 20443), (597, 20473), (610, 20515), (615, 20533), (632, 20596), (644, 20641), (648, 20659), (650, 20668), (658, 20695), (664, 20716), (676, 20767), (684, 20803), (694, 20842), (707, 20893), (708, 20899), (709, 20902), (714, 20920), (728, 20974), (743, 21052), (752, 21091), (754, 21100), (776, 21232), (781, 21274), (787, 21319), (797, 21373), (803, 21409), (806, 21439), (807, 21445), (828, 21538), (837, 21580), (850, 21637), (856, 21667), (857, 21670),

Gene: StarLord_23 Start: 17241, Stop: 21791, Start Num: 19

Candidate Starts for StarLord_23:

(Start: 18 @17220 has 2 MA's), (Start: 19 @17241 has 170 MA's), (Start: 23 @17271 has 3 MA's), (26, 17304), (49, 17460), (66, 17544), (68, 17556), (71, 17586), (78, 17667), (79, 17709), (80, 17727), (84, 17769), (86, 17799), (88, 17844), (89, 17856), (96, 17910), (99, 17925), (105, 17958), (112, 18021), (119, 18051), (122, 18084), (126, 18099), (132, 18147), (146, 18297), (151, 18318), (164, 18426), (167, 18435), (173, 18483), (200, 18618), (210, 18660), (230, 18774), (242, 18825), (246, 18837), (262, 18918), (283, 19002), (288, 19020), (298, 19065), (308, 19110), (310, 19113), (311, 19119), (322, 19152), (344, 19263), (355, 19332), (356, 19335), (365, 19377), (367, 19386), (370, 19395), (379, 19425), (386, 19464), (388, 19470), (392, 19485), (399, 19527), (423, 19623), (426, 19644), (427, 19647), (431, 19668), (442, 19725), (444, 19740), (451, 19770), (455, 19782), (462, 19809), (464, 19824), (475, 19872), (480, 19902), (482, 19917), (491, 19950), (493, 19956), (502, 19995), (505, 20004), (507, 20016), (512, 20037), (525, 20103), (528, 20112), (537, 20145), (538, 20151), (539, 20154), (544, 20166), (545, 20169), (553, 20190), (558, 20211), (568, 20247), (576, 20295), (587, 20325), (615, 20415), (631, 20472), (642, 20517), (646, 20535), (654, 20562), (656, 20571), (658, 20577), (672, 20637), (676, 20649), (679, 20661), (691, 20715), (701, 20757), (703, 20763), (705, 20769), (714, 20802), (715, 20805), (721, 20829), (722, 20835), (724, 20841), (725, 20844), (735, 20895), (738, 20907), (745, 20946), (768, 21078), (776, 21114), (781, 21156), (787, 21201), (803, 21291), (822, 21381), (826, 21405), (830, 21429), (832, 21441), (834, 21450), (837, 21462), (840, 21474), (850, 21519), (856, 21549), (859, 21567), (869, 21606), (895, 21684),

Gene: Stardom_20 Start: 16652, Stop: 21130, Start Num: 19

Candidate Starts for Stardom_20:

(Start: 18 @16631 has 2 MA's), (Start: 19 @16652 has 170 MA's), (Start: 23 @16682 has 3 MA's), (26, 16715), (30, 16736), (68, 16967), (71, 16997), (79, 17120), (80, 17138), (84, 17180), (89, 17267), (96, 17321), (99, 17336), (105, 17369), (117, 17447), (119, 17462), (126, 17510), (133, 17567), (137, 17621), (141, 17663), (145, 17696), (151, 17729), (164, 17837), (174, 17903), (182, 17936), (184, 17945), (185, 17948), (187, 17966), (246, 18248), (255, 18272), (260, 18302), (302, 18461), (317, 18521), (344, 18650), (351, 18698), (362, 18752), (365, 18764), (367, 18773), (370, 18782), (377, 18806), (386, 18851), (392, 18872), (405, 18947), (413, 18980), (423, 19010), (426, 19031), (430, 19052), (442, 19112), (443, 19118), (451, 19157), (457, 19175), (470, 19238), (475, 19259), (480, 19289), (485, 19319), (491, 19337), (502, 19385), (508, 19409), (512, 19427), (515, 19436), (516, 19445), (518, 19451), (521, 19472), (528, 19502), (537, 19535), (538, 19541), (539, 19544), (544, 19556), (552, 19577), (567, 19628), (568, 19637), (572, 19667), (574, 19673), (584, 19706), (587, 19715), (597, 19745), (600, 19754), (603, 19766), (615, 19805), (623, 19832), (625, 19838), (626, 19841), (636, 19883), (644, 19913), (653, 19949), (679, 20051), (702, 20150), (703, 20153), (705, 20159), (709, 20174), (714, 20192), (720, 20216), (724, 20231), (725, 20234), (730, 20252), (735, 20285), (740, 20306), (781, 20480), (787, 20525), (797, 20579), (803, 20615), (822, 20705), (826, 20729), (830, 20753), (832, 20765), (836, 20783), (847, 20831), (855, 20876), (859, 20897), (885, 20990), (911, 21119),

Gene: Stardrop_26 Start: 19557, Stop: 24191, Start Num: 19

Candidate Starts for Stardrop_26:

(Start: 18 @19536 has 2 MA's), (Start: 19 @19557 has 170 MA's), (Start: 23 @19587 has 3 MA's), (30, 19641), (31, 19650), (61, 19920), (62, 19923), (71, 19980), (72, 20001), (79, 20103), (84, 20163), (88, 20238), (96, 20304), (99, 20319), (105, 20352), (109, 20391), (110, 20394), (117, 20430), (119, 20445), (126, 20493), (157, 20766), (164, 20820), (167, 20829), (175, 20889), (194, 20991), (195,

20997), (198, 21006), (204, 21030), (224, 21129), (225, 21141), (226, 21150), (263, 21297), (301, 21447), (313, 21507), (317, 21516), (344, 21654), (351, 21702), (356, 21726), (358, 21732), (362, 21756), (367, 21777), (370, 21786), (377, 21810), (381, 21828), (391, 21873), (392, 21876), (395, 21885), (416, 21993), (423, 22014), (426, 22035), (437, 22086), (442, 22116), (444, 22131), (455, 22173), (460, 22191), (469, 22239), (470, 22242), (486, 22326), (488, 22332), (507, 22407), (510, 22416), (520, 22467), (528, 22503), (537, 22536), (539, 22545), (544, 22557), (552, 22578), (554, 22584), (559, 22605), (567, 22629), (568, 22638), (571, 22665), (584, 22707), (585, 22710), (586, 22713), (587, 22716), (603, 22767), (610, 22788), (615, 22806), (623, 22833), (641, 22905), (642, 22908), (646, 22926), (653, 22950), (666, 22995), (672, 23028), (673, 23031), (674, 23034), (679, 23052), (709, 23175), (714, 23193), (716, 23202), (720, 23217), (721, 23220), (736, 23292), (752, 23364), (759, 23418), (772, 23490), (781, 23547), (787, 23592), (823, 23775), (826, 23796), (830, 23820), (843, 23871), (856, 23940), (859, 23958),

Gene: Stayer_23 Start: 17240, Stop: 21790, Start Num: 19

Candidate Starts for Stayer_23:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 170 MA's), (Start: 23 @17270 has 3 MA's), (26, 17303), (49, 17459), (66, 17543), (68, 17555), (71, 17585), (78, 17666), (79, 17708), (80, 17726), (84, 17768), (86, 17798), (88, 17843), (89, 17855), (96, 17909), (99, 17924), (105, 17957), (112, 18020), (119, 18050), (122, 18083), (126, 18098), (132, 18146), (146, 18296), (151, 18317), (164, 18425), (167, 18434), (173, 18482), (200, 18617), (210, 18659), (230, 18773), (242, 18824), (243, 18827), (246, 18836), (262, 18917), (283, 19001), (288, 19019), (298, 19064), (308, 19109), (310, 19112), (311, 19118), (322, 19151), (344, 19262), (355, 19331), (356, 19334), (365, 19376), (367, 19385), (370, 19394), (379, 19424), (386, 19463), (388, 19469), (392, 19484), (399, 19526), (423, 19622), (426, 19643), (427, 19646), (431, 19667), (442, 19724), (444, 19739), (451, 19769), (455, 19781), (462, 19808), (464, 19823), (475, 19871), (480, 19901), (482, 19916), (491, 19949), (493, 19955), (502, 19994), (505, 20003), (507, 20015), (512, 20036), (525, 20102), (528, 20111), (537, 20144), (538, 20150), (539, 20153), (544, 20165), (545, 20168), (553, 20189), (558, 20210), (568, 20246), (576, 20294), (587, 20324), (615, 20414), (631, 20471), (642, 20516), (646, 20534), (654, 20561), (656, 20570), (658, 20576), (672, 20636), (676, 20648), (679, 20660), (691, 20714), (701, 20756), (703, 20762), (705, 20768), (714, 20801), (715, 20804), (721, 20828), (722, 20834), (724, 20840), (725, 20843), (735, 20894), (738, 20906), (745, 20945), (768, 21077), (776, 21113), (781, 21155), (787, 21200), (803, 21290), (822, 21380), (826, 21404), (830, 21428), (832, 21440), (834, 21449), (837, 21461), (840, 21473), (850, 21518), (856, 21548), (859, 21566), (869, 21605),

Gene: Sunny4976_23 Start: 18500, Stop: 23560, Start Num: 5

Candidate Starts for Sunny4976_23:

(5, 18500), (7, 18530), (11, 18584), (13, 18605), (31, 18812), (33, 18821), (34, 18824), (49, 18941), (55, 18974), (61, 19007), (69, 19046), (72, 19088), (79, 19190), (81, 19226), (86, 19280), (87, 19316), (89, 19337), (96, 19391), (119, 19523), (120, 19535), (121, 19544), (127, 19580), (145, 19757), (151, 19790), (159, 19862), (163, 19895), (164, 19898), (179, 19982), (212, 20207), (216, 20243), (218, 20267), (221, 20279), (240, 20405), (268, 20573), (293, 20726), (294, 20729), (314, 20852), (315, 20858), (327, 20909), (337, 20972), (344, 21026), (348, 21056), (362, 21128), (370, 21158), (373, 21167), (377, 21182), (386, 21227), (392, 21248), (394, 21254), (401, 21299), (423, 21386), (430, 21428), (444, 21503), (462, 21572), (475, 21635), (480, 21665), (491, 21713), (494, 21722), (507, 21782), (528, 21878), (537, 21911), (539, 21920), (544, 21932), (545, 21935), (552, 21953), (557, 21974), (567, 22004), (568, 22013), (571, 22040), (579, 22070), (587, 22091), (602, 22136), (610, 22163), (615, 22181), (636, 22259), (648, 22307), (649, 22310), (659, 22346), (669, 22388), (677, 22418), (678, 22421), (682, 22445), (684, 22451), (685, 22460), (707, 22541), (720, 22592), (725, 22610), (732, 22643), (733, 22646), (745, 22712), (759, 22793), (781, 22922), (787, 22967), (803, 23057), (820, 23138), (822, 23147), (826, 23171), (834, 23216), (838, 23234), (843, 23249), (855, 23318), (886, 23429),

Gene: SweetCrkHerbs_31 Start: 20700, Stop: 25802, Start Num: 19

Candidate Starts for SweetCrkHerbs_31:

(Start: 19 @20700 has 170 MA's), (Start: 23 @20730 has 3 MA's), (44, 20868), (48, 20913), (56, 20964), (60, 20979), (61, 20985), (68, 21015), (71, 21045), (72, 21066), (79, 21168), (84, 21228), (92, 21339), (96, 21369), (99, 21384), (105, 21417), (110, 21459), (115, 21510), (124, 21564), (125, 21567), (135, 21666), (151, 21786), (163, 21891), (164, 21894), (175, 21963), (177, 21969), (204, 22104), (247, 22308), (248, 22311), (295, 22545), (300, 22563), (308, 22602), (313, 22629), (318, 22641), (320, 22650), (342, 22782), (344, 22791), (357, 22866), (360, 22878), (361, 22884), (381, 22965), (385, 22986), (386, 22992), (392, 23013), (395, 23022), (398, 23043), (399, 23055), (401, 23064), (402, 23073), (407, 23100), (415, 23127), (416, 23130), (423, 23151), (430, 23193), (438, 23226), (439, 23229), (441, 23244), (442, 23253), (446, 23280), (448, 23289), (452, 23301), (458, 23322), (461, 23331), (467, 23364), (479, 23415), (480, 23424), (482, 23439), (487, 23460), (492, 23475), (498, 23499), (499, 23502), (502, 23514), (504, 23520), (505, 23523), (518, 23580), (520, 23595), (534, 23652), (537, 23664), (539, 23673), (545, 23685), (551, 23697), (552, 23703), (560, 23733), (561, 23736), (564, 23745), (567, 23754), (568, 23763), (569, 23778), (570, 23784), (573, 23796), (583, 23838), (587, 23850), (593, 23871), (595, 23883), (612, 23940), (619, 23964), (621, 23970), (622, 23973), (626, 23988), (628, 24000), (633, 24018), (651, 24087), (657, 24108), (679, 24195), (703, 24297), (708, 24315), (735, 24429), (740, 24450), (748, 24492), (771, 24627), (798, 24801), (805, 24864), (811, 24882), (818, 24912), (819, 24918), (825, 24939), (846, 25047), (858, 25107), (863, 25128), (864, 25131), (872, 25182), (875, 25191), (879, 25209), (887, 25230), (890, 25242), (907, 25335), (915, 25380), (920, 25443), (923, 25455), (927, 25494), (933, 25524), (938, 25557), (943, 25581), (953, 25641), (975, 25788),

Gene: Sweetclover_26 Start: 17996, Stop: 22579, Start Num: 19

Candidate Starts for Sweetclover_26:

(Start: 19 @17996 has 170 MA's), (Start: 23 @18029 has 3 MA's), (45, 18176), (57, 18266), (65, 18296), (71, 18341), (79, 18464), (84, 18524), (92, 18635), (96, 18665), (99, 18680), (105, 18713), (117, 18791), (119, 18806), (121, 18827), (133, 18911), (140, 19001), (152, 19085), (154, 19106), (157, 19127), (187, 19310), (197, 19364), (207, 19403), (224, 19502), (246, 19604), (337, 19994), (344, 20048), (351, 20096), (352, 20102), (367, 20171), (370, 20180), (377, 20204), (379, 20210), (383, 20231), (392, 20270), (404, 20339), (411, 20372), (415, 20384), (423, 20408), (426, 20429), (429, 20444), (441, 20501), (444, 20525), (452, 20558), (453, 20561), (484, 20714), (487, 20723), (490, 20732), (499, 20765), (502, 20783), (507, 20804), (520, 20864), (523, 20879), (528, 20900), (530, 20906), (537, 20933), (542, 20951), (556, 20996), (567, 21032), (568, 21041), (571, 21068), (572, 21071), (584, 21110), (587, 21119), (606, 21179), (610, 21191), (632, 21272), (652, 21350), (664, 21392), (676, 21443), (684, 21479), (689, 21500), (694, 21518), (697, 21539), (699, 21545), (708, 21575), (721, 21623), (726, 21641), (734, 21677), (735, 21689), (744, 21731), (762, 21833), (776, 21908), (777, 21917), (781, 21950), (807, 22121), (826, 22199), (830, 22223), (832, 22235), (834, 22244), (856, 22343), (857, 22346), (859, 22361), (866, 22391), (911, 22571),

Gene: Synopsis_25 Start: 20138, Stop: 24727, Start Num: 19

Candidate Starts for Synopsis_25:

(Start: 18 @20117 has 2 MA's), (Start: 19 @20138 has 170 MA's), (Start: 23 @20168 has 3 MA's), (30, 20222), (34, 20243), (40, 20279), (49, 20357), (60, 20417), (66, 20441), (68, 20453), (71, 20483), (74, 20534), (78, 20564), (79, 20606), (80, 20624), (84, 20666), (86, 20696), (88, 20741), (89, 20753), (96, 20807), (99, 20822), (101, 20834), (105, 20855), (119, 20948), (122, 20981), (126, 20996), (132, 21044), (146, 21194), (151, 21215), (166, 21329), (167, 21332), (173, 21380), (194, 21494), (201, 21518), (204, 21533), (207, 21545), (239, 21713), (244, 21728), (246, 21734), (253, 21752), (265, 21824), (278, 21875), (283, 21890), (290, 21920), (306, 21992), (308, 21998), (316, 22031), (317, 22034), (323, 22061), (344, 22175), (353, 22232), (355, 22244), (367, 22298), (370, 22307), (371, 22310), (377, 22331), (386, 22376), (392, 22397), (402, 22457), (416, 22514), (423, 22535), (426, 22556), (442, 22637), (444, 22652), (445, 22655), (451, 22682), (452, 22685), (464, 22736), (480, 22814), (482, 22829), (483, 22832), (487, 22850), (489, 22856), (491, 22862), (494, 22871), (502, 22907), (505, 22916), (512, 22949), (523, 23003), (524, 23006), (528, 23024), (532, 23036), (539,

23066), (544, 23081), (550, 23090), (552, 23102), (557, 23123), (568, 23162), (579, 23219), (584, 23231), (587, 23240), (600, 23279), (603, 23291), (613, 23321), (615, 23330), (626, 23366), (635, 23405), (636, 23408), (640, 23426), (642, 23432), (658, 23492), (661, 23501), (667, 23522), (673, 23555), (674, 23558), (677, 23567), (705, 23684), (706, 23687), (712, 23708), (720, 23741), (721, 23744), (722, 23750), (725, 23759), (731, 23786), (740, 23831), (754, 23897), (760, 23948), (762, 23954), (772, 24014), (777, 24038), (784, 24098), (787, 24116), (789, 24128), (820, 24287), (822, 24296), (830, 24344), (837, 24377), (840, 24389), (843, 24395), (846, 24416), (847, 24419), (848, 24425), (856, 24464), (862, 24491), (906, 24677), (910, 24704),

Gene: TaidaOne_23 Start: 16808, Stop: 22294, Start Num: 2

Candidate Starts for TaidaOne_23:

(1, 16787), (Start: 2 @16808 has 33 MA's), (3, 16838), (14, 16982), (42, 17192), (53, 17309), (68, 17381), (71, 17411), (79, 17534), (87, 17660), (96, 17735), (105, 17783), (110, 17825), (133, 18014), (154, 18209), (163, 18281), (177, 18359), (196, 18464), (207, 18506), (232, 18641), (267, 18773), (270, 18782), (279, 18818), (281, 18827), (292, 18869), (300, 18902), (306, 18932), (340, 19055), (344, 19076), (354, 19139), (355, 19145), (357, 19151), (362, 19178), (367, 19199), (369, 19205), (370, 19208), (377, 19232), (386, 19277), (389, 19286), (390, 19289), (405, 19373), (411, 19400), (416, 19415), (417, 19418), (423, 19436), (426, 19454), (430, 19475), (441, 19526), (455, 19592), (459, 19607), (477, 19694), (480, 19712), (484, 19739), (510, 19832), (519, 19874), (520, 19883), (528, 19919), (533, 19937), (534, 19940), (537, 19952), (552, 19994), (553, 19997), (567, 20045), (571, 20081), (573, 20087), (578, 20108), (587, 20132), (597, 20162), (615, 20222), (625, 20255), (626, 20258), (629, 20273), (632, 20285), (638, 20309), (649, 20351), (652, 20363), (653, 20366), (667, 20414), (672, 20444), (677, 20459), (684, 20492), (687, 20507), (703, 20570), (722, 20642), (724, 20648), (725, 20651), (733, 20687), (745, 20753), (760, 20840), (761, 20843), (787, 20942), (796, 20990), (797, 20996), (826, 21146), (827, 21155), (890, 21428), (924, 21653), (937, 21746), (940, 21767), (946, 21791), (947, 21815), (949, 21821), (950, 21827), (957, 21872), (970, 21980), (979, 22049), (986, 22136), (992, 22238), (993, 22247),

Gene: Tairn4Wing_31 Start: 20533, Stop: 25635, Start Num: 19

Candidate Starts for Tairn4Wing_31:

(Start: 19 @20533 has 170 MA's), (Start: 23 @20563 has 3 MA's), (44, 20701), (48, 20746), (49, 20752), (51, 20761), (53, 20776), (56, 20797), (61, 20818), (68, 20848), (71, 20878), (72, 20899), (79, 21001), (84, 21061), (88, 21136), (89, 21148), (92, 21172), (96, 21202), (99, 21217), (105, 21250), (110, 21292), (115, 21343), (124, 21397), (125, 21400), (135, 21499), (138, 21523), (143, 21559), (151, 21619), (163, 21724), (164, 21727), (175, 21796), (177, 21802), (178, 21808), (Start: 213 @21985 has 1 MA's), (224, 22036), (233, 22087), (247, 22141), (248, 22144), (257, 22171), (271, 22252), (276, 22276), (283, 22315), (300, 22396), (301, 22399), (318, 22474), (320, 22483), (332, 22531), (342, 22615), (344, 22624), (355, 22693), (357, 22699), (360, 22711), (362, 22726), (363, 22729), (368, 22750), (381, 22798), (386, 22825), (392, 22846), (395, 22855), (398, 22876), (399, 22888), (401, 22897), (402, 22906), (416, 22963), (423, 22984), (430, 23026), (436, 23053), (439, 23062), (441, 23077), (442, 23086), (444, 23101), (446, 23113), (448, 23122), (452, 23134), (458, 23155), (461, 23164), (479, 23248), (480, 23257), (482, 23272), (483, 23275), (487, 23293), (499, 23335), (505, 23356), (508, 23371), (518, 23413), (520, 23428), (534, 23485), (537, 23497), (539, 23506), (545, 23518), (551, 23530), (552, 23536), (557, 23557), (561, 23569), (567, 23587), (568, 23596), (569, 23611), (570, 23617), (573, 23629), (583, 23671), (587, 23683), (593, 23704), (595, 23716), (609, 23764), (612, 23773), (619, 23797), (621, 23803), (622, 23806), (626, 23821), (627, 23830), (628, 23833), (633, 23851), (651, 23920), (662, 23959), (703, 24130), (717, 24181), (748, 24325), (759, 24394), (771, 24460), (779, 24511), (798, 24634), (805, 24697), (818, 24745), (819, 24751), (821, 24760), (831, 24808), (846, 24880), (858, 24940), (863, 24961), (864, 24964), (872, 25015), (875, 25024), (879, 25042), (887, 25063), (890, 25075), (907, 25168), (915, 25213), (923, 25288), (925, 25306), (927, 25327), (943, 25414), (960, 25525), (975, 25621),

Gene: Talon44_30 Start: 20700, Stop: 25802, Start Num: 19

Candidate Starts for Talon44_30:

(Start: 19 @20700 has 170 MA's), (Start: 23 @20730 has 3 MA's), (44, 20868), (48, 20913), (56, 20964), (60, 20979), (61, 20985), (68, 21015), (71, 21045), (72, 21066), (79, 21168), (84, 21228), (92, 21339), (96, 21369), (99, 21384), (105, 21417), (110, 21459), (115, 21510), (124, 21564), (125, 21567), (135, 21666), (151, 21786), (163, 21891), (164, 21894), (175, 21963), (177, 21969), (204, 22104), (247, 22308), (248, 22311), (295, 22545), (300, 22563), (308, 22602), (313, 22629), (318, 22641), (320, 22650), (342, 22782), (344, 22791), (357, 22866), (360, 22878), (361, 22884), (381, 22965), (385, 22986), (386, 22992), (392, 23013), (395, 23022), (398, 23043), (399, 23055), (401, 23064), (402, 23073), (407, 23100), (415, 23127), (416, 23130), (423, 23151), (430, 23193), (438, 23226), (439, 23229), (441, 23244), (442, 23253), (446, 23280), (448, 23289), (452, 23301), (458, 23322), (461, 23331), (467, 23364), (479, 23415), (480, 23424), (482, 23439), (487, 23460), (492, 23475), (498, 23499), (499, 23502), (502, 23514), (504, 23520), (505, 23523), (518, 23580), (520, 23595), (534, 23652), (537, 23664), (539, 23673), (545, 23685), (551, 23697), (552, 23703), (560, 23733), (561, 23736), (564, 23745), (567, 23754), (568, 23763), (569, 23778), (570, 23784), (573, 23796), (583, 23838), (587, 23850), (593, 23871), (595, 23883), (612, 23940), (619, 23964), (621, 23970), (622, 23973), (626, 23988), (628, 24000), (633, 24018), (651, 24087), (657, 24108), (679, 24195), (703, 24297), (708, 24315), (735, 24429), (740, 24450), (748, 24492), (771, 24627), (798, 24801), (805, 24864), (811, 24882), (818, 24912), (819, 24918), (825, 24939), (846, 25047), (858, 25107), (863, 25128), (864, 25131), (872, 25182), (875, 25191), (879, 25209), (887, 25230), (890, 25242), (907, 25335), (915, 25380), (920, 25443), (923, 25455), (927, 25494), (933, 25524), (938, 25557), (943, 25581), (953, 25641), (975, 25788),

Gene: Tanis_29 Start: 20466, Stop: 25580, Start Num: 19

Candidate Starts for Tanis_29:

(Start: 19 @20466 has 170 MA's), (Start: 23 @20496 has 3 MA's), (45, 20643), (48, 20679), (49, 20685), (56, 20730), (61, 20751), (68, 20781), (79, 20946), (84, 21006), (88, 21081), (92, 21117), (93, 21132), (96, 21147), (99, 21162), (105, 21195), (115, 21288), (124, 21342), (125, 21345), (151, 21564), (163, 21669), (164, 21672), (175, 21741), (177, 21747), (Start: 213 @21930 has 1 MA's), (224, 21981), (233, 22032), (247, 22086), (248, 22089), (276, 22221), (295, 22323), (300, 22341), (301, 22344), (318, 22419), (332, 22476), (342, 22560), (344, 22569), (360, 22656), (368, 22695), (381, 22743), (386, 22770), (392, 22791), (395, 22800), (398, 22821), (399, 22833), (401, 22842), (402, 22851), (407, 22878), (415, 22905), (416, 22908), (423, 22929), (430, 22971), (436, 22998), (439, 23007), (441, 23022), (442, 23031), (444, 23046), (446, 23058), (448, 23067), (452, 23079), (458, 23100), (461, 23109), (479, 23193), (480, 23202), (482, 23217), (483, 23220), (487, 23238), (491, 23250), (492, 23253), (499, 23280), (505, 23301), (508, 23316), (518, 23358), (520, 23373), (534, 23430), (537, 23442), (539, 23451), (545, 23463), (551, 23475), (552, 23481), (557, 23502), (561, 23514), (567, 23532), (568, 23541), (569, 23556), (570, 23562), (573, 23574), (583, 23616), (584, 23619), (587, 23628), (593, 23649), (595, 23661), (609, 23709), (612, 23718), (619, 23742), (621, 23748), (626, 23766), (627, 23775), (633, 23796), (651, 23865), (656, 23883), (657, 23886), (662, 23904), (692, 24030), (703, 24075), (717, 24126), (748, 24270), (771, 24405), (779, 24456), (790, 24534), (798, 24579), (805, 24642), (811, 24660), (818, 24690), (819, 24696), (831, 24753), (846, 24825), (858, 24885), (863, 24906), (864, 24909), (872, 24960), (875, 24969), (887, 25008), (890, 25020), (907, 25113), (915, 25158), (923, 25233), (927, 25272), (933, 25302), (943, 25359), (960, 25470), (975, 25566),

Gene: Tatanka_26 Start: 20622, Stop: 25211, Start Num: 19

Candidate Starts for Tatanka_26:

(Start: 18 @20601 has 2 MA's), (Start: 19 @20622 has 170 MA's), (Start: 23 @20652 has 3 MA's), (30, 20706), (34, 20727), (40, 20763), (49, 20841), (60, 20901), (66, 20925), (68, 20937), (71, 20967), (74, 21018), (78, 21048), (79, 21090), (80, 21108), (84, 21150), (86, 21180), (88, 21225), (89, 21237), (96, 21291), (99, 21306), (101, 21318), (105, 21339), (119, 21432), (122, 21465), (126, 21480), (132, 21528), (146, 21678), (151, 21699), (166, 21813), (167, 21816), (173, 21864), (194, 21978), (201, 22002), (204, 22017), (207, 22029), (239, 22197), (244, 22212), (246, 22218), (253, 22236), (265,

22308), (278, 22359), (283, 22374), (290, 22404), (306, 22476), (308, 22482), (312, 22500), (316, 22515), (317, 22518), (323, 22545), (344, 22659), (353, 22716), (355, 22728), (367, 22782), (370, 22791), (371, 22794), (377, 22815), (386, 22860), (392, 22881), (416, 22998), (423, 23019), (426, 23040), (430, 23061), (442, 23121), (444, 23136), (445, 23139), (451, 23166), (452, 23169), (477, 23280), (480, 23298), (482, 23313), (483, 23316), (487, 23334), (489, 23340), (490, 23343), (494, 23355), (502, 23391), (505, 23400), (512, 23433), (523, 23487), (524, 23490), (528, 23508), (532, 23520), (539, 23550), (544, 23565), (550, 23574), (552, 23586), (568, 23646), (577, 23697), (579, 23703), (584, 23715), (587, 23724), (600, 23763), (603, 23775), (613, 23805), (615, 23814), (635, 23889), (636, 23892), (640, 23910), (658, 23976), (660, 23982), (661, 23985), (673, 24039), (674, 24042), (705, 24168), (706, 24171), (712, 24192), (720, 24225), (722, 24234), (740, 24315), (746, 24348), (754, 24381), (762, 24438), (772, 24498), (787, 24600), (789, 24612), (820, 24771), (822, 24780), (830, 24828), (837, 24861), (840, 24873), (843, 24879), (846, 24900), (847, 24903), (848, 24909), (856, 24948), (862, 24975), (906, 25161), (910, 25188),

Gene: Teacup_26 Start: 19991, Stop: 24583, Start Num: 19

Candidate Starts for Teacup_26:

(Start: 18 @19970 has 2 MA's), (Start: 19 @19991 has 170 MA's), (Start: 23 @20021 has 3 MA's), (30, 20075), (34, 20096), (40, 20132), (60, 20270), (68, 20306), (71, 20336), (79, 20459), (80, 20477), (84, 20519), (91, 20627), (96, 20660), (99, 20675), (105, 20708), (112, 20771), (117, 20786), (119, 20801), (121, 20822), (122, 20834), (133, 20906), (136, 20951), (141, 21002), (145, 21035), (151, 21068), (156, 21116), (167, 21185), (173, 21233), (194, 21347), (201, 21371), (207, 21398), (222, 21473), (239, 21566), (244, 21581), (246, 21587), (253, 21605), (260, 21647), (278, 21728), (290, 21773), (306, 21845), (308, 21851), (316, 21884), (317, 21887), (323, 21914), (344, 22031), (353, 22088), (355, 22100), (367, 22154), (370, 22163), (371, 22166), (377, 22187), (386, 22232), (392, 22253), (416, 22370), (423, 22391), (425, 22409), (426, 22412), (430, 22433), (442, 22493), (444, 22508), (445, 22511), (451, 22538), (452, 22541), (480, 22670), (482, 22685), (483, 22688), (487, 22706), (489, 22712), (490, 22715), (494, 22727), (502, 22763), (505, 22772), (512, 22805), (523, 22859), (524, 22862), (528, 22880), (532, 22892), (539, 22922), (544, 22937), (550, 22946), (552, 22958), (568, 23018), (577, 23069), (579, 23075), (584, 23087), (587, 23096), (600, 23135), (603, 23147), (605, 23153), (607, 23159), (613, 23177), (615, 23186), (635, 23261), (636, 23264), (640, 23282), (658, 23348), (660, 23354), (661, 23357), (672, 23408), (705, 23540), (706, 23543), (712, 23564), (720, 23597), (722, 23606), (740, 23687), (746, 23720), (754, 23753), (762, 23810), (772, 23870), (777, 23894), (787, 23972), (789, 23984), (812, 24110), (822, 24152), (830, 24200), (837, 24233), (840, 24245), (843, 24251), (846, 24272), (847, 24275), (848, 24281), (856, 24320), (862, 24347), (867, 24374), (906, 24533), (910, 24560),

Gene: TenaciousP_33 Start: 24936, Stop: 30050, Start Num: 19

Candidate Starts for TenaciousP_33:

(Start: 19 @24936 has 170 MA's), (Start: 23 @24966 has 3 MA's), (28, 25011), (49, 25155), (61, 25221), (71, 25281), (72, 25302), (79, 25404), (87, 25530), (90, 25566), (96, 25605), (105, 25653), (110, 25695), (117, 25767), (122, 25815), (137, 25941), (145, 26016), (146, 26028), (151, 26049), (163, 26154), (164, 26157), (207, 26379), (220, 26445), (236, 26535), (247, 26571), (260, 26622), (267, 26670), (271, 26682), (300, 26826), (308, 26865), (313, 26892), (344, 27054), (351, 27102), (354, 27117), (355, 27123), (360, 27141), (371, 27189), (386, 27255), (398, 27306), (399, 27318), (402, 27336), (415, 27390), (426, 27435), (430, 27456), (433, 27465), (437, 27486), (441, 27507), (451, 27561), (452, 27564), (455, 27573), (461, 27594), (463, 27606), (467, 27627), (469, 27633), (473, 27651), (480, 27687), (485, 27717), (499, 27765), (502, 27777), (504, 27783), (505, 27786), (507, 27798), (508, 27801), (513, 27822), (520, 27858), (533, 27912), (534, 27915), (537, 27927), (539, 27936), (545, 27948), (547, 27951), (561, 27999), (566, 28014), (567, 28017), (568, 28026), (570, 28047), (576, 28074), (577, 28077), (583, 28101), (587, 28113), (593, 28134), (595, 28146), (597, 28155), (601, 28167), (609, 28194), (612, 28203), (619, 28227), (621, 28233), (626, 28251), (639, 28305), (643, 28320), (662, 28389), (688, 28500), (717, 28611), (729, 28656), (746, 28746), (767, 28869), (771, 28890), (780, 28953), (783, 28980), (795, 29052), (798, 29064), (799, 29073),

(805, 29127), (813, 29148), (815, 29160), (849, 29322), (865, 29409), (871, 29427), (879, 29457), (886, 29475), (887, 29478), (890, 29490), (898, 29517), (915, 29628), (923, 29703), (929, 29751), (938, 29805), (944, 29832), (961, 29946), (975, 30036),

Gene: Tenney120_26 Start: 19291, Stop: 23928, Start Num: 19

Candidate Starts for Tenney120_26:

(Start: 18 @19270 has 2 MA's), (Start: 19 @19291 has 170 MA's), (Start: 23 @19321 has 3 MA's), (30, 19375), (31, 19384), (61, 19654), (62, 19657), (71, 19714), (72, 19735), (78, 19795), (79, 19837), (84, 19897), (89, 19984), (93, 20023), (96, 20038), (99, 20053), (105, 20086), (109, 20125), (110, 20128), (117, 20164), (119, 20179), (126, 20227), (163, 20551), (167, 20563), (175, 20623), (185, 20665), (194, 20725), (195, 20731), (198, 20740), (203, 20755), (204, 20764), (224, 20863), (225, 20875), (226, 20884), (228, 20896), (301, 21181), (313, 21241), (317, 21250), (344, 21391), (351, 21439), (356, 21463), (358, 21469), (367, 21514), (370, 21523), (377, 21547), (381, 21565), (391, 21610), (392, 21613), (395, 21622), (405, 21688), (416, 21730), (420, 21742), (423, 21751), (426, 21772), (437, 21823), (442, 21853), (444, 21868), (455, 21910), (460, 21928), (469, 21976), (470, 21979), (481, 22036), (486, 22063), (507, 22144), (510, 22153), (520, 22204), (528, 22240), (537, 22273), (539, 22282), (544, 22294), (554, 22321), (559, 22342), (567, 22366), (568, 22375), (584, 22444), (585, 22447), (586, 22450), (587, 22453), (597, 22483), (603, 22504), (610, 22525), (615, 22543), (618, 22552), (623, 22570), (638, 22630), (646, 22663), (650, 22678), (652, 22684), (653, 22687), (666, 22732), (672, 22765), (673, 22768), (674, 22771), (679, 22789), (708, 22909), (709, 22912), (714, 22930), (733, 23008), (736, 23029), (752, 23101), (759, 23155), (762, 23167), (781, 23284), (787, 23329), (796, 23377), (823, 23512), (826, 23533), (830, 23557), (843, 23608), (856, 23677), (859, 23695),

Gene: Tenno_27 Start: 21223, Stop: 25812, Start Num: 19

Candidate Starts for Tenno_27:

(Start: 18 @21202 has 2 MA's), (Start: 19 @21223 has 170 MA's), (Start: 23 @21253 has 3 MA's), (30, 21307), (34, 21328), (40, 21364), (60, 21502), (68, 21538), (71, 21568), (79, 21691), (80, 21709), (84, 21751), (91, 21859), (96, 21892), (99, 21907), (105, 21940), (117, 22018), (119, 22033), (121, 22054), (122, 22066), (127, 22090), (133, 22138), (141, 22234), (145, 22267), (151, 22300), (160, 22384), (164, 22408), (167, 22417), (200, 22600), (207, 22630), (222, 22705), (223, 22711), (239, 22798), (244, 22813), (246, 22819), (253, 22837), (254, 22846), (260, 22879), (261, 22888), (278, 22960), (290, 23005), (306, 23077), (308, 23083), (316, 23116), (317, 23119), (323, 23146), (344, 23260), (353, 23317), (355, 23329), (367, 23383), (370, 23392), (371, 23395), (377, 23416), (386, 23461), (392, 23482), (414, 23593), (416, 23599), (423, 23620), (425, 23638), (430, 23662), (442, 23722), (444, 23737), (445, 23740), (451, 23767), (452, 23770), (460, 23797), (477, 23881), (480, 23899), (482, 23914), (483, 23917), (487, 23935), (489, 23941), (490, 23944), (494, 23956), (495, 23962), (502, 23992), (505, 24001), (512, 24034), (523, 24088), (524, 24091), (528, 24109), (539, 24151), (544, 24166), (550, 24175), (552, 24187), (568, 24247), (579, 24304), (584, 24316), (587, 24325), (600, 24364), (603, 24376), (605, 24382), (609, 24394), (613, 24406), (615, 24415), (635, 24490), (636, 24493), (640, 24511), (658, 24577), (661, 24586), (673, 24640), (674, 24643), (705, 24769), (712, 24793), (720, 24826), (722, 24835), (727, 24850), (731, 24871), (740, 24916), (746, 24949), (754, 24982), (762, 25039), (772, 25099), (783, 25177), (787, 25201), (789, 25213), (812, 25339), (822, 25381), (830, 25429), (837, 25462), (840, 25474), (843, 25480), (846, 25501), (847, 25504), (848, 25510), (856, 25549), (862, 25576), (906, 25762), (910, 25789),

Gene: Thiqqums_21 Start: 15072, Stop: 20549, Start Num: 2

Candidate Starts for Thiqqums_21:

(Start: 2 @15072 has 33 MA's), (3, 15102), (9, 15183), (10, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (118, 16173), (133, 16281), (151, 16443), (154, 16476), (163, 16548), (177, 16626), (207, 16773), (279, 17085), (281, 17094), (299, 17157), (344, 17331), (350, 17373), (355, 17400), (358, 17409), (370, 17463), (377, 17487), (390, 17544), (412, 17658), (423, 17691), (430, 17730), (440, 17772), (441, 17781), (446, 17817),

(459, 17862), (469, 17913), (477, 17949), (480, 17967), (485, 17997), (496, 18036), (497, 18039), (507, 18078), (508, 18081), (515, 18108), (519, 18129), (520, 18138), (527, 18171), (528, 18174), (534, 18195), (555, 18258), (571, 18336), (573, 18342), (584, 18378), (585, 18381), (586, 18384), (587, 18387), (606, 18447), (609, 18456), (615, 18477), (624, 18507), (625, 18510), (640, 18573), (641, 18576), (642, 18579), (653, 18621), (658, 18639), (667, 18669), (677, 18714), (679, 18723), (684, 18747), (702, 18822), (704, 18828), (718, 18879), (725, 18906), (729, 18921), (731, 18933), (733, 18942), (737, 18966), (751, 19032), (760, 19095), (765, 19119), (787, 19197), (796, 19245), (803, 19287), (827, 19410), (851, 19527), (878, 19644), (900, 19725), (906, 19770), (914, 19815), (937, 20001), (940, 20022), (942, 20034), (949, 20076), (957, 20127), (963, 20175), (968, 20214), (976, 20265), (985, 20388), (990, 20427),

Gene: TieDye_22 Start: 15852, Stop: 21338, Start Num: 2

Candidate Starts for TieDye_22:

(1, 15831), (Start: 2 @15852 has 33 MA's), (3, 15882), (14, 16026), (42, 16236), (54, 16356), (61, 16395), (68, 16425), (70, 16449), (71, 16455), (72, 16476), (73, 16491), (79, 16578), (82, 16620), (86, 16668), (87, 16704), (88, 16713), (90, 16740), (96, 16779), (97, 16788), (105, 16827), (107, 16836), (110, 16869), (111, 16878), (122, 16986), (134, 17091), (145, 17187), (154, 17253), (177, 17403), (192, 17487), (196, 17508), (207, 17550), (232, 17685), (246, 17739), (270, 17826), (279, 17862), (281, 17871), (292, 17913), (300, 17946), (306, 17976), (340, 18099), (344, 18120), (354, 18183), (355, 18189), (357, 18195), (362, 18222), (367, 18243), (369, 18249), (370, 18252), (377, 18276), (386, 18321), (389, 18330), (390, 18333), (405, 18417), (411, 18444), (416, 18459), (417, 18462), (423, 18480), (426, 18498), (430, 18519), (441, 18570), (455, 18636), (459, 18651), (477, 18738), (480, 18756), (484, 18783), (510, 18876), (519, 18918), (520, 18927), (528, 18963), (533, 18981), (534, 18984), (537, 18996), (552, 19038), (553, 19041), (567, 19089), (571, 19125), (573, 19131), (578, 19152), (587, 19176), (597, 19206), (615, 19266), (625, 19299), (626, 19302), (629, 19317), (632, 19329), (638, 19353), (649, 19395), (652, 19407), (653, 19410), (667, 19458), (672, 19488), (677, 19503), (684, 19536), (687, 19551), (703, 19614), (722, 19686), (724, 19692), (725, 19695), (733, 19731), (745, 19797), (760, 19884), (761, 19887), (787, 19986), (796, 20034), (797, 20040), (826, 20190), (827, 20199), (890, 20472), (924, 20697), (937, 20790), (940, 20811), (946, 20835), (947, 20859), (949, 20865), (950, 20871), (957, 20916), (970, 21024), (979, 21093), (986, 21180), (992, 21282), (993, 21291),

Gene: Tipton_27 Start: 20319, Stop: 24914, Start Num: 19

Candidate Starts for Tipton_27:

(Start: 18 @20298 has 2 MA's), (Start: 19 @20319 has 170 MA's), (Start: 23 @20349 has 3 MA's), (30, 20403), (68, 20634), (71, 20664), (78, 20745), (79, 20787), (80, 20805), (84, 20847), (89, 20934), (96, 20988), (99, 21003), (100, 21009), (105, 21036), (117, 21114), (119, 21129), (122, 21162), (126, 21177), (127, 21186), (130, 21213), (132, 21225), (136, 21279), (146, 21375), (151, 21396), (167, 21513), (174, 21570), (176, 21576), (187, 21633), (203, 21705), (210, 21738), (211, 21741), (260, 21975), (281, 22068), (283, 22071), (306, 22173), (308, 22179), (317, 22215), (344, 22362), (352, 22416), (353, 22419), (367, 22485), (370, 22494), (371, 22497), (377, 22518), (383, 22545), (392, 22584), (393, 22587), (416, 22701), (423, 22722), (425, 22740), (426, 22743), (444, 22839), (446, 22851), (475, 22971), (480, 23001), (482, 23016), (494, 23058), (499, 23079), (502, 23094), (505, 23103), (507, 23115), (512, 23136), (523, 23190), (528, 23211), (537, 23244), (538, 23250), (539, 23253), (547, 23271), (549, 23274), (552, 23292), (567, 23343), (568, 23352), (578, 23406), (587, 23430), (598, 23463), (605, 23487), (615, 23520), (634, 23592), (640, 23616), (646, 23640), (649, 23649), (658, 23682), (659, 23685), (661, 23691), (671, 23736), (672, 23742), (684, 23790), (712, 23898), (722, 23940), (725, 23949), (756, 24108), (759, 24132), (761, 24141), (768, 24183), (772, 24204), (776, 24219), (787, 24306), (789, 24318), (797, 24360), (812, 24444), (826, 24510), (830, 24534), (840, 24579), (843, 24585), (856, 24654), (857, 24657), (862, 24681), (906, 24864),

Gene: Tokki_27 Start: 20280, Stop: 24866, Start Num: 19

Candidate Starts for Tokki_27:

(Start: 18 @20259 has 2 MA's), (Start: 19 @20280 has 170 MA's), (Start: 23 @20310 has 3 MA's), (30, 20364), (68, 20595), (71, 20625), (78, 20706), (79, 20748), (80, 20766), (84, 20808), (89, 20895), (96, 20949), (99, 20964), (100, 20970), (105, 20997), (117, 21075), (119, 21090), (122, 21123), (126, 21138), (127, 21147), (130, 21174), (132, 21186), (136, 21240), (151, 21357), (166, 21471), (167, 21474), (174, 21531), (176, 21537), (203, 21666), (210, 21699), (260, 21936), (283, 22032), (306, 22134), (308, 22140), (317, 22176), (344, 22320), (352, 22374), (353, 22377), (367, 22443), (370, 22452), (371, 22455), (377, 22476), (392, 22542), (394, 22548), (402, 22602), (416, 22659), (423, 22680), (425, 22698), (426, 22701), (430, 22722), (432, 22728), (437, 22752), (444, 22797), (446, 22809), (472, 22920), (475, 22929), (477, 22941), (480, 22959), (494, 23016), (502, 23052), (503, 23055), (505, 23061), (507, 23073), (508, 23076), (512, 23094), (515, 23103), (525, 23160), (539, 23211), (544, 23223), (553, 23247), (554, 23250), (567, 23295), (568, 23304), (584, 23373), (587, 23382), (600, 23421), (603, 23433), (615, 23472), (642, 23574), (648, 23598), (649, 23601), (658, 23634), (659, 23637), (660, 23640), (661, 23643), (673, 23697), (674, 23700), (680, 23721), (703, 23820), (712, 23850), (715, 23862), (718, 23874), (722, 23892), (725, 23901), (726, 23904), (756, 24060), (759, 24084), (761, 24093), (772, 24156), (776, 24171), (787, 24258), (789, 24270), (797, 24312), (812, 24396), (826, 24462), (830, 24486), (840, 24531), (843, 24537), (856, 24606), (857, 24609), (862, 24633), (906, 24816),

Gene: Tonaltzin_34 Start: 23506, Stop: 28620, Start Num: 19

Candidate Starts for Tonaltzin_34:

(Start: 19 @23506 has 170 MA's), (Start: 23 @23536 has 3 MA's), (28, 23581), (49, 23725), (61, 23791), (71, 23851), (72, 23872), (79, 23974), (87, 24100), (90, 24136), (96, 24175), (105, 24223), (110, 24265), (117, 24337), (122, 24385), (137, 24511), (145, 24586), (146, 24598), (151, 24619), (163, 24724), (164, 24727), (207, 24949), (220, 25015), (236, 25105), (247, 25141), (260, 25192), (267, 25240), (271, 25252), (300, 25396), (308, 25435), (313, 25462), (344, 25624), (351, 25672), (354, 25687), (355, 25693), (360, 25711), (371, 25759), (386, 25825), (398, 25876), (399, 25888), (402, 25906), (415, 25960), (426, 26005), (430, 26026), (433, 26035), (437, 26056), (441, 26077), (451, 26131), (452, 26134), (455, 26143), (461, 26164), (463, 26176), (467, 26197), (469, 26203), (473, 26221), (480, 26257), (485, 26287), (499, 26335), (502, 26347), (504, 26353), (505, 26356), (507, 26368), (508, 26371), (513, 26392), (520, 26428), (533, 26482), (534, 26485), (539, 26506), (545, 26518), (547, 26521), (561, 26569), (566, 26584), (567, 26587), (568, 26596), (570, 26617), (576, 26644), (577, 26647), (583, 26671), (587, 26683), (593, 26704), (595, 26716), (597, 26725), (601, 26737), (609, 26764), (619, 26797), (621, 26803), (626, 26821), (639, 26875), (643, 26890), (662, 26959), (688, 27070), (717, 27181), (729, 27226), (746, 27316), (767, 27439), (771, 27460), (780, 27523), (783, 27550), (795, 27622), (798, 27634), (799, 27643), (805, 27697), (813, 27718), (815, 27730), (849, 27892), (865, 27979), (871, 27997), (879, 28027), (886, 28045), (887, 28048), (890, 28060), (898, 28087), (915, 28198), (923, 28273), (929, 28321), (938, 28375), (944, 28402), (961, 28516), (975, 28606),

Gene: TonyStarch_23 Start: 16166, Stop: 21652, Start Num: 2

Candidate Starts for TonyStarch_23:

(1, 16145), (Start: 2 @16166 has 33 MA's), (3, 16196), (14, 16340), (42, 16550), (53, 16667), (68, 16739), (71, 16769), (79, 16892), (87, 17018), (96, 17093), (105, 17141), (110, 17183), (133, 17372), (154, 17567), (163, 17639), (177, 17717), (192, 17801), (207, 17864), (232, 17999), (246, 18053), (270, 18140), (279, 18176), (281, 18185), (292, 18227), (300, 18260), (306, 18290), (340, 18413), (344, 18434), (354, 18497), (355, 18503), (357, 18509), (362, 18536), (367, 18557), (369, 18563), (370, 18566), (377, 18590), (386, 18635), (389, 18644), (390, 18647), (392, 18656), (405, 18731), (411, 18758), (417, 18776), (423, 18794), (426, 18812), (430, 18833), (441, 18884), (455, 18950), (459, 18965), (477, 19052), (480, 19070), (484, 19097), (510, 19190), (519, 19232), (520, 19241), (528, 19277), (529, 19280), (533, 19295), (534, 19298), (537, 19310), (552, 19352), (553, 19355), (567, 19403), (571, 19439), (573, 19445), (578, 19466), (587, 19490), (597, 19520), (615, 19580), (625, 19613), (626, 19616), (629, 19631), (632, 19643), (638, 19667), (649, 19709), (652, 19721), (653, 19724), (667, 19772), (672, 19802), (677, 19817), (684, 19850), (687, 19865), (703, 19928),

(722, 20000), (724, 20006), (725, 20009), (733, 20045), (745, 20111), (760, 20198), (761, 20201), (787, 20300), (796, 20348), (797, 20354), (827, 20513), (890, 20786), (899, 20822), (909, 20888), (924, 21011), (937, 21104), (940, 21125), (947, 21173), (949, 21179), (950, 21185), (957, 21230), (970, 21338), (973, 21359), (979, 21407), (986, 21494), (992, 21596), (993, 21605),

Gene: Tribby_22 Start: 17385, Stop: 21863, Start Num: 19

Candidate Starts for Tribby_22:

(Start: 18 @17364 has 2 MA's), (Start: 19 @17385 has 170 MA's), (Start: 23 @17415 has 3 MA's), (26, 17448), (30, 17469), (68, 17700), (71, 17730), (78, 17811), (79, 17853), (80, 17871), (84, 17913), (89, 18000), (96, 18054), (99, 18069), (105, 18102), (117, 18180), (119, 18195), (126, 18243), (128, 18258), (133, 18300), (137, 18354), (145, 18429), (151, 18462), (164, 18570), (174, 18636), (182, 18669), (184, 18678), (185, 18681), (187, 18699), (246, 18981), (255, 19005), (260, 19035), (267, 19065), (302, 19194), (317, 19254), (344, 19383), (358, 19461), (365, 19497), (367, 19506), (370, 19515), (377, 19539), (383, 19566), (386, 19584), (392, 19605), (405, 19680), (413, 19713), (423, 19743), (430, 19785), (442, 19845), (443, 19851), (451, 19890), (452, 19893), (457, 19908), (470, 19971), (475, 19992), (480, 20022), (485, 20052), (491, 20070), (502, 20118), (508, 20142), (512, 20160), (515, 20169), (518, 20184), (521, 20205), (528, 20235), (537, 20268), (538, 20274), (539, 20277), (544, 20289), (552, 20310), (567, 20361), (568, 20370), (572, 20400), (574, 20406), (584, 20439), (587, 20448), (597, 20478), (603, 20499), (615, 20538), (623, 20565), (625, 20571), (626, 20574), (629, 20589), (636, 20616), (644, 20646), (653, 20682), (679, 20784), (689, 20829), (702, 20883), (703, 20886), (705, 20892), (714, 20925), (724, 20964), (726, 20970), (730, 20985), (735, 21018), (759, 21150), (781, 21213), (784, 21240), (787, 21258), (796, 21306), (797, 21312), (807, 21384), (826, 21462), (832, 21498), (836, 21516), (843, 21540), (847, 21564), (855, 21609), (859, 21630), (911, 21852),

Gene: TrixiePhattel_26 Start: 19204, Stop: 23763, Start Num: 19

Candidate Starts for TrixiePhattel_26:

(Start: 18 @19183 has 2 MA's), (Start: 19 @19204 has 170 MA's), (Start: 23 @19234 has 3 MA's), (30, 19288), (34, 19309), (47, 19402), (49, 19423), (61, 19489), (62, 19492), (71, 19549), (72, 19570), (78, 19630), (79, 19672), (84, 19732), (93, 19858), (96, 19873), (99, 19888), (105, 19921), (117, 19999), (119, 20014), (126, 20062), (141, 20215), (146, 20260), (151, 20281), (154, 20314), (164, 20389), (167, 20398), (172, 20440), (175, 20458), (185, 20500), (194, 20560), (195, 20566), (198, 20575), (203, 20590), (204, 20599), (224, 20698), (225, 20710), (226, 20719), (228, 20731), (301, 21016), (313, 21076), (317, 21085), (340, 21205), (344, 21226), (356, 21298), (358, 21304), (367, 21349), (370, 21358), (377, 21382), (381, 21400), (392, 21448), (395, 21457), (408, 21538), (416, 21565), (420, 21577), (423, 21586), (426, 21607), (442, 21688), (466, 21799), (469, 21811), (470, 21814), (486, 21898), (490, 21910), (507, 21979), (516, 22018), (520, 22039), (528, 22075), (537, 22108), (539, 22117), (544, 22129), (545, 22132), (567, 22201), (568, 22210), (572, 22240), (584, 22279), (587, 22288), (597, 22318), (603, 22339), (615, 22378), (638, 22465), (642, 22480), (646, 22498), (650, 22513), (653, 22522), (655, 22528), (666, 22567), (672, 22600), (673, 22603), (679, 22624), (680, 22627), (699, 22714), (708, 22744), (709, 22747), (714, 22765), (720, 22789), (726, 22810), (736, 22864), (737, 22867), (752, 22936), (759, 22990), (781, 23119), (787, 23164), (822, 23344), (826, 23368), (830, 23392), (840, 23437), (843, 23443), (850, 23482), (856, 23512), (859, 23530), (897, 23650),

Gene: Truckee_25 Start: 20163, Stop: 24755, Start Num: 19

Candidate Starts for Truckee_25:

(Start: 18 @20142 has 2 MA's), (Start: 19 @20163 has 170 MA's), (Start: 23 @20193 has 3 MA's), (30, 20247), (40, 20304), (49, 20382), (60, 20442), (66, 20466), (71, 20508), (79, 20631), (80, 20649), (84, 20691), (88, 20766), (89, 20778), (93, 20817), (96, 20832), (99, 20847), (105, 20880), (117, 20958), (119, 20973), (129, 21051), (137, 21132), (151, 21240), (167, 21357), (169, 21363), (192, 21507), (193, 21516), (210, 21582), (260, 21819), (275, 21879), (281, 21912), (283, 21915), (306, 22017), (308, 22023), (317, 22059), (344, 22203), (351, 22251), (352, 22257), (353, 22260), (362, 22305),

(367, 22326), (370, 22335), (371, 22338), (377, 22359), (378, 22362), (392, 22425), (393, 22428), (416, 22542), (423, 22563), (425, 22581), (426, 22584), (437, 22635), (442, 22665), (444, 22680), (446, 22692), (472, 22803), (475, 22812), (480, 22842), (501, 22932), (502, 22935), (505, 22944), (507, 22956), (512, 22977), (516, 22995), (523, 23031), (528, 23052), (537, 23085), (555, 23142), (567, 23184), (568, 23193), (576, 23241), (584, 23262), (587, 23271), (597, 23301), (615, 23361), (626, 23397), (634, 23433), (646, 23481), (659, 23526), (661, 23532), (667, 23553), (672, 23583), (684, 23631), (694, 23670), (695, 23673), (722, 23781), (725, 23790), (732, 23823), (750, 23913), (758, 23961), (772, 24045), (787, 24147), (789, 24159), (797, 24201), (820, 24318), (822, 24327), (830, 24375), (840, 24420), (843, 24426), (856, 24495), (862, 24522), (906, 24705),

Gene: Trufflozitus_29 Start: 20534, Stop: 25636, Start Num: 19

Candidate Starts for Trufflozitus_29:

(Start: 19 @20534 has 170 MA's), (Start: 23 @20564 has 3 MA's), (44, 20702), (48, 20747), (49, 20753), (51, 20762), (53, 20777), (56, 20798), (61, 20819), (68, 20849), (71, 20879), (72, 20900), (79, 21002), (84, 21062), (88, 21137), (89, 21149), (92, 21173), (96, 21203), (99, 21218), (105, 21251), (110, 21293), (115, 21344), (124, 21398), (125, 21401), (135, 21500), (138, 21524), (143, 21560), (151, 21620), (163, 21725), (164, 21728), (175, 21797), (177, 21803), (178, 21809), (Start: 213 @21986 has 1 MA's), (224, 22037), (233, 22088), (247, 22142), (248, 22145), (257, 22172), (276, 22277), (283, 22316), (300, 22397), (301, 22400), (318, 22475), (320, 22484), (332, 22532), (342, 22616), (344, 22625), (355, 22694), (357, 22700), (360, 22712), (362, 22727), (363, 22730), (368, 22751), (381, 22799), (386, 22826), (392, 22847), (395, 22856), (398, 22877), (399, 22889), (401, 22898), (402, 22907), (415, 22961), (416, 22964), (423, 22985), (430, 23027), (436, 23054), (439, 23063), (441, 23078), (442, 23087), (444, 23102), (446, 23114), (448, 23123), (452, 23135), (458, 23156), (461, 23165), (479, 23249), (480, 23258), (482, 23273), (487, 23294), (499, 23336), (505, 23357), (508, 23372), (518, 23414), (520, 23429), (534, 23486), (537, 23498), (539, 23507), (545, 23519), (551, 23531), (552, 23537), (557, 23558), (559, 23564), (561, 23570), (567, 23588), (568, 23597), (569, 23612), (570, 23618), (573, 23630), (583, 23672), (587, 23684), (593, 23705), (595, 23717), (609, 23765), (612, 23774), (619, 23798), (621, 23804), (622, 23807), (626, 23822), (627, 23831), (628, 23834), (633, 23852), (651, 23921), (662, 23960), (703, 24131), (717, 24182), (748, 24326), (759, 24395), (771, 24461), (779, 24512), (798, 24635), (805, 24698), (818, 24746), (819, 24752), (821, 24761), (831, 24809), (846, 24881), (858, 24941), (863, 24962), (864, 24965), (872, 25016), (875, 25025), (879, 25043), (887, 25064), (890, 25076), (907, 25169), (915, 25214), (923, 25289), (925, 25307), (927, 25328), (943, 25415), (960, 25526), (975, 25622),

Gene: Trustiboi_27 Start: 20688, Stop: 25280, Start Num: 19

Candidate Starts for Trustiboi_27:

(Start: 18 @20667 has 2 MA's), (Start: 19 @20688 has 170 MA's), (Start: 23 @20718 has 3 MA's), (30, 20772), (34, 20793), (40, 20829), (49, 20907), (60, 20967), (66, 20991), (68, 21003), (71, 21033), (74, 21084), (78, 21114), (79, 21156), (80, 21174), (84, 21216), (86, 21246), (88, 21291), (89, 21303), (96, 21357), (99, 21372), (101, 21384), (105, 21405), (119, 21498), (122, 21531), (126, 21546), (132, 21594), (146, 21744), (151, 21765), (166, 21879), (167, 21882), (194, 22044), (201, 22068), (204, 22083), (207, 22095), (239, 22263), (244, 22278), (246, 22284), (253, 22302), (265, 22374), (278, 22425), (283, 22440), (290, 22470), (306, 22542), (308, 22548), (316, 22581), (317, 22584), (344, 22728), (351, 22776), (353, 22785), (355, 22797), (367, 22851), (370, 22860), (371, 22863), (377, 22884), (386, 22929), (392, 22950), (399, 22992), (402, 23010), (416, 23067), (423, 23088), (426, 23109), (442, 23190), (444, 23205), (445, 23208), (451, 23235), (464, 23289), (480, 23367), (482, 23382), (483, 23385), (487, 23403), (489, 23409), (491, 23415), (494, 23424), (502, 23460), (505, 23469), (512, 23502), (523, 23556), (524, 23559), (528, 23577), (532, 23589), (539, 23619), (544, 23634), (550, 23643), (552, 23655), (557, 23676), (568, 23715), (579, 23772), (584, 23784), (587, 23793), (600, 23832), (603, 23844), (613, 23874), (615, 23883), (626, 23919), (635, 23958), (636, 23961), (640, 23979), (642, 23985), (658, 24045), (661, 24054), (673, 24108), (674, 24111), (677, 24120), (705, 24237), (706, 24240), (712, 24261), (720, 24294), (721, 24297), (722, 24303), (725, 24312), (731, 24339), (754, 24450), (760, 24501), (762, 24507), (772, 24567), (777, 24591), (784,

24651), (787, 24669), (789, 24681), (820, 24840), (822, 24849), (830, 24897), (837, 24930), (840, 24942), (843, 24948), (846, 24969), (847, 24972), (848, 24978), (856, 25017), (862, 25044), (906, 25230), (910, 25257),

Gene: Untouchable_32 Start: 23641, Stop: 28752, Start Num: 19

Candidate Starts for Untouchable_32:

(Start: 19 @23641 has 170 MA's), (Start: 23 @23671 has 3 MA's), (28, 23716), (49, 23860), (60, 23920), (61, 23926), (71, 23986), (72, 24007), (79, 24109), (87, 24235), (90, 24271), (96, 24310), (101, 24337), (105, 24358), (110, 24400), (117, 24472), (122, 24520), (137, 24646), (145, 24721), (146, 24733), (151, 24754), (163, 24859), (164, 24862), (184, 24970), (233, 25222), (260, 25327), (272, 25396), (277, 25417), (291, 25498), (293, 25501), (300, 25528), (308, 25567), (313, 25594), (340, 25735), (344, 25756), (354, 25819), (355, 25825), (360, 25843), (361, 25849), (371, 25891), (375, 25903), (377, 25912), (386, 25957), (396, 25999), (398, 26008), (399, 26020), (401, 26029), (402, 26038), (426, 26137), (430, 26158), (433, 26167), (438, 26191), (439, 26194), (451, 26263), (452, 26266), (455, 26275), (460, 26293), (461, 26296), (463, 26308), (467, 26329), (469, 26335), (470, 26338), (475, 26359), (480, 26389), (482, 26404), (485, 26419), (499, 26467), (502, 26479), (504, 26485), (505, 26488), (507, 26500), (508, 26503), (520, 26560), (533, 26614), (539, 26638), (545, 26650), (547, 26653), (560, 26698), (561, 26701), (566, 26716), (567, 26719), (568, 26728), (569, 26743), (570, 26749), (571, 26755), (576, 26776), (577, 26779), (581, 26791), (584, 26806), (587, 26815), (593, 26836), (595, 26848), (601, 26869), (609, 26896), (619, 26929), (621, 26935), (626, 26953), (633, 26983), (643, 27022), (662, 27091), (688, 27202), (691, 27214), (709, 27283), (729, 27358), (746, 27448), (771, 27592), (775, 27616), (790, 27721), (795, 27754), (798, 27766), (805, 27829), (813, 27850), (815, 27862), (819, 27883), (831, 27940), (849, 28024), (865, 28111), (871, 28129), (879, 28159), (886, 28177), (887, 28180), (889, 28186), (890, 28192), (898, 28219), (915, 28330), (923, 28405), (933, 28474), (938, 28507), (943, 28531), (961, 28648), (975, 28738),

Gene: Uzumaki_26 Start: 19821, Stop: 24458, Start Num: 19

Candidate Starts for Uzumaki_26:

(Start: 18 @19800 has 2 MA's), (Start: 19 @19821 has 170 MA's), (Start: 23 @19851 has 3 MA's), (30, 19905), (31, 19914), (61, 20184), (62, 20187), (71, 20244), (72, 20265), (78, 20325), (79, 20367), (84, 20427), (89, 20514), (93, 20553), (96, 20568), (99, 20583), (105, 20616), (109, 20655), (110, 20658), (117, 20694), (119, 20709), (126, 20757), (163, 21081), (167, 21093), (175, 21153), (181, 21174), (185, 21195), (194, 21255), (195, 21261), (198, 21270), (203, 21285), (204, 21294), (224, 21393), (225, 21405), (226, 21414), (228, 21426), (301, 21711), (313, 21771), (317, 21780), (344, 21921), (351, 21969), (352, 21975), (356, 21993), (358, 21999), (367, 22044), (370, 22053), (377, 22077), (381, 22095), (391, 22140), (392, 22143), (395, 22152), (405, 22218), (416, 22260), (423, 22281), (426, 22302), (437, 22353), (442, 22383), (444, 22398), (455, 22440), (460, 22458), (469, 22506), (470, 22509), (481, 22566), (507, 22674), (510, 22683), (520, 22734), (523, 22749), (528, 22770), (537, 22803), (539, 22812), (544, 22824), (552, 22845), (554, 22851), (559, 22872), (567, 22896), (568, 22905), (584, 22974), (585, 22977), (586, 22980), (587, 22983), (597, 23013), (603, 23034), (610, 23055), (615, 23073), (618, 23082), (623, 23100), (638, 23160), (646, 23193), (650, 23208), (652, 23214), (653, 23217), (666, 23262), (673, 23298), (674, 23301), (676, 23307), (679, 23319), (680, 23322), (708, 23439), (709, 23442), (714, 23460), (723, 23496), (733, 23538), (737, 23562), (752, 23631), (759, 23685), (762, 23697), (781, 23814), (787, 23859), (796, 23907), (823, 24042), (826, 24063), (830, 24087), (843, 24138), (856, 24207), (857, 24210), (859, 24225),

Gene: Vardy_32 Start: 23250, Stop: 28361, Start Num: 19

Candidate Starts for Vardy_32:

(Start: 19 @23250 has 170 MA's), (Start: 23 @23280 has 3 MA's), (28, 23325), (49, 23469), (61, 23535), (71, 23595), (72, 23616), (79, 23718), (87, 23844), (90, 23880), (96, 23919), (101, 23946), (105, 23967), (110, 24009), (120, 24108), (122, 24129), (137, 24255), (145, 24330), (146, 24342), (151, 24363), (163, 24468), (164, 24471), (233, 24831), (260, 24936), (272, 25005), (277, 25026), (291, 25107), (293, 25110), (300, 25137), (308, 25176), (313, 25203), (344, 25365), (351, 25413),

(355, 25434), (360, 25452), (371, 25500), (375, 25512), (386, 25566), (398, 25617), (399, 25629), (401, 25638), (402, 25647), (415, 25701), (426, 25746), (429, 25761), (430, 25767), (433, 25776), (434, 25782), (438, 25800), (439, 25803), (440, 25809), (441, 25818), (451, 25872), (452, 25875), (455, 25884), (460, 25902), (461, 25905), (463, 25917), (467, 25938), (469, 25944), (470, 25947), (475, 25968), (480, 25998), (482, 26013), (491, 26046), (495, 26061), (499, 26076), (502, 26088), (504, 26094), (505, 26097), (507, 26109), (508, 26112), (520, 26169), (533, 26223), (534, 26226), (539, 26247), (545, 26259), (547, 26262), (561, 26310), (566, 26325), (567, 26328), (568, 26337), (570, 26358), (576, 26385), (577, 26388), (583, 26412), (587, 26424), (593, 26445), (595, 26457), (601, 26478), (609, 26505), (619, 26538), (621, 26544), (626, 26562), (633, 26592), (643, 26631), (688, 26811), (691, 26823), (709, 26892), (746, 27057), (767, 27180), (771, 27201), (790, 27330), (795, 27363), (798, 27375), (805, 27438), (813, 27459), (815, 27471), (818, 27486), (831, 27549), (849, 27633), (865, 27720), (871, 27738), (879, 27768), (886, 27786), (887, 27789), (889, 27795), (890, 27801), (898, 27828), (915, 27939), (923, 28014), (925, 28032), (938, 28116), (943, 28140), (961, 28257), (975, 28347),

Gene: Westerlin_27 Start: 21800, Stop: 26392, Start Num: 19

Candidate Starts for Westerlin_27:

(Start: 18 @21779 has 2 MA's), (Start: 19 @21800 has 170 MA's), (Start: 23 @21830 has 3 MA's), (30, 21884), (34, 21905), (40, 21941), (60, 22079), (68, 22115), (71, 22145), (79, 22268), (80, 22286), (84, 22328), (91, 22436), (96, 22469), (99, 22484), (105, 22517), (112, 22580), (117, 22595), (119, 22610), (121, 22631), (122, 22643), (127, 22667), (133, 22715), (141, 22811), (145, 22844), (151, 22877), (160, 22961), (164, 22985), (167, 22994), (207, 23207), (214, 23249), (222, 23282), (223, 23288), (239, 23375), (244, 23390), (246, 23396), (251, 23408), (253, 23414), (260, 23456), (278, 23537), (283, 23552), (306, 23654), (308, 23660), (316, 23693), (317, 23696), (323, 23723), (344, 23840), (353, 23897), (355, 23909), (367, 23963), (370, 23972), (371, 23975), (377, 23996), (386, 24041), (392, 24062), (399, 24104), (414, 24173), (416, 24179), (423, 24200), (426, 24221), (430, 24242), (442, 24302), (444, 24317), (445, 24320), (451, 24347), (452, 24350), (480, 24479), (482, 24494), (483, 24497), (487, 24515), (489, 24521), (490, 24524), (494, 24536), (502, 24572), (505, 24581), (512, 24614), (523, 24668), (524, 24671), (528, 24689), (532, 24701), (539, 24731), (544, 24746), (550, 24755), (552, 24767), (568, 24827), (577, 24878), (579, 24884), (584, 24896), (587, 24905), (600, 24944), (603, 24956), (605, 24962), (607, 24968), (613, 24986), (615, 24995), (635, 25070), (636, 25073), (640, 25091), (658, 25157), (660, 25163), (661, 25166), (672, 25217), (705, 25349), (706, 25352), (712, 25373), (720, 25406), (722, 25415), (740, 25496), (746, 25529), (754, 25562), (762, 25619), (772, 25679), (777, 25703), (787, 25781), (789, 25793), (812, 25919), (822, 25961), (830, 26009), (837, 26042), (840, 26054), (843, 26060), (846, 26081), (847, 26084), (848, 26090), (856, 26129), (862, 26156), (867, 26183), (906, 26342), (910, 26369),

Gene: Wigberry_23 Start: 15580, Stop: 21045, Start Num: 2

Candidate Starts for Wigberry_23:

(1, 15559), (Start: 2 @15580 has 33 MA's), (3, 15610), (8, 15685), (14, 15766), (15, 15769), (62, 16132), (71, 16189), (79, 16312), (85, 16393), (87, 16438), (93, 16498), (96, 16513), (105, 16561), (110, 16603), (133, 16795), (138, 16861), (151, 16957), (154, 16990), (177, 17140), (246, 17476), (258, 17515), (279, 17599), (292, 17650), (300, 17683), (313, 17746), (344, 17845), (353, 17902), (355, 17914), (370, 17977), (389, 18055), (390, 18058), (411, 18169), (423, 18205), (441, 18295), (459, 18376), (469, 18427), (479, 18472), (497, 18553), (512, 18613), (514, 18619), (520, 18652), (528, 18688), (563, 18802), (567, 18814), (571, 18850), (573, 18856), (576, 18871), (587, 18901), (598, 18934), (611, 18976), (615, 18991), (620, 19006), (625, 19024), (629, 19042), (638, 19078), (652, 19132), (658, 19153), (672, 19213), (677, 19228), (684, 19261), (704, 19342), (706, 19348), (718, 19393), (722, 19411), (725, 19420), (729, 19435), (733, 19456), (734, 19459), (737, 19480), (752, 19549), (783, 19687), (787, 19711), (796, 19759), (827, 19924), (890, 20197), (937, 20515), (940, 20536), (949, 20590), (957, 20641), (973, 20770), (987, 20923), (990, 20941),

Gene: Xenomorph_20 Start: 17403, Stop: 21881, Start Num: 19

Candidate Starts for Xenomorph_20:

(Start: 18 @17382 has 2 MA's), (Start: 19 @17403 has 170 MA's), (Start: 23 @17433 has 3 MA's), (26, 17466), (30, 17487), (49, 17622), (51, 17631), (68, 17718), (71, 17748), (79, 17871), (80, 17889), (84, 17931), (89, 18018), (93, 18057), (96, 18072), (99, 18087), (105, 18120), (117, 18198), (119, 18213), (126, 18261), (128, 18276), (133, 18318), (135, 18360), (137, 18372), (141, 18414), (145, 18447), (151, 18480), (164, 18588), (174, 18654), (182, 18687), (184, 18696), (185, 18699), (187, 18717), (193, 18756), (246, 18999), (260, 19053), (302, 19212), (310, 19245), (317, 19272), (344, 19401), (358, 19479), (367, 19524), (369, 19530), (370, 19533), (374, 19545), (377, 19557), (383, 19584), (386, 19602), (392, 19623), (405, 19698), (409, 19719), (410, 19722), (413, 19731), (423, 19761), (430, 19803), (431, 19806), (442, 19863), (443, 19869), (444, 19878), (452, 19911), (456, 19923), (457, 19926), (468, 19983), (470, 19989), (475, 20010), (480, 20040), (485, 20070), (491, 20088), (502, 20136), (508, 20160), (512, 20178), (515, 20187), (518, 20202), (521, 20223), (528, 20253), (537, 20286), (538, 20292), (539, 20295), (544, 20307), (552, 20328), (567, 20379), (568, 20388), (572, 20418), (574, 20424), (584, 20457), (587, 20466), (597, 20496), (600, 20505), (603, 20517), (609, 20535), (615, 20556), (623, 20583), (625, 20589), (626, 20592), (629, 20607), (636, 20634), (644, 20664), (653, 20700), (679, 20802), (694, 20865), (702, 20901), (703, 20904), (709, 20925), (714, 20943), (724, 20982), (726, 20988), (730, 21003), (734, 21024), (735, 21036), (759, 21168), (781, 21231), (784, 21258), (787, 21276), (796, 21324), (797, 21330), (807, 21402), (826, 21480), (832, 21516), (836, 21534), (843, 21558), (847, 21582), (855, 21627), (859, 21648), (911, 21870),

Gene: YoshiYama_21 Start: 17434, Stop: 21912, Start Num: 19

Candidate Starts for YoshiYama_21:

(Start: 18 @17413 has 2 MA's), (Start: 19 @17434 has 170 MA's), (Start: 23 @17464 has 3 MA's), (26, 17497), (30, 17518), (49, 17653), (51, 17662), (68, 17749), (71, 17779), (78, 17860), (79, 17902), (80, 17920), (84, 17962), (89, 18049), (93, 18088), (96, 18103), (99, 18118), (105, 18151), (117, 18229), (119, 18244), (126, 18292), (128, 18307), (133, 18349), (135, 18391), (137, 18403), (141, 18445), (145, 18478), (151, 18511), (164, 18619), (174, 18685), (182, 18718), (184, 18727), (185, 18730), (187, 18748), (193, 18787), (246, 19030), (259, 19075), (260, 19084), (302, 19243), (310, 19276), (317, 19303), (344, 19432), (358, 19510), (367, 19555), (370, 19564), (374, 19576), (377, 19588), (383, 19615), (386, 19633), (392, 19654), (405, 19729), (409, 19750), (410, 19753), (413, 19762), (423, 19792), (430, 19834), (442, 19894), (443, 19900), (444, 19909), (452, 19942), (456, 19954), (457, 19957), (468, 20014), (470, 20020), (475, 20041), (480, 20071), (485, 20101), (491, 20119), (502, 20167), (508, 20191), (512, 20209), (515, 20218), (521, 20254), (528, 20284), (537, 20317), (538, 20323), (539, 20326), (544, 20338), (552, 20359), (567, 20410), (568, 20419), (574, 20455), (578, 20473), (584, 20488), (587, 20497), (600, 20536), (603, 20548), (615, 20587), (623, 20614), (625, 20620), (626, 20623), (629, 20638), (636, 20665), (644, 20695), (653, 20731), (679, 20833), (694, 20896), (702, 20932), (703, 20935), (709, 20956), (714, 20974), (724, 21013), (726, 21019), (730, 21034), (734, 21055), (735, 21067), (759, 21199), (781, 21262), (784, 21289), (787, 21307), (796, 21355), (797, 21361), (807, 21433), (826, 21511), (832, 21547), (836, 21565), (843, 21589), (847, 21613), (855, 21658), (859, 21679), (911, 21901),

Gene: Yotsuba_26 Start: 20608, Stop: 25152, Start Num: 23

Candidate Starts for Yotsuba_26:

(Start: 19 @20575 has 170 MA's), (Start: 23 @20608 has 3 MA's), (45, 20755), (57, 20845), (58, 20848), (79, 21043), (87, 21169), (96, 21244), (105, 21292), (110, 21334), (122, 21454), (136, 21571), (146, 21667), (177, 21871), (180, 21883), (193, 21964), (221, 22099), (238, 22192), (254, 22255), (264, 22294), (280, 22357), (286, 22372), (333, 22576), (344, 22627), (360, 22714), (366, 22744), (369, 22756), (370, 22759), (374, 22771), (377, 22783), (383, 22810), (393, 22852), (400, 22897), (420, 22978), (422, 22984), (426, 23008), (428, 23014), (441, 23080), (446, 23116), (453, 23140), (462, 23173), (466, 23200), (468, 23209), (472, 23227), (477, 23248), (482, 23281), (489, 23308), (490, 23311), (502, 23362), (510, 23392), (512, 23404), (528, 23479), (534, 23500), (536, 23506), (540, 23521), (567, 23605), (568, 23614), (571, 23641), (587, 23692), (599, 23728), (615, 23782), (636, 23860), (660, 23950), (668, 23980), (676, 24016), (684, 24052), (694, 24091), (708, 24148),

(714, 24169), (720, 24193), (721, 24196), (724, 24208), (726, 24214), (744, 24304), (750, 24334), (751, 24337), (752, 24340), (760, 24400), (764, 24415), (773, 24469), (787, 24568), (806, 24688), (807, 24694), (830, 24796), (832, 24808), (834, 24817), (856, 24913), (857, 24916), (911, 25141),

Gene: Zeina_26 Start: 19202, Stop: 23839, Start Num: 19

Candidate Starts for Zeina_26:

(Start: 18 @19181 has 2 MA's), (Start: 19 @19202 has 170 MA's), (Start: 23 @19232 has 3 MA's), (30, 19286), (31, 19295), (61, 19565), (62, 19568), (71, 19625), (72, 19646), (78, 19706), (79, 19748), (84, 19808), (88, 19883), (96, 19949), (99, 19964), (105, 19997), (109, 20036), (110, 20039), (117, 20075), (119, 20090), (126, 20138), (157, 20411), (164, 20465), (167, 20474), (175, 20534), (185, 20576), (194, 20636), (195, 20642), (198, 20651), (203, 20666), (204, 20675), (224, 20774), (225, 20786), (226, 20795), (228, 20807), (301, 21092), (313, 21152), (317, 21161), (344, 21302), (351, 21350), (356, 21374), (358, 21380), (367, 21425), (370, 21434), (377, 21458), (381, 21476), (391, 21521), (392, 21524), (395, 21533), (405, 21599), (416, 21641), (420, 21653), (423, 21662), (426, 21683), (437, 21734), (442, 21764), (444, 21779), (455, 21821), (460, 21839), (469, 21887), (470, 21890), (486, 21974), (507, 22055), (510, 22064), (520, 22115), (528, 22151), (537, 22184), (539, 22193), (544, 22205), (552, 22226), (554, 22232), (559, 22253), (567, 22277), (568, 22286), (571, 22313), (584, 22355), (585, 22358), (586, 22361), (587, 22364), (603, 22415), (610, 22436), (615, 22454), (623, 22481), (642, 22556), (646, 22574), (653, 22598), (666, 22643), (672, 22676), (673, 22679), (674, 22682), (679, 22700), (708, 22820), (709, 22823), (714, 22841), (733, 22919), (737, 22943), (752, 23012), (759, 23066), (776, 23153), (781, 23195), (787, 23240), (796, 23288), (823, 23423), (826, 23444), (830, 23468), (843, 23519), (856, 23588), (859, 23606),

Gene: Zeph_33 Start: 23999, Stop: 29110, Start Num: 19

Candidate Starts for Zeph_33:

(Start: 19 @23999 has 170 MA's), (Start: 23 @24029 has 3 MA's), (28, 24074), (49, 24218), (60, 24278), (61, 24284), (71, 24344), (72, 24365), (79, 24467), (87, 24593), (90, 24629), (96, 24668), (105, 24716), (110, 24758), (117, 24830), (122, 24878), (137, 25004), (145, 25079), (146, 25091), (151, 25112), (159, 25184), (163, 25217), (164, 25220), (184, 25328), (233, 25580), (260, 25685), (272, 25754), (277, 25775), (291, 25856), (293, 25859), (300, 25886), (308, 25925), (313, 25952), (340, 26093), (344, 26114), (354, 26177), (355, 26183), (360, 26201), (361, 26207), (371, 26249), (375, 26261), (377, 26270), (386, 26315), (396, 26357), (398, 26366), (399, 26378), (401, 26387), (402, 26396), (426, 26495), (430, 26516), (433, 26525), (438, 26549), (439, 26552), (451, 26621), (452, 26624), (455, 26633), (460, 26651), (461, 26654), (463, 26666), (467, 26687), (469, 26693), (470, 26696), (475, 26717), (480, 26747), (482, 26762), (485, 26777), (499, 26825), (502, 26837), (504, 26843), (505, 26846), (507, 26858), (508, 26861), (520, 26918), (533, 26972), (539, 26996), (545, 27008), (547, 27011), (560, 27056), (561, 27059), (566, 27074), (567, 27077), (568, 27086), (569, 27101), (570, 27107), (571, 27113), (576, 27134), (577, 27137), (581, 27149), (584, 27164), (587, 27173), (593, 27194), (595, 27206), (601, 27227), (609, 27254), (619, 27287), (621, 27293), (626, 27311), (633, 27341), (643, 27380), (662, 27449), (709, 27641), (729, 27716), (746, 27806), (771, 27950), (780, 28013), (790, 28079), (795, 28112), (798, 28124), (805, 28187), (813, 28208), (815, 28220), (819, 28241), (831, 28298), (849, 28382), (865, 28469), (871, 28487), (879, 28517), (886, 28535), (887, 28538), (889, 28544), (890, 28550), (898, 28577), (915, 28688), (923, 28763), (938, 28865), (943, 28889), (961, 29006), (975, 29096),

Gene: Zippen_26 Start: 20476, Stop: 25059, Start Num: 19

Candidate Starts for Zippen_26:

(Start: 18 @20455 has 2 MA's), (Start: 19 @20476 has 170 MA's), (Start: 23 @20506 has 3 MA's), (40, 20617), (46, 20665), (49, 20695), (60, 20755), (66, 20779), (68, 20791), (71, 20821), (79, 20944), (80, 20962), (84, 21004), (91, 21112), (96, 21145), (99, 21160), (105, 21193), (117, 21271), (119, 21286), (121, 21307), (122, 21319), (133, 21391), (145, 21520), (151, 21553), (164, 21661), (167, 21670), (185, 21772), (207, 21883), (210, 21895), (215, 21928), (222, 21958), (239, 22051), (251, 22084), (260, 22126), (283, 22222), (306, 22324), (308, 22330), (311, 22345), (317, 22366), (344, 22510),

(350, 22552), (352, 22564), (353, 22567), (367, 22633), (370, 22642), (371, 22645), (377, 22666),
(378, 22669), (392, 22732), (394, 22738), (405, 22807), (408, 22822), (416, 22849), (418, 22855),
(423, 22870), (425, 22888), (426, 22891), (430, 22912), (442, 22972), (444, 22987), (445, 22990),
(450, 23014), (451, 23017), (452, 23020), (480, 23149), (482, 23164), (483, 23167), (487, 23185),
(489, 23191), (491, 23197), (494, 23206), (502, 23242), (503, 23245), (505, 23251), (512, 23284),
(523, 23338), (524, 23341), (528, 23359), (539, 23401), (544, 23416), (550, 23425), (552, 23437),
(553, 23440), (556, 23452), (557, 23458), (559, 23464), (560, 23467), (568, 23497), (578, 23551),
(579, 23554), (586, 23572), (587, 23575), (588, 23578), (601, 23617), (615, 23665), (634, 23737),
(635, 23740), (636, 23743), (642, 23767), (643, 23770), (648, 23791), (659, 23830), (660, 23833),
(672, 23887), (684, 23935), (712, 24043), (722, 24085), (724, 24091), (725, 24094), (733, 24130),
(754, 24232), (756, 24253), (762, 24289), (768, 24328), (772, 24349), (781, 24406), (789, 24463),
(816, 24607), (826, 24655), (830, 24679), (837, 24712), (840, 24724), (843, 24730), (847, 24754),
(856, 24799), (862, 24826), (906, 25009), (911, 25039),