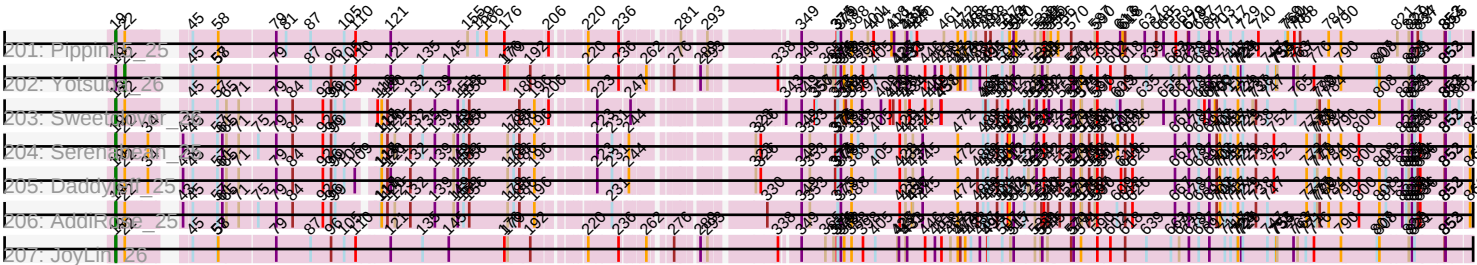


Zoomed Pham 275869



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 275869 Report

This analysis was run 02/07/26 on database version 634.

Pham number 275869 has 255 members, 59 are drafts.

Phages represented in each track:

- Track 1 : Xenomorph_20
- Track 2 : Benllo_20
- Track 3 : Mooshroom_21, Kardesai_20, Hankly_20
- Track 4 : Elsa_22, Nason_22, Arcadia_22
- Track 5 : BenitoAntonio_22
- Track 6 : KeaneyLin_20, GoCrazy_20
- Track 7 : Circum_22
- Track 8 : Bowling_22, Dynamite_21, NapoleonB_21
- Track 9 : YoshiYama_21
- Track 10 : Correa_21
- Track 11 : Tribby_22
- Track 12 : Cheesy_22
- Track 13 : JEGGS_21
- Track 14 : Mudcat_21
- Track 15 : Heisenberger_21
- Track 16 : Brunswick_26
- Track 17 : CastorTray_28
- Track 18 : Hemma_23
- Track 19 : Dinallo_27, Tenno_27
- Track 20 : Nightmare_27, LucySwiss_26
- Track 21 : Synopsis_25
- Track 22 : Niktson_26, ElephantMan_26
- Track 23 : AreFloNak_26, Nivinsha_26
- Track 24 : Darby_26
- Track 25 : Issa_26
- Track 26 : Tatanka_26
- Track 27 : CapnMurica_26
- Track 28 : ScienceWizSam_28
- Track 29 : Westerlin_27
- Track 30 : Acai_26
- Track 31 : Trustiboi_27
- Track 32 : MiniBagel_26
- Track 33 : Breylor17_27
- Track 34 : Teacup_26
- Track 35 : DevitoJr_26
- Track 36 : Gordon_26
- Track 37 : LilHuddy_27

- Track 38 : Bouchard_27
- Track 39 : Chlochlo_27
- Track 40 : Shepard_27
- Track 41 : Phaby_27
- Track 42 : Giantsbane_27
- Track 43 : Tipton_27
- Track 44 : Tokki_27
- Track 45 : Ingrid_26, Loretta_26
- Track 46 : Anandi_29
- Track 47 : MediumFry_24
- Track 48 : Caterpillar_24
- Track 49 : Makai_26, Truckee_25
- Track 50 : TrixiePhattel_26
- Track 51 : Biscute_27
- Track 52 : Barbonzobean_29
- Track 53 : Altjira_25
- Track 54 : Phaila_25
- Track 55 : Navi1117_26
- Track 56 : Leathea_26
- Track 57 : Stardrop_27
- Track 58 : Kinny_28
- Track 59 : PoeMe_27
- Track 60 : KevinMinion_26
- Track 61 : Renaldo_31
- Track 62 : BarbieDoll_29
- Track 63 : Muglass_28
- Track 64 : Tenney120_26
- Track 65 : Mardi_27
- Track 66 : Argan_25
- Track 67 : Uzumaki_26
- Track 68 : GantcherGoblin_25
- Track 69 : Zeina_26
- Track 70 : Lewando_29
- Track 71 : Inked_28
- Track 72 : Zippen_26
- Track 73 : Jeremy4pt0_22
- Track 74 : Natasha_23
- Track 75 : Sprinkle_23
- Track 76 : ProfFrink_23, MrAaronian_23, Djungelskog_23
- Track 77 : Stayer_23, BronxBay_23
- Track 78 : Sporto_24
- Track 79 : StarLord_23, Sloopyjoe_23
- Track 80 : Boog_23
- Track 81 : Spain_22
- Track 82 : RustyBoy_23
- Track 83 : Salk_23, Linda_23
- Track 84 : Raunak_23
- Track 85 : Onestar_23
- Track 86 : DoctorPepper_23
- Track 87 : PowellDog_24
- Track 88 : Shiba_23
- Track 89 : Egad_23
- Track 90 : HerbBucket_22

- Track 91 : Michelle_23
- Track 92 : Espio_24, FrodoSwaggins_23, Popy_23
- Track 93 : Indigenous_23, Jaylociraptor_23
- Track 94 : Maya_23
- Track 95 : Meibysrarus_23
- Track 96 : Hoshi_23, Esketit_23
- Track 97 : HazuAndZazu_23
- Track 98 : TonyStarch_23
- Track 99 : Namu_23, Rima_23
- Track 100 : OlympicHelado_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 : IceWarrior_23
- Track 108 : Madamoto_23
- Track 109 : FidgetOrca_23
- Track 110 : GirlPower_22
- Track 111 : Wigberry_24
- 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 : Kardashian_22
- Track 129 : ClubPenguin_22
- Track 130 : Pepy6_035
- Track 131 : Poco6_036
- Track 132 : PerroGrande22_39
- Track 133 : ArtetaBall_33
- Track 134 : Figliar_32
- Track 135 : OhMyWard_32
- Track 136 : Madvan_32
- Track 137 : Vardy_32
- Track 138 : JulesRay_29, Football_30, Bugg_30
- Track 139 : Phepper_32
- Track 140 : Schwartz33_33
- Track 141 : Perkunas_31, Talon44_30
- Track 142 : Blanky_32

- Track 143 : AlainaMarie_32, EndAve_32
- Track 144 : MajinBuu_32
- Track 145 : Luthien_33, Nithya_32
- Track 146 : Hortihabitatio_32
- Track 147 : Kerry_29, Odesza_29, Gill_29, Tanis_29, Gravy_29
- Track 148 : Runhaar_32, Burley_32
- Track 149 : Zeph_33
- Track 150 : Rickmore_31
- Track 151 : Chickenjars_32
- Track 152 : Duffington_32
- Track 153 : Hydrus_33
- Track 154 : TenaciousP_33, Jodelie19_33
- Track 155 : Dancer_29
- Track 156 : CWormy_32
- Track 157 : FortCran_29, Artorias_29
- Track 158 : Pherobrine_31
- Track 159 : Citrus_31
- Track 160 : Tairn4Wing_31
- Track 161 : Gusicorn_32, PestoPenguin_35, BetterYeti_32, Aloe25_35
- Track 162 : Kenosha_32
- Track 163 : Avazak_29
- Track 164 : Glintora_32
- Track 165 : Capybara_29
- Track 166 : Demure_31
- Track 167 : Crocheter_32
- Track 168 : Mysticmoon_32
- Track 169 : Fazel_30
- Track 170 : Arataki_31
- Track 171 : Tonaltzin_34
- Track 172 : Conley_30
- Track 173 : ChickyNuggy_30
- Track 174 : BluerMoon_32
- Track 175 : Petito_31
- Track 176 : Secretariat_30
- Track 177 : Dialga_33
- Track 178 : Trufflozitus_32
- 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 : Untouchable_32
- Track 186 : Aflac_32
- Track 187 : Roney_29
- Track 188 : Nadmeg_33
- Track 189 : Damascus_24
- Track 190 : DizzyRudy_24
- Track 191 : Count_30
- Track 192 : Camille_24
- Track 193 : Arzan_22
- Track 194 : Jazzy4900_24, Sunny4976_23
- Track 195 : Kureo_41

- Track 196 : Marianna39_41
- Track 197 : JeNeSaisPas_39
- Track 198 : Paella_40, Qui_40, Elver_40
- Track 199 : Gandionco_41
- Track 200 : Eevee_26
- Track 201 : Pippin15_25
- Track 202 : Yotsuba_26
- Track 203 : Sweetclover_26
- Track 204 : Serenabean_25
- Track 205 : Daddyjeff_25
- Track 206 : AddiRose_25
- Track 207 : 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 159 of the 196 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, 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, 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, Cappybara_29, CastorTray_28, Caterpillar_24, Cheesy_22, ChickyNugget_30, Chickenjars_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, Hydus_33, Ingrid_26, Inked_28, Issa_26, JEGGS_21, Jodelie19_33, JoyLin_26, JulesRay_29, Kardesai_20, KeaneyLin_20, Kenosha_32, Kerry_29, KevinMinion_26, Kinny_28, Leatheia_26, Lewando_29, LilHuddy_27, Linda_23, Loretta_26, LucySwiss_26, Luthien_33, Madvan_32, MajinBuu_32, Makai_26, MediumFry_24, Michelle_23, MiniBagel_26, Monse_19, Mooshroom_21, Mossy_33, MrAaronian_23, Mudcat_21, Muglass_28, Mysticmoon_32, 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, Petito_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, Stardrop_27, Stayer_23, Sweetclover_26, Synopsis_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_32, 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:

- Anandi_29, BarbieDoll_29, Egad_23, Gandionco_41, JeNeSaisPas_39, Jeremy4pt0_22, 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_24, FidgetOrca_23, FrodoSwaggins_23, FromIndy_22, GirlPower_22, HazuAndZazu_23, Hoshi_23, IceWarrior_23, Indigenous_23, Jaylociraptor_23, Jazzy4900_24, Kardashian_22, LibertyBell_21, Madamato_23, 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_24,

Summary by start number:

Start 2:

- Found in 35 of 255 (13.7%) of genes in pham
- Manual Annotations of this start: 31 of 196
- 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_24 (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_24 (BI1),

Start 4:

- Found in 3 of 255 (1.2%) 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), Jazzy4900_24 (FI), Sunny4976_23 (FI),

Start 16:

- Found in 1 of 255 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 196
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ClubPenguin_22 (BI7),

Start 18:

- Found in 128 of 255 (50.2%) of genes in pham
- Manual Annotations of this start: 2 of 196

- 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 216 of 255 (84.7%) of genes in pham
- Manual Annotations of this start: 159 of 196
- Called 92.1% 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), 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), 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), Capybara_29 (DJ), CastorTray_28 (AU1), Caterpillar_24 (AU4), Cheesy_22 (AM), ChickyNugget_30 (DJ), Chickenjars_32 (DJ), Chlocho_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), 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), 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_32 (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), Petito_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), Stardrop_27 (AU6), Stayer_23 (AW), 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_32 (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 22:

- Found in 216 of 255 (84.7%) of genes in pham
- Manual Annotations of this start: 3 of 196
- Called 5.6% of time when present
- Phage (with cluster) where this start called: Anandi_29 (AU4), Egad_23 (AW), Gandionco_41 (FK), JeNeSaisPas_39 (FK), Jeremy4pt0_22 (AW), 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 49 of 255 (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),

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 20 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 7 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 2 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 11 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 16 times for cluster AW.
- Start number 22 was manually annotated 2 times for cluster AW.

Info for manual annotations of cluster BI1:

- Start number 2 was manually annotated 23 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 9 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 1 time 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 55 times 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 22 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 159 MA's), (Start: 22 @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), (118, 20926), (121, 20959), (125, 20974), (131, 21022), (150, 21193), (165, 21307), (166, 21310), (172, 21358), (193, 21472), (200, 21496), (203, 21511), (206, 21523), (221, 21598), (237, 21691), (244, 21706), (247, 21712), (257, 21730), (277, 21802), (291, 21868), (314, 21970), (315, 21976), (323, 22009), (324, 22012), (329, 22039), (349, 22153), (358, 22210), (360, 22222), (372, 22276), (375, 22285), (376, 22288), (382, 22309), (391, 22354), (397, 22375), (414, 22471), (421, 22492), (428, 22513), (430, 22531), (431, 22534), (442, 22585), (447, 22615), (449, 22630), (451, 22642), (481, 22762), (485, 22792), (504, 22870), (507,

22885), (510, 22894), (512, 22906), (517, 22927), (520, 22936), (528, 22981), (529, 22984), (530, 22993), (537, 23014), (544, 23044), (550, 23056), (555, 23077), (557, 23083), (562, 23104), (570, 23128), (571, 23137), (581, 23191), (587, 23206), (590, 23215), (603, 23254), (606, 23266), (608, 23272), (616, 23296), (618, 23305), (638, 23380), (639, 23383), (643, 23401), (661, 23467), (664, 23476), (676, 23530), (677, 23533), (708, 23659), (709, 23662), (715, 23683), (723, 23716), (725, 23725), (738, 23785), (743, 23806), (749, 23839), (757, 23872), (765, 23929), (775, 23989), (780, 24013), (790, 24091), (792, 24103), (811, 24229), (819, 24271), (827, 24319), (834, 24352), (837, 24364), (839, 24370), (842, 24391), (843, 24394), (844, 24400), (852, 24439), (857, 24466), (862, 24493), (900, 24652), (904, 24679),

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

Candidate Starts for AddiRose_25:

(Start: 19 @18536 has 159 MA's), (Start: 22 @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), (117, 19343), (118, 19346), (120, 19367), (125, 19394), (132, 19451), (139, 19541), (149, 19610), (151, 19625), (153, 19646), (156, 19667), (179, 19808), (183, 19829), (186, 19850), (196, 19904), (231, 20093), (330, 20480), (349, 20606), (353, 20636), (375, 20738), (379, 20750), (388, 20789), (428, 20966), (431, 20987), (436, 21011), (437, 21014), (445, 21050), (472, 21179), (486, 21251), (489, 21272), (495, 21290), (504, 21323), (507, 21341), (512, 21362), (514, 21368), (517, 21383), (525, 21422), (533, 21458), (540, 21482), (542, 21491), (546, 21506), (558, 21548), (570, 21590), (571, 21599), (574, 21626), (575, 21629), (582, 21656), (587, 21668), (590, 21677), (609, 21737), (618, 21767), (626, 21794), (667, 21950), (679, 22001), (687, 22037), (697, 22076), (702, 22103), (706, 22115), (711, 22133), (717, 22154), (724, 22181), (729, 22199), (738, 22247), (747, 22289), (772, 22433), (777, 22457), (779, 22466), (780, 22475), (784, 22508), (790, 22553), (800, 22607), (808, 22679), (813, 22703), (823, 22757), (825, 22772), (827, 22781), (829, 22793), (831, 22802), (834, 22814), (836, 22823), (852, 22901), (853, 22904), (868, 22976), (905, 23129),

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

Candidate Starts for Aflac_32:

(Start: 19 @23512 has 159 MA's), (Start: 22 @23542 has 3 MA's), (27, 23587), (49, 23731), (61, 23797), (71, 23857), (72, 23878), (79, 23980), (87, 24106), (90, 24142), (96, 24181), (105, 24229), (110, 24271), (116, 24343), (121, 24391), (136, 24517), (144, 24592), (145, 24604), (150, 24625), (162, 24730), (163, 24733), (206, 24955), (219, 25021), (234, 25111), (243, 25147), (261, 25198), (269, 25246), (273, 25258), (304, 25402), (313, 25441), (319, 25468), (349, 25630), (356, 25678), (359, 25693), (360, 25699), (365, 25717), (376, 25765), (391, 25831), (403, 25882), (404, 25894), (407, 25912), (420, 25966), (431, 26011), (435, 26032), (438, 26041), (442, 26062), (446, 26083), (456, 26137), (457, 26140), (460, 26149), (466, 26170), (468, 26182), (473, 26203), (475, 26209), (479, 26227), (485, 26263), (490, 26293), (504, 26341), (507, 26353), (509, 26359), (510, 26362), (512, 26374), (513, 26377), (518, 26398), (525, 26434), (538, 26488), (539, 26491), (544, 26512), (551, 26524), (552, 26527), (564, 26575), (569, 26590), (570, 26593), (571, 26602), (573, 26623), (579, 26650), (580, 26653), (586, 26677), (590, 26689), (595, 26710), (597, 26722), (600, 26731), (604, 26743), (612, 26770), (622, 26803), (624, 26809), (629, 26827), (642, 26881), (646, 26896), (665, 26965), (691, 27076), (720, 27187), (732, 27232), (749, 27322), (774, 27466), (783, 27529), (786, 27556), (798, 27628), (801, 27640), (802, 27649), (807, 27703), (812, 27724), (814, 27736), (845, 27898), (860, 27985), (865, 28003), (874, 28033), (881, 28051), (882, 28054), (884, 28066), (892, 28093), (909, 28204), (914, 28267), (917, 28279), (923, 28327), (932, 28381), (938, 28408), (955, 28522), (969, 28612),

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

Candidate Starts for AlainaMarie_32:

(Start: 19 @23499 has 159 MA's), (Start: 22 @23529 has 3 MA's), (27, 23574), (49, 23718), (61, 23784), (71, 23844), (72, 23865), (79, 23967), (86, 24057), (87, 24093), (90, 24129), (96, 24168), (105,

24216), (110, 24258), (116, 24330), (121, 24378), (136, 24504), (144, 24579), (145, 24591), (150, 24612), (162, 24717), (163, 24720), (206, 24942), (219, 25008), (220, 25011), (231, 25080), (234, 25098), (261, 25185), (275, 25254), (297, 25356), (298, 25359), (304, 25386), (313, 25425), (319, 25452), (349, 25614), (356, 25662), (360, 25683), (365, 25701), (367, 25716), (376, 25749), (391, 25815), (402, 25863), (403, 25866), (406, 25887), (407, 25896), (420, 25950), (431, 25995), (435, 26016), (438, 26025), (445, 26058), (446, 26067), (449, 26091), (456, 26121), (457, 26124), (460, 26133), (463, 26145), (466, 26154), (468, 26166), (473, 26187), (475, 26193), (485, 26247), (490, 26277), (504, 26325), (507, 26337), (509, 26343), (510, 26346), (513, 26361), (518, 26382), (525, 26418), (538, 26472), (539, 26475), (542, 26487), (544, 26496), (551, 26508), (552, 26511), (555, 26526), (562, 26553), (564, 26559), (569, 26574), (570, 26577), (571, 26586), (572, 26601), (573, 26607), (577, 26622), (579, 26634), (580, 26637), (590, 26673), (595, 26694), (597, 26706), (600, 26715), (604, 26727), (612, 26754), (619, 26778), (622, 26787), (624, 26793), (629, 26811), (646, 26880), (665, 26949), (701, 27105), (749, 27306), (774, 27450), (783, 27513), (786, 27540), (798, 27612), (801, 27624), (802, 27633), (807, 27687), (812, 27708), (814, 27720), (845, 27882), (860, 27969), (865, 27987), (874, 28017), (881, 28035), (882, 28038), (884, 28050), (892, 28077), (909, 28188), (917, 28263), (923, 28311), (932, 28365), (938, 28392), (955, 28506), (969, 28596),

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

Candidate Starts for Aloe25_35:

(Start: 19 @23289 has 159 MA's), (Start: 22 @23319 has 3 MA's), (27, 23364), (49, 23508), (61, 23574), (71, 23634), (72, 23655), (79, 23757), (87, 23883), (90, 23919), (96, 23958), (101, 23985), (105, 24006), (110, 24048), (121, 24168), (134, 24282), (136, 24294), (144, 24369), (150, 24402), (162, 24507), (163, 24510), (231, 24870), (234, 24888), (275, 25044), (297, 25146), (298, 25149), (304, 25176), (313, 25215), (319, 25242), (324, 25263), (328, 25287), (349, 25404), (359, 25467), (360, 25473), (365, 25491), (366, 25497), (372, 25527), (380, 25551), (391, 25605), (398, 25629), (402, 25653), (403, 25656), (406, 25677), (407, 25686), (417, 25731), (420, 25740), (431, 25785), (435, 25806), (438, 25815), (439, 25821), (442, 25836), (444, 25842), (446, 25857), (456, 25911), (457, 25914), (460, 25923), (463, 25935), (466, 25944), (468, 25956), (473, 25977), (475, 25983), (481, 26007), (485, 26037), (487, 26052), (504, 26115), (507, 26127), (509, 26133), (510, 26136), (512, 26148), (513, 26151), (525, 26208), (538, 26262), (539, 26265), (544, 26286), (551, 26298), (552, 26301), (564, 26349), (569, 26364), (570, 26367), (571, 26376), (572, 26391), (573, 26397), (579, 26424), (580, 26427), (582, 26433), (590, 26463), (595, 26484), (597, 26496), (600, 26505), (604, 26517), (612, 26544), (622, 26577), (624, 26583), (629, 26601), (636, 26631), (665, 26739), (686, 26829), (691, 26850), (720, 26961), (732, 27006), (743, 27063), (749, 27096), (774, 27240), (783, 27303), (793, 27369), (798, 27402), (801, 27414), (807, 27477), (812, 27498), (814, 27510), (818, 27531), (845, 27672), (860, 27759), (865, 27777), (874, 27807), (881, 27825), (882, 27828), (883, 27834), (884, 27840), (892, 27867), (909, 27978), (914, 28041), (917, 28053), (927, 28122), (932, 28155), (937, 28179), (955, 28296), (969, 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 159 MA's), (Start: 22 @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), (116, 20569), (118, 20584), (125, 20632), (162, 20956), (163, 20959), (166, 20968), (174, 21028), (184, 21070), (193, 21130), (194, 21136), (197, 21145), (202, 21160), (203, 21169), (223, 21268), (224, 21280), (225, 21289), (226, 21301), (309, 21586), (324, 21655), (349, 21796), (356, 21844), (363, 21874), (372, 21919), (375, 21928), (382, 21952), (386, 21970), (396, 22015), (397, 22018), (400, 22027), (410, 22093), (421, 22135), (428, 22156), (431, 22177), (442, 22228), (447, 22258), (449, 22273), (460, 22315), (465, 22333), (475, 22381), (476, 22384), (486, 22441), (491, 22468), (512, 22549), (515, 22558), (525, 22609), (533, 22645), (542, 22678), (544, 22687), (550, 22699), (555, 22720), (562, 22747), (570, 22771), (571, 22780), (587, 22849), (588, 22852), (589, 22855), (590, 22858), (600, 22888), (606, 22909), (613, 22930), (618, 22948), (621, 22957), (626, 22975), (641, 23035), (649,

23068), (656, 23092), (669, 23137), (675, 23170), (676, 23173), (677, 23176), (682, 23194), (711, 23314), (712, 23317), (717, 23335), (719, 23344), (723, 23359), (739, 23434), (740, 23437), (755, 23506), (762, 23560), (765, 23572), (784, 23689), (790, 23734), (799, 23782), (820, 23917), (821, 23920), (823, 23938), (827, 23962), (839, 24013), (852, 24082), (855, 24100),

Gene: Anandi_29 Start: 20696, Stop: 25264, Start Num: 22

Candidate Starts for Anandi_29:

(Start: 18 @20645 has 2 MA's), (Start: 19 @20666 has 159 MA's), (Start: 22 @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), (116, 21461), (118, 21476), (121, 21509), (125, 21524), (126, 21533), (131, 21572), (150, 21743), (157, 21812), (158, 21815), (166, 21860), (171, 21902), (174, 21920), (183, 21959), (187, 21980), (188, 21983), (191, 22010), (203, 22061), (209, 22085), (231, 22211), (263, 22310), (295, 22445), (306, 22490), (323, 22568), (342, 22652), (349, 22703), (365, 22790), (370, 22817), (375, 22835), (382, 22859), (391, 22904), (397, 22925), (404, 22967), (410, 23000), (411, 23003), (428, 23063), (431, 23084), (449, 23180), (450, 23183), (455, 23207), (456, 23210), (467, 23249), (477, 23297), (481, 23312), (487, 23357), (488, 23360), (492, 23378), (494, 23384), (495, 23387), (507, 23435), (510, 23444), (511, 23450), (517, 23477), (528, 23531), (529, 23534), (533, 23552), (544, 23594), (550, 23609), (553, 23618), (555, 23630), (560, 23651), (562, 23657), (563, 23660), (566, 23669), (570, 23681), (571, 23690), (581, 23744), (582, 23747), (589, 23765), (590, 23768), (601, 23801), (603, 23807), (608, 23825), (610, 23831), (618, 23858), (629, 23894), (637, 23930), (639, 23936), (643, 23954), (645, 23960), (649, 23978), (657, 24005), (661, 24020), (670, 24050), (671, 24056), (676, 24083), (677, 24086), (687, 24128), (697, 24167), (708, 24212), (709, 24215), (725, 24278), (728, 24287), (738, 24338), (747, 24380), (748, 24389), (749, 24392), (752, 24404), (769, 24512), (784, 24599), (790, 24644), (791, 24647), (805, 24734), (813, 24794), (819, 24824), (827, 24872), (829, 24884), (831, 24893), (837, 24917), (852, 24992), (855, 25010), (857, 25019), (862, 25046), (900, 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 159 MA's), (Start: 22 @13546 has 3 MA's), (42, 13648), (45, 13699), (61, 13807), (79, 13990), (87, 14116), (90, 14152), (96, 14191), (110, 14281), (153, 14668), (176, 14818), (181, 14842), (193, 14914), (242, 15145), (277, 15223), (280, 15241), (281, 15244), (288, 15277), (313, 15385), (326, 15445), (349, 15526), (360, 15595), (372, 15649), (394, 15736), (395, 15739), (397, 15748), (416, 15850), (428, 15886), (431, 15904), (442, 15955), (464, 16057), (467, 16069), (470, 16084), (484, 16153), (485, 16162), (490, 16192), (503, 16237), (509, 16258), (516, 16288), (519, 16300), (520, 16303), (524, 16324), (525, 16333), (533, 16369), (542, 16402), (567, 16486), (574, 16531), (575, 16534), (576, 16537), (590, 16582), (600, 16612), (614, 16657), (618, 16672), (628, 16705), (633, 16726), (635, 16735), (637, 16744), (643, 16768), (644, 16771), (647, 16780), (652, 16801), (655, 16813), (663, 16840), (672, 16879), (677, 16900), (685, 16936), (687, 16942), (721, 17074), (723, 17083), (725, 17092), (728, 17101), (729, 17104), (732, 17116), (733, 17119), (734, 17128), (736, 17137), (755, 17230), (762, 17284), (790, 17392), (793, 17407), (800, 17446), (803, 17461), (824, 17605), (872, 17839), (893, 17914), (930, 18193), (931, 18196), (934, 18217), (941, 18265), (943, 18271), (958, 18379), (963, 18424), (967, 18451), (977, 18553), (987, 18706),

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

Candidate Starts for Arataki_31:

(Start: 19 @22605 has 159 MA's), (Start: 22 @22635 has 3 MA's), (27, 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), (121, 23484), (138, 23640), (144, 23685), (150, 23718), (162, 23823), (163, 23826), (173, 23892), (176, 23901), (203, 24036), (219, 24114), (234, 24204), (261, 24291), (269, 24339), (284, 24414), (304, 24495), (313,

24534), (319, 24561), (345, 24702), (349, 24723), (359, 24786), (360, 24792), (365, 24810), (366, 24816), (376, 24858), (380, 24870), (382, 24879), (391, 24924), (401, 24966), (403, 24975), (404, 24987), (406, 24996), (407, 25005), (420, 25059), (431, 25104), (435, 25125), (438, 25134), (443, 25158), (444, 25161), (445, 25167), (456, 25230), (457, 25233), (460, 25242), (463, 25254), (465, 25260), (466, 25263), (468, 25275), (473, 25296), (475, 25302), (476, 25305), (481, 25326), (485, 25356), (487, 25371), (490, 25386), (504, 25434), (507, 25446), (509, 25452), (510, 25455), (512, 25467), (513, 25470), (525, 25527), (538, 25581), (544, 25605), (551, 25617), (552, 25620), (563, 25665), (564, 25668), (569, 25683), (570, 25686), (571, 25695), (572, 25710), (573, 25716), (574, 25722), (579, 25743), (580, 25746), (584, 25758), (587, 25773), (590, 25782), (595, 25803), (597, 25815), (604, 25836), (612, 25863), (622, 25896), (624, 25902), (629, 25920), (636, 25950), (646, 25989), (665, 26058), (694, 26181), (712, 26250), (732, 26325), (749, 26415), (774, 26559), (783, 26622), (793, 26688), (798, 26721), (801, 26733), (807, 26796), (812, 26817), (814, 26829), (818, 26850), (845, 26991), (860, 27078), (865, 27096), (874, 27126), (881, 27144), (882, 27147), (884, 27159), (892, 27186), (909, 27297), (917, 27372), (927, 27441), (932, 27474), (937, 27498), (955, 27615), (969, 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 159 MA's), (Start: 22 @17700 has 3 MA's), (25, 17733), (30, 17754), (68, 17985), (71, 18015), (78, 18096), (79, 18138), (80, 18156), (84, 18198), (89, 18285), (96, 18339), (99, 18354), (105, 18387), (118, 18480), (125, 18528), (127, 18543), (132, 18585), (136, 18639), (144, 18714), (150, 18747), (163, 18855), (173, 18921), (181, 18954), (183, 18963), (184, 18966), (186, 18984), (246, 19266), (260, 19290), (266, 19320), (310, 19479), (324, 19539), (349, 19668), (356, 19716), (367, 19770), (370, 19782), (372, 19791), (375, 19800), (382, 19824), (391, 19869), (397, 19890), (410, 19965), (418, 19998), (428, 20028), (431, 20049), (435, 20070), (447, 20130), (448, 20136), (456, 20175), (457, 20178), (462, 20193), (476, 20256), (481, 20277), (485, 20307), (490, 20337), (496, 20355), (507, 20403), (513, 20427), (517, 20445), (520, 20454), (521, 20463), (523, 20469), (526, 20490), (533, 20520), (542, 20553), (543, 20559), (544, 20562), (550, 20574), (555, 20595), (570, 20646), (571, 20655), (575, 20685), (577, 20691), (587, 20724), (590, 20733), (600, 20763), (603, 20772), (606, 20784), (618, 20823), (626, 20850), (628, 20856), (629, 20859), (632, 20874), (639, 20901), (643, 20919), (647, 20931), (656, 20967), (682, 21069), (697, 21132), (705, 21168), (706, 21171), (708, 21177), (712, 21192), (717, 21210), (723, 21234), (727, 21249), (728, 21252), (733, 21270), (738, 21303), (743, 21324), (755, 21381), (762, 21435), (764, 21444), (784, 21498), (787, 21525), (790, 21543), (799, 21591), (800, 21597), (808, 21669), (823, 21747), (825, 21762), (833, 21801), (839, 21825), (851, 21894), (855, 21915), (879, 22008), (905, 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 159 MA's), (Start: 22 @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), (118, 20884), (121, 20917), (125, 20932), (131, 20980), (150, 21151), (165, 21265), (166, 21268), (193, 21430), (200, 21454), (203, 21469), (206, 21481), (221, 21556), (237, 21649), (244, 21664), (247, 21670), (257, 21688), (277, 21760), (287, 21811), (291, 21826), (298, 21856), (314, 21928), (315, 21934), (323, 21967), (324, 21970), (329, 21997), (349, 22111), (358, 22168), (360, 22180), (372, 22234), (375, 22243), (376, 22246), (382, 22267), (391, 22312), (397, 22333), (404, 22375), (407, 22393), (421, 22450), (428, 22471), (431, 22492), (447, 22573), (449, 22588), (450, 22591), (456, 22618), (457, 22621), (470, 22672), (485, 22750), (487, 22765), (488, 22768), (492, 22786), (494, 22792), (496, 22798), (499, 22807), (507, 22843), (510, 22852), (517, 22885), (528, 22939), (529, 22942), (533, 22960), (537, 22972), (544, 23002), (550, 23017), (553, 23026), (555, 23038), (560, 23059), (571, 23098), (582, 23155), (587, 23167), (590, 23176), (603, 23215), (606, 23227), (616, 23257), (618, 23266), (629, 23302), (638,

23341), (639, 23344), (643, 23362), (645, 23368), (661, 23428), (664, 23437), (676, 23491), (677, 23494), (680, 23503), (708, 23620), (709, 23623), (715, 23644), (723, 23677), (724, 23680), (725, 23686), (728, 23695), (734, 23722), (743, 23767), (757, 23833), (763, 23884), (765, 23890), (775, 23950), (787, 24034), (790, 24052), (792, 24064), (818, 24223), (819, 24232), (827, 24280), (834, 24313), (837, 24325), (839, 24331), (842, 24352), (843, 24355), (844, 24361), (852, 24400), (857, 24427), (900, 24613), (904, 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 159 MA's), (Start: 22 @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), (116, 19836), (118, 19851), (125, 19899), (145, 20097), (156, 20172), (163, 20226), (166, 20235), (174, 20295), (184, 20337), (193, 20397), (194, 20403), (197, 20412), (202, 20427), (203, 20436), (223, 20535), (224, 20547), (226, 20568), (309, 20853), (320, 20913), (324, 20922), (349, 21063), (356, 21111), (357, 21117), (361, 21135), (363, 21141), (372, 21186), (375, 21195), (382, 21219), (386, 21237), (396, 21282), (397, 21285), (400, 21294), (410, 21360), (421, 21402), (425, 21414), (428, 21423), (431, 21444), (442, 21495), (447, 21525), (449, 21540), (460, 21582), (465, 21600), (475, 21648), (476, 21651), (486, 21708), (512, 21816), (515, 21825), (525, 21876), (533, 21912), (542, 21945), (544, 21954), (550, 21966), (555, 21987), (562, 22014), (570, 22038), (571, 22047), (587, 22116), (588, 22119), (589, 22122), (590, 22125), (600, 22155), (606, 22176), (613, 22197), (618, 22215), (621, 22224), (626, 22242), (641, 22302), (649, 22335), (653, 22350), (655, 22356), (656, 22359), (669, 22404), (676, 22440), (677, 22443), (679, 22449), (682, 22461), (683, 22464), (711, 22581), (712, 22584), (717, 22602), (726, 22638), (736, 22680), (740, 22704), (755, 22773), (762, 22827), (765, 22839), (784, 22956), (790, 23001), (820, 23184), (823, 23205), (827, 23229), (839, 23280), (852, 23349), (853, 23352), (855, 23367),

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

Candidate Starts for ArtetaBall_33:

(Start: 19 @23642 has 159 MA's), (Start: 22 @23672 has 3 MA's), (27, 23717), (49, 23861), (61, 23927), (71, 23987), (72, 24008), (79, 24110), (87, 24236), (90, 24272), (96, 24311), (101, 24338), (105, 24359), (110, 24401), (119, 24500), (121, 24521), (136, 24647), (144, 24722), (145, 24734), (150, 24755), (162, 24860), (163, 24863), (231, 25223), (261, 25328), (275, 25397), (279, 25418), (297, 25499), (298, 25502), (304, 25529), (313, 25568), (319, 25595), (349, 25757), (356, 25805), (360, 25826), (365, 25844), (376, 25892), (380, 25904), (391, 25958), (403, 26009), (404, 26021), (406, 26030), (407, 26039), (431, 26138), (435, 26159), (438, 26168), (443, 26192), (444, 26195), (445, 26201), (456, 26264), (457, 26267), (460, 26276), (465, 26294), (466, 26297), (468, 26309), (473, 26330), (475, 26336), (476, 26339), (481, 26360), (485, 26390), (487, 26405), (490, 26420), (504, 26468), (507, 26480), (509, 26486), (510, 26489), (512, 26501), (513, 26504), (525, 26561), (538, 26615), (544, 26639), (551, 26651), (552, 26654), (563, 26699), (564, 26702), (569, 26717), (570, 26720), (571, 26729), (572, 26744), (573, 26750), (574, 26756), (579, 26777), (580, 26780), (584, 26792), (587, 26807), (590, 26816), (595, 26837), (597, 26849), (604, 26870), (612, 26897), (622, 26930), (624, 26936), (629, 26954), (636, 26984), (646, 27023), (712, 27284), (732, 27359), (749, 27449), (774, 27593), (783, 27656), (793, 27722), (798, 27755), (801, 27767), (807, 27830), (812, 27851), (814, 27863), (818, 27884), (828, 27941), (845, 28025), (860, 28112), (865, 28130), (874, 28160), (881, 28178), (882, 28181), (883, 28187), (884, 28193), (892, 28220), (909, 28331), (917, 28406), (927, 28475), (932, 28508), (937, 28532), (955, 28649), (969, 28739),

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

Candidate Starts for Artorias_29:

(Start: 19 @20505 has 159 MA's), (Start: 22 @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), (123, 21369), (124, 21372), (134, 21471), (137, 21495), (150, 21591), (162, 21696), (163, 21699), (174, 21768), (176, 21774), (177, 21780), (212, 21957), (223, 22008), (231, 22059), (243, 22113), (245, 22116), (304, 22368), (306, 22371), (321, 22446), (335, 22503), (347, 22587), (349, 22596), (362, 22671), (365, 22683), (367, 22698), (368, 22701), (373, 22722), (386, 22770), (391, 22797), (397, 22818), (400, 22827), (403, 22848), (404, 22860), (406, 22869), (407, 22878), (420, 22932), (421, 22935), (428, 22956), (435, 22998), (441, 23025), (444, 23034), (446, 23049), (447, 23058), (449, 23073), (451, 23085), (454, 23094), (463, 23127), (466, 23136), (484, 23220), (485, 23229), (487, 23244), (488, 23247), (492, 23265), (504, 23307), (510, 23328), (513, 23343), (515, 23349), (523, 23385), (525, 23400), (539, 23457), (542, 23469), (544, 23478), (551, 23490), (554, 23502), (555, 23508), (560, 23529), (564, 23541), (570, 23559), (571, 23568), (572, 23583), (573, 23589), (576, 23601), (586, 23643), (587, 23646), (590, 23655), (595, 23676), (597, 23688), (612, 23736), (615, 23745), (622, 23769), (624, 23775), (629, 23793), (630, 23802), (636, 23823), (654, 23892), (659, 23910), (665, 23931), (706, 24102), (720, 24153), (751, 24297), (762, 24366), (774, 24432), (782, 24483), (801, 24606), (807, 24669), (817, 24717), (818, 24723), (819, 24732), (828, 24780), (842, 24852), (854, 24912), (858, 24933), (859, 24936), (866, 24987), (869, 24996), (874, 25014), (882, 25035), (884, 25047), (901, 25140), (909, 25185), (917, 25260), (919, 25278), (921, 25299), (937, 25386), (954, 25497), (969, 25593),

Gene: Arzan_22 Start: 17242, Stop: 22302, Start Num: 4

Candidate Starts for Arzan_22:

(4, 17242), (6, 17272), (10, 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), (118, 18265), (120, 18286), (126, 18322), (131, 18361), (144, 18499), (150, 18532), (158, 18604), (160, 18625), (162, 18637), (163, 18640), (171, 18691), (178, 18724), (184, 18751), (186, 18769), (203, 18850), (211, 18949), (215, 18985), (220, 19021), (224, 19066), (245, 19171), (270, 19306), (295, 19468), (296, 19471), (301, 19531), (314, 19594), (315, 19600), (341, 19714), (349, 19768), (353, 19798), (361, 19840), (364, 19852), (374, 19897), (375, 19900), (378, 19909), (382, 19924), (391, 19969), (397, 19990), (400, 19999), (406, 20041), (428, 20128), (435, 20170), (449, 20245), (460, 20287), (473, 20347), (481, 20377), (496, 20455), (499, 20464), (505, 20494), (512, 20524), (533, 20620), (541, 20647), (542, 20653), (544, 20662), (550, 20674), (551, 20677), (555, 20695), (560, 20716), (570, 20746), (571, 20755), (582, 20812), (584, 20818), (590, 20833), (596, 20848), (603, 20872), (605, 20878), (613, 20905), (615, 20911), (618, 20923), (639, 21001), (641, 21010), (651, 21049), (652, 21052), (659, 21079), (667, 21106), (672, 21130), (685, 21187), (687, 21193), (688, 21202), (710, 21283), (725, 21343), (727, 21349), (728, 21352), (736, 21388), (738, 21403), (779, 21622), (790, 21709), (803, 21778), (818, 21880), (820, 21892), (823, 21913), (831, 21958), (835, 21976), (839, 21991), (844, 22021), (851, 22060), (902, 22276),

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

Candidate Starts for Avazak_29:

(Start: 19 @20512 has 159 MA's), (Start: 22 @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), (123, 21376), (124, 21379), (134, 21478), (137, 21502), (142, 21538), (150, 21598), (162, 21703), (163, 21706), (174, 21775), (176, 21781), (177, 21787), (212, 21964), (223, 22015), (231, 22066), (243, 22120), (245, 22123), (278, 22255), (284, 22294), (304, 22375), (306, 22378), (321, 22453), (335, 22510), (347, 22594), (349, 22603), (362, 22678), (365, 22690), (367, 22705), (368, 22708), (373, 22729), (386, 22777), (391, 22804), (397, 22825), (400, 22834), (403, 22855), (404, 22867), (406, 22876), (407, 22885), (421, 22942), (428, 22963), (431, 22984), (435, 23005), (441, 23032), (444, 23041), (446, 23056), (447, 23065), (449, 23080), (451, 23092), (454, 23101), (463, 23134), (466, 23143), (484, 23227), (485, 23236), (487, 23251), (492, 23272), (504, 23314), (510, 23335), (513, 23350), (523, 23392), (525, 23407), (539, 23464), (542, 23476), (544, 23485), (551, 23497), (554, 23509), (555, 23515), (560, 23536), (564, 23548), (567, 23557), (570, 23566), (571, 23575), (572, 23590), (573, 23596), (576, 23608), (582, 23632), (586, 23650),

(590, 23662), (595, 23683), (597, 23695), (612, 23743), (615, 23752), (622, 23776), (624, 23782), (625, 23785), (629, 23800), (630, 23809), (631, 23812), (636, 23830), (654, 23899), (665, 23938), (706, 24109), (720, 24160), (751, 24304), (762, 24373), (774, 24439), (782, 24490), (801, 24613), (807, 24676), (817, 24724), (818, 24730), (819, 24739), (828, 24787), (842, 24859), (854, 24919), (858, 24940), (859, 24943), (866, 24994), (869, 25003), (874, 25021), (882, 25042), (884, 25054), (901, 25147), (909, 25192), (917, 25267), (919, 25285), (921, 25306), (937, 25393), (954, 25504), (969, 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 159 MA's), (Start: 22 @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), (116, 21815), (118, 21830), (130, 21920), (136, 21989), (150, 22097), (156, 22151), (162, 22202), (163, 22205), (174, 22274), (184, 22316), (193, 22376), (194, 22382), (197, 22391), (202, 22406), (203, 22415), (219, 22493), (223, 22514), (224, 22526), (226, 22547), (290, 22754), (296, 22778), (309, 22832), (324, 22901), (349, 23042), (361, 23114), (363, 23120), (372, 23165), (374, 23171), (375, 23174), (382, 23198), (386, 23216), (397, 23264), (400, 23273), (421, 23381), (428, 23402), (431, 23423), (441, 23471), (447, 23504), (449, 23519), (465, 23579), (487, 23696), (512, 23795), (513, 23798), (525, 23855), (528, 23870), (530, 23882), (533, 23891), (542, 23924), (544, 23933), (550, 23945), (570, 24017), (571, 24026), (579, 24074), (587, 24095), (589, 24101), (590, 24104), (609, 24164), (618, 24194), (621, 24203), (643, 24290), (644, 24293), (645, 24296), (649, 24314), (653, 24329), (658, 24344), (661, 24356), (669, 24383), (676, 24419), (677, 24422), (679, 24428), (682, 24440), (694, 24494), (702, 24530), (712, 24563), (717, 24581), (723, 24605), (724, 24608), (730, 24629), (745, 24710), (752, 24740), (755, 24752), (762, 24806), (765, 24818), (784, 24935), (790, 24980), (803, 25049), (823, 25184), (827, 25208), (837, 25253), (839, 25259), (846, 25298), (852, 25328), (855, 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 159 MA's), (Start: 22 @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), (116, 21412), (118, 21427), (130, 21517), (136, 21586), (145, 21673), (150, 21694), (156, 21748), (162, 21799), (163, 21802), (174, 21871), (184, 21913), (193, 21973), (194, 21979), (197, 21988), (202, 22003), (203, 22012), (223, 22111), (224, 22123), (226, 22144), (290, 22351), (296, 22375), (309, 22429), (324, 22498), (349, 22636), (357, 22690), (361, 22708), (363, 22714), (372, 22759), (374, 22765), (375, 22768), (382, 22792), (386, 22810), (397, 22858), (400, 22867), (404, 22900), (421, 22975), (428, 22996), (431, 23017), (441, 23065), (447, 23098), (449, 23113), (465, 23173), (487, 23290), (512, 23389), (513, 23392), (525, 23449), (530, 23476), (533, 23485), (542, 23518), (544, 23527), (550, 23539), (555, 23560), (560, 23581), (562, 23587), (571, 23620), (575, 23650), (590, 23698), (600, 23728), (609, 23758), (618, 23788), (621, 23797), (643, 23884), (644, 23887), (645, 23890), (649, 23908), (653, 23923), (658, 23938), (669, 23977), (675, 24010), (677, 24016), (679, 24022), (682, 24034), (694, 24088), (702, 24124), (711, 24154), (712, 24157), (717, 24175), (723, 24199), (724, 24202), (745, 24304), (752, 24334), (755, 24346), (765, 24412), (784, 24529), (790, 24574), (823, 24778), (827, 24802), (837, 24847), (839, 24853), (846, 24892), (852, 24922), (855, 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 159 MA's), (Start: 22 @17316 has 3 MA's), (25, 17349), (30, 17370), (68, 17601), (71, 17631), (78, 17712), (79, 17754), (80, 17772), (84, 17814), (89, 17901), (96, 17955), (99, 17970), (105, 18003), (116, 18081), (118, 18096), (125, 18144), (132, 18201), (136, 18255), (137, 18267), (144, 18330), (150, 18363), (163, 18471), (173, 18537), (181,

18570), (183, 18579), (186, 18600), (246, 18882), (265, 18927), (266, 18936), (310, 19095), (317, 19128), (324, 19155), (349, 19284), (363, 19362), (372, 19407), (375, 19416), (379, 19428), (382, 19440), (388, 19467), (391, 19485), (397, 19506), (410, 19581), (414, 19602), (415, 19605), (418, 19614), (428, 19644), (435, 19686), (447, 19746), (448, 19752), (449, 19761), (457, 19794), (461, 19806), (462, 19809), (474, 19866), (476, 19872), (481, 19893), (485, 19923), (490, 19953), (496, 19971), (507, 20019), (513, 20043), (517, 20061), (520, 20070), (523, 20085), (526, 20106), (533, 20136), (542, 20169), (543, 20175), (544, 20178), (550, 20190), (555, 20211), (570, 20262), (571, 20271), (575, 20301), (577, 20307), (587, 20340), (590, 20349), (600, 20379), (603, 20388), (606, 20400), (618, 20439), (626, 20466), (628, 20472), (629, 20475), (639, 20517), (647, 20547), (656, 20583), (682, 20685), (697, 20748), (705, 20784), (706, 20787), (708, 20793), (712, 20808), (717, 20826), (723, 20850), (727, 20865), (728, 20868), (733, 20886), (738, 20919), (743, 20940), (755, 20997), (762, 21051), (764, 21060), (784, 21114), (787, 21141), (790, 21159), (799, 21207), (800, 21213), (808, 21285), (823, 21363), (825, 21378), (833, 21417), (839, 21441), (851, 21510), (855, 21531), (879, 21624), (905, 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 159 MA's), (Start: 22 @17600 has 3 MA's), (25, 17633), (30, 17654), (68, 17885), (71, 17915), (78, 17996), (79, 18038), (80, 18056), (84, 18098), (89, 18185), (96, 18239), (99, 18254), (105, 18287), (116, 18365), (118, 18380), (125, 18428), (127, 18443), (132, 18485), (140, 18581), (144, 18614), (150, 18647), (163, 18755), (173, 18821), (181, 18854), (183, 18863), (184, 18866), (186, 18884), (246, 19166), (260, 19190), (266, 19220), (310, 19379), (324, 19439), (349, 19568), (356, 19616), (363, 19646), (367, 19670), (370, 19682), (372, 19691), (375, 19700), (382, 19724), (391, 19769), (397, 19790), (410, 19865), (418, 19898), (428, 19928), (431, 19949), (435, 19970), (447, 20030), (448, 20036), (456, 20075), (462, 20093), (481, 20177), (485, 20207), (490, 20237), (496, 20255), (507, 20303), (513, 20327), (517, 20345), (520, 20354), (521, 20363), (523, 20369), (526, 20390), (533, 20420), (542, 20453), (543, 20459), (548, 20468), (555, 20495), (562, 20522), (571, 20555), (574, 20582), (576, 20588), (583, 20615), (590, 20633), (600, 20663), (603, 20672), (606, 20684), (608, 20690), (609, 20693), (613, 20705), (618, 20723), (626, 20750), (628, 20756), (645, 20825), (652, 20852), (656, 20867), (682, 20969), (705, 21068), (706, 21071), (708, 21077), (712, 21092), (717, 21110), (727, 21149), (728, 21152), (733, 21170), (738, 21203), (743, 21224), (755, 21281), (762, 21335), (764, 21344), (784, 21398), (787, 21425), (790, 21443), (799, 21491), (800, 21497), (808, 21569), (823, 21647), (829, 21683), (833, 21701), (839, 21725), (843, 21749), (851, 21794), (855, 21815), (905, 22037),

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

Candidate Starts for BetterYeti_32:

(Start: 19 @23289 has 159 MA's), (Start: 22 @23319 has 3 MA's), (27, 23364), (49, 23508), (61, 23574), (71, 23634), (72, 23655), (79, 23757), (87, 23883), (90, 23919), (96, 23958), (101, 23985), (105, 24006), (110, 24048), (121, 24168), (134, 24282), (136, 24294), (144, 24369), (150, 24402), (162, 24507), (163, 24510), (231, 24870), (234, 24888), (275, 25044), (297, 25146), (298, 25149), (304, 25176), (313, 25215), (319, 25242), (324, 25263), (328, 25287), (349, 25404), (359, 25467), (360, 25473), (365, 25491), (366, 25497), (372, 25527), (380, 25551), (391, 25605), (398, 25629), (402, 25653), (403, 25656), (406, 25677), (407, 25686), (417, 25731), (420, 25740), (431, 25785), (435, 25806), (438, 25815), (439, 25821), (442, 25836), (444, 25842), (446, 25857), (456, 25911), (457, 25914), (460, 25923), (463, 25935), (466, 25944), (468, 25956), (473, 25977), (475, 25983), (481, 26007), (485, 26037), (487, 26052), (504, 26115), (507, 26127), (509, 26133), (510, 26136), (512, 26148), (513, 26151), (525, 26208), (538, 26262), (539, 26265), (544, 26286), (551, 26298), (552, 26301), (564, 26349), (569, 26364), (570, 26367), (571, 26376), (572, 26391), (573, 26397), (579, 26424), (580, 26427), (582, 26433), (590, 26463), (595, 26484), (597, 26496), (600, 26505), (604, 26517), (612, 26544), (622, 26577), (624, 26583), (629, 26601), (636, 26631), (665, 26739), (686, 26829), (691, 26850), (720, 26961), (732, 27006), (743, 27063), (749, 27096), (774, 27240), (783, 27303), (793, 27369), (798, 27402), (801, 27414), (807, 27477), (812, 27498), (814, 27510),

(818, 27531), (845, 27672), (860, 27759), (865, 27777), (874, 27807), (881, 27825), (882, 27828), (883, 27834), (884, 27840), (892, 27867), (909, 27978), (914, 28041), (917, 28053), (927, 28122), (932, 28155), (937, 28179), (955, 28296), (969, 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 159 MA's), (Start: 22 @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), (153, 15159), (176, 15309), (181, 15333), (193, 15405), (242, 15636), (264, 15684), (277, 15714), (280, 15732), (288, 15768), (349, 16017), (360, 16086), (375, 16149), (382, 16173), (395, 16230), (397, 16239), (404, 16281), (416, 16341), (418, 16347), (420, 16353), (428, 16377), (438, 16425), (464, 16548), (475, 16599), (484, 16644), (485, 16653), (490, 16683), (503, 16728), (509, 16749), (519, 16791), (520, 16794), (524, 16815), (525, 16824), (533, 16860), (542, 16893), (574, 17022), (576, 17028), (577, 17031), (590, 17073), (600, 17103), (614, 17148), (618, 17163), (628, 17196), (633, 17217), (635, 17226), (637, 17235), (643, 17259), (644, 17262), (652, 17292), (661, 17325), (672, 17370), (677, 17391), (687, 17433), (690, 17448), (707, 17514), (711, 17529), (725, 17583), (728, 17592), (729, 17595), (732, 17607), (733, 17610), (736, 17628), (762, 17775), (790, 17883), (793, 17898), (824, 18096), (872, 18330), (893, 18405), (924, 18642), (930, 18684), (931, 18687), (934, 18708), (941, 18756), (943, 18762), (958, 18870), (967, 18942), (977, 19044), (987, 19197),

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

Candidate Starts for Bing_24:

(1, 16007), (Start: 2 @16028 has 31 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), (132, 17243), (137, 17309), (153, 17438), (165, 17519), (166, 17522), (176, 17588), (239, 17906), (247, 17924), (264, 17963), (280, 18011), (282, 18020), (288, 18047), (299, 18098), (308, 18131), (310, 18143), (314, 18161), (320, 18194), (323, 18200), (324, 18203), (349, 18293), (358, 18350), (360, 18362), (375, 18425), (394, 18503), (395, 18506), (397, 18515), (421, 18632), (428, 18653), (446, 18743), (464, 18824), (475, 18875), (484, 18920), (485, 18929), (502, 19001), (511, 19034), (517, 19061), (519, 19067), (522, 19082), (525, 19100), (533, 19136), (566, 19250), (570, 19262), (574, 19298), (576, 19304), (579, 19319), (590, 19349), (614, 19424), (618, 19439), (623, 19454), (626, 19466), (628, 19472), (631, 19487), (635, 19502), (641, 19526), (655, 19580), (656, 19583), (661, 19601), (667, 19622), (675, 19661), (680, 19676), (687, 19709), (707, 19790), (721, 19841), (725, 19859), (728, 19868), (736, 19904), (755, 19997), (786, 20135), (790, 20159), (791, 20162), (799, 20207), (824, 20372), (884, 20645), (928, 20948), (931, 20963), (934, 20984), (943, 21038), (951, 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 159 MA's), (Start: 22 @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), (116, 21463), (118, 21478), (130, 21568), (136, 21637), (145, 21724), (150, 21745), (156, 21799), (162, 21850), (163, 21853), (174, 21922), (184, 21964), (193, 22024), (194, 22030), (197, 22039), (202, 22054), (203, 22063), (223, 22162), (224, 22174), (226, 22195), (290, 22402), (296, 22426), (309, 22480), (324, 22549), (347, 22678), (349, 22687), (363, 22765), (372, 22810), (374, 22816), (375, 22819), (382, 22843), (386, 22861), (397, 22909), (400, 22918), (404, 22951), (421, 23026), (428, 23047), (431, 23068), (435, 23089), (441, 23116), (447, 23149), (449, 23164), (465, 23224), (487, 23341), (512, 23440), (513, 23443), (525, 23500), (530, 23527), (533, 23536), (542, 23569), (544, 23578), (550, 23590), (555, 23611), (560, 23632), (562, 23638), (571, 23671), (575, 23701), (590, 23749), (600, 23779), (609, 23809), (618, 23839), (621, 23848), (643, 23935), (644, 23938), (645, 23941), (649, 23959), (653, 23974), (658, 23989), (669, 24028), (675, 24061), (677, 24067), (679, 24073), (682, 24085),

(694, 24139), (702, 24175), (711, 24205), (712, 24208), (717, 24226), (723, 24250), (724, 24253), (745, 24355), (752, 24385), (755, 24397), (765, 24463), (784, 24580), (790, 24625), (823, 24829), (827, 24853), (837, 24898), (839, 24904), (846, 24943), (852, 24973), (855, 24991),

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

Candidate Starts for Blanky_32:

(Start: 19 @24491 has 159 MA's), (Start: 22 @24521 has 3 MA's), (27, 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), (136, 25481), (150, 25589), (151, 25601), (157, 25658), (162, 25694), (163, 25697), (174, 25766), (176, 25772), (212, 25955), (213, 25961), (231, 26057), (234, 26075), (275, 26231), (302, 26357), (304, 26366), (349, 26597), (350, 26603), (360, 26666), (362, 26672), (365, 26684), (370, 26711), (375, 26729), (378, 26738), (391, 26798), (398, 26822), (400, 26828), (403, 26849), (405, 26867), (406, 26870), (420, 26933), (435, 26999), (441, 27026), (447, 27059), (451, 27086), (456, 27104), (457, 27107), (460, 27116), (463, 27128), (465, 27134), (466, 27137), (468, 27149), (487, 27245), (496, 27278), (501, 27299), (504, 27308), (507, 27320), (510, 27329), (513, 27344), (515, 27350), (516, 27356), (518, 27365), (522, 27383), (524, 27392), (525, 27401), (533, 27437), (539, 27458), (544, 27479), (559, 27524), (560, 27530), (568, 27554), (570, 27560), (571, 27569), (572, 27584), (573, 27590), (582, 27626), (590, 27656), (595, 27677), (597, 27689), (604, 27710), (605, 27713), (612, 27737), (615, 27746), (622, 27770), (624, 27776), (629, 27794), (630, 27803), (631, 27806), (645, 27860), (654, 27893), (663, 27923), (706, 28103), (712, 28124), (732, 28199), (762, 28367), (768, 28397), (773, 28430), (798, 28595), (801, 28607), (802, 28616), (807, 28670), (817, 28718), (828, 28781), (839, 28832), (860, 28952), (865, 28970), (874, 29000), (882, 29021), (883, 29027), (884, 29033), (892, 29060), (897, 29087), (909, 29171), (914, 29234), (917, 29246), (927, 29315), (933, 29357), (938, 29375), (945, 29423), (969, 29579),

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

Candidate Starts for BluerMoon_32:

(Start: 19 @23509 has 159 MA's), (Start: 22 @23539 has 3 MA's), (27, 23584), (49, 23728), (60, 23788), (61, 23794), (71, 23854), (72, 23875), (79, 23977), (87, 24103), (90, 24139), (96, 24178), (105, 24226), (110, 24268), (116, 24340), (121, 24388), (136, 24514), (144, 24589), (145, 24601), (150, 24622), (162, 24727), (163, 24730), (206, 24952), (219, 25018), (234, 25108), (243, 25144), (261, 25195), (269, 25243), (273, 25255), (304, 25399), (313, 25438), (319, 25465), (349, 25627), (356, 25675), (360, 25696), (365, 25714), (376, 25762), (391, 25828), (403, 25879), (404, 25891), (407, 25909), (420, 25963), (431, 26008), (435, 26029), (438, 26038), (442, 26059), (446, 26080), (456, 26134), (457, 26137), (460, 26146), (466, 26167), (468, 26179), (473, 26200), (475, 26206), (479, 26224), (485, 26260), (490, 26290), (504, 26338), (507, 26350), (509, 26356), (510, 26359), (512, 26371), (513, 26374), (518, 26395), (525, 26431), (538, 26485), (539, 26488), (544, 26509), (551, 26521), (552, 26524), (564, 26572), (569, 26587), (570, 26590), (571, 26599), (573, 26620), (579, 26647), (580, 26650), (586, 26674), (590, 26686), (595, 26707), (597, 26719), (600, 26728), (604, 26740), (612, 26767), (622, 26800), (624, 26806), (629, 26824), (642, 26878), (646, 26893), (665, 26962), (691, 27073), (720, 27184), (732, 27229), (749, 27319), (770, 27442), (774, 27463), (783, 27526), (786, 27553), (798, 27625), (801, 27637), (802, 27646), (807, 27700), (812, 27721), (814, 27733), (818, 27754), (845, 27895), (860, 27982), (865, 28000), (874, 28030), (881, 28048), (882, 28051), (884, 28063), (892, 28090), (909, 28201), (917, 28276), (932, 28378), (938, 28405), (955, 28519), (969, 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 159 MA's), (Start: 22 @17271 has 3 MA's), (25, 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), (118, 18051), (121, 18084), (125, 18099), (131, 18147), (145, 18297), (150, 18318), (163, 18426), (166, 18435), (172, 18483), (209, 18660), (228, 18774), (240, 18825), (247, 18837), (268, 18918),

(291, 19002), (295, 19020), (306, 19065), (315, 19110), (317, 19113), (318, 19119), (327, 19152), (349, 19263), (360, 19332), (361, 19335), (370, 19377), (372, 19386), (375, 19395), (384, 19425), (391, 19464), (393, 19470), (397, 19485), (404, 19527), (428, 19623), (431, 19644), (436, 19668), (447, 19725), (449, 19740), (456, 19770), (460, 19782), (467, 19809), (470, 19824), (481, 19872), (485, 19902), (487, 19917), (496, 19950), (498, 19956), (507, 19995), (510, 20004), (512, 20016), (517, 20037), (530, 20103), (533, 20112), (542, 20145), (543, 20151), (544, 20154), (550, 20166), (551, 20169), (556, 20190), (561, 20211), (571, 20247), (579, 20295), (590, 20325), (618, 20415), (634, 20472), (645, 20517), (649, 20535), (657, 20562), (659, 20571), (661, 20577), (675, 20637), (679, 20649), (682, 20661), (694, 20715), (704, 20757), (706, 20763), (708, 20769), (718, 20805), (724, 20829), (725, 20835), (727, 20841), (728, 20844), (738, 20895), (741, 20907), (747, 20937), (748, 20946), (771, 21078), (784, 21156), (790, 21201), (796, 21234), (805, 21291), (819, 21381), (823, 21405), (827, 21429), (829, 21441), (831, 21450), (834, 21462), (837, 21474), (846, 21519), (852, 21549), (855, 21567), (864, 21606), (889, 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 159 MA's), (Start: 22 @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), (116, 21048), (118, 21063), (121, 21096), (125, 21111), (126, 21120), (129, 21147), (131, 21159), (135, 21213), (145, 21309), (150, 21330), (163, 21438), (166, 21447), (173, 21504), (175, 21510), (202, 21639), (206, 21660), (209, 21672), (266, 21909), (291, 22005), (314, 22107), (315, 22113), (324, 22149), (349, 22293), (358, 22350), (367, 22395), (372, 22416), (375, 22425), (376, 22428), (382, 22449), (397, 22515), (399, 22521), (407, 22575), (421, 22632), (428, 22653), (430, 22671), (431, 22674), (435, 22695), (437, 22701), (442, 22725), (449, 22770), (451, 22782), (478, 22893), (481, 22902), (483, 22914), (485, 22932), (499, 22989), (507, 23025), (508, 23028), (510, 23034), (512, 23046), (513, 23049), (517, 23067), (520, 23076), (530, 23133), (544, 23184), (549, 23196), (556, 23220), (557, 23223), (570, 23268), (571, 23277), (587, 23346), (590, 23355), (603, 23394), (606, 23406), (618, 23445), (645, 23547), (651, 23571), (652, 23574), (661, 23607), (662, 23610), (663, 23613), (664, 23616), (676, 23670), (677, 23673), (683, 23694), (706, 23793), (715, 23823), (718, 23835), (721, 23847), (725, 23865), (728, 23874), (729, 23877), (759, 24033), (765, 24069), (790, 24231), (792, 24243), (800, 24285), (811, 24369), (823, 24435), (827, 24459), (839, 24510), (852, 24579), (853, 24582), (857, 24606), (900, 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 159 MA's), (Start: 22 @17414 has 3 MA's), (25, 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), (118, 18194), (125, 18242), (127, 18257), (132, 18299), (136, 18353), (144, 18428), (150, 18461), (163, 18569), (173, 18635), (181, 18668), (183, 18677), (184, 18680), (186, 18698), (246, 18980), (260, 19004), (266, 19034), (310, 19193), (324, 19253), (349, 19382), (363, 19460), (369, 19490), (372, 19505), (375, 19514), (382, 19538), (388, 19565), (391, 19583), (397, 19604), (410, 19679), (414, 19700), (418, 19712), (428, 19742), (435, 19784), (447, 19844), (448, 19850), (456, 19889), (476, 19970), (481, 19991), (485, 20021), (490, 20051), (496, 20069), (507, 20117), (513, 20141), (517, 20159), (520, 20168), (521, 20177), (523, 20183), (526, 20204), (533, 20234), (542, 20267), (543, 20273), (544, 20276), (550, 20288), (555, 20309), (570, 20360), (571, 20369), (575, 20399), (577, 20405), (587, 20438), (590, 20447), (600, 20477), (603, 20486), (606, 20498), (613, 20519), (618, 20537), (626, 20564), (628, 20570), (629, 20573), (632, 20588), (639, 20615), (643, 20633), (647, 20645), (656, 20681), (682, 20783), (697, 20846), (705, 20882), (706, 20885), (708, 20891), (712, 20906), (717, 20924), (727, 20963), (728, 20966), (733, 20984), (738, 21017), (743, 21038), (755, 21095), (762, 21149), (764, 21158), (784, 21212), (787, 21239), (790, 21257), (799, 21305), (800, 21311), (808, 21383), (823, 21461), (825, 21476), (833, 21515), (839, 21539), (851, 21608), (855, 21629), (879, 21722), (905, 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 159 MA's), (Start: 22 @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), (118, 21490), (121, 21523), (125, 21538), (131, 21586), (145, 21736), (150, 21757), (165, 21871), (166, 21874), (172, 21922), (193, 22036), (200, 22060), (203, 22075), (206, 22087), (237, 22255), (244, 22270), (247, 22276), (257, 22294), (277, 22366), (287, 22417), (291, 22432), (298, 22462), (314, 22534), (315, 22540), (323, 22573), (324, 22576), (329, 22603), (349, 22717), (358, 22774), (360, 22786), (372, 22840), (375, 22849), (376, 22852), (382, 22873), (391, 22918), (397, 22939), (404, 22981), (407, 22999), (421, 23056), (428, 23077), (431, 23098), (447, 23179), (449, 23194), (450, 23197), (457, 23227), (470, 23278), (485, 23356), (487, 23371), (488, 23374), (492, 23392), (494, 23398), (496, 23404), (499, 23413), (507, 23449), (510, 23458), (517, 23491), (528, 23545), (529, 23548), (533, 23566), (537, 23578), (544, 23608), (550, 23623), (553, 23632), (555, 23644), (560, 23665), (571, 23704), (582, 23761), (587, 23773), (590, 23782), (603, 23821), (606, 23833), (616, 23863), (618, 23872), (629, 23908), (638, 23947), (639, 23950), (645, 23974), (651, 23998), (661, 24034), (664, 24043), (670, 24064), (676, 24097), (677, 24100), (708, 24226), (709, 24229), (715, 24250), (723, 24283), (724, 24286), (725, 24292), (728, 24301), (734, 24328), (743, 24373), (757, 24439), (763, 24490), (765, 24496), (775, 24556), (780, 24580), (787, 24640), (790, 24658), (792, 24670), (800, 24712), (818, 24829), (819, 24838), (827, 24886), (834, 24919), (837, 24931), (839, 24937), (842, 24958), (843, 24961), (844, 24967), (852, 25006), (857, 25033), (900, 25219), (904, 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 159 MA's), (Start: 22 @17270 has 3 MA's), (25, 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), (118, 18050), (121, 18083), (125, 18098), (131, 18146), (145, 18296), (150, 18317), (163, 18425), (166, 18434), (172, 18482), (199, 18617), (209, 18659), (228, 18773), (240, 18824), (242, 18827), (247, 18836), (268, 18917), (291, 19001), (295, 19019), (306, 19064), (315, 19109), (317, 19112), (318, 19118), (327, 19151), (349, 19262), (360, 19331), (361, 19334), (370, 19376), (372, 19385), (375, 19394), (384, 19424), (391, 19463), (393, 19469), (397, 19484), (404, 19526), (428, 19622), (431, 19643), (432, 19646), (436, 19667), (447, 19724), (449, 19739), (456, 19769), (460, 19781), (467, 19808), (470, 19823), (481, 19871), (485, 19901), (487, 19916), (496, 19949), (498, 19955), (507, 19994), (510, 20003), (512, 20015), (517, 20036), (530, 20102), (533, 20111), (542, 20144), (543, 20150), (544, 20153), (550, 20165), (551, 20168), (556, 20189), (561, 20210), (571, 20246), (579, 20294), (590, 20324), (618, 20414), (634, 20471), (645, 20516), (649, 20534), (657, 20561), (659, 20570), (661, 20576), (675, 20636), (679, 20648), (682, 20660), (694, 20714), (704, 20756), (706, 20762), (708, 20768), (717, 20801), (718, 20804), (724, 20828), (725, 20834), (727, 20840), (728, 20843), (738, 20894), (741, 20906), (748, 20945), (771, 21077), (779, 21113), (784, 21155), (790, 21200), (805, 21290), (819, 21380), (823, 21404), (827, 21428), (829, 21440), (831, 21449), (834, 21461), (837, 21473), (846, 21518), (852, 21548), (855, 21566), (864, 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 159 MA's), (Start: 22 @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), (118, 20956), (121, 20989), (125, 21004), (131, 21052), (145, 21202), (150, 21223), (163, 21331), (165, 21337), (166, 21340), (172, 21388), (193, 21502), (200, 21526), (203, 21541), (206, 21553), (221, 21628), (226, 21673), (237, 21721), (244,

21736), (247, 21742), (257, 21760), (277, 21832), (284, 21874), (287, 21883), (298, 21928), (314, 22000), (315, 22006), (323, 22039), (324, 22042), (329, 22069), (349, 22183), (358, 22240), (360, 22252), (372, 22306), (375, 22315), (376, 22318), (382, 22339), (391, 22384), (397, 22405), (419, 22516), (421, 22522), (428, 22543), (430, 22561), (431, 22564), (435, 22585), (447, 22645), (449, 22660), (450, 22663), (456, 22690), (457, 22693), (465, 22720), (485, 22822), (487, 22837), (488, 22840), (492, 22858), (494, 22864), (495, 22867), (499, 22879), (507, 22915), (510, 22924), (517, 22957), (528, 23011), (529, 23014), (533, 23032), (537, 23044), (544, 23074), (550, 23089), (553, 23098), (555, 23110), (571, 23170), (580, 23221), (582, 23227), (587, 23239), (590, 23248), (603, 23287), (606, 23299), (610, 23311), (616, 23329), (618, 23338), (638, 23413), (639, 23416), (643, 23434), (661, 23500), (663, 23506), (664, 23509), (676, 23563), (677, 23566), (708, 23692), (709, 23695), (715, 23716), (723, 23749), (725, 23758), (743, 23839), (749, 23872), (757, 23905), (765, 23962), (775, 24022), (780, 24046), (790, 24124), (792, 24136), (811, 24262), (819, 24304), (827, 24352), (834, 24385), (837, 24397), (839, 24403), (842, 24424), (843, 24427), (844, 24433), (852, 24472), (857, 24499), (862, 24526), (900, 24685), (904, 24712),

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

Candidate Starts for Bugg_30:

(Start: 19 @20548 has 159 MA's), (Start: 22 @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), (123, 21412), (124, 21415), (134, 21514), (137, 21538), (150, 21634), (159, 21718), (162, 21739), (163, 21742), (174, 21811), (176, 21817), (177, 21823), (212, 22000), (223, 22051), (231, 22102), (243, 22156), (245, 22159), (278, 22291), (284, 22330), (304, 22411), (306, 22414), (321, 22489), (335, 22546), (347, 22630), (349, 22639), (360, 22708), (362, 22714), (365, 22726), (367, 22741), (368, 22744), (373, 22765), (386, 22813), (391, 22840), (397, 22861), (400, 22870), (403, 22891), (404, 22903), (406, 22912), (407, 22921), (420, 22975), (421, 22978), (428, 22999), (435, 23041), (444, 23077), (446, 23092), (447, 23101), (449, 23116), (451, 23128), (454, 23137), (463, 23170), (466, 23179), (484, 23263), (485, 23272), (487, 23287), (492, 23308), (504, 23350), (510, 23371), (513, 23386), (515, 23392), (523, 23428), (525, 23443), (539, 23500), (542, 23512), (544, 23521), (551, 23533), (554, 23545), (555, 23551), (560, 23572), (564, 23584), (570, 23602), (571, 23611), (572, 23626), (573, 23632), (576, 23644), (586, 23686), (587, 23689), (590, 23698), (595, 23719), (597, 23731), (612, 23779), (615, 23788), (622, 23812), (624, 23818), (629, 23836), (630, 23845), (654, 23935), (659, 23953), (660, 23956), (665, 23974), (706, 24145), (720, 24196), (751, 24340), (774, 24475), (782, 24526), (801, 24649), (807, 24712), (817, 24760), (818, 24766), (819, 24775), (828, 24823), (842, 24895), (854, 24955), (858, 24976), (859, 24979), (866, 25030), (869, 25039), (874, 25057), (882, 25078), (884, 25090), (901, 25183), (909, 25228), (917, 25303), (919, 25321), (921, 25342), (937, 25429), (954, 25540), (969, 25636),

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

Candidate Starts for Burley_32:

(Start: 19 @23250 has 159 MA's), (Start: 22 @23280 has 3 MA's), (27, 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), (119, 24108), (121, 24129), (136, 24255), (144, 24330), (145, 24342), (150, 24363), (162, 24468), (163, 24471), (231, 24831), (261, 24936), (275, 25005), (279, 25026), (297, 25107), (298, 25110), (304, 25137), (313, 25176), (319, 25203), (349, 25365), (356, 25413), (360, 25434), (365, 25452), (376, 25500), (380, 25512), (391, 25566), (403, 25617), (404, 25629), (406, 25638), (407, 25647), (420, 25701), (431, 25746), (434, 25761), (435, 25767), (438, 25776), (439, 25782), (443, 25800), (444, 25803), (445, 25809), (446, 25818), (456, 25872), (457, 25875), (460, 25884), (465, 25902), (466, 25905), (468, 25917), (473, 25938), (475, 25944), (476, 25947), (481, 25968), (485, 25998), (487, 26013), (496, 26046), (500, 26061), (504, 26076), (507, 26088), (509, 26094), (510, 26097), (512, 26109), (513, 26112), (525, 26169), (538, 26223), (539, 26226), (544, 26247), (551, 26259), (552, 26262), (564, 26310), (569, 26325), (570, 26328), (571, 26337), (573, 26358), (579, 26385), (580, 26388), (586, 26412), (590, 26424), (595, 26445), (597,

26457), (604, 26478), (612, 26505), (622, 26538), (624, 26544), (629, 26562), (636, 26592), (646, 26631), (691, 26811), (694, 26823), (712, 26892), (749, 27057), (770, 27180), (774, 27201), (793, 27330), (798, 27363), (801, 27375), (807, 27438), (812, 27459), (814, 27471), (817, 27486), (828, 27549), (845, 27633), (860, 27720), (865, 27738), (874, 27768), (881, 27786), (882, 27789), (883, 27795), (884, 27801), (892, 27828), (909, 27939), (917, 28014), (919, 28032), (932, 28116), (937, 28140), (955, 28257), (969, 28347),

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

Candidate Starts for CWormy_32:

(Start: 19 @22950 has 159 MA's), (Start: 22 @22980 has 3 MA's), (27, 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), (121, 23829), (136, 23955), (144, 24030), (145, 24042), (150, 24063), (158, 24135), (162, 24168), (163, 24171), (183, 24279), (231, 24531), (261, 24636), (275, 24705), (297, 24807), (298, 24810), (304, 24837), (313, 24876), (319, 24903), (349, 25065), (356, 25113), (360, 25134), (365, 25152), (376, 25200), (380, 25212), (391, 25266), (403, 25317), (404, 25329), (406, 25338), (407, 25347), (420, 25401), (431, 25446), (434, 25461), (435, 25467), (438, 25476), (439, 25482), (443, 25500), (444, 25503), (445, 25509), (446, 25518), (456, 25572), (457, 25575), (460, 25584), (465, 25602), (466, 25605), (468, 25617), (473, 25638), (475, 25644), (476, 25647), (481, 25668), (485, 25698), (487, 25713), (496, 25746), (504, 25776), (507, 25788), (509, 25794), (510, 25797), (512, 25809), (513, 25812), (525, 25869), (538, 25923), (544, 25947), (551, 25959), (552, 25962), (563, 26007), (564, 26010), (569, 26025), (570, 26028), (571, 26037), (572, 26052), (573, 26058), (574, 26064), (579, 26085), (580, 26088), (584, 26100), (587, 26115), (590, 26124), (595, 26145), (597, 26157), (604, 26178), (612, 26205), (622, 26238), (624, 26244), (629, 26262), (636, 26292), (646, 26331), (665, 26400), (712, 26592), (732, 26667), (749, 26757), (774, 26901), (783, 26964), (793, 27030), (798, 27063), (801, 27075), (807, 27138), (812, 27159), (814, 27171), (818, 27192), (828, 27249), (845, 27333), (860, 27420), (865, 27438), (874, 27468), (881, 27486), (882, 27489), (883, 27495), (884, 27501), (892, 27528), (909, 27639), (917, 27714), (927, 27783), (932, 27816), (937, 27840), (955, 27957), (969, 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 159 MA's), (21, 16258), (Start: 22 @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), (117, 17056), (118, 17059), (120, 17080), (121, 17092), (127, 17122), (151, 17338), (155, 17374), (164, 17437), (167, 17446), (176, 17509), (186, 17563), (190, 17587), (209, 17668), (213, 17698), (229, 17788), (248, 17836), (294, 17917), (298, 17938), (320, 18043), (325, 18055), (333, 18085), (347, 18154), (349, 18163), (360, 18232), (361, 18235), (372, 18286), (375, 18295), (382, 18319), (384, 18325), (385, 18328), (387, 18340), (390, 18358), (391, 18364), (397, 18385), (401, 18406), (403, 18415), (404, 18427), (406, 18436), (414, 18481), (421, 18502), (429, 18532), (438, 18574), (440, 18586), (445, 18607), (447, 18625), (453, 18655), (464, 18694), (473, 18733), (480, 18760), (484, 18784), (510, 18850), (515, 18871), (555, 18901), (577, 18997), (587, 19030), (590, 19039), (594, 19054), (595, 19057), (606, 19096), (607, 19099), (608, 19102), (614, 19120), (618, 19135), (628, 19168), (638, 19210), (639, 19213), (649, 19255), (657, 19282), (661, 19297), (670, 19327), (678, 19366), (684, 19390), (686, 19402), (687, 19405), (696, 19441), (697, 19444), (705, 19480), (720, 19534), (727, 19561), (729, 19567), (742, 19633), (744, 19645), (745, 19651), (754, 19690), (757, 19702), (759, 19723), (784, 19810), (790, 19855), (800, 19909), (807, 19975), (810, 19987), (813, 20005), (823, 20059), (825, 20074), (827, 20083), (831, 20104), (834, 20116), (835, 20122), (849, 20194), (864, 20263), (873, 20299), (878, 20314), (901, 20419), (904, 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 159 MA's), (Start: 22 @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), (116, 22030), (118, 22045), (120, 22066), (121, 22078), (126, 22102), (132, 22150), (140, 22246), (144, 22279), (150, 22312), (159, 22396), (163, 22420), (166, 22429), (206, 22642), (213, 22684), (221, 22717), (237, 22810), (244, 22825), (247, 22831), (257, 22849), (259, 22858), (266, 22891), (267, 22900), (287, 22972), (298, 23017), (314, 23089), (315, 23095), (323, 23128), (324, 23131), (329, 23158), (349, 23272), (358, 23329), (360, 23341), (372, 23395), (375, 23404), (376, 23407), (382, 23428), (391, 23473), (397, 23494), (419, 23605), (421, 23611), (428, 23632), (430, 23650), (431, 23653), (435, 23674), (447, 23734), (449, 23749), (450, 23752), (456, 23779), (457, 23782), (465, 23809), (483, 23893), (485, 23911), (487, 23926), (488, 23929), (492, 23947), (494, 23953), (495, 23956), (499, 23968), (500, 23974), (507, 24004), (510, 24013), (517, 24046), (528, 24100), (529, 24103), (533, 24121), (544, 24163), (550, 24178), (553, 24187), (555, 24199), (571, 24259), (582, 24316), (587, 24328), (590, 24337), (603, 24376), (606, 24388), (608, 24394), (612, 24406), (616, 24418), (618, 24427), (638, 24502), (639, 24505), (643, 24523), (661, 24589), (664, 24598), (676, 24652), (677, 24655), (708, 24781), (715, 24805), (723, 24838), (725, 24847), (730, 24862), (734, 24883), (743, 24928), (757, 24994), (765, 25051), (775, 25111), (786, 25189), (790, 25213), (792, 25225), (811, 25351), (819, 25393), (827, 25441), (834, 25474), (837, 25486), (839, 25492), (842, 25513), (843, 25516), (844, 25522), (852, 25561), (857, 25588), (900, 25774),

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

Candidate Starts for Captrips_29:

(Start: 19 @20541 has 159 MA's), (Start: 22 @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), (123, 21405), (124, 21408), (134, 21507), (137, 21531), (150, 21627), (162, 21732), (163, 21735), (174, 21804), (176, 21810), (177, 21816), (212, 21993), (223, 22044), (231, 22095), (243, 22149), (245, 22152), (284, 22323), (304, 22404), (306, 22407), (321, 22482), (335, 22539), (347, 22623), (349, 22632), (359, 22695), (360, 22701), (362, 22707), (365, 22719), (367, 22734), (368, 22737), (373, 22758), (386, 22806), (391, 22833), (397, 22854), (400, 22863), (403, 22884), (404, 22896), (406, 22905), (407, 22914), (420, 22968), (421, 22971), (428, 22992), (435, 23034), (444, 23070), (446, 23085), (447, 23094), (449, 23109), (451, 23121), (454, 23130), (463, 23163), (466, 23172), (484, 23256), (485, 23265), (487, 23280), (488, 23283), (492, 23301), (504, 23343), (510, 23364), (513, 23379), (523, 23421), (525, 23436), (539, 23493), (542, 23505), (544, 23514), (551, 23526), (554, 23538), (555, 23544), (560, 23565), (564, 23577), (570, 23595), (571, 23604), (572, 23619), (573, 23625), (576, 23637), (586, 23679), (587, 23682), (590, 23691), (595, 23712), (597, 23724), (612, 23772), (615, 23781), (622, 23805), (624, 23811), (629, 23829), (630, 23838), (636, 23859), (654, 23928), (665, 23967), (706, 24138), (720, 24189), (751, 24333), (774, 24468), (782, 24519), (801, 24642), (807, 24705), (817, 24753), (818, 24759), (819, 24768), (828, 24816), (842, 24888), (854, 24948), (858, 24969), (859, 24972), (866, 25023), (869, 25032), (874, 25050), (882, 25071), (884, 25083), (901, 25176), (909, 25221), (917, 25296), (919, 25314), (921, 25335), (937, 25422), (954, 25533), (969, 25629),

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

Candidate Starts for Capybara_29:

(Start: 19 @20616 has 159 MA's), (Start: 22 @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), (123, 21480), (124, 21483), (134, 21582), (137, 21606), (150, 21702), (162, 21807), (163, 21810), (174, 21879), (176, 21885), (177, 21891), (212, 22068), (223, 22119), (231, 22170), (243, 22224), (245, 22227), (278, 22359), (299, 22461), (304, 22479), (306, 22482), (321, 22557), (335, 22614), (347, 22698), (349, 22707), (365, 22794), (373, 22833), (386, 22881), (391, 22908), (397, 22929), (400, 22938), (403, 22959), (404, 22971), (406, 22980), (407, 22989),

(412, 23016), (420, 23043), (421, 23046), (428, 23067), (435, 23109), (441, 23136), (444, 23145), (446, 23160), (447, 23169), (449, 23184), (451, 23196), (454, 23205), (457, 23217), (463, 23238), (466, 23247), (484, 23331), (485, 23340), (487, 23355), (488, 23358), (492, 23376), (496, 23388), (497, 23391), (504, 23418), (510, 23439), (513, 23454), (523, 23496), (525, 23511), (539, 23568), (542, 23580), (544, 23589), (551, 23601), (554, 23613), (555, 23619), (560, 23640), (564, 23652), (570, 23670), (571, 23679), (572, 23694), (573, 23700), (576, 23712), (586, 23754), (587, 23757), (590, 23766), (595, 23787), (597, 23799), (612, 23847), (615, 23856), (622, 23880), (624, 23886), (629, 23904), (630, 23913), (636, 23934), (654, 24003), (659, 24021), (660, 24024), (665, 24042), (695, 24168), (706, 24213), (720, 24264), (751, 24408), (774, 24543), (782, 24594), (793, 24672), (801, 24717), (807, 24780), (811, 24798), (817, 24828), (818, 24834), (828, 24891), (842, 24963), (854, 25023), (858, 25044), (859, 25047), (866, 25098), (869, 25107), (882, 25146), (884, 25158), (901, 25251), (909, 25296), (917, 25371), (921, 25410), (927, 25440), (937, 25497), (954, 25608), (969, 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 159 MA's), (Start: 22 @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), (118, 21348), (121, 21381), (125, 21396), (131, 21444), (145, 21594), (150, 21615), (165, 21729), (166, 21732), (193, 21894), (200, 21918), (203, 21933), (206, 21945), (237, 22113), (244, 22128), (247, 22134), (257, 22152), (277, 22224), (287, 22275), (291, 22290), (298, 22320), (314, 22392), (315, 22398), (323, 22431), (324, 22434), (329, 22461), (349, 22575), (358, 22632), (360, 22644), (372, 22698), (375, 22707), (376, 22710), (382, 22731), (391, 22776), (397, 22797), (404, 22839), (407, 22857), (421, 22914), (428, 22935), (431, 22956), (447, 23037), (449, 23052), (450, 23055), (456, 23082), (457, 23085), (470, 23136), (485, 23214), (487, 23229), (488, 23232), (492, 23250), (494, 23256), (496, 23262), (499, 23271), (507, 23307), (508, 23310), (510, 23316), (511, 23322), (517, 23349), (528, 23403), (529, 23406), (533, 23424), (537, 23436), (544, 23466), (550, 23481), (553, 23490), (555, 23502), (560, 23523), (571, 23562), (582, 23619), (587, 23631), (590, 23640), (603, 23679), (606, 23691), (616, 23721), (618, 23730), (629, 23766), (638, 23805), (639, 23808), (643, 23826), (645, 23832), (661, 23892), (662, 23895), (664, 23901), (670, 23922), (676, 23955), (677, 23958), (708, 24084), (709, 24087), (715, 24108), (723, 24141), (724, 24144), (725, 24150), (728, 24159), (734, 24186), (740, 24219), (743, 24231), (757, 24297), (763, 24348), (765, 24354), (775, 24414), (780, 24438), (787, 24498), (790, 24516), (792, 24528), (800, 24570), (818, 24687), (819, 24696), (827, 24744), (834, 24777), (837, 24789), (839, 24795), (842, 24816), (843, 24819), (844, 24825), (852, 24864), (857, 24891), (900, 25077), (904, 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 159 MA's), (Start: 22 @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), (116, 20119), (118, 20134), (121, 20167), (125, 20182), (126, 20191), (131, 20230), (140, 20335), (150, 20401), (157, 20470), (163, 20509), (166, 20518), (174, 20578), (175, 20581), (200, 20704), (201, 20707), (209, 20743), (242, 20911), (247, 20920), (259, 20941), (266, 20974), (291, 21070), (303, 21124), (314, 21172), (315, 21178), (316, 21181), (324, 21214), (349, 21361), (367, 21463), (372, 21484), (375, 21493), (376, 21496), (382, 21517), (397, 21583), (410, 21658), (413, 21673), (419, 21694), (421, 21700), (428, 21721), (431, 21742), (435, 21763), (447, 21823), (449, 21838), (450, 21841), (455, 21865), (461, 21883), (477, 21955), (485, 22000), (487, 22015), (488, 22018), (492, 22036), (494, 22042), (496, 22048), (507, 22093), (510, 22102), (513, 22117), (517, 22135), (522, 22156), (528, 22189), (529, 22192), (533, 22210), (550, 22267), (553, 22276), (555, 22288), (560, 22309), (562, 22315), (563, 22318), (570, 22339), (571, 22348), (580, 22399),

(582, 22405), (587, 22417), (590, 22426), (601, 22459), (618, 22516), (637, 22588), (638, 22591), (639, 22594), (643, 22612), (645, 22618), (651, 22642), (661, 22678), (663, 22684), (667, 22699), (675, 22738), (687, 22786), (697, 22825), (715, 22894), (725, 22936), (728, 22945), (757, 23083), (758, 23092), (759, 23104), (764, 23137), (765, 23140), (784, 23257), (786, 23278), (792, 23314), (800, 23356), (808, 23428), (827, 23530), (837, 23575), (839, 23581), (852, 23650), (857, 23677), (900, 23857), (902, 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 159 MA's), (Start: 22 @17415 has 3 MA's), (25, 17448), (30, 17469), (68, 17700), (71, 17730), (78, 17811), (79, 17853), (80, 17871), (84, 17913), (89, 18000), (96, 18054), (99, 18069), (105, 18102), (116, 18180), (118, 18195), (125, 18243), (132, 18300), (136, 18354), (140, 18396), (144, 18429), (150, 18462), (163, 18570), (173, 18636), (181, 18669), (183, 18678), (184, 18681), (186, 18699), (246, 18981), (260, 19005), (266, 19035), (310, 19194), (317, 19227), (324, 19254), (349, 19383), (363, 19461), (372, 19506), (375, 19515), (379, 19527), (382, 19539), (388, 19566), (391, 19584), (397, 19605), (410, 19680), (414, 19701), (415, 19704), (418, 19713), (428, 19743), (431, 19764), (435, 19785), (447, 19845), (448, 19851), (456, 19890), (457, 19893), (462, 19908), (476, 19971), (481, 19992), (485, 20022), (490, 20052), (496, 20070), (507, 20118), (513, 20142), (517, 20160), (520, 20169), (521, 20178), (523, 20184), (526, 20205), (533, 20235), (542, 20268), (543, 20274), (544, 20277), (550, 20289), (555, 20310), (570, 20361), (571, 20370), (575, 20400), (577, 20406), (587, 20439), (590, 20448), (600, 20478), (603, 20487), (606, 20499), (618, 20538), (626, 20565), (628, 20571), (629, 20574), (632, 20589), (639, 20616), (647, 20646), (656, 20682), (682, 20784), (697, 20847), (705, 20883), (706, 20886), (712, 20907), (717, 20925), (727, 20964), (729, 20970), (733, 20985), (737, 21006), (738, 21018), (762, 21150), (764, 21159), (784, 21213), (787, 21240), (790, 21258), (799, 21306), (800, 21312), (808, 21384), (823, 21462), (829, 21498), (833, 21516), (839, 21540), (843, 21564), (851, 21609), (855, 21630), (905, 21852),

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

Candidate Starts for CherryBlossom_23:

(1, 16156), (Start: 2 @16177 has 31 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), (121, 17311), (133, 17416), (144, 17512), (153, 17578), (176, 17728), (191, 17812), (195, 17833), (206, 17875), (230, 18010), (279, 18142), (280, 18151), (288, 18187), (290, 18196), (299, 18238), (308, 18271), (345, 18424), (349, 18445), (359, 18508), (360, 18514), (362, 18520), (367, 18547), (372, 18568), (374, 18574), (375, 18577), (382, 18601), (391, 18646), (394, 18655), (395, 18658), (397, 18667), (410, 18742), (416, 18769), (421, 18784), (422, 18787), (428, 18805), (431, 18823), (435, 18844), (446, 18895), (460, 18961), (464, 18976), (483, 19063), (485, 19081), (489, 19108), (514, 19198), (515, 19201), (524, 19243), (525, 19252), (533, 19288), (538, 19306), (539, 19309), (555, 19363), (556, 19366), (570, 19414), (574, 19450), (576, 19456), (581, 19477), (590, 19501), (600, 19531), (618, 19591), (628, 19624), (629, 19627), (632, 19642), (641, 19678), (652, 19720), (655, 19732), (656, 19735), (670, 19783), (675, 19813), (680, 19828), (687, 19861), (690, 19876), (706, 19939), (727, 20017), (728, 20020), (736, 20056), (748, 20122), (763, 20209), (764, 20212), (790, 20311), (799, 20359), (800, 20365), (824, 20524), (884, 20797), (903, 20899), (918, 21022), (931, 21115), (934, 21136), (941, 21184), (943, 21190), (944, 21196), (951, 21241), (964, 21349), (967, 21370), (973, 21418), (980, 21505), (986, 21607), (987, 21616),

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

Candidate Starts for ChickyNuggy_30:

(Start: 19 @20253 has 159 MA's), (Start: 22 @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), (123, 21117), (124, 21120), (134, 21219), (137, 21243), (150, 21339), (159, 21423), (162, 21444), (163, 21447), (174, 21516), (176, 21522), (177, 21528), (212, 21705), (223, 21756), (231, 21807), (243, 21861), (245, 21864), (278, 21996), (284, 22035), (304, 22116), (306, 22119), (321, 22194), (324, 22203), (335, 22251), (347, 22335), (349, 22344), (360, 22413), (362, 22419), (365, 22431), (367, 22446), (368, 22449), (373, 22470), (386, 22518), (391, 22545), (397, 22566), (400, 22575), (403, 22596), (404, 22608), (406, 22617), (407, 22626), (420, 22680), (421, 22683), (428, 22704), (435, 22746), (441, 22773), (444, 22782), (446, 22797), (447, 22806), (449, 22821), (451, 22833), (454, 22842), (463, 22875), (466, 22884), (484, 22968), (485, 22977), (487, 22992), (488, 22995), (492, 23013), (504, 23055), (510, 23076), (513, 23091), (523, 23133), (525, 23148), (539, 23205), (542, 23217), (544, 23226), (551, 23238), (554, 23250), (555, 23256), (560, 23277), (564, 23289), (570, 23307), (571, 23316), (572, 23331), (573, 23337), (576, 23349), (586, 23391), (587, 23394), (590, 23403), (595, 23424), (597, 23436), (612, 23484), (615, 23493), (622, 23517), (624, 23523), (629, 23541), (630, 23550), (636, 23571), (654, 23640), (665, 23679), (706, 23850), (720, 23901), (751, 24045), (774, 24180), (782, 24231), (801, 24354), (807, 24417), (817, 24465), (818, 24471), (819, 24480), (828, 24528), (842, 24600), (854, 24660), (858, 24681), (859, 24684), (866, 24735), (869, 24744), (874, 24762), (882, 24783), (884, 24795), (901, 24888), (909, 24933), (917, 25008), (919, 25026), (921, 25047), (937, 25134), (954, 25245), (969, 25341),

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

Candidate Starts for Chikenjars_32:

(Start: 19 @23502 has 159 MA's), (Start: 22 @23532 has 3 MA's), (27, 23577), (49, 23721), (61, 23787), (71, 23847), (72, 23868), (79, 23970), (86, 24060), (87, 24096), (90, 24132), (96, 24171), (105, 24219), (110, 24261), (116, 24333), (121, 24381), (136, 24507), (144, 24582), (150, 24615), (162, 24720), (163, 24723), (206, 24945), (219, 25011), (220, 25014), (231, 25083), (261, 25188), (275, 25257), (297, 25359), (298, 25362), (304, 25389), (313, 25428), (319, 25455), (349, 25617), (356, 25665), (360, 25686), (365, 25704), (376, 25752), (391, 25818), (399, 25845), (400, 25848), (402, 25866), (403, 25869), (406, 25890), (407, 25899), (417, 25944), (420, 25953), (431, 25998), (435, 26019), (438, 26028), (445, 26061), (446, 26070), (449, 26094), (456, 26124), (457, 26127), (460, 26136), (463, 26148), (466, 26157), (468, 26169), (473, 26190), (475, 26196), (485, 26250), (504, 26328), (507, 26340), (509, 26346), (510, 26349), (513, 26364), (518, 26385), (525, 26421), (538, 26475), (539, 26478), (542, 26490), (544, 26499), (551, 26511), (552, 26514), (555, 26529), (562, 26556), (564, 26562), (569, 26577), (570, 26580), (571, 26589), (572, 26604), (573, 26610), (577, 26625), (579, 26637), (580, 26640), (586, 26664), (590, 26676), (595, 26697), (597, 26709), (600, 26718), (604, 26730), (612, 26757), (619, 26781), (622, 26790), (624, 26796), (629, 26814), (646, 26883), (665, 26952), (701, 27108), (749, 27309), (774, 27453), (783, 27516), (786, 27543), (798, 27615), (801, 27627), (802, 27636), (807, 27690), (812, 27711), (814, 27723), (845, 27885), (860, 27972), (865, 27990), (874, 28020), (881, 28038), (882, 28041), (884, 28053), (892, 28080), (909, 28191), (917, 28266), (923, 28314), (932, 28368), (938, 28395), (955, 28509), (969, 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 159 MA's), (Start: 22 @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), (116, 21078), (118, 21093), (121, 21126), (125, 21141), (126, 21150), (129, 21177), (131, 21189), (135, 21243), (145, 21339), (150, 21360), (166, 21477), (173, 21534), (175, 21540), (186, 21597), (202, 21669), (209, 21702), (210, 21705), (266, 21939), (290, 22032), (291, 22035), (295, 22053), (314, 22137), (315, 22143), (324, 22179), (349, 22326), (357, 22380), (358, 22383), (372, 22449), (375, 22458), (376, 22461), (382, 22482), (388, 22509), (397, 22548), (398, 22551), (421, 22665), (428, 22686), (430, 22704), (431, 22707), (449, 22803), (451, 22815), (481, 22935), (485, 22965), (487, 22980), (499, 23022), (504, 23043), (507, 23058), (510, 23067), (512, 23079), (517, 23100), (528, 23154), (533, 23175), (542, 23208), (543, 23214), (544, 23217), (551, 23235), (552, 23238), (555, 23256), (570, 23307), (571, 23316), (581, 23370), (590, 23394), (601, 23427), (618, 23484), (637, 23556), (638, 23559), (643, 23580), (649,

23604), (652, 23613), (661, 23646), (662, 23649), (664, 23655), (674, 23700), (675, 23706), (687, 23754), (715, 23862), (725, 23904), (728, 23913), (759, 24072), (762, 24096), (764, 24105), (771, 24147), (775, 24168), (779, 24183), (790, 24270), (792, 24282), (800, 24324), (811, 24408), (823, 24474), (827, 24498), (837, 24543), (839, 24549), (852, 24618), (853, 24621), (857, 24645), (900, 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 159 MA's), (Start: 22 @17422 has 3 MA's), (25, 17455), (30, 17476), (68, 17707), (71, 17737), (78, 17818), (79, 17860), (80, 17878), (84, 17920), (89, 18007), (96, 18061), (99, 18076), (105, 18109), (116, 18187), (118, 18202), (125, 18250), (132, 18307), (136, 18361), (140, 18403), (144, 18436), (150, 18469), (163, 18577), (173, 18643), (181, 18676), (183, 18685), (184, 18688), (186, 18706), (246, 18988), (260, 19012), (266, 19042), (310, 19201), (324, 19261), (349, 19390), (356, 19438), (367, 19492), (370, 19504), (372, 19513), (375, 19522), (382, 19546), (391, 19591), (397, 19612), (410, 19687), (418, 19720), (428, 19750), (435, 19792), (447, 19852), (448, 19858), (456, 19897), (462, 19915), (476, 19978), (481, 19999), (485, 20029), (490, 20059), (496, 20077), (507, 20125), (513, 20149), (517, 20167), (520, 20176), (521, 20185), (523, 20191), (526, 20212), (533, 20242), (542, 20275), (543, 20281), (544, 20284), (550, 20296), (555, 20317), (570, 20368), (571, 20377), (575, 20407), (577, 20413), (587, 20446), (590, 20455), (600, 20485), (603, 20494), (606, 20506), (618, 20545), (626, 20572), (628, 20578), (629, 20581), (632, 20596), (639, 20623), (643, 20641), (647, 20653), (656, 20689), (682, 20791), (705, 20890), (706, 20893), (708, 20899), (712, 20914), (717, 20932), (723, 20956), (727, 20971), (728, 20974), (733, 20992), (738, 21025), (743, 21046), (767, 21178), (784, 21220), (790, 21265), (792, 21277), (800, 21319), (808, 21391), (819, 21445), (823, 21469), (827, 21493), (829, 21505), (833, 21523), (843, 21571), (851, 21616), (855, 21637), (879, 21730), (905, 21859),

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

Candidate Starts for Citrus_31:

(Start: 19 @23506 has 159 MA's), (Start: 22 @23536 has 3 MA's), (27, 23581), (49, 23725), (61, 23791), (71, 23851), (72, 23872), (79, 23974), (86, 24064), (87, 24100), (90, 24136), (96, 24175), (105, 24223), (110, 24265), (121, 24385), (136, 24511), (144, 24586), (145, 24598), (150, 24619), (162, 24724), (163, 24727), (206, 24949), (219, 25015), (220, 25018), (231, 25087), (261, 25192), (275, 25261), (279, 25282), (297, 25363), (298, 25366), (304, 25393), (313, 25432), (319, 25459), (349, 25621), (356, 25669), (360, 25690), (365, 25708), (376, 25756), (391, 25822), (399, 25849), (400, 25852), (402, 25870), (403, 25873), (406, 25894), (407, 25903), (420, 25957), (431, 26002), (435, 26023), (438, 26032), (445, 26065), (446, 26074), (449, 26098), (456, 26128), (457, 26131), (460, 26140), (463, 26152), (466, 26161), (468, 26173), (473, 26194), (475, 26200), (485, 26254), (490, 26284), (504, 26332), (507, 26344), (509, 26350), (510, 26353), (513, 26368), (518, 26389), (525, 26425), (538, 26479), (542, 26494), (544, 26503), (551, 26515), (552, 26518), (555, 26533), (562, 26560), (564, 26566), (569, 26581), (570, 26584), (571, 26593), (572, 26608), (573, 26614), (577, 26629), (579, 26641), (580, 26644), (590, 26680), (595, 26701), (597, 26713), (600, 26722), (604, 26734), (612, 26761), (619, 26785), (622, 26794), (624, 26800), (629, 26818), (646, 26887), (665, 26956), (701, 27112), (749, 27313), (774, 27457), (783, 27520), (786, 27547), (798, 27619), (801, 27631), (802, 27640), (807, 27694), (812, 27715), (814, 27727), (845, 27889), (860, 27976), (865, 27994), (874, 28024), (881, 28042), (882, 28045), (884, 28057), (892, 28084), (909, 28195), (917, 28270), (923, 28318), (932, 28372), (938, 28399), (955, 28513), (969, 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), (153, 17150), (154, 17153), (165, 17231), (181, 17324), (191, 17384), (202, 17426), (274, 17696), (287, 17756), (300, 17813), (324, 17915), (349, 18023), (372, 18146), (375, 18155), (391, 18224), (394, 18233), (395,

18236), (406, 18296), (421, 18362), (425, 18374), (428, 18383), (431, 18401), (435, 18422), (452, 18512), (475, 18605), (484, 18650), (485, 18659), (490, 18689), (501, 18728), (502, 18731), (512, 18770), (519, 18797), (524, 18821), (525, 18830), (532, 18863), (533, 18866), (537, 18878), (542, 18899), (554, 18935), (558, 18950), (574, 19028), (579, 19049), (581, 19055), (587, 19070), (590, 19079), (618, 19169), (628, 19202), (640, 19253), (643, 19265), (655, 19310), (687, 19439), (697, 19478), (705, 19514), (711, 19535), (721, 19571), (725, 19589), (728, 19598), (736, 19634), (738, 19649), (739, 19655), (748, 19700), (784, 19844), (789, 19880), (790, 19889), (806, 20003), (823, 20096), (840, 20180), (899, 20447), (906, 20501), (913, 20582), (926, 20663), (931, 20696), (934, 20717), (942, 20768), (949, 20807), (951, 20822), (957, 20870), (958, 20879), (959, 20891), (967, 20951), (973, 20999), (975, 21023), (978, 21068),

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

Candidate Starts for Conley_30:

(Start: 19 @21600 has 159 MA's), (Start: 22 @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), (123, 22464), (124, 22467), (134, 22566), (150, 22686), (156, 22740), (159, 22770), (162, 22791), (163, 22794), (174, 22863), (176, 22869), (212, 23052), (233, 23160), (234, 23172), (237, 23184), (243, 23208), (250, 23226), (304, 23463), (306, 23466), (313, 23502), (321, 23541), (324, 23550), (335, 23598), (347, 23682), (349, 23691), (359, 23754), (360, 23760), (362, 23766), (365, 23778), (368, 23796), (380, 23838), (386, 23865), (391, 23892), (397, 23913), (400, 23922), (403, 23943), (404, 23955), (405, 23961), (406, 23964), (407, 23973), (421, 24030), (428, 24051), (435, 24093), (441, 24120), (443, 24126), (446, 24144), (447, 24153), (449, 24168), (451, 24180), (454, 24189), (463, 24222), (466, 24231), (484, 24315), (485, 24324), (487, 24339), (492, 24360), (504, 24402), (507, 24414), (510, 24423), (513, 24438), (523, 24480), (525, 24495), (539, 24552), (542, 24564), (544, 24573), (551, 24585), (554, 24597), (555, 24603), (560, 24624), (564, 24636), (567, 24645), (570, 24654), (571, 24663), (572, 24678), (573, 24684), (576, 24696), (579, 24711), (582, 24720), (586, 24738), (595, 24771), (597, 24783), (612, 24831), (615, 24840), (622, 24864), (624, 24870), (629, 24888), (630, 24897), (631, 24900), (636, 24918), (654, 24987), (665, 25026), (689, 25131), (690, 25134), (691, 25137), (706, 25197), (732, 25293), (734, 25305), (743, 25350), (751, 25392), (774, 25527), (798, 25689), (807, 25764), (818, 25818), (822, 25839), (842, 25947), (854, 26007), (860, 26046), (865, 26064), (866, 26067), (874, 26094), (876, 26100), (882, 26115), (883, 26121), (884, 26127), (890, 26145), (891, 26148), (907, 26253), (909, 26265), (917, 26340), (919, 26358), (921, 26379), (924, 26391), (937, 26466), (947, 26526), (961, 26622), (969, 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 159 MA's), (Start: 22 @16930 has 3 MA's), (25, 16963), (30, 16984), (68, 17215), (71, 17245), (78, 17326), (79, 17368), (80, 17386), (84, 17428), (89, 17515), (96, 17569), (99, 17584), (105, 17617), (118, 17710), (125, 17758), (127, 17773), (132, 17815), (136, 17869), (144, 17944), (150, 17977), (163, 18085), (173, 18151), (181, 18184), (183, 18193), (184, 18196), (186, 18214), (246, 18496), (260, 18520), (266, 18550), (310, 18709), (324, 18769), (349, 18898), (363, 18976), (369, 19006), (372, 19021), (375, 19030), (382, 19054), (388, 19081), (391, 19099), (397, 19120), (410, 19195), (414, 19216), (418, 19228), (428, 19258), (435, 19300), (447, 19360), (448, 19366), (456, 19405), (461, 19420), (462, 19423), (474, 19480), (476, 19486), (481, 19507), (485, 19537), (490, 19567), (496, 19585), (507, 19633), (513, 19657), (517, 19675), (520, 19684), (523, 19699), (526, 19720), (533, 19750), (542, 19783), (543, 19789), (544, 19792), (550, 19804), (555, 19825), (570, 19876), (571, 19885), (575, 19915), (577, 19921), (587, 19954), (590, 19963), (600, 19993), (603, 20002), (606, 20014), (612, 20032), (618, 20053), (626, 20080), (628, 20086), (629, 20089), (632, 20104), (639, 20131), (647, 20161), (656, 20197), (682, 20299), (697, 20362), (705, 20398), (706, 20401), (712, 20422), (717, 20440), (727, 20479), (729, 20485), (733, 20500), (737, 20521), (738, 20533), (762, 20665), (784, 20728), (787, 20755), (790, 20773), (799, 20821), (800, 20827), (808, 20899), (823, 20977), (829, 21013), (833, 21031), (841,

21064), (843, 21079), (851, 21124), (905, 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 159 MA's), (Start: 22 @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), (118, 24233), (120, 24254), (121, 24266), (125, 24281), (144, 24467), (151, 24512), (164, 24611), (167, 24620), (186, 24737), (190, 24761), (197, 24794), (246, 25007), (310, 25166), (314, 25184), (334, 25268), (341, 25310), (360, 25433), (361, 25436), (372, 25487), (375, 25496), (381, 25517), (394, 25574), (401, 25607), (403, 25616), (406, 25637), (407, 25646), (414, 25682), (421, 25703), (429, 25733), (435, 25766), (437, 25772), (440, 25787), (445, 25808), (447, 25826), (454, 25862), (457, 25874), (460, 25883), (463, 25895), (473, 25934), (477, 25949), (478, 25955), (483, 25976), (485, 25994), (496, 26042), (510, 26051), (512, 26063), (515, 26072), (555, 26114), (556, 26117), (570, 26165), (571, 26174), (574, 26201), (587, 26243), (590, 26252), (602, 26294), (608, 26315), (614, 26333), (616, 26339), (618, 26348), (628, 26381), (629, 26384), (656, 26492), (657, 26495), (661, 26510), (663, 26516), (678, 26579), (682, 26594), (687, 26618), (696, 26654), (697, 26657), (705, 26693), (712, 26717), (713, 26720), (719, 26744), (720, 26747), (738, 26828), (747, 26870), (767, 26981), (784, 27023), (790, 27068), (806, 27182), (809, 27200), (825, 27290), (837, 27344), (852, 27419), (901, 27632),

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

Candidate Starts for CricKo_21:

(Start: 2 @15072 has 31 MA's), (3, 15102), (9, 15183), (11, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (117, 16173), (132, 16281), (150, 16443), (153, 16476), (162, 16548), (176, 16626), (206, 16773), (288, 17085), (290, 17094), (307, 17157), (349, 17331), (355, 17373), (360, 17400), (363, 17409), (375, 17463), (382, 17487), (395, 17544), (417, 17658), (428, 17691), (435, 17730), (445, 17772), (446, 17781), (451, 17817), (464, 17862), (475, 17913), (483, 17949), (485, 17967), (490, 17997), (501, 18036), (502, 18039), (512, 18078), (513, 18081), (520, 18108), (524, 18129), (525, 18138), (532, 18171), (533, 18174), (539, 18195), (558, 18258), (574, 18336), (576, 18342), (587, 18378), (588, 18381), (589, 18384), (590, 18387), (609, 18447), (612, 18456), (618, 18477), (627, 18507), (628, 18510), (643, 18573), (644, 18576), (645, 18579), (656, 18621), (661, 18639), (670, 18669), (680, 18714), (682, 18723), (687, 18747), (705, 18822), (707, 18828), (721, 18879), (728, 18906), (732, 18921), (734, 18933), (736, 18942), (740, 18966), (754, 19032), (763, 19095), (768, 19119), (790, 19197), (799, 19245), (805, 19287), (824, 19410), (847, 19527), (872, 19644), (894, 19725), (900, 19770), (908, 19815), (931, 20001), (934, 20022), (936, 20034), (943, 20076), (951, 20127), (957, 20175), (962, 20214), (970, 20265), (979, 20388), (984, 20427),

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

Candidate Starts for Crocheter_32:

(Start: 19 @23642 has 159 MA's), (Start: 22 @23672 has 3 MA's), (27, 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), (116, 24473), (121, 24521), (136, 24647), (144, 24722), (145, 24734), (150, 24755), (162, 24860), (163, 24863), (183, 24971), (231, 25223), (261, 25328), (275, 25397), (279, 25418), (297, 25499), (298, 25502), (304, 25529), (313, 25568), (319, 25595), (345, 25736), (349, 25757), (359, 25820), (360, 25826), (365, 25844), (366, 25850), (376, 25892), (380, 25904), (382, 25913), (391, 25958), (401, 26000), (403, 26009), (404, 26021), (406, 26030), (407, 26039), (431, 26138), (435, 26159), (438, 26168), (443, 26192), (444, 26195), (456, 26264), (457, 26267), (460, 26276), (465, 26294), (466, 26297), (468, 26309), (473, 26330), (475, 26336), (476, 26339), (481, 26360), (485, 26390), (487, 26405), (490, 26420), (504, 26468), (507, 26480), (509, 26486), (510, 26489), (512, 26501), (513, 26504), (525, 26561), (538, 26615), (544, 26639), (551, 26651), (552, 26654), (563, 26699), (564, 26702), (569, 26717), (570, 26720), (571, 26729), (572, 26744), (573, 26750), (574, 26756), (579, 26777), (580, 26780), (584, 26792), (587, 26807), (590,

26816), (595, 26837), (597, 26849), (604, 26870), (612, 26897), (622, 26930), (624, 26936), (629, 26954), (636, 26984), (646, 27023), (665, 27092), (691, 27203), (694, 27215), (712, 27284), (732, 27359), (749, 27449), (774, 27593), (783, 27656), (793, 27722), (798, 27755), (801, 27767), (807, 27830), (812, 27851), (814, 27863), (818, 27884), (828, 27941), (845, 28025), (860, 28112), (865, 28130), (874, 28160), (881, 28178), (882, 28181), (883, 28187), (884, 28193), (892, 28220), (909, 28331), (917, 28406), (927, 28475), (932, 28508), (937, 28532), (955, 28649), (969, 28739),

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

Candidate Starts for Daddyjeff_25:

(Start: 19 @18508 has 159 MA's), (Start: 22 @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), (117, 19315), (118, 19318), (120, 19339), (121, 19351), (132, 19423), (139, 19513), (149, 19582), (151, 19597), (153, 19618), (156, 19639), (179, 19780), (183, 19801), (186, 19822), (196, 19876), (223, 20014), (231, 20065), (244, 20110), (323, 20416), (326, 20434), (349, 20578), (353, 20608), (372, 20701), (374, 20707), (375, 20710), (379, 20722), (388, 20761), (405, 20848), (428, 20938), (431, 20959), (437, 20986), (445, 21022), (472, 21151), (486, 21223), (489, 21244), (495, 21262), (504, 21295), (507, 21313), (512, 21334), (513, 21337), (525, 21394), (527, 21406), (533, 21430), (535, 21436), (542, 21463), (558, 21520), (570, 21562), (571, 21571), (574, 21598), (575, 21601), (582, 21628), (587, 21640), (590, 21649), (594, 21658), (614, 21724), (618, 21739), (626, 21766), (667, 21922), (679, 21973), (687, 22009), (697, 22048), (702, 22075), (706, 22087), (711, 22105), (717, 22126), (724, 22153), (729, 22171), (738, 22219), (752, 22285), (772, 22405), (777, 22429), (779, 22438), (784, 22480), (790, 22525), (800, 22579), (808, 22651), (813, 22675), (823, 22729), (825, 22744), (827, 22753), (829, 22765), (831, 22774), (834, 22786), (836, 22795), (852, 22873), (853, 22876), (868, 22948), (905, 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 159 MA's), (Start: 22 @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), (117, 17738), (118, 17741), (120, 17762), (121, 17774), (136, 17900), (151, 18020), (159, 18092), (163, 18116), (184, 18227), (197, 18302), (213, 18380), (230, 18473), (249, 18518), (290, 18587), (306, 18653), (310, 18674), (333, 18767), (347, 18836), (349, 18845), (360, 18914), (372, 18968), (375, 18977), (380, 18992), (382, 19001), (385, 19010), (390, 19040), (391, 19046), (397, 19067), (401, 19088), (404, 19109), (406, 19118), (407, 19127), (412, 19154), (414, 19163), (421, 19184), (422, 19187), (426, 19199), (447, 19307), (451, 19334), (457, 19355), (462, 19370), (469, 19397), (470, 19400), (473, 19415), (478, 19436), (483, 19457), (485, 19475), (510, 19532), (512, 19544), (513, 19547), (515, 19553), (555, 19583), (571, 19643), (575, 19673), (587, 19712), (590, 19721), (598, 19751), (606, 19778), (607, 19781), (608, 19784), (618, 19817), (628, 19850), (639, 19895), (649, 19937), (661, 19979), (662, 19982), (663, 19985), (678, 20048), (687, 20087), (696, 20123), (697, 20126), (705, 20162), (739, 20303), (767, 20450), (784, 20492), (790, 20537), (800, 20591), (811, 20675), (819, 20717), (820, 20720), (831, 20786), (834, 20798), (839, 20816), (849, 20876), (864, 20945), (873, 20981), (888, 21020), (904, 21116),

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

Candidate Starts for Dancer_29:

(Start: 19 @20241 has 159 MA's), (Start: 22 @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), (123, 21105), (124, 21108), (134, 21207), (137, 21231), (150, 21327), (159, 21411), (162, 21432), (163, 21435), (174, 21504), (176, 21510), (177, 21516), (212, 21693), (223, 21744), (231, 21795), (243, 21849), (245, 21852), (278, 21984), (284, 22023), (304, 22104), (306, 22107), (321, 22182), (335, 22239), (347, 22323), (349, 22332), (360, 22401), (362, 22407), (365, 22419), (367, 22434), (368, 22437), (373, 22458), (386, 22506), (391, 22533), (397, 22554), (400, 22563),

(403, 22584), (404, 22596), (406, 22605), (407, 22614), (420, 22668), (421, 22671), (428, 22692), (435, 22734), (444, 22770), (446, 22785), (447, 22794), (449, 22809), (451, 22821), (454, 22830), (463, 22863), (466, 22872), (484, 22956), (485, 22965), (487, 22980), (492, 23001), (504, 23043), (510, 23064), (513, 23079), (515, 23085), (523, 23121), (525, 23136), (539, 23193), (542, 23205), (544, 23214), (551, 23226), (554, 23238), (555, 23244), (560, 23265), (564, 23277), (570, 23295), (571, 23304), (572, 23319), (573, 23325), (576, 23337), (586, 23379), (587, 23382), (590, 23391), (595, 23412), (597, 23424), (612, 23472), (615, 23481), (622, 23505), (624, 23511), (629, 23529), (630, 23538), (654, 23628), (659, 23646), (660, 23649), (665, 23667), (706, 23838), (720, 23889), (751, 24033), (762, 24102), (774, 24168), (782, 24219), (801, 24342), (807, 24405), (817, 24453), (818, 24459), (819, 24468), (828, 24516), (842, 24588), (854, 24648), (858, 24669), (859, 24672), (866, 24723), (869, 24732), (874, 24750), (882, 24771), (884, 24783), (901, 24876), (909, 24921), (917, 24996), (919, 25014), (921, 25035), (937, 25122), (954, 25233), (969, 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 159 MA's), (Start: 22 @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), (118, 20794), (121, 20827), (125, 20842), (131, 20890), (145, 21040), (150, 21061), (152, 21082), (165, 21175), (166, 21178), (172, 21226), (193, 21340), (200, 21364), (206, 21391), (221, 21466), (237, 21559), (244, 21574), (247, 21580), (257, 21598), (277, 21670), (287, 21721), (291, 21736), (298, 21766), (314, 21838), (315, 21844), (319, 21862), (323, 21877), (324, 21880), (329, 21907), (349, 22021), (358, 22078), (360, 22090), (372, 22144), (375, 22153), (376, 22156), (382, 22177), (391, 22222), (397, 22243), (404, 22285), (407, 22303), (421, 22360), (428, 22381), (431, 22402), (447, 22483), (449, 22498), (450, 22501), (456, 22528), (457, 22531), (470, 22582), (485, 22660), (487, 22675), (488, 22678), (492, 22696), (494, 22702), (496, 22708), (499, 22717), (507, 22753), (510, 22762), (517, 22795), (528, 22849), (529, 22852), (533, 22870), (537, 22882), (544, 22912), (550, 22927), (553, 22936), (555, 22948), (560, 22969), (571, 23008), (582, 23065), (587, 23077), (590, 23086), (603, 23125), (606, 23137), (616, 23167), (618, 23176), (638, 23251), (643, 23272), (645, 23278), (661, 23338), (664, 23347), (676, 23401), (677, 23404), (708, 23530), (709, 23533), (715, 23554), (723, 23587), (724, 23590), (725, 23596), (728, 23605), (734, 23632), (743, 23677), (757, 23743), (763, 23794), (765, 23800), (775, 23860), (780, 23884), (787, 23944), (790, 23962), (792, 23974), (800, 24016), (818, 24133), (819, 24142), (827, 24190), (834, 24223), (837, 24235), (839, 24241), (842, 24262), (843, 24265), (844, 24271), (852, 24310), (857, 24337), (900, 24523), (904, 24550),

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

Candidate Starts for Demure_31:

(Start: 19 @22605 has 159 MA's), (Start: 22 @22635 has 3 MA's), (27, 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), (121, 23484), (138, 23640), (144, 23685), (150, 23718), (162, 23823), (163, 23826), (173, 23892), (176, 23901), (203, 24036), (219, 24114), (234, 24204), (261, 24291), (269, 24339), (284, 24414), (304, 24495), (313, 24534), (319, 24561), (345, 24702), (349, 24723), (359, 24786), (360, 24792), (365, 24810), (366, 24816), (376, 24858), (380, 24870), (382, 24879), (391, 24924), (401, 24966), (403, 24975), (404, 24987), (406, 24996), (407, 25005), (420, 25059), (431, 25104), (435, 25125), (438, 25134), (443, 25158), (444, 25161), (445, 25167), (456, 25230), (457, 25233), (460, 25242), (463, 25254), (465, 25260), (466, 25263), (468, 25275), (473, 25296), (475, 25302), (476, 25305), (481, 25326), (485, 25356), (487, 25371), (490, 25386), (504, 25434), (507, 25446), (509, 25452), (510, 25455), (512, 25467), (513, 25470), (525, 25527), (538, 25581), (544, 25605), (551, 25617), (552, 25620), (563, 25665), (564, 25668), (569, 25683), (570, 25686), (571, 25695), (572, 25710), (573, 25716), (574, 25722), (579, 25743), (580, 25746), (584, 25758), (587, 25773), (590, 25782), (595, 25803), (597, 25815), (604, 25836), (612, 25863), (622, 25896), (624, 25902), (629, 25920), (636, 25950), (646,

25989), (665, 26058), (712, 26250), (732, 26325), (749, 26415), (774, 26559), (783, 26622), (793, 26688), (798, 26721), (801, 26733), (807, 26796), (812, 26817), (814, 26829), (818, 26850), (845, 26991), (860, 27078), (865, 27096), (874, 27126), (881, 27144), (882, 27147), (884, 27159), (892, 27186), (909, 27297), (917, 27372), (927, 27441), (932, 27474), (937, 27498), (955, 27615), (969, 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 159 MA's), (Start: 22 @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), (118, 20962), (121, 20995), (125, 21010), (131, 21058), (150, 21229), (165, 21343), (166, 21346), (172, 21394), (193, 21508), (200, 21532), (203, 21547), (237, 21727), (244, 21742), (247, 21748), (257, 21766), (277, 21838), (291, 21904), (314, 22006), (315, 22012), (323, 22045), (324, 22048), (329, 22075), (349, 22192), (358, 22249), (360, 22261), (372, 22315), (375, 22324), (376, 22327), (382, 22348), (391, 22393), (397, 22414), (419, 22525), (421, 22531), (428, 22552), (430, 22570), (435, 22594), (447, 22654), (449, 22669), (450, 22672), (456, 22699), (457, 22702), (485, 22831), (487, 22846), (488, 22849), (492, 22867), (494, 22873), (495, 22876), (499, 22888), (507, 22924), (510, 22933), (517, 22966), (528, 23020), (529, 23023), (533, 23041), (537, 23053), (544, 23083), (550, 23098), (553, 23107), (555, 23119), (571, 23179), (582, 23236), (587, 23248), (590, 23257), (603, 23296), (606, 23308), (616, 23338), (618, 23347), (638, 23422), (639, 23425), (643, 23443), (661, 23509), (663, 23515), (664, 23518), (676, 23572), (677, 23575), (708, 23701), (709, 23704), (715, 23725), (723, 23758), (725, 23767), (743, 23848), (749, 23881), (757, 23914), (765, 23971), (775, 24031), (780, 24055), (790, 24133), (792, 24145), (811, 24271), (819, 24313), (827, 24361), (834, 24394), (837, 24406), (839, 24412), (842, 24433), (843, 24436), (844, 24442), (852, 24481), (857, 24508), (900, 24694), (904, 24721),

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

Candidate Starts for Dialga_33:

(Start: 19 @23664 has 159 MA's), (Start: 22 @23694 has 3 MA's), (27, 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), (116, 24495), (121, 24543), (136, 24669), (144, 24744), (145, 24756), (150, 24777), (162, 24882), (163, 24885), (183, 24993), (231, 25245), (261, 25350), (275, 25419), (279, 25440), (297, 25521), (298, 25524), (304, 25551), (313, 25590), (319, 25617), (345, 25758), (349, 25779), (359, 25842), (360, 25848), (365, 25866), (366, 25872), (376, 25914), (380, 25926), (382, 25935), (391, 25980), (401, 26022), (403, 26031), (404, 26043), (406, 26052), (407, 26061), (431, 26160), (435, 26181), (438, 26190), (443, 26214), (444, 26217), (456, 26286), (457, 26289), (460, 26298), (465, 26316), (466, 26319), (468, 26331), (473, 26352), (475, 26358), (476, 26361), (481, 26382), (485, 26412), (487, 26427), (490, 26442), (504, 26490), (507, 26502), (509, 26508), (510, 26511), (512, 26523), (513, 26526), (525, 26583), (538, 26637), (544, 26661), (551, 26673), (552, 26676), (563, 26721), (564, 26724), (569, 26739), (570, 26742), (571, 26751), (572, 26766), (573, 26772), (574, 26778), (579, 26799), (580, 26802), (584, 26814), (587, 26829), (590, 26838), (595, 26859), (597, 26871), (604, 26892), (612, 26919), (622, 26952), (624, 26958), (629, 26976), (636, 27006), (646, 27045), (665, 27114), (691, 27225), (694, 27237), (712, 27306), (732, 27381), (749, 27471), (774, 27615), (783, 27678), (793, 27744), (798, 27777), (801, 27789), (807, 27852), (812, 27873), (814, 27885), (818, 27906), (845, 28047), (860, 28134), (865, 28152), (874, 28182), (881, 28200), (882, 28203), (884, 28215), (892, 28242), (909, 28353), (917, 28428), (927, 28497), (932, 28530), (937, 28554), (955, 28671), (969, 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 159 MA's), (Start: 22 @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), (116, 22018), (118, 22033), (120, 22054),
(121, 22066), (126, 22090), (132, 22138), (140, 22234), (144, 22267), (150, 22300), (159, 22384),
(163, 22408), (166, 22417), (199, 22600), (206, 22630), (221, 22705), (222, 22711), (237, 22798),
(244, 22813), (247, 22819), (257, 22837), (259, 22846), (266, 22879), (267, 22888), (287, 22960),
(298, 23005), (314, 23077), (315, 23083), (323, 23116), (324, 23119), (329, 23146), (349, 23260),
(358, 23317), (360, 23329), (372, 23383), (375, 23392), (376, 23395), (382, 23416), (391, 23461),
(397, 23482), (419, 23593), (421, 23599), (428, 23620), (430, 23638), (435, 23662), (447, 23722),
(449, 23737), (450, 23740), (456, 23767), (457, 23770), (465, 23797), (483, 23881), (485, 23899),
(487, 23914), (488, 23917), (492, 23935), (494, 23941), (495, 23944), (499, 23956), (500, 23962),
(507, 23992), (510, 24001), (517, 24034), (528, 24088), (529, 24091), (533, 24109), (544, 24151),
(550, 24166), (553, 24175), (555, 24187), (571, 24247), (582, 24304), (587, 24316), (590, 24325),
(603, 24364), (606, 24376), (608, 24382), (612, 24394), (616, 24406), (618, 24415), (638, 24490),
(639, 24493), (643, 24511), (661, 24577), (664, 24586), (676, 24640), (677, 24643), (708, 24769),
(715, 24793), (723, 24826), (725, 24835), (730, 24850), (734, 24871), (743, 24916), (749, 24949),
(757, 24982), (765, 25039), (775, 25099), (786, 25177), (790, 25201), (792, 25213), (811, 25339),
(819, 25381), (827, 25429), (834, 25462), (837, 25474), (839, 25480), (842, 25501), (843, 25504),
(844, 25510), (852, 25549), (857, 25576), (900, 25762), (904, 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 159 MA's), (Start: 22 @14009 has 3 MA's), (61,
14270), (66, 14288), (74, 14381), (79, 14453), (87, 14579), (90, 14615), (96, 14654), (108, 14726),
(110, 14744), (135, 14981), (153, 15131), (158, 15170), (176, 15281), (181, 15305), (191, 15365),
(205, 15422), (242, 15608), (264, 15656), (277, 15686), (280, 15704), (288, 15740), (290, 15749),
(313, 15851), (324, 15896), (339, 15932), (346, 15974), (349, 15986), (360, 16055), (375, 16118),
(380, 16133), (382, 16142), (383, 16145), (388, 16169), (395, 16199), (412, 16295), (428, 16346),
(445, 16427), (452, 16475), (461, 16505), (464, 16517), (475, 16568), (484, 16613), (485, 16622),
(490, 16652), (503, 16697), (509, 16718), (512, 16733), (519, 16760), (520, 16763), (524, 16784),
(525, 16793), (533, 16829), (542, 16862), (574, 16991), (576, 16997), (587, 17033), (590, 17042),
(600, 17072), (606, 17093), (608, 17099), (612, 17111), (614, 17117), (618, 17132), (628, 17165),
(633, 17186), (635, 17195), (637, 17204), (644, 17231), (652, 17261), (655, 17273), (656, 17276),
(661, 17294), (663, 17300), (672, 17339), (680, 17369), (683, 17381), (685, 17396), (687, 17402),
(690, 17417), (721, 17534), (725, 17552), (728, 17561), (729, 17564), (732, 17576), (736, 17597),
(737, 17600), (758, 17708), (768, 17774), (790, 17852), (793, 17867), (824, 18065), (830, 18095),
(847, 18182), (872, 18299), (893, 18374), (900, 18425), (915, 18551), (931, 18656), (934, 18677),
(935, 18680), (943, 18731), (946, 18749), (955, 18815), (957, 18830), (964, 18890), (967, 18911),
(972, 18950), (975, 18983), (987, 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 159 MA's), (Start: 22 @16890 has 3 MA's), (46,
17049), (71, 17205), (79, 17328), (84, 17388), (92, 17499), (95, 17523), (96, 17529), (99, 17544), (105,
17577), (117, 17667), (118, 17670), (120, 17691), (121, 17703), (136, 17829), (151, 17949), (159,
18021), (163, 18045), (184, 18156), (197, 18231), (213, 18309), (220, 18336), (230, 18402), (290,
18516), (306, 18582), (310, 18603), (333, 18696), (347, 18765), (349, 18774), (360, 18843), (372,
18897), (375, 18906), (380, 18921), (382, 18930), (385, 18939), (390, 18969), (391, 18975), (397,
18996), (401, 19017), (404, 19038), (406, 19047), (407, 19056), (412, 19083), (414, 19092), (421,
19113), (422, 19116), (426, 19128), (447, 19236), (451, 19263), (457, 19284), (470, 19329), (473,
19344), (478, 19365), (483, 19386), (485, 19404), (510, 19461), (512, 19473), (513, 19476), (515,
19482), (555, 19512), (571, 19572), (575, 19602), (587, 19641), (590, 19650), (598, 19680), (606,
19707), (607, 19710), (608, 19713), (618, 19746), (628, 19779), (637, 19818), (639, 19824), (649,
19866), (657, 19893), (661, 19908), (662, 19911), (663, 19914), (678, 19977), (681, 19986), (687,
20016), (696, 20052), (697, 20055), (705, 20091), (739, 20232), (767, 20379), (784, 20421), (790,

20466), (800, 20520), (811, 20604), (819, 20646), (820, 20649), (831, 20715), (834, 20727), (839, 20745), (849, 20805), (864, 20874), (873, 20910), (888, 20949), (904, 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 159 MA's), (Start: 22 @17270 has 3 MA's), (25, 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), (118, 18050), (121, 18083), (125, 18098), (131, 18146), (145, 18296), (150, 18317), (163, 18425), (166, 18434), (172, 18482), (199, 18617), (209, 18659), (228, 18773), (240, 18824), (247, 18836), (268, 18917), (291, 19001), (295, 19019), (306, 19064), (315, 19109), (317, 19112), (318, 19118), (327, 19151), (349, 19262), (360, 19331), (361, 19334), (370, 19376), (372, 19385), (375, 19394), (384, 19424), (391, 19463), (393, 19469), (397, 19484), (404, 19526), (428, 19622), (431, 19643), (432, 19646), (436, 19667), (447, 19724), (449, 19739), (456, 19769), (460, 19781), (467, 19808), (470, 19823), (481, 19871), (485, 19901), (487, 19916), (496, 19949), (498, 19955), (507, 19994), (510, 20003), (512, 20015), (517, 20036), (530, 20102), (533, 20111), (542, 20144), (543, 20150), (544, 20153), (550, 20165), (551, 20168), (556, 20189), (561, 20210), (571, 20246), (579, 20294), (590, 20324), (618, 20414), (634, 20471), (645, 20516), (649, 20534), (657, 20561), (659, 20570), (661, 20576), (675, 20636), (679, 20648), (682, 20660), (694, 20714), (704, 20756), (706, 20762), (708, 20768), (717, 20801), (718, 20804), (724, 20828), (725, 20834), (727, 20840), (728, 20843), (738, 20894), (741, 20906), (748, 20945), (771, 21077), (779, 21113), (784, 21155), (790, 21200), (805, 21290), (819, 21380), (823, 21404), (827, 21428), (829, 21440), (831, 21449), (834, 21461), (837, 21473), (846, 21518), (852, 21548), (855, 21566), (864, 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 159 MA's), (Start: 22 @17270 has 3 MA's), (25, 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), (118, 18050), (121, 18083), (125, 18098), (131, 18146), (145, 18296), (150, 18317), (163, 18425), (166, 18434), (172, 18482), (199, 18617), (209, 18659), (228, 18773), (240, 18824), (247, 18836), (268, 18917), (291, 19001), (295, 19019), (306, 19064), (315, 19109), (317, 19112), (318, 19118), (327, 19151), (349, 19262), (360, 19331), (361, 19334), (370, 19376), (372, 19385), (375, 19394), (384, 19424), (391, 19463), (393, 19469), (397, 19484), (404, 19526), (428, 19622), (431, 19643), (432, 19646), (436, 19667), (447, 19724), (449, 19739), (456, 19769), (460, 19781), (467, 19808), (470, 19823), (481, 19871), (485, 19901), (487, 19916), (496, 19949), (498, 19955), (507, 19994), (510, 20003), (512, 20015), (517, 20036), (530, 20102), (533, 20111), (542, 20144), (543, 20150), (544, 20153), (550, 20165), (551, 20168), (556, 20189), (561, 20210), (571, 20246), (579, 20294), (590, 20324), (618, 20414), (624, 20432), (634, 20471), (645, 20516), (649, 20534), (657, 20561), (659, 20570), (661, 20576), (675, 20636), (679, 20648), (682, 20660), (694, 20714), (702, 20750), (704, 20756), (706, 20762), (708, 20768), (718, 20804), (724, 20828), (725, 20834), (727, 20840), (728, 20843), (738, 20894), (741, 20906), (748, 20945), (771, 21077), (779, 21113), (784, 21155), (790, 21200), (805, 21290), (819, 21380), (823, 21404), (827, 21428), (829, 21440), (831, 21449), (834, 21461), (837, 21473), (846, 21518), (852, 21548), (855, 21566), (864, 21605), (889, 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 159 MA's), (Start: 22 @13518 has 3 MA's), (42, 13620), (45, 13671), (61, 13779), (79, 13962), (87, 14088), (90, 14124), (96, 14163), (110, 14253), (153, 14640), (176, 14790), (181, 14814), (193, 14886), (242, 15117), (277, 15195), (280, 15213), (281, 15216), (288, 15249), (313, 15357), (326, 15417), (349, 15498), (360, 15567), (372, 15621), (394, 15708), (395, 15711), (416, 15822), (428, 15858), (431, 15876), (442, 15927), (464, 16029), (467, 16041), (470, 16056), (484, 16125), (485, 16134), (490, 16164), (503, 16209), (509, 16230),

(516, 16260), (519, 16272), (520, 16275), (524, 16296), (525, 16305), (533, 16341), (542, 16374), (566, 16455), (567, 16458), (574, 16503), (575, 16506), (576, 16509), (590, 16554), (600, 16584), (614, 16629), (618, 16644), (628, 16677), (633, 16698), (635, 16707), (637, 16716), (643, 16740), (644, 16743), (672, 16851), (683, 16893), (685, 16908), (687, 16914), (707, 16995), (721, 17046), (723, 17055), (725, 17064), (728, 17073), (729, 17076), (732, 17088), (733, 17091), (734, 17100), (736, 17109), (740, 17133), (755, 17202), (762, 17256), (790, 17364), (793, 17379), (800, 17418), (824, 17577), (872, 17811), (893, 17886), (899, 17919), (924, 18123), (930, 18165), (931, 18168), (934, 18189), (941, 18237), (943, 18243), (958, 18351), (967, 18423), (977, 18525), (987, 18678),

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

Candidate Starts for DrGrey_23:

(1, 16655), (Start: 2 @16676 has 31 MA's), (3, 16706), (14, 16850), (17, 16901), (24, 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), (132, 17885), (137, 17951), (145, 18026), (150, 18047), (153, 18080), (161, 18143), (162, 18152), (176, 18230), (206, 18377), (229, 18509), (247, 18566), (279, 18644), (280, 18653), (282, 18662), (288, 18689), (306, 18764), (308, 18773), (322, 18839), (323, 18842), (340, 18881), (349, 18935), (360, 19004), (372, 19058), (382, 19091), (391, 19136), (394, 19145), (397, 19157), (410, 19232), (412, 19244), (424, 19283), (428, 19295), (435, 19334), (442, 19364), (445, 19376), (452, 19424), (464, 19466), (474, 19514), (485, 19571), (515, 19691), (524, 19733), (525, 19742), (533, 19778), (538, 19796), (539, 19799), (542, 19811), (555, 19853), (556, 19856), (570, 19904), (574, 19940), (576, 19946), (581, 19967), (590, 19991), (618, 20081), (628, 20114), (632, 20132), (635, 20144), (637, 20153), (652, 20210), (655, 20222), (656, 20225), (661, 20243), (675, 20303), (680, 20318), (687, 20351), (690, 20366), (709, 20438), (721, 20483), (725, 20501), (728, 20510), (736, 20546), (739, 20567), (740, 20570), (784, 20756), (786, 20777), (787, 20783), (790, 20801), (791, 20804), (793, 20816), (799, 20849), (800, 20855), (823, 21005), (824, 21014), (884, 21287), (903, 21389), (931, 21605), (934, 21626), (941, 21674), (943, 21680), (944, 21686), (951, 21731), (967, 21860), (973, 21908), (986, 22100), (987, 22109),

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

Candidate Starts for Duffington_32:

(Start: 19 @23487 has 159 MA's), (Start: 22 @23517 has 3 MA's), (27, 23562), (49, 23706), (61, 23772), (71, 23832), (72, 23853), (79, 23955), (87, 24081), (90, 24117), (96, 24156), (105, 24204), (110, 24246), (116, 24318), (121, 24366), (136, 24492), (144, 24567), (145, 24579), (150, 24600), (162, 24705), (163, 24708), (206, 24930), (219, 24996), (234, 25086), (243, 25122), (261, 25173), (269, 25221), (273, 25233), (304, 25377), (313, 25416), (319, 25443), (349, 25605), (356, 25653), (359, 25668), (360, 25674), (365, 25692), (376, 25740), (391, 25806), (403, 25857), (404, 25869), (407, 25887), (420, 25941), (431, 25986), (435, 26007), (438, 26016), (442, 26037), (446, 26058), (456, 26112), (457, 26115), (460, 26124), (466, 26145), (468, 26157), (473, 26178), (475, 26184), (479, 26202), (485, 26238), (490, 26268), (504, 26316), (507, 26328), (509, 26334), (510, 26337), (512, 26349), (513, 26352), (518, 26373), (525, 26409), (538, 26463), (539, 26466), (544, 26487), (551, 26499), (552, 26502), (564, 26550), (569, 26565), (570, 26568), (571, 26577), (573, 26598), (579, 26625), (580, 26628), (586, 26652), (590, 26664), (595, 26685), (597, 26697), (600, 26706), (604, 26718), (612, 26745), (622, 26778), (624, 26784), (629, 26802), (646, 26871), (665, 26940), (691, 27051), (720, 27162), (732, 27207), (749, 27297), (774, 27441), (783, 27504), (786, 27531), (798, 27603), (801, 27615), (802, 27624), (807, 27678), (812, 27699), (814, 27711), (845, 27873), (860, 27960), (865, 27978), (874, 28008), (881, 28026), (882, 28029), (884, 28041), (892, 28068), (909, 28179), (917, 28254), (923, 28302), (932, 28356), (938, 28383), (955, 28497), (969, 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 159 MA's), (Start: 22 @17223 has 3 MA's), (25, 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), (118, 18003), (125, 18051), (127, 18066),
(132, 18108), (136, 18162), (144, 18237), (150, 18270), (163, 18378), (173, 18444), (181, 18477),
(183, 18486), (184, 18489), (186, 18507), (246, 18789), (260, 18813), (266, 18843), (310, 19002),
(324, 19062), (349, 19191), (363, 19269), (369, 19299), (372, 19314), (375, 19323), (382, 19347),
(388, 19374), (391, 19392), (397, 19413), (410, 19488), (414, 19509), (418, 19521), (428, 19551),
(435, 19593), (447, 19653), (448, 19659), (456, 19698), (476, 19779), (481, 19800), (485, 19830),
(490, 19860), (496, 19878), (507, 19926), (513, 19950), (517, 19968), (520, 19977), (521, 19986),
(523, 19992), (526, 20013), (533, 20043), (542, 20076), (543, 20082), (544, 20085), (550, 20097),
(555, 20118), (570, 20169), (571, 20178), (575, 20208), (577, 20214), (587, 20247), (590, 20256),
(600, 20286), (603, 20295), (606, 20307), (613, 20328), (618, 20346), (626, 20373), (628, 20379),
(629, 20382), (632, 20397), (639, 20424), (643, 20442), (647, 20454), (656, 20490), (682, 20592),
(697, 20655), (705, 20691), (706, 20694), (708, 20700), (712, 20715), (717, 20733), (727, 20772),
(728, 20775), (733, 20793), (738, 20826), (743, 20847), (755, 20904), (762, 20958), (764, 20967),
(784, 21021), (787, 21048), (790, 21066), (799, 21114), (800, 21120), (808, 21192), (823, 21270),
(825, 21285), (833, 21324), (839, 21348), (851, 21417), (855, 21438), (879, 21531), (905, 21660),

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

Candidate Starts for Eddiemania_33:

(Start: 19 @24148 has 159 MA's), (Start: 22 @24178 has 3 MA's), (27, 24223), (49, 24367), (61,
24433), (71, 24493), (72, 24514), (79, 24616), (87, 24742), (90, 24778), (96, 24817), (101, 24844),
(105, 24865), (110, 24907), (121, 25027), (144, 25228), (145, 25240), (150, 25261), (159, 25345),
(162, 25366), (163, 25369), (183, 25477), (203, 25579), (234, 25747), (243, 25783), (261, 25834),
(269, 25882), (304, 26038), (313, 26077), (317, 26095), (319, 26104), (349, 26266), (359, 26329),
(360, 26335), (365, 26353), (366, 26359), (376, 26401), (391, 26467), (403, 26518), (404, 26530),
(407, 26548), (420, 26602), (431, 26647), (435, 26668), (438, 26677), (442, 26698), (445, 26710),
(446, 26719), (449, 26743), (456, 26773), (457, 26776), (460, 26785), (465, 26803), (466, 26806),
(468, 26818), (473, 26839), (475, 26845), (476, 26848), (479, 26863), (481, 26869), (485, 26899),
(487, 26914), (490, 26929), (503, 26974), (504, 26977), (507, 26989), (509, 26995), (510, 26998),
(512, 27010), (513, 27013), (517, 27031), (525, 27070), (538, 27124), (544, 27148), (551, 27160),
(552, 27163), (564, 27211), (569, 27226), (570, 27229), (571, 27238), (572, 27253), (573, 27259),
(579, 27286), (580, 27289), (584, 27301), (587, 27316), (590, 27325), (595, 27346), (597, 27358),
(604, 27379), (612, 27406), (622, 27439), (624, 27445), (629, 27463), (636, 27493), (646, 27532),
(694, 27724), (712, 27793), (749, 27958), (774, 28102), (783, 28165), (793, 28231), (798, 28264),
(801, 28276), (807, 28339), (812, 28360), (814, 28372), (817, 28387), (828, 28450), (845, 28534),
(860, 28621), (865, 28639), (874, 28669), (881, 28687), (883, 28696), (884, 28702), (892, 28729),
(909, 28840), (917, 28915), (927, 28984), (932, 29017), (937, 29041), (955, 29158), (969, 29248),

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

Candidate Starts for Eevee_26:

(Start: 19 @20575 has 159 MA's), (Start: 22 @20608 has 3 MA's), (45, 20755), (57, 20845), (58,
20848), (79, 21043), (87, 21169), (96, 21244), (105, 21292), (110, 21334), (121, 21454), (135, 21571),
(145, 21667), (176, 21871), (179, 21883), (192, 21964), (220, 22099), (236, 22192), (262, 22255),
(276, 22294), (289, 22357), (293, 22372), (338, 22576), (349, 22627), (365, 22714), (371, 22744),
(374, 22756), (375, 22759), (379, 22771), (382, 22783), (388, 22810), (398, 22852), (405, 22897),
(425, 22978), (427, 22984), (431, 23008), (433, 23014), (446, 23080), (451, 23116), (458, 23140),
(467, 23173), (472, 23200), (474, 23209), (478, 23227), (483, 23248), (487, 23281), (494, 23308),
(495, 23311), (507, 23362), (515, 23392), (517, 23404), (533, 23479), (539, 23500), (541, 23506),
(545, 23521), (570, 23605), (571, 23614), (574, 23641), (590, 23692), (602, 23728), (618, 23782),
(639, 23860), (663, 23950), (671, 23980), (679, 24016), (687, 24052), (697, 24091), (711, 24148),
(717, 24169), (723, 24193), (724, 24196), (727, 24208), (729, 24214), (747, 24304), (753, 24334),
(754, 24337), (755, 24340), (763, 24400), (767, 24415), (776, 24469), (790, 24568), (807, 24688),
(808, 24694), (827, 24796), (829, 24808), (831, 24817), (852, 24913), (853, 24916), (905, 25141),

Gene: Egad_23 Start: 17271, Stop: 21791, Start Num: 22

Candidate Starts for Egad_23:

(Start: 18 @17220 has 2 MA's), (Start: 19 @17241 has 159 MA's), (Start: 22 @17271 has 3 MA's), (25, 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), (118, 18051), (121, 18084), (125, 18099), (131, 18147), (145, 18297), (150, 18318), (163, 18426), (166, 18435), (172, 18483), (209, 18660), (228, 18774), (240, 18825), (247, 18837), (268, 18918), (291, 19002), (295, 19020), (306, 19065), (315, 19110), (317, 19113), (318, 19119), (327, 19152), (349, 19263), (360, 19332), (361, 19335), (370, 19377), (372, 19386), (375, 19395), (384, 19425), (391, 19464), (393, 19470), (397, 19485), (404, 19527), (428, 19623), (431, 19644), (432, 19647), (436, 19668), (447, 19725), (449, 19740), (456, 19770), (460, 19782), (467, 19809), (470, 19824), (481, 19872), (485, 19902), (487, 19917), (496, 19950), (498, 19956), (507, 19995), (510, 20004), (512, 20016), (517, 20037), (530, 20103), (533, 20112), (542, 20145), (543, 20151), (544, 20154), (550, 20166), (551, 20169), (556, 20190), (561, 20211), (571, 20247), (579, 20295), (590, 20325), (618, 20415), (634, 20472), (645, 20517), (649, 20535), (657, 20562), (659, 20571), (661, 20577), (675, 20637), (679, 20649), (682, 20661), (694, 20715), (702, 20751), (704, 20757), (706, 20763), (708, 20769), (718, 20805), (724, 20829), (725, 20835), (727, 20841), (728, 20844), (738, 20895), (741, 20907), (748, 20946), (771, 21078), (779, 21114), (784, 21156), (790, 21201), (805, 21291), (819, 21381), (823, 21405), (827, 21429), (829, 21441), (831, 21450), (834, 21462), (837, 21474), (846, 21519), (852, 21549), (855, 21567), (864, 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 159 MA's), (Start: 22 @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), (118, 21496), (121, 21529), (125, 21544), (131, 21592), (145, 21742), (150, 21763), (163, 21871), (165, 21877), (166, 21880), (172, 21928), (193, 22042), (200, 22066), (203, 22081), (206, 22093), (221, 22168), (226, 22213), (237, 22261), (244, 22276), (247, 22282), (257, 22300), (277, 22372), (284, 22414), (287, 22423), (298, 22468), (314, 22540), (315, 22546), (323, 22579), (324, 22582), (329, 22609), (349, 22723), (356, 22771), (358, 22780), (360, 22792), (372, 22846), (375, 22855), (376, 22858), (382, 22879), (391, 22924), (397, 22945), (419, 23056), (421, 23062), (428, 23083), (430, 23101), (431, 23104), (435, 23125), (447, 23185), (449, 23200), (450, 23203), (456, 23230), (457, 23233), (485, 23362), (487, 23377), (488, 23380), (492, 23398), (494, 23404), (499, 23419), (507, 23455), (510, 23464), (517, 23497), (528, 23551), (529, 23554), (533, 23572), (537, 23584), (544, 23614), (550, 23629), (553, 23638), (555, 23650), (571, 23710), (580, 23761), (582, 23767), (587, 23779), (590, 23788), (603, 23827), (606, 23839), (610, 23851), (616, 23869), (618, 23878), (638, 23953), (639, 23956), (643, 23974), (661, 24040), (663, 24046), (664, 24049), (676, 24103), (677, 24106), (708, 24232), (709, 24235), (715, 24256), (723, 24289), (725, 24298), (743, 24379), (749, 24412), (757, 24445), (765, 24502), (775, 24562), (780, 24586), (790, 24664), (792, 24676), (811, 24802), (819, 24844), (827, 24892), (834, 24925), (837, 24937), (839, 24943), (842, 24964), (843, 24967), (852, 25012), (857, 25039), (862, 25066), (864, 25069), (900, 25225), (904, 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 159 MA's), (Start: 22 @17700 has 3 MA's), (25, 17733), (30, 17754), (68, 17985), (71, 18015), (78, 18096), (79, 18138), (80, 18156), (84, 18198), (89, 18285), (96, 18339), (99, 18354), (105, 18387), (118, 18480), (125, 18528), (127, 18543), (132, 18585), (136, 18639), (144, 18714), (150, 18747), (163, 18855), (173, 18921), (181, 18954), (183, 18963), (184, 18966), (186, 18984), (246, 19266), (260, 19290), (266, 19320), (310, 19479), (324, 19539), (349, 19668), (356, 19716), (367, 19770), (370, 19782), (372, 19791), (375, 19800), (382, 19824), (391, 19869), (397, 19890), (410, 19965), (418, 19998), (428, 20028), (431, 20049), (435,

20070), (447, 20130), (448, 20136), (456, 20175), (457, 20178), (462, 20193), (476, 20256), (481, 20277), (485, 20307), (490, 20337), (496, 20355), (507, 20403), (513, 20427), (517, 20445), (520, 20454), (521, 20463), (523, 20469), (526, 20490), (533, 20520), (542, 20553), (543, 20559), (544, 20562), (550, 20574), (555, 20595), (570, 20646), (571, 20655), (575, 20685), (577, 20691), (587, 20724), (590, 20733), (600, 20763), (603, 20772), (606, 20784), (618, 20823), (626, 20850), (628, 20856), (629, 20859), (632, 20874), (639, 20901), (643, 20919), (647, 20931), (656, 20967), (682, 21069), (697, 21132), (705, 21168), (706, 21171), (708, 21177), (712, 21192), (717, 21210), (723, 21234), (727, 21249), (728, 21252), (733, 21270), (738, 21303), (743, 21324), (755, 21381), (762, 21435), (764, 21444), (784, 21498), (787, 21525), (790, 21543), (799, 21591), (800, 21597), (808, 21669), (823, 21747), (825, 21762), (833, 21801), (839, 21825), (851, 21894), (855, 21915), (879, 22008), (905, 22137),

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

Candidate Starts for Elver_40:

(Start: 19 @29219 has 159 MA's), (Start: 22 @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), (121, 30095), (128, 30140), (131, 30158), (143, 30281), (145, 30308), (148, 30320), (151, 30341), (181, 30536), (197, 30623), (199, 30629), (209, 30671), (218, 30722), (228, 30785), (251, 30860), (253, 30869), (285, 30989), (305, 31067), (308, 31076), (349, 31244), (363, 31322), (372, 31367), (375, 31376), (382, 31400), (391, 31445), (397, 31466), (414, 31562), (425, 31595), (431, 31625), (447, 31706), (449, 31721), (450, 31724), (470, 31805), (476, 31832), (485, 31883), (489, 31910), (496, 31931), (497, 31934), (507, 31976), (528, 32072), (533, 32093), (537, 32105), (542, 32126), (544, 32135), (550, 32147), (560, 32189), (570, 32219), (571, 32228), (579, 32276), (580, 32279), (587, 32297), (590, 32306), (606, 32357), (609, 32366), (618, 32396), (629, 32432), (635, 32459), (656, 32540), (657, 32543), (677, 32624), (681, 32636), (687, 32666), (690, 32681), (693, 32690), (697, 32705), (706, 32744), (717, 32783), (721, 32798), (723, 32807), (726, 32819), (729, 32828), (730, 32831), (738, 32876), (739, 32882), (751, 32939), (755, 32954), (759, 32984), (775, 33080), (784, 33137), (790, 33182), (803, 33251), (813, 33332), (818, 33353), (823, 33386), (831, 33431), (833, 33440), (837, 33455), (839, 33461), (851, 33530), (855, 33548), (867, 33599),

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

Candidate Starts for EndAve_32:

(Start: 19 @23502 has 159 MA's), (Start: 22 @23532 has 3 MA's), (27, 23577), (49, 23721), (61, 23787), (71, 23847), (72, 23868), (79, 23970), (86, 24060), (87, 24096), (90, 24132), (96, 24171), (105, 24219), (110, 24261), (116, 24333), (121, 24381), (136, 24507), (144, 24582), (145, 24594), (150, 24615), (162, 24720), (163, 24723), (206, 24945), (219, 25011), (220, 25014), (231, 25083), (234, 25101), (261, 25188), (275, 25257), (297, 25359), (298, 25362), (304, 25389), (313, 25428), (319, 25455), (349, 25617), (356, 25665), (360, 25686), (365, 25704), (367, 25719), (376, 25752), (391, 25818), (402, 25866), (403, 25869), (406, 25890), (407, 25899), (420, 25953), (431, 25998), (435, 26019), (438, 26028), (445, 26061), (446, 26070), (449, 26094), (456, 26124), (457, 26127), (460, 26136), (463, 26148), (466, 26157), (468, 26169), (473, 26190), (475, 26196), (485, 26250), (490, 26280), (504, 26328), (507, 26340), (509, 26346), (510, 26349), (513, 26364), (518, 26385), (525, 26421), (538, 26475), (539, 26478), (542, 26490), (544, 26499), (551, 26511), (552, 26514), (555, 26529), (562, 26556), (564, 26562), (569, 26577), (570, 26580), (571, 26589), (572, 26604), (573, 26610), (577, 26625), (579, 26637), (580, 26640), (590, 26676), (595, 26697), (597, 26709), (600, 26718), (604, 26730), (612, 26757), (619, 26781), (622, 26790), (624, 26796), (629, 26814), (646, 26883), (665, 26952), (701, 27108), (749, 27309), (774, 27453), (783, 27516), (786, 27543), (798, 27615), (801, 27627), (802, 27636), (807, 27690), (812, 27711), (814, 27723), (845, 27885), (860, 27972), (865, 27990), (874, 28020), (881, 28038), (882, 28041), (884, 28053), (892, 28080), (909, 28191), (917, 28266), (923, 28314), (932, 28368), (938, 28395), (955, 28509), (969, 28599),

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

Candidate Starts for Esketit_23:

(1, 16139), (Start: 2 @16160 has 31 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), (121, 17294), (133, 17399), (144, 17495), (153, 17561), (176, 17711), (191, 17795), (195, 17816), (206, 17858), (230, 17993), (247, 18047), (280, 18134), (288, 18170), (290, 18179), (299, 18221), (308, 18254), (314, 18284), (345, 18407), (349, 18428), (359, 18491), (360, 18497), (362, 18503), (367, 18530), (372, 18551), (374, 18557), (375, 18560), (382, 18584), (391, 18629), (394, 18638), (395, 18641), (397, 18650), (410, 18725), (416, 18752), (422, 18770), (428, 18788), (431, 18806), (435, 18827), (446, 18878), (460, 18944), (464, 18959), (483, 19046), (485, 19064), (489, 19091), (515, 19184), (524, 19226), (525, 19235), (533, 19271), (534, 19274), (538, 19289), (539, 19292), (542, 19304), (555, 19346), (556, 19349), (570, 19397), (574, 19433), (576, 19439), (581, 19460), (590, 19484), (600, 19514), (618, 19574), (628, 19607), (629, 19610), (632, 19625), (635, 19637), (641, 19661), (652, 19703), (655, 19715), (656, 19718), (670, 19766), (675, 19796), (680, 19811), (687, 19844), (690, 19859), (706, 19922), (725, 19994), (727, 20000), (728, 20003), (736, 20039), (748, 20105), (763, 20192), (764, 20195), (790, 20294), (799, 20342), (800, 20348), (824, 20507), (884, 20780), (893, 20816), (903, 20882), (918, 21005), (931, 21098), (934, 21119), (941, 21167), (943, 21173), (944, 21179), (951, 21224), (964, 21332), (967, 21353), (973, 21401), (980, 21488), (986, 21590), (987, 21599),

Gene: Espio_24 Start: 16677, Stop: 22157, Start Num: 2

Candidate Starts for Espio_24:

(1, 16656), (Start: 2 @16677 has 31 MA's), (3, 16707), (14, 16851), (17, 16902), (24, 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), (132, 17886), (137, 17952), (145, 18027), (150, 18048), (153, 18081), (161, 18144), (162, 18153), (176, 18231), (206, 18378), (229, 18510), (247, 18567), (279, 18645), (280, 18654), (282, 18663), (288, 18690), (306, 18765), (308, 18774), (322, 18840), (323, 18843), (340, 18882), (349, 18936), (360, 19005), (372, 19059), (382, 19092), (391, 19137), (394, 19146), (397, 19158), (410, 19233), (424, 19284), (428, 19296), (435, 19335), (442, 19365), (445, 19377), (452, 19425), (464, 19467), (474, 19515), (485, 19572), (515, 19692), (524, 19734), (525, 19743), (533, 19779), (538, 19797), (539, 19800), (542, 19812), (555, 19854), (556, 19857), (570, 19905), (574, 19941), (576, 19947), (581, 19968), (590, 19992), (618, 20082), (628, 20115), (632, 20133), (635, 20145), (637, 20154), (652, 20211), (655, 20223), (656, 20226), (661, 20244), (675, 20304), (680, 20319), (687, 20352), (690, 20367), (709, 20439), (721, 20484), (725, 20502), (728, 20511), (736, 20547), (739, 20568), (740, 20571), (784, 20757), (786, 20778), (787, 20784), (790, 20802), (791, 20805), (793, 20817), (799, 20850), (800, 20856), (823, 21006), (824, 21015), (884, 21288), (903, 21390), (931, 21606), (934, 21627), (941, 21675), (943, 21681), (944, 21687), (951, 21732), (967, 21861), (973, 21909), (986, 22101), (987, 22110),

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

Candidate Starts for Fazel_30:

(Start: 19 @22536 has 159 MA's), (Start: 22 @22566 has 3 MA's), (27, 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), (136, 23526), (150, 23634), (151, 23646), (157, 23703), (162, 23739), (163, 23742), (174, 23811), (176, 23817), (212, 24000), (213, 24006), (231, 24102), (234, 24120), (275, 24276), (302, 24402), (304, 24411), (349, 24642), (350, 24648), (360, 24711), (365, 24729), (370, 24756), (375, 24774), (391, 24843), (398, 24867), (400, 24873), (403, 24894), (405, 24912), (406, 24915), (420, 24978), (431, 25023), (435, 25044), (441, 25071), (447, 25104), (451, 25131), (456, 25149), (457, 25152), (460, 25161), (463, 25173), (465, 25179), (466, 25182), (468, 25194), (479, 25239), (487, 25290), (496, 25323), (501, 25344), (504, 25353), (507, 25365), (510, 25374), (513, 25389), (515, 25395), (516, 25401), (518, 25410), (521, 25425), (522, 25428), (524, 25437), (525, 25446), (533, 25482), (539, 25503), (544, 25524), (555, 25554), (559, 25569), (560, 25575), (568, 25599), (570, 25605), (571, 25614), (572, 25629), (573, 25635), (582, 25671), (586,

25689), (590, 25701), (595, 25722), (597, 25734), (604, 25755), (605, 25758), (612, 25782), (615, 25791), (622, 25815), (624, 25821), (629, 25839), (630, 25848), (631, 25851), (654, 25938), (663, 25968), (712, 26169), (732, 26244), (743, 26301), (749, 26334), (770, 26457), (798, 26640), (801, 26652), (802, 26661), (807, 26715), (817, 26763), (825, 26814), (836, 26865), (841, 26886), (848, 26934), (854, 26958), (860, 26997), (865, 27015), (881, 27063), (882, 27066), (884, 27078), (909, 27216), (917, 27291), (938, 27420), (945, 27468), (955, 27534), (961, 27573), (969, 27624),

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

Candidate Starts for FidgetOrca_23:

(1, 16145), (Start: 2 @16166 has 31 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), (121, 17300), (133, 17405), (144, 17501), (153, 17567), (176, 17717), (191, 17801), (195, 17822), (206, 17864), (230, 17999), (279, 18131), (280, 18140), (288, 18176), (290, 18185), (299, 18227), (308, 18260), (345, 18413), (349, 18434), (359, 18497), (360, 18503), (362, 18509), (367, 18536), (372, 18557), (374, 18563), (375, 18566), (382, 18590), (391, 18635), (394, 18644), (395, 18647), (397, 18656), (410, 18731), (416, 18758), (421, 18773), (422, 18776), (428, 18794), (431, 18812), (435, 18833), (446, 18884), (464, 18965), (483, 19052), (485, 19070), (489, 19097), (515, 19190), (524, 19232), (525, 19241), (533, 19277), (538, 19295), (539, 19298), (555, 19352), (570, 19403), (574, 19439), (576, 19445), (581, 19466), (590, 19490), (600, 19520), (618, 19580), (628, 19613), (629, 19616), (632, 19631), (641, 19667), (652, 19709), (655, 19721), (656, 19724), (670, 19772), (675, 19802), (680, 19817), (687, 19850), (690, 19865), (706, 19928), (727, 20006), (736, 20045), (748, 20111), (763, 20198), (764, 20201), (790, 20300), (799, 20348), (800, 20354), (824, 20513), (884, 20786), (903, 20888), (918, 21011), (931, 21104), (934, 21125), (941, 21173), (943, 21179), (944, 21185), (951, 21230), (964, 21338), (967, 21359), (973, 21407), (980, 21494), (986, 21596), (987, 21605),

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

Candidate Starts for Figliar_32:

(Start: 19 @23512 has 159 MA's), (Start: 22 @23542 has 3 MA's), (27, 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), (136, 24502), (150, 24610), (151, 24622), (153, 24643), (157, 24679), (162, 24715), (163, 24718), (174, 24787), (176, 24793), (191, 24877), (206, 24940), (212, 24976), (220, 25009), (233, 25084), (234, 25096), (243, 25132), (261, 25183), (269, 25231), (273, 25243), (304, 25387), (313, 25426), (319, 25453), (349, 25615), (356, 25663), (360, 25684), (365, 25702), (376, 25750), (391, 25816), (403, 25867), (404, 25879), (407, 25897), (420, 25951), (431, 25996), (435, 26017), (438, 26026), (441, 26044), (442, 26047), (446, 26068), (456, 26122), (457, 26125), (460, 26134), (466, 26155), (468, 26167), (473, 26188), (475, 26194), (479, 26212), (485, 26248), (490, 26278), (504, 26326), (507, 26338), (509, 26344), (510, 26347), (512, 26359), (513, 26362), (518, 26383), (525, 26419), (538, 26473), (539, 26476), (544, 26497), (551, 26509), (552, 26512), (564, 26560), (569, 26575), (570, 26578), (571, 26587), (573, 26608), (579, 26635), (580, 26638), (586, 26662), (590, 26674), (595, 26695), (597, 26707), (600, 26716), (604, 26728), (612, 26755), (622, 26788), (624, 26794), (629, 26812), (642, 26866), (646, 26881), (665, 26950), (691, 27061), (720, 27172), (732, 27217), (749, 27307), (774, 27451), (783, 27514), (786, 27541), (798, 27613), (801, 27625), (802, 27634), (807, 27688), (812, 27709), (814, 27721), (845, 27883), (860, 27970), (865, 27988), (874, 28018), (881, 28036), (882, 28039), (884, 28051), (892, 28078), (909, 28189), (914, 28252), (917, 28264), (923, 28312), (932, 28366), (938, 28393), (955, 28507), (969, 28597),

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

Candidate Starts for Football_30:

(Start: 19 @20253 has 159 MA's), (Start: 22 @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), (123, 21117), (124, 21120), (134, 21219), (137, 21243), (150, 21339), (159, 21423), (162, 21444), (163, 21447), (174, 21516), (176, 21522), (177, 21528), (212, 21705), (223, 21756), (231, 21807), (243, 21861), (245, 21864), (278, 21996), (284, 22035), (304, 22116), (306, 22119), (321, 22194), (335, 22251), (347, 22335), (349, 22344), (360, 22413), (362, 22419), (365, 22431), (367, 22446), (368, 22449), (373, 22470), (386, 22518), (391, 22545), (397, 22566), (400, 22575), (403, 22596), (404, 22608), (406, 22617), (407, 22626), (420, 22680), (421, 22683), (428, 22704), (435, 22746), (444, 22782), (446, 22797), (447, 22806), (449, 22821), (451, 22833), (454, 22842), (463, 22875), (466, 22884), (484, 22968), (485, 22977), (487, 22992), (492, 23013), (504, 23055), (510, 23076), (513, 23091), (515, 23097), (523, 23133), (525, 23148), (539, 23205), (542, 23217), (544, 23226), (551, 23238), (554, 23250), (555, 23256), (560, 23277), (564, 23289), (570, 23307), (571, 23316), (572, 23331), (573, 23337), (576, 23349), (586, 23391), (587, 23394), (590, 23403), (595, 23424), (597, 23436), (612, 23484), (615, 23493), (622, 23517), (624, 23523), (629, 23541), (630, 23550), (654, 23640), (659, 23658), (660, 23661), (665, 23679), (706, 23850), (720, 23901), (751, 24045), (774, 24180), (782, 24231), (801, 24354), (807, 24417), (817, 24465), (818, 24471), (819, 24480), (828, 24528), (842, 24600), (854, 24660), (858, 24681), (859, 24684), (866, 24735), (869, 24744), (874, 24762), (882, 24783), (884, 24795), (901, 24888), (909, 24933), (917, 25008), (919, 25026), (921, 25047), (937, 25134), (954, 25245), (969, 25341),

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

Candidate Starts for FortCran_29:

(Start: 19 @20505 has 159 MA's), (Start: 22 @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), (123, 21369), (124, 21372), (134, 21471), (137, 21495), (150, 21591), (162, 21696), (163, 21699), (174, 21768), (176, 21774), (177, 21780), (212, 21957), (223, 22008), (231, 22059), (243, 22113), (245, 22116), (304, 22368), (306, 22371), (321, 22446), (335, 22503), (347, 22587), (349, 22596), (362, 22671), (365, 22683), (367, 22698), (368, 22701), (373, 22722), (386, 22770), (391, 22797), (397, 22818), (400, 22827), (403, 22848), (404, 22860), (406, 22869), (407, 22878), (420, 22932), (421, 22935), (428, 22956), (435, 22998), (441, 23025), (444, 23034), (446, 23049), (447, 23058), (449, 23073), (451, 23085), (454, 23094), (463, 23127), (466, 23136), (484, 23220), (485, 23229), (487, 23244), (488, 23247), (492, 23265), (504, 23307), (510, 23328), (513, 23343), (515, 23349), (523, 23385), (525, 23400), (539, 23457), (542, 23469), (544, 23478), (551, 23490), (554, 23502), (555, 23508), (560, 23529), (564, 23541), (570, 23559), (571, 23568), (572, 23583), (573, 23589), (576, 23601), (586, 23643), (587, 23646), (590, 23655), (595, 23676), (597, 23688), (612, 23736), (615, 23745), (622, 23769), (624, 23775), (629, 23793), (630, 23802), (636, 23823), (654, 23892), (659, 23910), (665, 23931), (706, 24102), (720, 24153), (751, 24297), (762, 24366), (774, 24432), (782, 24483), (801, 24606), (807, 24669), (817, 24717), (818, 24723), (819, 24732), (828, 24780), (842, 24852), (854, 24912), (858, 24933), (859, 24936), (866, 24987), (869, 24996), (874, 25014), (882, 25035), (884, 25047), (901, 25140), (909, 25185), (917, 25260), (919, 25278), (921, 25299), (937, 25386), (954, 25497), (969, 25593),

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

Candidate Starts for FrodoSwaggins_23:

(1, 16655), (Start: 2 @16676 has 31 MA's), (3, 16706), (14, 16850), (17, 16901), (24, 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), (132, 17885), (137, 17951), (145, 18026), (150, 18047), (153, 18080), (161, 18143), (162, 18152), (176, 18230), (206, 18377), (229, 18509), (247, 18566), (279, 18644), (280, 18653), (282, 18662), (288, 18689), (306, 18764), (308, 18773), (322, 18839), (323, 18842), (340, 18881), (349, 18935), (360, 19004), (372, 19058), (382, 19091), (391, 19136), (394, 19145), (397, 19157), (410, 19232), (424, 19283), (428, 19295), (435, 19334), (442, 19364), (445, 19376), (452, 19424), (464, 19466), (474, 19514), (485, 19571), (515, 19691), (524, 19733), (525, 19742), (533, 19778), (538, 19796), (539, 19799), (542, 19811), (555,

19853), (556, 19856), (570, 19904), (574, 19940), (576, 19946), (581, 19967), (590, 19991), (618, 20081), (628, 20114), (632, 20132), (635, 20144), (637, 20153), (652, 20210), (655, 20222), (656, 20225), (661, 20243), (675, 20303), (680, 20318), (687, 20351), (690, 20366), (709, 20438), (721, 20483), (725, 20501), (728, 20510), (736, 20546), (739, 20567), (740, 20570), (784, 20756), (786, 20777), (787, 20783), (790, 20801), (791, 20804), (793, 20816), (799, 20849), (800, 20855), (823, 21005), (824, 21014), (884, 21287), (903, 21389), (931, 21605), (934, 21626), (941, 21674), (943, 21680), (944, 21686), (951, 21731), (967, 21860), (973, 21908), (986, 22100), (987, 22109),

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

Candidate Starts for FromIndy_22:

(Start: 2 @15060 has 31 MA's), (3, 15090), (7, 15144), (9, 15171), (11, 15201), (12, 15204), (14, 15234), (79, 15786), (87, 15912), (96, 15987), (104, 16029), (110, 16077), (117, 16161), (132, 16269), (150, 16431), (153, 16464), (162, 16536), (176, 16614), (206, 16761), (288, 17073), (290, 17082), (307, 17145), (320, 17208), (349, 17319), (355, 17361), (360, 17388), (363, 17397), (375, 17451), (382, 17475), (395, 17532), (397, 17541), (417, 17646), (420, 17655), (428, 17679), (445, 17760), (464, 17850), (475, 17901), (483, 17937), (485, 17955), (490, 17985), (501, 18024), (502, 18027), (512, 18066), (520, 18096), (524, 18117), (525, 18126), (532, 18159), (533, 18162), (539, 18183), (558, 18246), (574, 18324), (576, 18330), (587, 18366), (588, 18369), (589, 18372), (590, 18375), (606, 18426), (609, 18435), (612, 18444), (618, 18465), (627, 18495), (628, 18498), (643, 18561), (644, 18564), (645, 18567), (656, 18609), (661, 18627), (670, 18657), (680, 18702), (687, 18735), (705, 18810), (707, 18816), (716, 18846), (721, 18867), (728, 18894), (732, 18909), (736, 18930), (740, 18954), (754, 19020), (760, 19062), (763, 19083), (768, 19107), (790, 19185), (799, 19233), (824, 19398), (872, 19632), (894, 19713), (900, 19758), (908, 19803), (931, 19989), (934, 20010), (936, 20022), (943, 20064), (951, 20115), (957, 20163), (962, 20202), (970, 20253), (979, 20376), (984, 20415),

Gene: Gandionco_41 Start: 29771, Stop: 34291, Start Num: 22

Candidate Starts for Gandionco_41:

(Start: 19 @29741 has 159 MA's), (Start: 22 @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), (121, 30617), (128, 30662), (131, 30680), (143, 30803), (145, 30830), (148, 30842), (151, 30863), (181, 31058), (197, 31145), (199, 31151), (209, 31193), (218, 31244), (251, 31382), (253, 31391), (285, 31511), (305, 31589), (308, 31598), (349, 31766), (363, 31844), (372, 31889), (375, 31898), (382, 31922), (391, 31967), (392, 31970), (397, 31988), (414, 32084), (425, 32117), (431, 32147), (437, 32174), (447, 32228), (449, 32243), (450, 32246), (470, 32327), (476, 32354), (485, 32405), (489, 32432), (496, 32453), (497, 32456), (507, 32498), (528, 32594), (533, 32615), (537, 32627), (542, 32648), (544, 32657), (550, 32669), (560, 32711), (570, 32741), (571, 32750), (579, 32798), (580, 32801), (587, 32819), (590, 32828), (606, 32879), (609, 32888), (618, 32918), (629, 32954), (656, 33062), (657, 33065), (677, 33146), (681, 33158), (687, 33188), (690, 33203), (697, 33227), (706, 33266), (717, 33305), (721, 33320), (723, 33329), (726, 33341), (729, 33350), (730, 33353), (738, 33398), (739, 33404), (751, 33461), (755, 33476), (759, 33506), (775, 33602), (784, 33659), (790, 33704), (803, 33773), (813, 33854), (818, 33875), (823, 33908), (831, 33953), (833, 33962), (837, 33977), (839, 33983), (851, 34052), (855, 34070), (867, 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 159 MA's), (Start: 22 @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), (116, 19875), (118, 19890), (125, 19938), (162, 20262), (166, 20274), (174, 20334), (184, 20376), (193, 20436), (194, 20442), (197, 20451), (202, 20466), (203, 20475), (223, 20574), (224, 20586), (225, 20595), (226, 20607), (309, 20892), (320, 20952), (324, 20961), (349, 21102), (356, 21150),

(361, 21174), (363, 21180), (372, 21225), (375, 21234), (382, 21258), (386, 21276), (396, 21321), (397, 21324), (400, 21333), (410, 21399), (421, 21441), (425, 21453), (428, 21462), (431, 21483), (442, 21534), (447, 21564), (449, 21579), (460, 21621), (465, 21639), (475, 21687), (476, 21690), (486, 21747), (491, 21774), (512, 21855), (515, 21864), (525, 21915), (533, 21951), (542, 21984), (544, 21993), (550, 22005), (557, 22032), (562, 22053), (570, 22077), (571, 22086), (587, 22155), (588, 22158), (589, 22161), (590, 22164), (600, 22194), (606, 22215), (613, 22236), (618, 22254), (621, 22263), (626, 22281), (641, 22341), (649, 22374), (653, 22389), (655, 22395), (656, 22398), (669, 22443), (675, 22476), (676, 22479), (677, 22482), (682, 22500), (711, 22620), (712, 22623), (717, 22641), (726, 22677), (736, 22719), (740, 22743), (755, 22812), (762, 22866), (765, 22878), (784, 22995), (790, 23040), (799, 23088), (820, 23223), (823, 23244), (827, 23268), (839, 23319), (852, 23388), (855, 23406),

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 159 MA's), (Start: 22 @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), (116, 19944), (118, 19959), (121, 19992), (125, 20007), (126, 20016), (129, 20043), (131, 20055), (135, 20109), (150, 20226), (163, 20334), (166, 20343), (173, 20400), (175, 20406), (198, 20523), (202, 20535), (206, 20556), (209, 20568), (213, 20598), (226, 20676), (247, 20745), (266, 20805), (291, 20901), (303, 20955), (314, 21003), (315, 21009), (324, 21045), (349, 21189), (351, 21201), (358, 21246), (360, 21258), (372, 21312), (375, 21321), (376, 21324), (382, 21345), (397, 21411), (408, 21477), (410, 21486), (411, 21489), (412, 21498), (419, 21522), (421, 21528), (428, 21549), (430, 21567), (431, 21570), (435, 21591), (447, 21651), (449, 21666), (450, 21669), (455, 21693), (456, 21696), (457, 21699), (467, 21735), (485, 21828), (487, 21843), (488, 21846), (492, 21864), (494, 21870), (499, 21885), (507, 21921), (510, 21930), (517, 21963), (528, 22017), (529, 22020), (533, 22038), (550, 22095), (553, 22104), (555, 22116), (560, 22137), (562, 22143), (563, 22146), (571, 22176), (582, 22233), (587, 22245), (589, 22251), (590, 22254), (618, 22344), (629, 22380), (645, 22446), (651, 22470), (652, 22473), (661, 22506), (662, 22509), (663, 22512), (664, 22515), (676, 22569), (677, 22572), (706, 22692), (715, 22722), (718, 22734), (725, 22764), (728, 22773), (730, 22779), (748, 22875), (759, 22932), (765, 22968), (776, 23031), (790, 23130), (792, 23142), (808, 23256), (827, 23358), (837, 23403), (839, 23409), (843, 23433), (846, 23448), (852, 23478), (857, 23505), (862, 23532), (876, 23577),

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

Candidate Starts for Gill_29:

(Start: 19 @20616 has 159 MA's), (Start: 22 @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), (123, 21492), (124, 21495), (150, 21714), (162, 21819), (163, 21822), (174, 21891), (176, 21897), (212, 22080), (223, 22131), (231, 22182), (243, 22236), (245, 22239), (278, 22371), (299, 22473), (304, 22491), (306, 22494), (321, 22569), (335, 22626), (347, 22710), (349, 22719), (365, 22806), (373, 22845), (386, 22893), (391, 22920), (397, 22941), (400, 22950), (403, 22971), (404, 22983), (406, 22992), (407, 23001), (412, 23028), (420, 23055), (421, 23058), (428, 23079), (435, 23121), (441, 23148), (444, 23157), (446, 23172), (447, 23181), (449, 23196), (451, 23208), (454, 23217), (457, 23229), (463, 23250), (466, 23259), (484, 23343), (485, 23352), (487, 23367), (488, 23370), (492, 23388), (496, 23400), (497, 23403), (504, 23430), (510, 23451), (513, 23466), (523, 23508), (525, 23523), (539, 23580), (542, 23592), (544, 23601), (551, 23613), (554, 23625), (555, 23631), (560, 23652), (564, 23664), (570, 23682), (571, 23691), (572, 23706), (573, 23712), (576, 23724), (586, 23766), (587, 23769), (590, 23778), (595, 23799), (597, 23811), (612, 23859), (615, 23868), (622, 23892), (624, 23898), (629, 23916), (630, 23925), (636, 23946), (654, 24015), (659, 24033), (660, 24036), (665, 24054), (695, 24180), (706, 24225), (720, 24276), (751, 24420), (774, 24555), (782, 24606), (793, 24684), (801, 24729), (807, 24792), (811, 24810), (817, 24840), (818, 24846), (828, 24903), (842, 24975), (854,

25035), (858, 25056), (859, 25059), (866, 25110), (869, 25119), (882, 25158), (884, 25170), (901, 25263), (909, 25308), (917, 25383), (921, 25422), (927, 25452), (937, 25509), (954, 25620), (969, 25716),

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

Candidate Starts for GirlPower_22:

(1, 17620), (Start: 2 @17641 has 31 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), (132, 18847), (153, 19042), (165, 19123), (176, 19192), (195, 19297), (207, 19342), (247, 19528), (280, 19615), (288, 19651), (290, 19660), (345, 19888), (349, 19909), (359, 19972), (360, 19978), (362, 19984), (372, 20032), (374, 20038), (375, 20041), (382, 20065), (391, 20110), (394, 20119), (395, 20122), (400, 20140), (420, 20245), (428, 20269), (443, 20341), (446, 20359), (464, 20440), (485, 20545), (515, 20665), (524, 20707), (525, 20716), (533, 20752), (539, 20773), (556, 20830), (570, 20878), (574, 20914), (581, 20941), (590, 20965), (600, 20995), (618, 21055), (628, 21088), (632, 21106), (637, 21127), (647, 21163), (652, 21184), (655, 21196), (656, 21199), (661, 21217), (663, 21223), (675, 21277), (680, 21292), (687, 21325), (690, 21340), (706, 21403), (727, 21481), (728, 21484), (736, 21520), (748, 21586), (753, 21607), (763, 21673), (766, 21685), (790, 21775), (799, 21823), (823, 21979), (824, 21988), (895, 22309), (908, 22393), (931, 22579), (934, 22600), (940, 22624), (941, 22648), (943, 22654), (944, 22660), (951, 22705), (964, 22813), (973, 22882), (980, 22969), (986, 23074), (987, 23083),

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

Candidate Starts for Glintora_32:

(Start: 19 @23473 has 159 MA's), (Start: 22 @23503 has 3 MA's), (27, 23548), (61, 23758), (71, 23818), (72, 23839), (79, 23941), (84, 24001), (93, 24127), (96, 24142), (99, 24157), (105, 24190), (115, 24283), (123, 24337), (124, 24340), (127, 24355), (144, 24526), (150, 24559), (151, 24571), (157, 24628), (159, 24643), (172, 24724), (176, 24742), (212, 24925), (231, 25027), (234, 25045), (243, 25081), (261, 25132), (273, 25192), (299, 25318), (304, 25336), (313, 25375), (319, 25402), (349, 25564), (356, 25612), (360, 25633), (365, 25651), (376, 25699), (391, 25765), (403, 25816), (404, 25828), (407, 25846), (420, 25900), (431, 25945), (435, 25966), (438, 25975), (443, 25999), (444, 26002), (446, 26017), (456, 26071), (457, 26074), (460, 26083), (466, 26104), (468, 26116), (473, 26137), (475, 26143), (479, 26161), (485, 26197), (487, 26212), (488, 26215), (490, 26227), (504, 26275), (507, 26287), (509, 26293), (510, 26296), (513, 26311), (518, 26332), (525, 26368), (539, 26425), (544, 26446), (551, 26458), (552, 26461), (563, 26506), (564, 26509), (569, 26524), (570, 26527), (571, 26536), (573, 26557), (579, 26584), (590, 26623), (592, 26632), (595, 26644), (597, 26656), (604, 26677), (612, 26704), (622, 26737), (624, 26743), (629, 26761), (630, 26770), (636, 26791), (663, 26890), (665, 26899), (712, 27091), (720, 27121), (732, 27166), (743, 27223), (749, 27256), (774, 27400), (783, 27463), (786, 27490), (798, 27562), (801, 27574), (802, 27583), (807, 27637), (812, 27658), (814, 27670), (817, 27685), (818, 27691), (845, 27832), (860, 27919), (865, 27937), (874, 27967), (883, 27994), (884, 28000), (892, 28027), (897, 28054), (909, 28138), (917, 28213), (932, 28315), (955, 28456), (969, 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 159 MA's), (Start: 22 @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), (116, 17988), (118, 18003), (125, 18051), (132, 18108), (140, 18204), (144, 18237), (150, 18270), (163, 18378), (173, 18444), (181, 18477), (183, 18486), (184, 18489), (186, 18507), (246, 18789), (260, 18813), (266, 18843), (310, 19002), (324, 19062), (349, 19191), (356, 19239), (363, 19269), (367, 19293), (370, 19305), (372, 19314), (375, 19323), (382, 19347), (391, 19392), (397, 19413), (410, 19488), (414, 19509), (415, 19512), (418, 19521), (428, 19551), (435, 19593), (447, 19653), (448, 19659), (449, 19668), (457, 19701), (461,

19713), (462, 19716), (476, 19779), (481, 19800), (485, 19830), (490, 19860), (496, 19878), (507, 19926), (513, 19950), (517, 19968), (520, 19977), (526, 20013), (533, 20043), (542, 20076), (543, 20082), (544, 20085), (550, 20097), (555, 20118), (570, 20169), (571, 20178), (577, 20214), (587, 20247), (590, 20256), (600, 20286), (603, 20295), (606, 20307), (618, 20346), (626, 20373), (628, 20379), (629, 20382), (632, 20397), (639, 20424), (647, 20454), (656, 20490), (682, 20592), (697, 20655), (705, 20691), (712, 20715), (717, 20733), (727, 20772), (729, 20778), (733, 20793), (737, 20814), (738, 20826), (762, 20958), (784, 21021), (787, 21048), (790, 21066), (799, 21114), (800, 21120), (808, 21192), (823, 21270), (829, 21306), (833, 21324), (839, 21348), (843, 21372), (851, 21417), (855, 21438), (905, 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 159 MA's), (Start: 22 @13518 has 3 MA's), (42, 13620), (45, 13671), (61, 13779), (79, 13962), (87, 14088), (90, 14124), (96, 14163), (110, 14253), (153, 14640), (176, 14790), (181, 14814), (193, 14886), (242, 15117), (277, 15195), (280, 15213), (281, 15216), (288, 15249), (313, 15357), (326, 15417), (349, 15498), (360, 15567), (372, 15621), (394, 15708), (395, 15711), (416, 15822), (428, 15858), (431, 15876), (442, 15927), (464, 16029), (467, 16041), (470, 16056), (484, 16125), (485, 16134), (490, 16164), (503, 16209), (509, 16230), (516, 16260), (519, 16272), (520, 16275), (524, 16296), (525, 16305), (533, 16341), (542, 16374), (567, 16458), (574, 16503), (575, 16506), (576, 16509), (590, 16554), (600, 16584), (614, 16629), (618, 16644), (628, 16677), (633, 16698), (635, 16707), (637, 16716), (643, 16740), (644, 16743), (672, 16851), (683, 16893), (685, 16908), (687, 16914), (707, 16995), (721, 17046), (723, 17055), (724, 17058), (725, 17064), (728, 17073), (729, 17076), (732, 17088), (733, 17091), (734, 17100), (736, 17109), (740, 17133), (755, 17202), (762, 17256), (790, 17364), (793, 17379), (800, 17418), (824, 17577), (872, 17811), (893, 17886), (899, 17919), (924, 18123), (930, 18165), (931, 18168), (934, 18189), (941, 18237), (943, 18243), (958, 18351), (967, 18423), (977, 18525), (987, 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 159 MA's), (Start: 22 @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), (116, 22052), (118, 22067), (120, 22088), (121, 22100), (126, 22124), (132, 22172), (140, 22268), (144, 22301), (150, 22334), (155, 22382), (163, 22442), (166, 22451), (172, 22499), (189, 22580), (193, 22613), (200, 22637), (203, 22652), (206, 22664), (237, 22832), (247, 22853), (257, 22871), (266, 22913), (277, 22943), (287, 22994), (291, 23009), (298, 23039), (314, 23111), (315, 23117), (323, 23150), (324, 23153), (349, 23297), (358, 23354), (360, 23366), (372, 23420), (375, 23429), (376, 23432), (382, 23453), (391, 23498), (397, 23519), (404, 23561), (407, 23579), (421, 23636), (428, 23657), (431, 23678), (435, 23699), (447, 23759), (449, 23774), (450, 23777), (456, 23804), (457, 23807), (470, 23858), (485, 23936), (487, 23951), (488, 23954), (492, 23972), (494, 23978), (495, 23981), (496, 23984), (499, 23993), (507, 24029), (510, 24038), (517, 24071), (528, 24125), (529, 24128), (533, 24146), (537, 24158), (544, 24188), (550, 24203), (553, 24212), (555, 24224), (560, 24245), (571, 24284), (582, 24341), (587, 24353), (590, 24362), (603, 24401), (606, 24413), (616, 24443), (618, 24452), (629, 24488), (638, 24527), (639, 24530), (643, 24548), (645, 24554), (661, 24614), (664, 24623), (676, 24677), (677, 24680), (708, 24806), (709, 24809), (715, 24830), (724, 24866), (725, 24872), (728, 24881), (734, 24908), (740, 24941), (743, 24953), (757, 25019), (765, 25076), (775, 25136), (780, 25160), (790, 25238), (792, 25250), (811, 25376), (818, 25409), (819, 25418), (827, 25466), (834, 25499), (837, 25511), (839, 25517), (842, 25538), (843, 25541), (844, 25547), (852, 25586), (857, 25613), (900, 25799), (904, 25826),

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

Candidate Starts for Gravy_29:

(Start: 19 @20616 has 159 MA's), (Start: 22 @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), (123, 21492), (124, 21495), (150, 21714), (162, 21819), (163, 21822), (174, 21891), (176, 21897), (212, 22080), (223, 22131), (231, 22182), (243, 22236), (245, 22239), (278, 22371), (299, 22473), (304, 22491), (306, 22494), (321, 22569), (335, 22626), (347, 22710), (349, 22719), (365, 22806), (373, 22845), (386, 22893), (391, 22920), (397, 22941), (400, 22950), (403, 22971), (404, 22983), (406, 22992), (407, 23001), (412, 23028), (420, 23055), (421, 23058), (428, 23079), (435, 23121), (441, 23148), (444, 23157), (446, 23172), (447, 23181), (449, 23196), (451, 23208), (454, 23217), (457, 23229), (463, 23250), (466, 23259), (484, 23343), (485, 23352), (487, 23367), (488, 23370), (492, 23388), (496, 23400), (497, 23403), (504, 23430), (510, 23451), (513, 23466), (523, 23508), (525, 23523), (539, 23580), (542, 23592), (544, 23601), (551, 23613), (554, 23625), (555, 23631), (560, 23652), (564, 23664), (570, 23682), (571, 23691), (572, 23706), (573, 23712), (576, 23724), (586, 23766), (587, 23769), (590, 23778), (595, 23799), (597, 23811), (612, 23859), (615, 23868), (622, 23892), (624, 23898), (629, 23916), (630, 23925), (636, 23946), (654, 24015), (659, 24033), (660, 24036), (665, 24054), (695, 24180), (706, 24225), (720, 24276), (751, 24420), (774, 24555), (782, 24606), (793, 24684), (801, 24729), (807, 24792), (811, 24810), (817, 24840), (818, 24846), (828, 24903), (842, 24975), (854, 25035), (858, 25056), (859, 25059), (866, 25110), (869, 25119), (882, 25158), (884, 25170), (901, 25263), (909, 25308), (917, 25383), (921, 25422), (927, 25452), (937, 25509), (954, 25620), (969, 25716),

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

Candidate Starts for Gusicorn_32:

(Start: 19 @23289 has 159 MA's), (Start: 22 @23319 has 3 MA's), (27, 23364), (49, 23508), (61, 23574), (71, 23634), (72, 23655), (79, 23757), (87, 23883), (90, 23919), (96, 23958), (101, 23985), (105, 24006), (110, 24048), (121, 24168), (134, 24282), (136, 24294), (144, 24369), (150, 24402), (162, 24507), (163, 24510), (231, 24870), (234, 24888), (275, 25044), (297, 25146), (298, 25149), (304, 25176), (313, 25215), (319, 25242), (324, 25263), (328, 25287), (349, 25404), (359, 25467), (360, 25473), (365, 25491), (366, 25497), (372, 25527), (380, 25551), (391, 25605), (398, 25629), (402, 25653), (403, 25656), (406, 25677), (407, 25686), (417, 25731), (420, 25740), (431, 25785), (435, 25806), (438, 25815), (439, 25821), (442, 25836), (444, 25842), (446, 25857), (456, 25911), (457, 25914), (460, 25923), (463, 25935), (466, 25944), (468, 25956), (473, 25977), (475, 25983), (481, 26007), (485, 26037), (487, 26052), (504, 26115), (507, 26127), (509, 26133), (510, 26136), (512, 26148), (513, 26151), (525, 26208), (538, 26262), (539, 26265), (544, 26286), (551, 26298), (552, 26301), (564, 26349), (569, 26364), (570, 26367), (571, 26376), (572, 26391), (573, 26397), (579, 26424), (580, 26427), (582, 26433), (590, 26463), (595, 26484), (597, 26496), (600, 26505), (604, 26517), (612, 26544), (622, 26577), (624, 26583), (629, 26601), (636, 26631), (665, 26739), (686, 26829), (691, 26850), (720, 26961), (732, 27006), (743, 27063), (749, 27096), (774, 27240), (783, 27303), (793, 27369), (798, 27402), (801, 27414), (807, 27477), (812, 27498), (814, 27510), (818, 27531), (845, 27672), (860, 27759), (865, 27777), (874, 27807), (881, 27825), (882, 27828), (883, 27834), (884, 27840), (892, 27867), (909, 27978), (914, 28041), (917, 28053), (927, 28122), (932, 28155), (937, 28179), (955, 28296), (969, 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 159 MA's), (Start: 22 @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), (116, 17210), (118, 17225), (125, 17273), (127, 17288), (132, 17330), (140, 17426), (144, 17459), (150, 17492), (163, 17600), (173, 17666), (181, 17699), (183, 17708), (184, 17711), (186, 17729), (246, 18011), (260, 18035), (266, 18065), (310, 18224), (324, 18284), (349, 18413), (356, 18461), (363, 18491), (367, 18515), (370, 18527), (372, 18536), (375, 18545), (382, 18569), (391, 18614), (397, 18635), (410, 18710), (418, 18743), (428, 18773), (431, 18794), (435, 18815), (447, 18875), (448, 18881), (456, 18920), (462, 18938),

(481, 19022), (485, 19052), (490, 19082), (496, 19100), (507, 19148), (513, 19172), (517, 19190), (520, 19199), (521, 19208), (523, 19214), (526, 19235), (533, 19265), (542, 19298), (543, 19304), (548, 19313), (555, 19340), (562, 19367), (571, 19400), (574, 19427), (576, 19433), (583, 19460), (590, 19478), (600, 19508), (603, 19517), (606, 19529), (608, 19535), (609, 19538), (613, 19550), (618, 19568), (626, 19595), (628, 19601), (645, 19670), (652, 19697), (656, 19712), (682, 19814), (705, 19913), (706, 19916), (708, 19922), (712, 19937), (717, 19955), (727, 19994), (728, 19997), (733, 20015), (738, 20048), (743, 20069), (755, 20126), (762, 20180), (784, 20243), (787, 20270), (790, 20288), (799, 20336), (800, 20342), (808, 20414), (823, 20492), (825, 20507), (833, 20546), (839, 20570), (843, 20594), (851, 20639), (855, 20660), (905, 20882),

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

Candidate Starts for HazuAndZazu_23:

(1, 16656), (Start: 2 @16677 has 31 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), (132, 17883), (153, 18078), (162, 18150), (176, 18228), (195, 18333), (206, 18375), (230, 18510), (279, 18642), (280, 18651), (288, 18687), (299, 18738), (308, 18771), (345, 18924), (349, 18945), (359, 19008), (360, 19014), (362, 19020), (367, 19047), (372, 19068), (375, 19077), (382, 19101), (391, 19146), (394, 19155), (395, 19158), (397, 19167), (410, 19242), (416, 19269), (421, 19284), (422, 19287), (428, 19305), (431, 19323), (435, 19344), (446, 19395), (460, 19461), (464, 19476), (483, 19563), (485, 19581), (489, 19608), (514, 19698), (515, 19701), (524, 19743), (525, 19752), (533, 19788), (538, 19806), (539, 19809), (555, 19863), (556, 19866), (570, 19914), (574, 19950), (581, 19977), (590, 20001), (600, 20031), (618, 20091), (628, 20124), (629, 20127), (632, 20142), (635, 20154), (641, 20178), (652, 20220), (655, 20232), (656, 20235), (670, 20283), (675, 20313), (680, 20328), (687, 20361), (690, 20376), (706, 20439), (727, 20517), (728, 20520), (736, 20556), (748, 20622), (763, 20709), (764, 20712), (790, 20811), (799, 20859), (800, 20865), (824, 21024), (884, 21297), (893, 21333), (903, 21399), (918, 21522), (931, 21615), (934, 21636), (941, 21684), (943, 21690), (944, 21696), (951, 21741), (964, 21849), (967, 21870), (973, 21918), (980, 22005), (986, 22107), (987, 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 159 MA's), (Start: 22 @17093 has 3 MA's), (25, 17126), (30, 17147), (68, 17378), (71, 17408), (78, 17489), (79, 17531), (80, 17549), (84, 17591), (89, 17678), (96, 17732), (99, 17747), (105, 17780), (116, 17858), (118, 17873), (125, 17921), (132, 17978), (136, 18032), (140, 18074), (141, 18077), (144, 18107), (150, 18140), (163, 18248), (173, 18314), (181, 18347), (183, 18356), (184, 18359), (186, 18377), (246, 18659), (260, 18683), (266, 18713), (310, 18872), (324, 18932), (349, 19061), (356, 19109), (363, 19139), (370, 19175), (372, 19184), (375, 19193), (382, 19217), (391, 19262), (397, 19283), (410, 19358), (418, 19391), (428, 19421), (431, 19442), (435, 19463), (447, 19523), (448, 19529), (456, 19568), (457, 19571), (462, 19586), (476, 19649), (481, 19670), (485, 19700), (490, 19730), (496, 19748), (507, 19796), (513, 19820), (517, 19838), (520, 19847), (521, 19856), (523, 19862), (526, 19883), (533, 19913), (542, 19946), (543, 19952), (544, 19955), (550, 19967), (555, 19988), (570, 20039), (571, 20048), (575, 20078), (577, 20084), (587, 20117), (590, 20126), (600, 20156), (603, 20165), (606, 20177), (618, 20216), (626, 20243), (628, 20249), (629, 20252), (632, 20267), (639, 20294), (643, 20312), (647, 20324), (656, 20360), (682, 20462), (697, 20525), (705, 20561), (706, 20564), (708, 20570), (712, 20585), (717, 20603), (723, 20627), (727, 20642), (728, 20645), (733, 20663), (738, 20696), (743, 20717), (755, 20774), (762, 20828), (764, 20837), (784, 20891), (787, 20918), (790, 20936), (799, 20984), (800, 20990), (808, 21062), (823, 21140), (825, 21155), (833, 21194), (839, 21218), (851, 21287), (855, 21308), (905, 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 159 MA's), (Start: 22 @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), (116, 17389), (118, 17404), (121, 17437), (125, 17452), (126, 17461), (131, 17500), (142, 17611), (144, 17638), (150, 17671), (151, 17683), (157, 17740), (159, 17755), (163, 17779), (165, 17785), (166, 17788), (174, 17848), (181, 17878), (193, 17950), (209, 18013), (220, 18070), (237, 18169), (239, 18172), (252, 18202), (263, 18238), (280, 18307), (281, 18310), (302, 18406), (306, 18418), (315, 18463), (316, 18466), (319, 18481), (331, 18532), (349, 18625), (361, 18697), (365, 18712), (370, 18739), (375, 18757), (377, 18763), (382, 18781), (391, 18826), (397, 18847), (404, 18889), (407, 18907), (413, 18937), (425, 18976), (428, 18985), (431, 19006), (436, 19030), (447, 19087), (449, 19102), (450, 19105), (456, 19132), (457, 19135), (467, 19171), (485, 19264), (503, 19339), (507, 19357), (510, 19366), (512, 19378), (528, 19453), (530, 19465), (533, 19474), (542, 19507), (544, 19516), (552, 19537), (556, 19558), (570, 19606), (571, 19615), (574, 19642), (576, 19648), (577, 19651), (582, 19672), (590, 19693), (591, 19696), (618, 19783), (643, 19879), (645, 19885), (650, 19906), (657, 19930), (661, 19945), (663, 19951), (670, 19975), (674, 19999), (683, 20032), (687, 20053), (688, 20062), (694, 20083), (708, 20137), (710, 20143), (725, 20203), (734, 20239), (737, 20251), (743, 20284), (748, 20314), (757, 20350), (758, 20359), (759, 20371), (775, 20467), (784, 20524), (790, 20569), (792, 20581), (811, 20707), (827, 20797), (837, 20842), (839, 20848), (843, 20872), (852, 20917), (857, 20944), (896, 21094), (900, 21133), (904, 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 159 MA's), (Start: 22 @17271 has 3 MA's), (25, 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), (118, 18051), (121, 18084), (125, 18099), (131, 18147), (145, 18297), (150, 18318), (163, 18426), (166, 18435), (172, 18483), (209, 18660), (228, 18774), (240, 18825), (247, 18837), (268, 18918), (291, 19002), (295, 19020), (306, 19065), (315, 19110), (317, 19113), (318, 19119), (327, 19152), (349, 19263), (360, 19332), (361, 19335), (370, 19377), (372, 19386), (375, 19395), (384, 19425), (391, 19464), (393, 19470), (397, 19485), (404, 19527), (428, 19623), (431, 19644), (432, 19647), (436, 19668), (447, 19725), (449, 19740), (456, 19770), (460, 19782), (467, 19809), (470, 19824), (481, 19872), (485, 19902), (487, 19917), (496, 19950), (498, 19956), (507, 19995), (510, 20004), (512, 20016), (517, 20037), (530, 20103), (533, 20112), (542, 20145), (543, 20151), (544, 20154), (550, 20166), (551, 20169), (556, 20190), (561, 20211), (571, 20247), (579, 20295), (590, 20325), (618, 20415), (624, 20433), (634, 20472), (645, 20517), (649, 20535), (657, 20562), (659, 20571), (661, 20577), (675, 20637), (682, 20661), (694, 20715), (702, 20751), (704, 20757), (706, 20763), (708, 20769), (718, 20805), (725, 20835), (727, 20841), (728, 20844), (738, 20895), (741, 20907), (748, 20946), (771, 21078), (779, 21114), (784, 21156), (790, 21201), (805, 21291), (819, 21381), (823, 21405), (827, 21429), (829, 21441), (831, 21450), (834, 21462), (837, 21474), (846, 21519), (852, 21549), (855, 21567), (864, 21606), (889, 21684),

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

Candidate Starts for Hortihabitatio_32:

(Start: 19 @22913 has 159 MA's), (Start: 22 @22943 has 3 MA's), (27, 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), (116, 23744), (121, 23792), (136, 23918), (140, 23960), (144, 23993), (150, 24026), (154, 24062), (159, 24110), (162, 24131), (163, 24134), (216, 24410), (231, 24494), (302, 24794), (304, 24803), (311, 24833), (324, 24890), (349, 25034), (350, 25040), (360, 25103), (365, 25121), (367, 25136), (375, 25166), (391, 25235), (398, 25259), (400, 25265), (401, 25277), (403, 25286), (404, 25298), (406, 25307), (414, 25352), (420, 25370), (431, 25415), (435, 25436), (441, 25463), (446, 25487), (447, 25496), (449, 25511), (454, 25532), (457, 25544), (460, 25553), (463, 25565), (466, 25574), (471, 25592), (473, 25607), (476, 25616), (481, 25637), (485, 25667), (501, 25736), (504, 25745), (507, 25757), (509, 25763), (510, 25766), (513,

25781), (516, 25793), (521, 25817), (523, 25823), (525, 25838), (530, 25865), (537, 25886), (539, 25895), (544, 25916), (555, 25946), (562, 25973), (563, 25976), (570, 25997), (573, 26027), (574, 26033), (579, 26054), (580, 26057), (582, 26063), (590, 26093), (595, 26114), (597, 26126), (604, 26147), (612, 26174), (615, 26183), (622, 26207), (624, 26213), (625, 26216), (629, 26231), (630, 26240), (631, 26243), (636, 26261), (645, 26297), (654, 26330), (657, 26339), (663, 26360), (665, 26369), (694, 26492), (698, 26504), (706, 26540), (712, 26561), (725, 26612), (749, 26726), (762, 26804), (770, 26849), (798, 27032), (801, 27044), (807, 27107), (810, 27119), (812, 27128), (814, 27140), (818, 27161), (825, 27206), (854, 27350), (860, 27389), (874, 27437), (881, 27455), (882, 27458), (884, 27470), (909, 27608), (914, 27671), (917, 27683), (919, 27701), (927, 27752), (938, 27812), (945, 27860), (961, 27965), (969, 28016),

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

Candidate Starts for Hoshi_23:

(1, 16139), (Start: 2 @16160 has 31 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), (121, 17294), (133, 17399), (144, 17495), (153, 17561), (176, 17711), (191, 17795), (195, 17816), (206, 17858), (230, 17993), (247, 18047), (280, 18134), (288, 18170), (290, 18179), (299, 18221), (308, 18254), (314, 18284), (345, 18407), (349, 18428), (359, 18491), (360, 18497), (362, 18503), (367, 18530), (372, 18551), (374, 18557), (375, 18560), (382, 18584), (391, 18629), (394, 18638), (395, 18641), (397, 18650), (410, 18725), (416, 18752), (422, 18770), (428, 18788), (431, 18806), (435, 18827), (446, 18878), (460, 18944), (464, 18959), (483, 19046), (485, 19064), (489, 19091), (515, 19184), (524, 19226), (525, 19235), (533, 19271), (534, 19274), (538, 19289), (539, 19292), (542, 19304), (555, 19346), (556, 19349), (570, 19397), (574, 19433), (576, 19439), (581, 19460), (590, 19484), (600, 19514), (618, 19574), (628, 19607), (629, 19610), (632, 19625), (635, 19637), (641, 19661), (652, 19703), (655, 19715), (656, 19718), (670, 19766), (675, 19796), (680, 19811), (687, 19844), (690, 19859), (706, 19922), (725, 19994), (727, 20000), (728, 20003), (736, 20039), (748, 20105), (763, 20192), (764, 20195), (790, 20294), (799, 20342), (800, 20348), (824, 20507), (884, 20780), (893, 20816), (903, 20882), (918, 21005), (931, 21098), (934, 21119), (941, 21167), (943, 21173), (944, 21179), (951, 21224), (964, 21332), (967, 21353), (973, 21401), (980, 21488), (986, 21590), (987, 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 159 MA's), (Start: 22 @13516 has 3 MA's), (42, 13618), (45, 13669), (61, 13777), (79, 13960), (87, 14086), (90, 14122), (96, 14161), (110, 14251), (153, 14638), (176, 14788), (181, 14812), (193, 14884), (242, 15115), (277, 15193), (280, 15211), (281, 15214), (288, 15247), (313, 15355), (326, 15415), (349, 15496), (360, 15565), (372, 15619), (379, 15640), (394, 15706), (395, 15709), (416, 15820), (428, 15856), (431, 15874), (442, 15925), (464, 16027), (467, 16039), (470, 16054), (484, 16123), (485, 16132), (490, 16162), (509, 16228), (516, 16258), (519, 16270), (520, 16273), (524, 16294), (525, 16303), (533, 16339), (542, 16372), (567, 16456), (574, 16501), (575, 16504), (576, 16507), (590, 16552), (600, 16582), (614, 16627), (618, 16642), (628, 16675), (633, 16696), (635, 16705), (637, 16714), (643, 16738), (644, 16741), (652, 16771), (655, 16783), (672, 16849), (677, 16870), (683, 16891), (685, 16906), (687, 16912), (721, 17044), (723, 17053), (725, 17062), (728, 17071), (729, 17074), (732, 17086), (733, 17089), (734, 17098), (736, 17107), (755, 17200), (762, 17254), (790, 17362), (793, 17377), (800, 17416), (824, 17575), (872, 17809), (893, 17884), (930, 18163), (931, 18166), (934, 18187), (941, 18235), (943, 18241), (958, 18349), (967, 18421), (972, 18460), (973, 18469), (977, 18523), (987, 18676),

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

Candidate Starts for Hydrus_33:

(Start: 19 @24017 has 159 MA's), (Start: 22 @24047 has 3 MA's), (27, 24092), (49, 24236), (60, 24296), (61, 24302), (71, 24362), (72, 24383), (79, 24485), (87, 24611), (90, 24647), (96, 24686), (105,

24734), (110, 24776), (116, 24848), (121, 24896), (136, 25022), (144, 25097), (145, 25109), (150, 25130), (158, 25202), (162, 25235), (163, 25238), (183, 25346), (231, 25598), (261, 25703), (275, 25772), (279, 25793), (297, 25874), (298, 25877), (304, 25904), (313, 25943), (319, 25970), (345, 26111), (349, 26132), (359, 26195), (360, 26201), (365, 26219), (366, 26225), (376, 26267), (380, 26279), (382, 26288), (391, 26333), (401, 26375), (403, 26384), (404, 26396), (406, 26405), (407, 26414), (431, 26513), (435, 26534), (438, 26543), (443, 26567), (444, 26570), (456, 26639), (457, 26642), (460, 26651), (465, 26669), (466, 26672), (468, 26684), (473, 26705), (475, 26711), (476, 26714), (481, 26735), (485, 26765), (487, 26780), (490, 26795), (504, 26843), (507, 26855), (509, 26861), (510, 26864), (512, 26876), (513, 26879), (525, 26936), (538, 26990), (544, 27014), (551, 27026), (552, 27029), (563, 27074), (564, 27077), (569, 27092), (570, 27095), (571, 27104), (572, 27119), (573, 27125), (574, 27131), (579, 27152), (580, 27155), (584, 27167), (587, 27182), (590, 27191), (595, 27212), (597, 27224), (604, 27245), (612, 27272), (622, 27305), (624, 27311), (629, 27329), (636, 27359), (646, 27398), (665, 27467), (691, 27578), (694, 27590), (712, 27659), (732, 27734), (749, 27824), (774, 27968), (783, 28031), (793, 28097), (798, 28130), (801, 28142), (807, 28205), (812, 28226), (814, 28238), (818, 28259), (828, 28316), (845, 28400), (860, 28487), (865, 28505), (874, 28535), (881, 28553), (882, 28556), (883, 28562), (884, 28568), (892, 28595), (909, 28706), (917, 28781), (927, 28850), (932, 28883), (937, 28907), (955, 29024), (969, 29114),

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

Candidate Starts for IceWarrior_23:

(1, 16139), (Start: 2 @16160 has 31 MA's), (3, 16190), (14, 16334), (42, 16544), (53, 16661), (68, 16733), (71, 16763), (79, 16886), (87, 17012), (96, 17087), (105, 17135), (110, 17177), (132, 17366), (153, 17561), (162, 17633), (176, 17711), (191, 17795), (195, 17816), (206, 17858), (230, 17993), (247, 18047), (280, 18134), (288, 18170), (290, 18179), (299, 18221), (308, 18254), (314, 18284), (345, 18407), (349, 18428), (359, 18491), (360, 18497), (362, 18503), (367, 18530), (372, 18551), (374, 18557), (375, 18560), (382, 18584), (391, 18629), (394, 18638), (395, 18641), (397, 18650), (410, 18725), (416, 18752), (422, 18770), (428, 18788), (431, 18806), (435, 18827), (446, 18878), (460, 18944), (464, 18959), (483, 19046), (485, 19064), (489, 19091), (515, 19184), (524, 19226), (525, 19235), (533, 19271), (534, 19274), (538, 19289), (539, 19292), (542, 19304), (555, 19346), (556, 19349), (570, 19397), (574, 19433), (576, 19439), (581, 19460), (590, 19484), (600, 19514), (618, 19574), (628, 19607), (629, 19610), (632, 19625), (635, 19637), (641, 19661), (652, 19703), (655, 19715), (656, 19718), (670, 19766), (675, 19796), (680, 19811), (687, 19844), (690, 19859), (706, 19922), (725, 19994), (727, 20000), (728, 20003), (736, 20039), (748, 20105), (763, 20192), (764, 20195), (790, 20294), (799, 20342), (800, 20348), (824, 20507), (884, 20780), (893, 20816), (903, 20882), (918, 21005), (931, 21098), (934, 21119), (941, 21167), (943, 21173), (944, 21179), (951, 21224), (964, 21332), (967, 21353), (973, 21401), (980, 21488), (986, 21590), (987, 21599),

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

Candidate Starts for Indigenous_23:

(1, 16139), (Start: 2 @16160 has 31 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), (121, 17294), (133, 17399), (144, 17495), (153, 17561), (176, 17711), (191, 17795), (195, 17816), (206, 17858), (230, 17993), (279, 18125), (280, 18134), (288, 18170), (290, 18179), (299, 18221), (308, 18254), (345, 18407), (349, 18428), (359, 18491), (360, 18497), (362, 18503), (367, 18530), (372, 18551), (374, 18557), (375, 18560), (382, 18584), (391, 18629), (394, 18638), (395, 18641), (397, 18650), (410, 18725), (416, 18752), (422, 18770), (428, 18788), (431, 18806), (435, 18827), (446, 18878), (460, 18944), (464, 18959), (483, 19046), (485, 19064), (489, 19091), (515, 19184), (524, 19226), (525, 19235), (533, 19271), (534, 19274), (538, 19289), (539, 19292), (542, 19304), (555, 19346), (556, 19349), (570, 19397), (574, 19433), (576, 19439), (581, 19460), (590, 19484), (600, 19514), (618, 19574), (628, 19607), (629, 19610), (632, 19625), (635, 19637), (641, 19661), (652, 19703), (655, 19715), (656, 19718), (670, 19766), (675, 19796), (680, 19811), (687, 19844), (690, 19859), (706, 19922), (725, 19994), (727, 20000), (728, 20003), (736, 20039),

(748, 20105), (763, 20192), (764, 20195), (790, 20294), (799, 20342), (800, 20348), (824, 20507), (884, 20780), (893, 20816), (903, 20882), (918, 21005), (931, 21098), (934, 21119), (941, 21167), (943, 21173), (944, 21179), (951, 21224), (964, 21332), (967, 21353), (973, 21401), (980, 21488), (986, 21590), (987, 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 159 MA's), (Start: 22 @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), (116, 20672), (118, 20687), (120, 20708), (121, 20720), (128, 20765), (132, 20792), (135, 20837), (140, 20888), (144, 20921), (150, 20954), (166, 21071), (172, 21119), (173, 21128), (196, 21245), (200, 21257), (201, 21260), (244, 21467), (266, 21527), (291, 21623), (303, 21677), (314, 21725), (315, 21731), (324, 21767), (349, 21911), (358, 21968), (360, 21980), (372, 22034), (375, 22043), (376, 22046), (382, 22067), (383, 22070), (392, 22115), (397, 22133), (410, 22208), (411, 22211), (413, 22223), (421, 22250), (428, 22271), (430, 22289), (431, 22292), (435, 22313), (447, 22373), (449, 22388), (450, 22391), (455, 22415), (456, 22418), (457, 22421), (465, 22448), (470, 22472), (472, 22484), (485, 22550), (487, 22565), (488, 22568), (492, 22586), (494, 22592), (495, 22595), (496, 22598), (507, 22643), (508, 22646), (510, 22652), (512, 22664), (517, 22685), (528, 22739), (529, 22742), (536, 22769), (543, 22799), (550, 22817), (553, 22826), (555, 22838), (560, 22859), (570, 22889), (571, 22898), (579, 22946), (582, 22955), (584, 22961), (590, 22976), (593, 22982), (600, 23006), (603, 23015), (616, 23057), (618, 23066), (629, 23102), (639, 23144), (643, 23162), (645, 23168), (651, 23192), (661, 23228), (675, 23288), (687, 23336), (688, 23345), (697, 23375), (715, 23444), (725, 23486), (728, 23495), (758, 23642), (759, 23654), (765, 23690), (779, 23765), (784, 23807), (790, 23852), (792, 23864), (800, 23906), (823, 24056), (827, 24080), (837, 24125), (838, 24128), (839, 24131), (843, 24155), (846, 24170), (852, 24200), (857, 24227), (902, 24422), (904, 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 159 MA's), (Start: 22 @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), (116, 21689), (118, 21704), (120, 21725), (121, 21737), (132, 21809), (144, 21938), (150, 21971), (163, 22079), (166, 22088), (179, 22166), (184, 22190), (204, 22292), (209, 22313), (221, 22376), (249, 22493), (266, 22544), (277, 22574), (291, 22640), (314, 22742), (315, 22748), (318, 22763), (319, 22766), (324, 22784), (349, 22928), (357, 22982), (358, 22985), (367, 23030), (375, 23060), (376, 23063), (382, 23084), (383, 23087), (397, 23150), (399, 23156), (408, 23216), (410, 23225), (413, 23240), (421, 23267), (423, 23273), (428, 23288), (431, 23309), (435, 23330), (447, 23390), (449, 23405), (450, 23408), (455, 23432), (456, 23435), (457, 23438), (470, 23489), (477, 23522), (485, 23567), (487, 23582), (488, 23585), (494, 23609), (496, 23615), (499, 23624), (507, 23660), (510, 23669), (517, 23702), (528, 23756), (529, 23759), (533, 23777), (544, 23819), (548, 23828), (550, 23834), (553, 23843), (555, 23855), (556, 23858), (559, 23870), (560, 23876), (562, 23882), (563, 23885), (571, 23915), (581, 23969), (582, 23972), (589, 23990), (590, 23993), (591, 23996), (600, 24023), (601, 24026), (618, 24083), (629, 24119), (637, 24155), (638, 24158), (639, 24161), (645, 24185), (646, 24188), (651, 24209), (662, 24248), (663, 24251), (675, 24305), (687, 24353), (688, 24362), (715, 24461), (725, 24503), (727, 24509), (728, 24512), (736, 24548), (757, 24650), (759, 24671), (765, 24707), (771, 24746), (784, 24824), (792, 24881), (827, 25097), (837, 25142), (852, 25217), (877, 25316), (900, 25424), (904, 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 159 MA's), (Start: 22 @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), (118, 20771), (121, 20804), (125, 20819), (131, 20867), (150, 21038), (165, 21152), (166, 21155), (172, 21203), (193, 21317), (200, 21341), (203, 21356), (237, 21536), (244, 21551), (247, 21557), (257, 21575), (277, 21647), (291, 21713), (314, 21815), (315, 21821), (323, 21854), (324, 21857), (329, 21884), (349, 22001), (358, 22058), (360, 22070), (372, 22124), (375, 22133), (376, 22136), (382, 22157), (397, 22223), (419, 22334), (421, 22340), (428, 22361), (430, 22379), (435, 22403), (447, 22463), (449, 22478), (450, 22481), (456, 22508), (457, 22511), (485, 22640), (487, 22655), (488, 22658), (492, 22676), (494, 22682), (495, 22685), (499, 22697), (507, 22733), (510, 22742), (517, 22775), (528, 22829), (529, 22832), (533, 22850), (537, 22862), (544, 22892), (550, 22907), (553, 22916), (555, 22928), (571, 22988), (582, 23045), (587, 23057), (590, 23066), (603, 23105), (606, 23117), (616, 23147), (618, 23156), (638, 23231), (639, 23234), (643, 23252), (661, 23318), (663, 23324), (664, 23327), (676, 23381), (677, 23384), (708, 23510), (709, 23513), (715, 23534), (723, 23567), (725, 23576), (743, 23657), (749, 23690), (757, 23723), (765, 23780), (775, 23840), (780, 23864), (790, 23942), (792, 23954), (811, 24080), (819, 24122), (827, 24170), (834, 24203), (837, 24215), (839, 24221), (842, 24242), (843, 24245), (844, 24251), (852, 24290), (857, 24317), (900, 24503), (904, 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 159 MA's), (Start: 22 @17147 has 3 MA's), (25, 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), (116, 17912), (118, 17927), (125, 17975), (132, 18032), (136, 18086), (140, 18128), (144, 18161), (150, 18194), (163, 18302), (173, 18368), (181, 18401), (183, 18410), (184, 18413), (186, 18431), (246, 18713), (260, 18737), (266, 18767), (310, 18926), (324, 18986), (349, 19115), (356, 19163), (363, 19193), (370, 19229), (372, 19238), (375, 19247), (382, 19271), (391, 19316), (397, 19337), (410, 19412), (418, 19445), (428, 19475), (431, 19496), (435, 19517), (447, 19577), (448, 19583), (456, 19622), (457, 19625), (462, 19640), (476, 19703), (481, 19724), (485, 19754), (490, 19784), (496, 19802), (507, 19850), (513, 19874), (517, 19892), (520, 19901), (521, 19910), (523, 19916), (526, 19937), (533, 19967), (542, 20000), (543, 20006), (544, 20009), (550, 20021), (555, 20042), (570, 20093), (571, 20102), (575, 20132), (577, 20138), (587, 20171), (590, 20180), (600, 20210), (603, 20219), (606, 20231), (618, 20270), (626, 20297), (628, 20303), (629, 20306), (632, 20321), (639, 20348), (643, 20366), (647, 20378), (656, 20414), (682, 20516), (697, 20579), (705, 20615), (706, 20618), (708, 20624), (712, 20639), (717, 20657), (723, 20681), (727, 20696), (728, 20699), (733, 20717), (738, 20750), (743, 20771), (755, 20828), (762, 20882), (764, 20891), (784, 20945), (787, 20972), (790, 20990), (799, 21038), (800, 21044), (808, 21116), (823, 21194), (825, 21209), (833, 21248), (839, 21272), (851, 21341), (855, 21362), (879, 21455), (905, 21584),

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

Candidate Starts for Jaylociraptor_23:

(1, 16139), (Start: 2 @16160 has 31 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), (121, 17294), (133, 17399), (144, 17495), (153, 17561), (176, 17711), (191, 17795), (195, 17816), (206, 17858), (230, 17993), (279, 18125), (280, 18134), (288, 18170), (290, 18179), (299, 18221), (308, 18254), (345, 18407), (349, 18428), (359, 18491), (360, 18497), (362, 18503), (367, 18530), (372, 18551), (374, 18557), (375, 18560), (382, 18584), (391, 18629), (394, 18638), (395, 18641), (397, 18650), (410, 18725), (416, 18752), (422, 18770), (428, 18788), (431, 18806), (435, 18827), (446, 18878), (460, 18944), (464, 18959), (483, 19046), (485, 19064), (489, 19091), (515, 19184), (524, 19226), (525, 19235), (533, 19271), (534, 19274), (538, 19289), (539, 19292), (542, 19304), (555, 19346), (556, 19349), (570, 19397), (574, 19433), (576, 19439), (581, 19460), (590, 19484), (600, 19514), (618, 19574), (628, 19607), (629, 19610), (632, 19625), (635, 19637), (641, 19661), (652, 19703), (655, 19715), (656, 19718), (670, 19766), (675, 19796), (680, 19811), (687, 19844), (690, 19859), (706, 19922), (725, 19994), (727, 20000), (728, 20003), (736, 20039),

(748, 20105), (763, 20192), (764, 20195), (790, 20294), (799, 20342), (800, 20348), (824, 20507), (884, 20780), (893, 20816), (903, 20882), (918, 21005), (931, 21098), (934, 21119), (941, 21167), (943, 21173), (944, 21179), (951, 21224), (964, 21332), (967, 21353), (973, 21401), (980, 21488), (986, 21590), (987, 21599),

Gene: Jazzy4900_24 Start: 18500, Stop: 23560, Start Num: 4

Candidate Starts for Jazzy4900_24:

(4, 18500), (6, 18530), (10, 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), (118, 19523), (119, 19535), (120, 19544), (126, 19580), (144, 19757), (150, 19790), (158, 19862), (162, 19895), (163, 19898), (178, 19982), (211, 20207), (215, 20243), (217, 20267), (220, 20279), (238, 20405), (272, 20573), (295, 20726), (296, 20729), (314, 20852), (315, 20858), (326, 20909), (341, 20972), (349, 21026), (353, 21056), (367, 21128), (375, 21158), (378, 21167), (382, 21182), (391, 21227), (397, 21248), (399, 21254), (406, 21299), (428, 21386), (435, 21428), (449, 21503), (467, 21572), (481, 21635), (485, 21665), (496, 21713), (499, 21722), (512, 21782), (533, 21878), (542, 21911), (544, 21920), (550, 21932), (551, 21935), (555, 21953), (560, 21974), (570, 22004), (571, 22013), (574, 22040), (582, 22070), (590, 22091), (605, 22136), (613, 22163), (618, 22181), (639, 22259), (651, 22307), (652, 22310), (662, 22346), (672, 22388), (680, 22418), (681, 22421), (685, 22445), (687, 22451), (688, 22460), (710, 22541), (723, 22592), (728, 22610), (735, 22643), (736, 22646), (748, 22712), (762, 22793), (784, 22922), (790, 22967), (805, 23057), (818, 23138), (819, 23147), (823, 23171), (831, 23216), (835, 23234), (839, 23249), (851, 23318), (880, 23429),

Gene: JeNeSaisPas_39 Start: 29784, Stop: 34304, Start Num: 22

Candidate Starts for JeNeSaisPas_39:

(Start: 19 @29754 has 159 MA's), (Start: 22 @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), (121, 30630), (128, 30675), (131, 30693), (143, 30816), (145, 30843), (148, 30855), (151, 30876), (181, 31071), (197, 31158), (209, 31206), (218, 31257), (251, 31395), (253, 31404), (285, 31524), (305, 31602), (308, 31611), (349, 31779), (363, 31857), (372, 31902), (375, 31911), (382, 31935), (391, 31980), (397, 32001), (414, 32097), (425, 32130), (431, 32160), (437, 32187), (447, 32241), (449, 32256), (450, 32259), (470, 32340), (476, 32367), (485, 32418), (489, 32445), (496, 32466), (497, 32469), (507, 32511), (528, 32607), (533, 32628), (537, 32640), (542, 32661), (544, 32670), (550, 32682), (560, 32724), (570, 32754), (571, 32763), (579, 32811), (580, 32814), (587, 32832), (590, 32841), (606, 32892), (609, 32901), (618, 32931), (629, 32967), (635, 32994), (656, 33075), (657, 33078), (677, 33159), (681, 33171), (687, 33201), (690, 33216), (693, 33225), (697, 33240), (706, 33279), (717, 33318), (721, 33333), (723, 33342), (726, 33354), (729, 33363), (730, 33366), (738, 33411), (739, 33417), (751, 33474), (755, 33489), (759, 33519), (775, 33615), (784, 33672), (790, 33717), (803, 33786), (813, 33867), (818, 33888), (823, 33921), (831, 33966), (833, 33975), (837, 33990), (839, 33996), (851, 34065), (855, 34083), (867, 34134),

Gene: Jeremy4pt0_22 Start: 17270, Stop: 21790, Start Num: 22

Candidate Starts for Jeremy4pt0_22:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 159 MA's), (Start: 22 @17270 has 3 MA's), (25, 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), (118, 18050), (121, 18083), (125, 18098), (131, 18146), (145, 18296), (150, 18317), (163, 18425), (166, 18434), (172, 18482), (199, 18617), (209, 18659), (228, 18773), (240, 18824), (247, 18836), (268, 18917), (291, 19001), (295, 19019), (306, 19064), (315, 19109), (317, 19112), (318, 19118), (327, 19151), (349, 19262), (360, 19331), (361, 19334), (370, 19376), (372, 19385), (375, 19394), (384, 19424), (391, 19463), (393, 19469), (397, 19484), (404, 19526), (428, 19622), (431, 19643), (432, 19646), (436, 19667), (447, 19724), (449, 19739), (456, 19769), (460, 19781), (467, 19808),

(470, 19823), (481, 19871), (485, 19901), (487, 19916), (496, 19949), (498, 19955), (507, 19994), (510, 20003), (512, 20015), (517, 20036), (530, 20102), (533, 20111), (542, 20144), (543, 20150), (544, 20153), (550, 20165), (551, 20168), (556, 20189), (561, 20210), (571, 20246), (579, 20294), (590, 20324), (618, 20414), (634, 20471), (645, 20516), (649, 20534), (657, 20561), (659, 20570), (661, 20576), (675, 20636), (679, 20648), (682, 20660), (694, 20714), (702, 20750), (704, 20756), (706, 20762), (708, 20768), (718, 20804), (724, 20828), (725, 20834), (727, 20840), (728, 20843), (738, 20894), (741, 20906), (748, 20945), (771, 21077), (779, 21113), (784, 21155), (790, 21200), (805, 21290), (819, 21380), (823, 21404), (827, 21428), (829, 21440), (831, 21449), (834, 21461), (837, 21473), (846, 21518), (852, 21548), (855, 21566), (864, 21605), (889, 21683),

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

Candidate Starts for Jodelie19_33:

(Start: 19 @24936 has 159 MA's), (Start: 22 @24966 has 3 MA's), (27, 25011), (49, 25155), (61, 25221), (71, 25281), (72, 25302), (79, 25404), (87, 25530), (90, 25566), (96, 25605), (105, 25653), (110, 25695), (116, 25767), (121, 25815), (136, 25941), (144, 26016), (145, 26028), (150, 26049), (162, 26154), (163, 26157), (206, 26379), (219, 26445), (234, 26535), (243, 26571), (261, 26622), (269, 26670), (273, 26682), (304, 26826), (313, 26865), (319, 26892), (349, 27054), (356, 27102), (359, 27117), (360, 27123), (365, 27141), (376, 27189), (391, 27255), (403, 27306), (404, 27318), (407, 27336), (420, 27390), (431, 27435), (435, 27456), (438, 27465), (442, 27486), (446, 27507), (456, 27561), (457, 27564), (460, 27573), (466, 27594), (468, 27606), (473, 27627), (475, 27633), (479, 27651), (485, 27687), (490, 27717), (504, 27765), (507, 27777), (509, 27783), (510, 27786), (512, 27798), (513, 27801), (518, 27822), (525, 27858), (538, 27912), (539, 27915), (542, 27927), (544, 27936), (551, 27948), (552, 27951), (564, 27999), (569, 28014), (570, 28017), (571, 28026), (573, 28047), (579, 28074), (580, 28077), (586, 28101), (590, 28113), (595, 28134), (597, 28146), (600, 28155), (604, 28167), (612, 28194), (615, 28203), (622, 28227), (624, 28233), (629, 28251), (642, 28305), (646, 28320), (665, 28389), (691, 28500), (720, 28611), (732, 28656), (749, 28746), (770, 28869), (774, 28890), (783, 28953), (786, 28980), (798, 29052), (801, 29064), (802, 29073), (807, 29127), (812, 29148), (814, 29160), (845, 29322), (860, 29409), (865, 29427), (874, 29457), (881, 29475), (882, 29478), (884, 29490), (892, 29517), (909, 29628), (917, 29703), (923, 29751), (932, 29805), (938, 29832), (955, 29946), (969, 30036),

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

Candidate Starts for JoyLin_26:

(Start: 19 @20566 has 159 MA's), (Start: 22 @20599 has 3 MA's), (45, 20746), (57, 20836), (58, 20839), (79, 21034), (87, 21160), (96, 21235), (105, 21283), (110, 21325), (121, 21445), (135, 21562), (145, 21658), (176, 21862), (179, 21874), (192, 21955), (220, 22090), (236, 22183), (262, 22246), (276, 22285), (289, 22348), (293, 22363), (338, 22567), (349, 22618), (365, 22705), (371, 22735), (374, 22747), (375, 22750), (379, 22762), (382, 22774), (388, 22801), (398, 22843), (405, 22888), (425, 22969), (427, 22975), (431, 22999), (433, 23005), (446, 23071), (451, 23107), (458, 23131), (467, 23164), (472, 23191), (474, 23200), (478, 23218), (483, 23239), (487, 23272), (494, 23299), (495, 23302), (507, 23353), (515, 23383), (517, 23395), (533, 23470), (539, 23491), (541, 23497), (545, 23512), (570, 23596), (571, 23605), (574, 23632), (590, 23683), (602, 23719), (618, 23773), (639, 23851), (663, 23941), (671, 23971), (679, 24007), (687, 24043), (697, 24082), (711, 24139), (717, 24160), (723, 24184), (724, 24187), (727, 24199), (729, 24205), (747, 24295), (753, 24325), (754, 24328), (755, 24331), (763, 24391), (767, 24406), (771, 24436), (776, 24460), (790, 24559), (807, 24679), (808, 24685), (827, 24787), (829, 24799), (831, 24808), (852, 24904), (853, 24907), (905, 25132),

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

Candidate Starts for JulesRay_29:

(Start: 19 @20535 has 159 MA's), (Start: 22 @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), (123, 21399), (124, 21402), (134, 21501), (137, 21525), (150, 21621), (159, 21705), (162, 21726), (163, 21729), (174, 21798), (176, 21804), (177, 21810), (212, 21987), (223, 22038), (231, 22089), (243, 22143), (245, 22146), (278, 22278), (284, 22317), (304, 22398), (306, 22401), (321, 22476), (335, 22533), (347, 22617), (349, 22626), (360, 22695), (362, 22701), (365, 22713), (367, 22728), (368, 22731), (373, 22752), (386, 22800), (391, 22827), (397, 22848), (400, 22857), (403, 22878), (404, 22890), (406, 22899), (407, 22908), (420, 22962), (421, 22965), (428, 22986), (435, 23028), (444, 23064), (446, 23079), (447, 23088), (449, 23103), (451, 23115), (454, 23124), (463, 23157), (466, 23166), (484, 23250), (485, 23259), (487, 23274), (492, 23295), (504, 23337), (510, 23358), (513, 23373), (515, 23379), (523, 23415), (525, 23430), (539, 23487), (542, 23499), (544, 23508), (551, 23520), (554, 23532), (555, 23538), (560, 23559), (564, 23571), (570, 23589), (571, 23598), (572, 23613), (573, 23619), (576, 23631), (586, 23673), (587, 23676), (590, 23685), (595, 23706), (597, 23718), (612, 23766), (615, 23775), (622, 23799), (624, 23805), (629, 23823), (630, 23832), (654, 23922), (659, 23940), (660, 23943), (665, 23961), (706, 24132), (720, 24183), (751, 24327), (774, 24462), (782, 24513), (801, 24636), (807, 24699), (817, 24747), (818, 24753), (819, 24762), (828, 24810), (842, 24882), (854, 24942), (858, 24963), (859, 24966), (866, 25017), (869, 25026), (874, 25044), (882, 25065), (884, 25077), (901, 25170), (909, 25215), (917, 25290), (919, 25308), (921, 25329), (937, 25416), (954, 25527), (969, 25623),

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

Candidate Starts for Kardashian_22:

(1, 16075), (Start: 2 @16096 has 31 MA's), (3, 16126), (14, 16270), (20, 16354), (24, 16405), (54, 16612), (68, 16681), (79, 16834), (81, 16870), (87, 16960), (96, 17035), (105, 17083), (110, 17125), (132, 17317), (137, 17383), (153, 17512), (165, 17593), (176, 17662), (192, 17755), (208, 17818), (212, 17845), (235, 17968), (280, 18085), (281, 18088), (283, 18097), (300, 18175), (308, 18205), (324, 18277), (332, 18292), (349, 18367), (359, 18430), (360, 18436), (363, 18445), (375, 18499), (394, 18577), (395, 18580), (416, 18691), (428, 18727), (431, 18745), (446, 18817), (452, 18856), (464, 18898), (475, 18949), (484, 18994), (501, 19072), (517, 19135), (519, 19141), (524, 19165), (525, 19174), (532, 19207), (533, 19210), (574, 19372), (575, 19375), (576, 19378), (579, 19393), (587, 19414), (590, 19423), (609, 19483), (614, 19498), (618, 19513), (628, 19546), (630, 19558), (633, 19567), (644, 19612), (647, 19621), (655, 19654), (656, 19657), (661, 19675), (687, 19783), (707, 19864), (709, 19870), (721, 19915), (728, 19942), (734, 19969), (736, 19978), (748, 20044), (763, 20131), (764, 20134), (781, 20167), (790, 20233), (799, 20281), (800, 20287), (805, 20323), (824, 20446), (872, 20680), (900, 20806), (911, 20893), (920, 20974), (925, 20995), (931, 21037), (934, 21058), (943, 21112), (951, 21163), (957, 21211), (963, 21265), (966, 21280), (983, 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 159 MA's), (Start: 22 @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), (116, 17591), (118, 17606), (125, 17654), (127, 17669), (132, 17711), (140, 17807), (144, 17840), (150, 17873), (163, 17981), (173, 18047), (181, 18080), (183, 18089), (184, 18092), (186, 18110), (246, 18392), (260, 18416), (266, 18446), (310, 18605), (324, 18665), (349, 18794), (356, 18842), (363, 18872), (367, 18896), (370, 18908), (372, 18917), (375, 18926), (382, 18950), (391, 18995), (397, 19016), (410, 19091), (418, 19124), (428, 19154), (431, 19175), (435, 19196), (447, 19256), (448, 19262), (456, 19301), (462, 19319), (481, 19403), (485, 19433), (490, 19463), (496, 19481), (507, 19529), (513, 19553), (517, 19571), (520, 19580), (521, 19589), (523, 19595), (526, 19616), (533, 19646), (542, 19679), (543, 19685), (548, 19694), (555, 19721), (562, 19748), (571, 19781), (574, 19808), (576, 19814), (583, 19841), (590, 19859), (600, 19889), (603, 19898), (606, 19910), (608, 19916), (609, 19919), (613, 19931), (618, 19949), (626, 19976), (628, 19982), (645, 20051), (652, 20078), (656, 20093), (682, 20195), (705, 20294), (706, 20297), (708, 20303), (712, 20318), (717, 20336), (727, 20375), (728, 20378), (733, 20396), (738, 20429), (743, 20450), (755, 20507), (762, 20561), (784, 20624), (787, 20651), (790, 20669), (799, 20717), (800, 20723), (808, 20795), (823, 20873), (825, 20888), (833, 20927),

(839, 20951), (843, 20975), (851, 21020), (855, 21041), (905, 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 159 MA's), (Start: 22 @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), (116, 17988), (118, 18003), (125, 18051), (132, 18108), (140, 18204), (144, 18237), (150, 18270), (163, 18378), (173, 18444), (181, 18477), (183, 18486), (184, 18489), (186, 18507), (246, 18789), (260, 18813), (266, 18843), (310, 19002), (324, 19062), (349, 19191), (356, 19239), (363, 19269), (367, 19293), (370, 19305), (372, 19314), (375, 19323), (382, 19347), (391, 19392), (397, 19413), (410, 19488), (414, 19509), (415, 19512), (418, 19521), (428, 19551), (435, 19593), (447, 19653), (448, 19659), (449, 19668), (457, 19701), (461, 19713), (462, 19716), (476, 19779), (481, 19800), (485, 19830), (490, 19860), (496, 19878), (507, 19926), (513, 19950), (517, 19968), (520, 19977), (526, 20013), (533, 20043), (542, 20076), (543, 20082), (544, 20085), (550, 20097), (555, 20118), (570, 20169), (571, 20178), (577, 20214), (587, 20247), (590, 20256), (600, 20286), (603, 20295), (606, 20307), (618, 20346), (626, 20373), (628, 20379), (629, 20382), (632, 20397), (639, 20424), (647, 20454), (656, 20490), (682, 20592), (697, 20655), (705, 20691), (712, 20715), (717, 20733), (727, 20772), (729, 20778), (733, 20793), (737, 20814), (738, 20826), (762, 20958), (784, 21021), (787, 21048), (790, 21066), (799, 21114), (800, 21120), (808, 21192), (823, 21270), (829, 21306), (833, 21324), (839, 21348), (843, 21372), (851, 21417), (855, 21438), (905, 21660),

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

Candidate Starts for Kenosha_32:

(Start: 19 @24052 has 159 MA's), (Start: 22 @24082 has 3 MA's), (27, 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), (116, 24883), (121, 24931), (136, 25057), (144, 25132), (145, 25144), (150, 25165), (162, 25270), (163, 25273), (183, 25381), (231, 25633), (261, 25738), (275, 25807), (279, 25828), (297, 25909), (298, 25912), (304, 25939), (313, 25978), (319, 26005), (345, 26146), (349, 26167), (359, 26230), (360, 26236), (365, 26254), (366, 26260), (376, 26302), (380, 26314), (382, 26323), (391, 26368), (403, 26419), (404, 26431), (406, 26440), (407, 26449), (431, 26548), (435, 26569), (438, 26578), (443, 26602), (444, 26605), (445, 26611), (456, 26674), (457, 26677), (460, 26686), (463, 26698), (465, 26704), (466, 26707), (468, 26719), (473, 26740), (475, 26746), (476, 26749), (481, 26770), (485, 26800), (487, 26815), (490, 26830), (504, 26878), (507, 26890), (509, 26896), (510, 26899), (512, 26911), (513, 26914), (525, 26971), (538, 27025), (539, 27028), (544, 27049), (551, 27061), (552, 27064), (563, 27109), (564, 27112), (569, 27127), (570, 27130), (571, 27139), (572, 27154), (573, 27160), (574, 27166), (579, 27187), (580, 27190), (584, 27202), (587, 27217), (590, 27226), (595, 27247), (597, 27259), (604, 27280), (612, 27307), (622, 27340), (624, 27346), (629, 27364), (636, 27394), (646, 27433), (694, 27625), (712, 27694), (732, 27769), (749, 27859), (774, 28003), (793, 28132), (798, 28165), (801, 28177), (802, 28186), (807, 28240), (812, 28261), (814, 28273), (817, 28288), (828, 28351), (845, 28435), (860, 28522), (865, 28540), (866, 28543), (874, 28570), (881, 28588), (882, 28591), (883, 28597), (884, 28603), (892, 28630), (909, 28741), (917, 28816), (927, 28885), (932, 28918), (937, 28942), (955, 29059), (969, 29149),

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

Candidate Starts for Kerry_29:

(Start: 19 @20616 has 159 MA's), (Start: 22 @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), (123, 21492), (124, 21495), (150, 21714), (162, 21819), (163, 21822), (174, 21891), (176, 21897), (212, 22080), (223, 22131), (231, 22182), (243, 22236), (245, 22239), (278, 22371), (299, 22473), (304, 22491), (306, 22494), (321, 22569), (335, 22626), (347, 22710), (349, 22719), (365, 22806), (373, 22845), (386, 22893), (391,

22920), (397, 22941), (400, 22950), (403, 22971), (404, 22983), (406, 22992), (407, 23001), (412, 23028), (420, 23055), (421, 23058), (428, 23079), (435, 23121), (441, 23148), (444, 23157), (446, 23172), (447, 23181), (449, 23196), (451, 23208), (454, 23217), (457, 23229), (463, 23250), (466, 23259), (484, 23343), (485, 23352), (487, 23367), (488, 23370), (492, 23388), (496, 23400), (497, 23403), (504, 23430), (510, 23451), (513, 23466), (523, 23508), (525, 23523), (539, 23580), (542, 23592), (544, 23601), (551, 23613), (554, 23625), (555, 23631), (560, 23652), (564, 23664), (570, 23682), (571, 23691), (572, 23706), (573, 23712), (576, 23724), (586, 23766), (587, 23769), (590, 23778), (595, 23799), (597, 23811), (612, 23859), (615, 23868), (622, 23892), (624, 23898), (629, 23916), (630, 23925), (636, 23946), (654, 24015), (659, 24033), (660, 24036), (665, 24054), (695, 24180), (706, 24225), (720, 24276), (751, 24420), (774, 24555), (782, 24606), (793, 24684), (801, 24729), (807, 24792), (811, 24810), (817, 24840), (818, 24846), (828, 24903), (842, 24975), (854, 25035), (858, 25056), (859, 25059), (866, 25110), (869, 25119), (882, 25158), (884, 25170), (901, 25263), (909, 25308), (917, 25383), (921, 25422), (927, 25452), (937, 25509), (954, 25620), (969, 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 159 MA's), (Start: 22 @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), (116, 20969), (118, 20984), (125, 21032), (162, 21356), (166, 21368), (174, 21428), (184, 21470), (193, 21530), (194, 21536), (197, 21545), (202, 21560), (203, 21569), (223, 21668), (224, 21680), (225, 21689), (226, 21701), (309, 21986), (320, 22046), (324, 22055), (349, 22196), (356, 22244), (361, 22268), (363, 22274), (372, 22319), (375, 22328), (382, 22352), (386, 22370), (396, 22415), (397, 22418), (400, 22427), (410, 22493), (421, 22535), (425, 22547), (428, 22556), (431, 22577), (442, 22628), (447, 22658), (449, 22673), (460, 22715), (465, 22733), (475, 22781), (476, 22784), (486, 22841), (512, 22949), (515, 22958), (525, 23009), (533, 23045), (542, 23078), (544, 23087), (550, 23099), (555, 23120), (557, 23126), (562, 23147), (570, 23171), (571, 23180), (587, 23249), (588, 23252), (589, 23255), (590, 23258), (600, 23288), (606, 23309), (613, 23330), (618, 23348), (621, 23357), (626, 23375), (641, 23435), (649, 23468), (653, 23483), (655, 23489), (656, 23492), (669, 23537), (675, 23570), (677, 23576), (682, 23594), (711, 23714), (712, 23717), (717, 23735), (736, 23813), (740, 23837), (755, 23906), (762, 23960), (784, 24089), (790, 24134), (820, 24317), (823, 24338), (827, 24362), (839, 24413), (852, 24482), (855, 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 159 MA's), (Start: 22 @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), (116, 21728), (118, 21743), (130, 21833), (136, 21902), (150, 22010), (156, 22064), (162, 22115), (163, 22118), (174, 22187), (184, 22229), (193, 22289), (194, 22295), (197, 22304), (202, 22319), (203, 22328), (223, 22427), (224, 22439), (226, 22460), (290, 22667), (296, 22691), (309, 22745), (324, 22814), (349, 22955), (361, 23027), (363, 23033), (372, 23078), (374, 23084), (375, 23087), (382, 23111), (386, 23129), (397, 23177), (400, 23186), (421, 23294), (428, 23315), (431, 23336), (441, 23384), (447, 23417), (449, 23432), (454, 23453), (465, 23492), (487, 23609), (512, 23708), (513, 23711), (525, 23768), (530, 23795), (533, 23804), (542, 23837), (544, 23846), (550, 23858), (570, 23930), (571, 23939), (579, 23987), (587, 24008), (589, 24014), (590, 24017), (609, 24077), (618, 24107), (621, 24116), (643, 24203), (644, 24206), (645, 24209), (649, 24227), (658, 24257), (669, 24296), (675, 24329), (676, 24332), (677, 24335), (679, 24341), (682, 24353), (694, 24407), (702, 24443), (712, 24476), (717, 24494), (723, 24518), (724, 24521), (745, 24623), (752, 24653), (755, 24665), (762, 24719), (765, 24731), (784, 24848), (790, 24893), (803, 24962), (823, 25097), (827, 25121), (837, 25166), (839, 25172), (846, 25211), (852, 25241),

Gene: Kureo_41 Start: 28594, Stop: 33114, Start Num: 22

Candidate Starts for Kureo_41:

(Start: 19 @28564 has 159 MA's), (Start: 22 @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), (121, 29440), (128, 29485), (131, 29503), (143, 29626), (145, 29653), (148, 29665), (151, 29686), (181, 29881), (197, 29968), (199, 29974), (209, 30016), (218, 30067), (251, 30205), (253, 30214), (285, 30334), (305, 30412), (308, 30421), (349, 30589), (363, 30667), (372, 30712), (375, 30721), (382, 30745), (391, 30790), (392, 30793), (397, 30811), (414, 30907), (425, 30940), (431, 30970), (437, 30997), (447, 31051), (449, 31066), (450, 31069), (470, 31150), (476, 31177), (485, 31228), (489, 31255), (496, 31276), (497, 31279), (507, 31321), (510, 31330), (528, 31417), (533, 31438), (537, 31450), (542, 31471), (544, 31480), (550, 31492), (560, 31534), (570, 31564), (571, 31573), (579, 31621), (580, 31624), (587, 31642), (590, 31651), (606, 31702), (609, 31711), (618, 31741), (629, 31777), (635, 31804), (656, 31885), (657, 31888), (677, 31969), (681, 31981), (687, 32011), (690, 32026), (693, 32035), (697, 32050), (706, 32089), (717, 32128), (721, 32143), (723, 32152), (726, 32164), (729, 32173), (730, 32176), (738, 32221), (739, 32227), (751, 32284), (755, 32299), (759, 32329), (775, 32425), (784, 32482), (790, 32527), (803, 32596), (813, 32677), (818, 32698), (823, 32731), (831, 32776), (833, 32785), (837, 32800), (839, 32806), (851, 32875), (855, 32893), (867, 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 159 MA's), (Start: 22 @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), (116, 19774), (118, 19789), (125, 19837), (136, 19948), (145, 20035), (150, 20056), (163, 20164), (174, 20233), (184, 20275), (193, 20335), (194, 20341), (197, 20350), (203, 20374), (223, 20473), (224, 20485), (226, 20506), (309, 20791), (324, 20860), (349, 20998), (351, 21010), (363, 21076), (367, 21100), (372, 21121), (374, 21127), (375, 21130), (382, 21154), (386, 21172), (397, 21220), (400, 21229), (404, 21262), (425, 21349), (428, 21358), (431, 21379), (447, 21460), (475, 21583), (476, 21586), (477, 21592), (480, 21604), (481, 21607), (512, 21751), (513, 21754), (525, 21811), (533, 21847), (542, 21880), (544, 21889), (550, 21901), (562, 21949), (570, 21973), (571, 21982), (579, 22030), (587, 22051), (590, 22060), (608, 22117), (609, 22120), (613, 22132), (618, 22150), (641, 22237), (643, 22246), (644, 22249), (645, 22252), (649, 22270), (669, 22339), (675, 22372), (676, 22375), (679, 22384), (682, 22396), (702, 22486), (712, 22519), (717, 22537), (719, 22546), (723, 22561), (724, 22564), (755, 22708), (762, 22762), (765, 22774), (771, 22813), (784, 22891), (790, 22936), (819, 23116), (823, 23140), (827, 23164), (837, 23209), (839, 23215), (846, 23254), (852, 23284), (870, 23362), (871, 23371), (896, 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 159 MA's), (Start: 22 @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), (116, 21797), (118, 21812), (130, 21902), (136, 21971), (150, 22079), (156, 22133), (163, 22187), (174, 22256), (184, 22298), (193, 22358), (194, 22364), (197, 22373), (202, 22388), (203, 22397), (223, 22496), (224, 22508), (226, 22529), (290, 22736), (296, 22760), (309, 22814), (324, 22883), (349, 23024), (361, 23096), (363, 23102), (372, 23147), (374, 23153), (375, 23156), (382, 23180), (386, 23198), (396, 23243), (397, 23246), (399, 23252), (400, 23255), (404, 23288), (407, 23306), (421, 23363), (428, 23384), (431, 23405), (441, 23453), (447, 23486), (449, 23501), (465, 23561), (477, 23618), (487, 23678), (512, 23777), (513, 23780), (525, 23837), (530, 23864), (533, 23873), (542, 23906), (544, 23915), (550, 23927), (555, 23948), (570, 23999), (571, 24008), (579, 24056), (587, 24077), (589, 24083), (590, 24086), (609, 24146), (618, 24176), (621, 24185), (643, 24272), (644, 24275), (645, 24278), (649, 24296), (653, 24311), (658, 24326), (669, 24365), (675, 24398),

(676, 24401), (677, 24404), (679, 24410), (682, 24422), (712, 24545), (717, 24563), (740, 24665),
(755, 24734), (762, 24788), (784, 24917), (790, 24962), (803, 25031), (823, 25166), (827, 25190),
(837, 25235), (839, 25241), (846, 25280), (852, 25310), (855, 25328),

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

Candidate Starts for LibertyBell_21:

(1, 14913), (Start: 2 @14934 has 31 MA's), (3, 14964), (5, 14988), (28, 15264), (35, 15306), (36, 15309), (41, 15339), (61, 15552), (79, 15735), (87, 15861), (90, 15897), (96, 15936), (103, 15969), (105, 15984), (110, 16026), (132, 16218), (133, 16251), (150, 16380), (176, 16563), (177, 16569), (192, 16656), (208, 16719), (234, 16866), (247, 16899), (277, 16968), (283, 16998), (288, 17022), (308, 17106), (310, 17118), (324, 17178), (341, 17214), (349, 17268), (360, 17337), (374, 17397), (375, 17400), (391, 17469), (395, 17481), (425, 17619), (428, 17628), (431, 17646), (464, 17799), (487, 17919), (492, 17940), (496, 17952), (501, 17973), (502, 17976), (512, 18015), (519, 18042), (522, 18057), (524, 18066), (525, 18075), (532, 18108), (533, 18111), (558, 18195), (574, 18273), (575, 18276), (576, 18279), (579, 18294), (584, 18309), (587, 18315), (588, 18318), (590, 18324), (609, 18384), (614, 18399), (618, 18414), (628, 18447), (632, 18465), (643, 18510), (644, 18513), (652, 18543), (655, 18555), (656, 18558), (661, 18576), (680, 18651), (687, 18684), (697, 18723), (705, 18759), (711, 18780), (722, 18822), (726, 18837), (729, 18846), (732, 18858), (734, 18870), (736, 18879), (738, 18894), (743, 18915), (790, 19134), (824, 19347), (872, 19581), (900, 19707), (916, 19836), (929, 19932), (931, 19938), (934, 19959), (951, 20064), (956, 20103), (958, 20121), (963, 20166), (971, 20211), (978, 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 159 MA's), (Start: 22 @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), (116, 21127), (118, 21142), (121, 21175), (125, 21190), (131, 21238), (140, 21343), (150, 21409), (157, 21478), (163, 21517), (166, 21526), (170, 21541), (173, 21583), (174, 21586), (185, 21637), (209, 21751), (220, 21808), (232, 21880), (242, 21919), (257, 21946), (266, 21988), (291, 22084), (314, 22186), (315, 22192), (324, 22228), (349, 22375), (351, 22387), (357, 22429), (358, 22432), (367, 22477), (372, 22498), (375, 22507), (376, 22510), (382, 22531), (397, 22597), (398, 22600), (421, 22714), (428, 22735), (430, 22753), (431, 22756), (449, 22852), (451, 22864), (481, 22984), (485, 23014), (499, 23071), (507, 23107), (510, 23116), (512, 23128), (517, 23149), (520, 23158), (531, 23218), (541, 23251), (543, 23263), (544, 23266), (549, 23278), (557, 23305), (560, 23320), (562, 23326), (563, 23329), (570, 23350), (571, 23359), (587, 23428), (590, 23437), (603, 23476), (618, 23527), (645, 23629), (651, 23653), (652, 23656), (661, 23689), (662, 23692), (663, 23695), (664, 23698), (676, 23752), (677, 23755), (683, 23776), (706, 23875), (715, 23905), (718, 23917), (721, 23929), (725, 23947), (728, 23956), (729, 23959), (759, 24115), (762, 24139), (764, 24148), (775, 24211), (779, 24226), (790, 24313), (792, 24325), (800, 24367), (811, 24451), (823, 24517), (827, 24541), (837, 24586), (838, 24589), (839, 24592), (852, 24661), (853, 24664), (857, 24688), (900, 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 159 MA's), (Start: 22 @17270 has 3 MA's), (25, 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), (118, 18050), (121, 18083), (125, 18098), (131, 18146), (145, 18296), (150, 18317), (163, 18425), (166, 18434), (172, 18482), (199, 18617), (209, 18659), (228, 18773), (240, 18824), (247, 18836), (268, 18917), (291, 19001), (295, 19019), (306, 19064), (315, 19109), (317, 19112), (318, 19118), (327, 19151), (349, 19262), (360, 19331), (361, 19334), (370, 19376), (372, 19385), (375, 19394), (384, 19424), (391, 19463), (393, 19469), (397, 19484), (404, 19526), (428, 19622), (431, 19643),

(432, 19646), (436, 19667), (447, 19724), (449, 19739), (456, 19769), (460, 19781), (467, 19808), (470, 19823), (481, 19871), (485, 19901), (487, 19916), (496, 19949), (498, 19955), (507, 19994), (510, 20003), (512, 20015), (517, 20036), (530, 20102), (533, 20111), (542, 20144), (543, 20150), (544, 20153), (550, 20165), (551, 20168), (556, 20189), (561, 20210), (571, 20246), (579, 20294), (590, 20324), (618, 20414), (634, 20471), (645, 20516), (649, 20534), (657, 20561), (659, 20570), (661, 20576), (675, 20636), (679, 20648), (682, 20660), (694, 20714), (702, 20750), (704, 20756), (706, 20762), (708, 20768), (718, 20804), (724, 20828), (725, 20834), (727, 20840), (728, 20843), (738, 20894), (741, 20906), (748, 20945), (771, 21077), (779, 21113), (784, 21155), (790, 21200), (805, 21290), (819, 21380), (823, 21404), (827, 21428), (829, 21440), (831, 21449), (834, 21461), (837, 21473), (846, 21518), (852, 21548), (855, 21566), (864, 21605), (889, 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 159 MA's), (Start: 22 @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), (116, 20672), (118, 20687), (120, 20708), (121, 20720), (128, 20765), (132, 20792), (135, 20837), (140, 20888), (144, 20921), (150, 20954), (166, 21071), (172, 21119), (173, 21128), (196, 21245), (200, 21257), (201, 21260), (244, 21467), (266, 21527), (291, 21623), (303, 21677), (314, 21725), (315, 21731), (324, 21767), (349, 21911), (358, 21968), (360, 21980), (372, 22034), (375, 22043), (376, 22046), (382, 22067), (383, 22070), (392, 22115), (397, 22133), (410, 22208), (411, 22211), (413, 22223), (421, 22250), (428, 22271), (430, 22289), (431, 22292), (435, 22313), (447, 22373), (449, 22388), (450, 22391), (455, 22415), (456, 22418), (457, 22421), (465, 22448), (470, 22472), (472, 22484), (485, 22550), (487, 22565), (488, 22568), (492, 22586), (494, 22592), (495, 22595), (496, 22598), (507, 22643), (508, 22646), (510, 22652), (512, 22664), (517, 22685), (528, 22739), (529, 22742), (536, 22769), (543, 22799), (550, 22817), (553, 22826), (555, 22838), (560, 22859), (570, 22889), (571, 22898), (579, 22946), (582, 22955), (584, 22961), (590, 22976), (593, 22982), (600, 23006), (603, 23015), (616, 23057), (618, 23066), (629, 23102), (639, 23144), (643, 23162), (645, 23168), (651, 23192), (661, 23228), (675, 23288), (687, 23336), (688, 23345), (697, 23375), (715, 23444), (725, 23486), (728, 23495), (758, 23642), (759, 23654), (765, 23690), (779, 23765), (784, 23807), (790, 23852), (792, 23864), (800, 23906), (823, 24056), (827, 24080), (837, 24125), (838, 24128), (839, 24131), (843, 24155), (846, 24170), (852, 24200), (857, 24227), (902, 24422), (904, 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 159 MA's), (Start: 22 @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), (118, 20796), (121, 20829), (125, 20844), (131, 20892), (150, 21063), (165, 21177), (166, 21180), (172, 21228), (193, 21342), (200, 21366), (237, 21561), (244, 21576), (247, 21582), (257, 21600), (277, 21672), (291, 21738), (314, 21840), (315, 21846), (323, 21879), (324, 21882), (329, 21909), (349, 22026), (358, 22083), (360, 22095), (372, 22149), (375, 22158), (376, 22161), (382, 22182), (391, 22227), (397, 22248), (419, 22359), (421, 22365), (428, 22386), (430, 22404), (435, 22428), (447, 22488), (449, 22503), (450, 22506), (456, 22533), (457, 22536), (485, 22665), (487, 22680), (488, 22683), (492, 22701), (494, 22707), (495, 22710), (499, 22722), (507, 22758), (510, 22767), (517, 22800), (528, 22854), (529, 22857), (533, 22875), (537, 22887), (544, 22917), (550, 22932), (553, 22941), (555, 22953), (571, 23013), (582, 23070), (587, 23082), (590, 23091), (603, 23130), (606, 23142), (616, 23172), (618, 23181), (638, 23256), (639, 23259), (643, 23277), (661, 23343), (663, 23349), (664, 23352), (676, 23406), (677, 23409), (708, 23535), (709, 23538), (715, 23559), (723, 23592), (725, 23601), (743, 23682), (749, 23715), (757, 23748), (765, 23805), (775, 23865), (780, 23889), (790, 23967), (792, 23979), (811, 24105), (819, 24147), (827, 24195), (834, 24228), (837, 24240), (839, 24246), (842, 24267), (843, 24270), (844, 24276), (852, 24315), (857, 24342), (900, 24528), (904, 24555),

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

Candidate Starts for Luthien_33:

(Start: 19 @23500 has 159 MA's), (Start: 22 @23530 has 3 MA's), (27, 23575), (49, 23719), (61, 23785), (71, 23845), (72, 23866), (79, 23968), (86, 24058), (87, 24094), (90, 24130), (96, 24169), (105, 24217), (110, 24259), (116, 24331), (121, 24379), (136, 24505), (144, 24580), (145, 24592), (150, 24613), (162, 24718), (163, 24721), (206, 24943), (219, 25009), (220, 25012), (231, 25081), (261, 25186), (275, 25255), (297, 25357), (298, 25360), (304, 25387), (313, 25426), (319, 25453), (349, 25615), (356, 25663), (360, 25684), (365, 25702), (376, 25750), (391, 25816), (399, 25843), (400, 25846), (402, 25864), (403, 25867), (406, 25888), (407, 25897), (420, 25951), (431, 25996), (435, 26017), (438, 26026), (445, 26059), (446, 26068), (449, 26092), (456, 26122), (457, 26125), (460, 26134), (463, 26146), (466, 26155), (468, 26167), (473, 26188), (475, 26194), (485, 26248), (504, 26326), (507, 26338), (509, 26344), (510, 26347), (513, 26362), (518, 26383), (525, 26419), (538, 26473), (539, 26476), (542, 26488), (544, 26497), (551, 26509), (552, 26512), (555, 26527), (562, 26554), (564, 26560), (569, 26575), (570, 26578), (571, 26587), (572, 26602), (573, 26608), (577, 26623), (579, 26635), (580, 26638), (590, 26674), (595, 26695), (597, 26707), (600, 26716), (604, 26728), (612, 26755), (619, 26779), (622, 26788), (624, 26794), (629, 26812), (646, 26881), (665, 26950), (701, 27106), (749, 27307), (774, 27451), (783, 27514), (786, 27541), (798, 27613), (801, 27625), (802, 27634), (807, 27688), (812, 27709), (814, 27721), (845, 27883), (860, 27970), (865, 27988), (874, 28018), (881, 28036), (882, 28039), (884, 28051), (892, 28078), (909, 28189), (917, 28264), (923, 28312), (932, 28366), (938, 28393), (955, 28507), (969, 28597),

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

Candidate Starts for Madamoto_23:

(1, 16112), (Start: 2 @16133 has 31 MA's), (3, 16163), (14, 16307), (23, 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), (132, 17339), (153, 17534), (160, 17594), (161, 17597), (166, 17618), (176, 17684), (206, 17831), (230, 17966), (280, 18107), (288, 18143), (290, 18152), (299, 18194), (308, 18227), (310, 18239), (320, 18290), (345, 18383), (349, 18404), (360, 18473), (362, 18479), (372, 18527), (375, 18536), (382, 18560), (391, 18605), (394, 18614), (395, 18617), (397, 18626), (416, 18728), (421, 18743), (428, 18764), (435, 18803), (437, 18809), (464, 18935), (475, 18986), (485, 19040), (501, 19109), (502, 19112), (513, 19154), (519, 19178), (524, 19202), (525, 19211), (533, 19247), (539, 19268), (570, 19373), (574, 19409), (576, 19415), (590, 19460), (618, 19550), (623, 19565), (628, 19583), (635, 19613), (639, 19628), (641, 19637), (647, 19658), (652, 19679), (655, 19691), (661, 19712), (680, 19787), (687, 19820), (706, 19898), (721, 19952), (725, 19970), (728, 19979), (736, 20015), (739, 20036), (784, 20225), (790, 20270), (824, 20483), (884, 20756), (931, 21074), (934, 21095), (941, 21143), (943, 21149), (944, 21155), (951, 21200), (957, 21248), (964, 21308), (970, 21338), (973, 21377), (986, 21566), (987, 21575),

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

Candidate Starts for Madvan_32:

(Start: 19 @23284 has 159 MA's), (Start: 22 @23314 has 3 MA's), (27, 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), (121, 24163), (136, 24289), (144, 24364), (145, 24376), (150, 24397), (158, 24469), (162, 24502), (163, 24505), (183, 24613), (231, 24865), (261, 24970), (275, 25039), (297, 25141), (298, 25144), (304, 25171), (313, 25210), (319, 25237), (349, 25399), (356, 25447), (360, 25468), (365, 25486), (376, 25534), (380, 25546), (391, 25600), (403, 25651), (404, 25663), (406, 25672), (407, 25681), (420, 25735), (431, 25780), (434, 25795), (435, 25801), (438, 25810), (439, 25816), (443, 25834), (444, 25837), (445, 25843), (446, 25852), (456, 25906), (457, 25909), (460, 25918), (465, 25936), (466, 25939), (468, 25951), (473, 25972), (475, 25978), (476, 25981), (481, 26002), (485, 26032), (487, 26047), (496, 26080), (504, 26110), (507, 26122), (509, 26128), (510, 26131), (512, 26143), (513, 26146), (525, 26203), (538, 26257), (539, 26260), (544, 26281), (551, 26293), (552, 26296), (563, 26341), (564, 26344), (569, 26359), (570,

26362), (571, 26371), (572, 26386), (573, 26392), (574, 26398), (579, 26419), (580, 26422), (584, 26434), (587, 26449), (590, 26458), (595, 26479), (597, 26491), (604, 26512), (612, 26539), (622, 26572), (624, 26578), (629, 26596), (636, 26626), (646, 26665), (665, 26734), (712, 26926), (732, 27001), (749, 27091), (774, 27235), (783, 27298), (793, 27364), (798, 27397), (801, 27409), (807, 27472), (812, 27493), (814, 27505), (818, 27526), (828, 27583), (845, 27667), (860, 27754), (865, 27772), (874, 27802), (881, 27820), (882, 27823), (883, 27829), (884, 27835), (892, 27862), (909, 27973), (917, 28048), (927, 28117), (932, 28150), (937, 28174), (955, 28291), (969, 28381),

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

Candidate Starts for MajinBuu_32:

(Start: 19 @23507 has 159 MA's), (Start: 22 @23537 has 3 MA's), (27, 23582), (49, 23726), (61, 23792), (71, 23852), (72, 23873), (79, 23975), (87, 24101), (90, 24137), (96, 24176), (105, 24224), (110, 24266), (116, 24338), (121, 24386), (136, 24512), (144, 24587), (145, 24599), (150, 24620), (162, 24725), (163, 24728), (206, 24950), (219, 25016), (234, 25106), (243, 25142), (261, 25193), (269, 25241), (273, 25253), (304, 25397), (313, 25436), (319, 25463), (349, 25625), (356, 25673), (359, 25688), (360, 25694), (365, 25712), (376, 25760), (391, 25826), (403, 25877), (404, 25889), (407, 25907), (420, 25961), (431, 26006), (435, 26027), (438, 26036), (442, 26057), (446, 26078), (456, 26132), (457, 26135), (460, 26144), (466, 26165), (468, 26177), (473, 26198), (475, 26204), (479, 26222), (485, 26258), (490, 26288), (504, 26336), (507, 26348), (509, 26354), (510, 26357), (512, 26369), (513, 26372), (518, 26393), (525, 26429), (538, 26483), (539, 26486), (544, 26507), (551, 26519), (552, 26522), (564, 26570), (569, 26585), (570, 26588), (571, 26597), (573, 26618), (579, 26645), (580, 26648), (586, 26672), (590, 26684), (595, 26705), (597, 26717), (600, 26726), (604, 26738), (612, 26765), (615, 26774), (622, 26798), (624, 26804), (629, 26822), (642, 26876), (646, 26891), (665, 26960), (680, 27020), (691, 27071), (720, 27182), (732, 27227), (749, 27317), (770, 27440), (774, 27461), (783, 27524), (786, 27551), (798, 27623), (801, 27635), (802, 27644), (807, 27698), (812, 27719), (814, 27731), (845, 27893), (860, 27980), (865, 27998), (874, 28028), (881, 28046), (882, 28049), (884, 28061), (892, 28088), (909, 28199), (917, 28274), (923, 28322), (932, 28376), (938, 28403), (955, 28517), (969, 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 159 MA's), (Start: 22 @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), (116, 20913), (118, 20928), (128, 21006), (136, 21087), (150, 21195), (166, 21312), (168, 21318), (191, 21462), (192, 21471), (209, 21537), (266, 21774), (283, 21834), (290, 21867), (291, 21870), (314, 21972), (315, 21978), (324, 22014), (349, 22158), (356, 22206), (357, 22212), (358, 22215), (367, 22260), (372, 22281), (375, 22290), (376, 22293), (382, 22314), (383, 22317), (397, 22380), (398, 22383), (421, 22497), (428, 22518), (430, 22536), (431, 22539), (442, 22590), (447, 22620), (449, 22635), (451, 22647), (478, 22758), (481, 22767), (485, 22797), (506, 22887), (507, 22890), (510, 22899), (512, 22911), (517, 22932), (521, 22950), (528, 22986), (533, 23007), (542, 23040), (558, 23097), (570, 23139), (571, 23148), (579, 23196), (587, 23217), (590, 23226), (600, 23256), (618, 23316), (629, 23352), (637, 23388), (649, 23436), (662, 23481), (664, 23487), (670, 23508), (675, 23538), (687, 23586), (697, 23625), (698, 23628), (725, 23736), (728, 23745), (735, 23778), (753, 23868), (761, 23916), (775, 24000), (790, 24102), (792, 24114), (800, 24156), (818, 24273), (819, 24282), (827, 24330), (837, 24375), (839, 24381), (852, 24450), (857, 24477), (900, 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 159 MA's), (Start: 22 @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), (116, 20403), (118, 20418), (125, 20466), (156, 20739), (163, 20793), (166, 20802), (174, 20862), (193, 20964),

(194, 20970), (197, 20979), (202, 20994), (203, 21003), (223, 21102), (224, 21114), (225, 21123), (226, 21135), (309, 21420), (320, 21480), (324, 21489), (349, 21630), (356, 21678), (361, 21702), (363, 21708), (367, 21732), (372, 21753), (375, 21762), (382, 21786), (386, 21804), (396, 21849), (397, 21852), (400, 21861), (410, 21927), (421, 21969), (425, 21981), (428, 21990), (431, 22011), (442, 22062), (447, 22092), (449, 22107), (460, 22149), (465, 22167), (475, 22215), (476, 22218), (477, 22224), (491, 22302), (512, 22383), (515, 22392), (525, 22443), (533, 22479), (542, 22512), (544, 22521), (550, 22533), (555, 22554), (557, 22560), (562, 22581), (570, 22605), (571, 22614), (574, 22641), (587, 22683), (588, 22686), (589, 22689), (590, 22692), (606, 22743), (613, 22764), (618, 22782), (626, 22809), (644, 22881), (645, 22884), (649, 22902), (656, 22926), (669, 22971), (675, 23004), (676, 23007), (677, 23010), (682, 23028), (711, 23148), (712, 23151), (717, 23169), (719, 23178), (736, 23247), (740, 23271), (755, 23340), (762, 23394), (779, 23481), (784, 23523), (790, 23568), (799, 23616), (820, 23751), (823, 23772), (826, 23790), (827, 23796), (839, 23847), (852, 23916), (855, 23934),

Gene: Marianna39_41 Start: 29771, Stop: 34291, Start Num: 22

Candidate Starts for Marianna39_41:

(Start: 19 @29741 has 159 MA's), (Start: 22 @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), (121, 30617), (128, 30662), (131, 30680), (143, 30803), (145, 30830), (148, 30842), (151, 30863), (181, 31058), (197, 31145), (199, 31151), (209, 31193), (218, 31244), (251, 31382), (253, 31391), (285, 31511), (305, 31589), (308, 31598), (349, 31766), (363, 31844), (372, 31889), (375, 31898), (382, 31922), (391, 31967), (392, 31970), (397, 31988), (414, 32084), (425, 32117), (431, 32147), (437, 32174), (447, 32228), (449, 32243), (450, 32246), (470, 32327), (476, 32354), (485, 32405), (489, 32432), (496, 32453), (497, 32456), (507, 32498), (528, 32594), (533, 32615), (537, 32627), (542, 32648), (544, 32657), (550, 32669), (560, 32711), (570, 32741), (571, 32750), (579, 32798), (580, 32801), (587, 32819), (590, 32828), (606, 32879), (609, 32888), (618, 32918), (629, 32954), (656, 33062), (657, 33065), (677, 33146), (681, 33158), (687, 33188), (690, 33203), (697, 33227), (706, 33266), (717, 33305), (721, 33320), (723, 33329), (726, 33341), (729, 33350), (730, 33353), (738, 33398), (739, 33404), (751, 33461), (755, 33476), (759, 33506), (775, 33602), (784, 33659), (790, 33704), (803, 33773), (813, 33854), (818, 33875), (823, 33908), (831, 33953), (833, 33962), (837, 33977), (839, 33983), (851, 34052), (855, 34070), (867, 34121),

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

Candidate Starts for Maya_23:

(1, 16153), (Start: 2 @16174 has 31 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), (121, 17308), (133, 17413), (144, 17509), (153, 17575), (176, 17725), (191, 17809), (195, 17830), (206, 17872), (230, 18007), (279, 18139), (280, 18148), (288, 18184), (290, 18193), (299, 18235), (308, 18268), (314, 18298), (345, 18421), (349, 18442), (359, 18505), (360, 18511), (362, 18517), (367, 18544), (372, 18565), (374, 18571), (375, 18574), (382, 18598), (391, 18643), (394, 18652), (395, 18655), (397, 18664), (410, 18739), (416, 18766), (422, 18784), (428, 18802), (431, 18820), (435, 18841), (446, 18892), (460, 18958), (464, 18973), (483, 19060), (485, 19078), (489, 19105), (515, 19198), (524, 19240), (525, 19249), (533, 19285), (534, 19288), (538, 19303), (539, 19306), (542, 19318), (555, 19360), (556, 19363), (570, 19411), (574, 19447), (576, 19453), (581, 19474), (590, 19498), (600, 19528), (618, 19588), (628, 19621), (629, 19624), (632, 19639), (635, 19651), (641, 19675), (652, 19717), (655, 19729), (656, 19732), (670, 19780), (675, 19810), (680, 19825), (687, 19858), (690, 19873), (706, 19936), (725, 20008), (727, 20014), (728, 20017), (736, 20053), (748, 20119), (763, 20206), (764, 20209), (790, 20308), (799, 20356), (800, 20362), (824, 20521), (884, 20794), (893, 20830), (903, 20896), (918, 21019), (931, 21112), (934, 21133), (941, 21181), (943, 21187), (944, 21193), (951, 21238), (964, 21346), (967, 21367), (973, 21415), (980, 21502), (986, 21604), (987, 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 159 MA's), (Start: 22 @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), (116, 20121), (118, 20136), (121, 20169), (125, 20184), (126, 20193), (131, 20232), (140, 20337), (157, 20472), (163, 20511), (166, 20520), (169, 20529), (174, 20580), (175, 20583), (200, 20706), (201, 20709), (209, 20745), (247, 20922), (259, 20943), (266, 20976), (291, 21072), (303, 21126), (314, 21174), (315, 21180), (324, 21216), (349, 21363), (367, 21465), (372, 21486), (375, 21495), (376, 21498), (382, 21519), (383, 21522), (397, 21585), (410, 21660), (413, 21675), (419, 21696), (421, 21702), (428, 21723), (431, 21744), (435, 21765), (447, 21825), (449, 21840), (450, 21843), (455, 21867), (456, 21870), (485, 22002), (487, 22017), (488, 22020), (492, 22038), (494, 22044), (496, 22050), (507, 22095), (508, 22098), (510, 22104), (513, 22119), (517, 22137), (522, 22158), (528, 22191), (529, 22194), (533, 22212), (550, 22269), (553, 22278), (555, 22290), (560, 22311), (562, 22317), (563, 22320), (570, 22341), (571, 22350), (580, 22401), (582, 22407), (587, 22419), (590, 22428), (601, 22461), (618, 22518), (637, 22590), (638, 22593), (639, 22596), (643, 22614), (645, 22620), (651, 22644), (661, 22680), (663, 22686), (667, 22701), (675, 22740), (687, 22788), (697, 22827), (706, 22866), (715, 22896), (725, 22938), (728, 22947), (757, 23085), (758, 23094), (759, 23106), (765, 23142), (784, 23259), (786, 23280), (792, 23316), (800, 23358), (808, 23430), (827, 23532), (837, 23577), (839, 23583), (852, 23652), (857, 23679), (900, 23859), (902, 23868),

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

Candidate Starts for Meibysrarus_23:

(1, 16139), (Start: 2 @16160 has 31 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), (121, 17294), (133, 17399), (144, 17495), (153, 17561), (176, 17711), (191, 17795), (206, 17858), (230, 17993), (247, 18047), (280, 18134), (288, 18170), (290, 18179), (299, 18221), (308, 18254), (314, 18284), (345, 18407), (349, 18428), (359, 18491), (360, 18497), (362, 18503), (367, 18530), (372, 18551), (374, 18557), (375, 18560), (382, 18584), (391, 18629), (394, 18638), (395, 18641), (397, 18650), (410, 18725), (416, 18752), (422, 18770), (428, 18788), (431, 18806), (435, 18827), (446, 18878), (460, 18944), (464, 18959), (483, 19046), (485, 19064), (489, 19091), (515, 19184), (524, 19226), (525, 19235), (533, 19271), (534, 19274), (538, 19289), (539, 19292), (542, 19304), (555, 19346), (556, 19349), (570, 19397), (574, 19433), (576, 19439), (581, 19460), (590, 19484), (600, 19514), (618, 19574), (628, 19607), (629, 19610), (632, 19625), (635, 19637), (641, 19661), (652, 19703), (655, 19715), (656, 19718), (670, 19766), (675, 19796), (680, 19811), (687, 19844), (690, 19859), (706, 19922), (725, 19994), (727, 20000), (728, 20003), (736, 20039), (748, 20105), (763, 20192), (764, 20195), (790, 20294), (799, 20342), (800, 20348), (824, 20507), (884, 20780), (893, 20816), (903, 20882), (918, 21005), (931, 21098), (934, 21119), (941, 21167), (943, 21173), (944, 21179), (951, 21224), (964, 21332), (967, 21353), (973, 21401), (980, 21488), (986, 21590), (987, 21599),

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 159 MA's), (Start: 22 @17270 has 3 MA's), (25, 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), (118, 18050), (121, 18083), (125, 18098), (131, 18146), (145, 18296), (150, 18317), (163, 18425), (166, 18434), (172, 18482), (199, 18617), (209, 18659), (228, 18773), (240, 18824), (242, 18827), (247, 18836), (268, 18917), (291, 19001), (295, 19019), (306, 19064), (315, 19109), (317, 19112), (318, 19118), (327, 19151), (349, 19262), (360, 19331), (361, 19334), (370, 19376), (372, 19385), (375, 19394), (384, 19424), (391, 19463), (393, 19469), (397, 19484), (399, 19490), (404, 19526),

(428, 19622), (431, 19643), (432, 19646), (436, 19667), (447, 19724), (449, 19739), (456, 19769), (460, 19781), (467, 19808), (470, 19823), (481, 19871), (485, 19901), (487, 19916), (496, 19949), (498, 19955), (507, 19994), (510, 20003), (512, 20015), (517, 20036), (530, 20102), (533, 20111), (542, 20144), (543, 20150), (544, 20153), (550, 20165), (551, 20168), (556, 20189), (561, 20210), (571, 20246), (579, 20294), (590, 20324), (618, 20414), (634, 20471), (645, 20516), (649, 20534), (657, 20561), (659, 20570), (661, 20576), (675, 20636), (679, 20648), (682, 20660), (694, 20714), (704, 20756), (706, 20762), (708, 20768), (717, 20801), (718, 20804), (724, 20828), (725, 20834), (727, 20840), (728, 20843), (738, 20894), (741, 20906), (748, 20945), (771, 21077), (779, 21113), (784, 21155), (790, 21200), (805, 21290), (819, 21380), (823, 21404), (827, 21428), (829, 21440), (831, 21449), (834, 21461), (837, 21473), (846, 21518), (852, 21548), (855, 21566), (864, 21605),

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

Candidate Starts for Miek_21:

(Start: 2 @15072 has 31 MA's), (3, 15102), (9, 15183), (11, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (117, 16173), (132, 16281), (150, 16443), (153, 16476), (162, 16548), (176, 16626), (206, 16773), (288, 17085), (290, 17094), (307, 17157), (349, 17331), (355, 17373), (360, 17400), (363, 17409), (375, 17463), (382, 17487), (395, 17544), (417, 17658), (428, 17691), (435, 17730), (445, 17772), (446, 17781), (451, 17817), (464, 17862), (475, 17913), (483, 17949), (485, 17967), (490, 17997), (501, 18036), (502, 18039), (512, 18078), (513, 18081), (520, 18108), (524, 18129), (525, 18138), (532, 18171), (533, 18174), (539, 18195), (558, 18258), (574, 18336), (576, 18342), (587, 18378), (588, 18381), (589, 18384), (590, 18387), (609, 18447), (612, 18456), (618, 18477), (627, 18507), (628, 18510), (643, 18573), (644, 18576), (645, 18579), (656, 18621), (661, 18639), (670, 18669), (680, 18714), (682, 18723), (687, 18747), (705, 18822), (707, 18828), (721, 18879), (728, 18906), (732, 18921), (734, 18933), (736, 18942), (740, 18966), (754, 19032), (763, 19095), (768, 19119), (790, 19197), (799, 19245), (805, 19287), (824, 19410), (847, 19527), (872, 19644), (894, 19725), (900, 19770), (908, 19815), (931, 20001), (934, 20022), (936, 20034), (943, 20076), (951, 20127), (957, 20175), (962, 20214), (970, 20265), (979, 20388), (984, 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 159 MA's), (Start: 22 @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), (116, 22009), (118, 22024), (120, 22045), (121, 22057), (126, 22081), (132, 22129), (140, 22225), (144, 22258), (150, 22291), (159, 22375), (166, 22408), (206, 22621), (221, 22696), (237, 22789), (244, 22804), (247, 22810), (257, 22828), (259, 22837), (266, 22870), (267, 22879), (287, 22951), (298, 22996), (314, 23068), (315, 23074), (323, 23107), (324, 23110), (329, 23137), (349, 23251), (358, 23308), (360, 23320), (372, 23374), (375, 23383), (376, 23386), (382, 23407), (391, 23452), (397, 23473), (419, 23584), (421, 23590), (428, 23611), (430, 23629), (435, 23653), (447, 23713), (449, 23728), (450, 23731), (456, 23758), (457, 23761), (465, 23788), (483, 23872), (485, 23890), (487, 23905), (488, 23908), (492, 23926), (494, 23932), (495, 23935), (499, 23947), (500, 23953), (507, 23983), (510, 23992), (517, 24025), (528, 24079), (529, 24082), (533, 24100), (544, 24142), (550, 24157), (553, 24166), (555, 24178), (571, 24238), (582, 24295), (587, 24307), (590, 24316), (603, 24355), (606, 24367), (608, 24373), (612, 24385), (616, 24397), (618, 24406), (638, 24481), (639, 24484), (643, 24502), (661, 24568), (664, 24577), (676, 24631), (677, 24634), (715, 24784), (723, 24817), (725, 24826), (730, 24841), (734, 24862), (743, 24907), (749, 24940), (757, 24973), (765, 25030), (775, 25090), (786, 25168), (790, 25192), (792, 25204), (811, 25330), (819, 25372), (827, 25420), (834, 25453), (837, 25465), (839, 25471), (842, 25492), (843, 25495), (844, 25501), (852, 25540), (857, 25567), (900, 25753), (904, 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 159 MA's), (Start: 22 @13545 has 3 MA's), (42, 13647), (45, 13698), (61, 13806), (79, 13989), (87, 14115), (90, 14151), (96, 14190), (108, 14262), (110, 14280), (117, 14364), (135, 14517), (150, 14634), (153, 14667), (176, 14817), (181, 14841), (191, 14901), (205, 14958), (242, 15144), (277, 15222), (280, 15240), (288, 15276), (290, 15285), (324, 15432), (326, 15447), (349, 15525), (356, 15573), (360, 15594), (375, 15657), (380, 15672), (382, 15681), (383, 15684), (395, 15738), (412, 15834), (428, 15885), (437, 15930), (438, 15933), (452, 16014), (464, 16056), (475, 16107), (484, 16152), (485, 16161), (490, 16191), (503, 16236), (509, 16257), (511, 16266), (519, 16299), (520, 16302), (524, 16323), (525, 16332), (533, 16368), (542, 16401), (574, 16530), (576, 16536), (587, 16572), (590, 16581), (612, 16650), (614, 16656), (618, 16671), (628, 16704), (633, 16725), (643, 16767), (644, 16770), (652, 16800), (655, 16812), (656, 16815), (667, 16854), (687, 16941), (690, 16956), (706, 17019), (708, 17025), (732, 17115), (736, 17136), (739, 17157), (753, 17223), (758, 17247), (763, 17289), (764, 17292), (790, 17391), (799, 17439), (824, 17604), (830, 17634), (872, 17838), (893, 17913), (900, 17964), (931, 18195), (934, 18216), (943, 18270), (948, 18300), (957, 18369), (959, 18390), (967, 18450), (972, 18489), (973, 18498), (974, 18501), (977, 18552), (986, 18696), (987, 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 159 MA's), (Start: 22 @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), (116, 17591), (118, 17606), (125, 17654), (127, 17669), (132, 17711), (140, 17807), (144, 17840), (150, 17873), (163, 17981), (173, 18047), (181, 18080), (183, 18089), (184, 18092), (186, 18110), (246, 18392), (260, 18416), (266, 18446), (310, 18605), (324, 18665), (349, 18794), (356, 18842), (363, 18872), (367, 18896), (370, 18908), (372, 18917), (375, 18926), (382, 18950), (391, 18995), (397, 19016), (410, 19091), (418, 19124), (428, 19154), (431, 19175), (435, 19196), (447, 19256), (448, 19262), (456, 19301), (462, 19319), (481, 19403), (485, 19433), (490, 19463), (496, 19481), (507, 19529), (513, 19553), (517, 19571), (520, 19580), (521, 19589), (523, 19595), (526, 19616), (533, 19646), (542, 19679), (543, 19685), (548, 19694), (555, 19721), (562, 19748), (571, 19781), (574, 19808), (576, 19814), (583, 19841), (590, 19859), (600, 19889), (603, 19898), (606, 19910), (608, 19916), (609, 19919), (613, 19931), (618, 19949), (626, 19976), (628, 19982), (645, 20051), (652, 20078), (656, 20093), (682, 20195), (705, 20294), (706, 20297), (708, 20303), (712, 20318), (717, 20336), (727, 20375), (728, 20378), (733, 20396), (738, 20429), (743, 20450), (755, 20507), (762, 20561), (784, 20624), (787, 20651), (790, 20669), (799, 20717), (800, 20723), (808, 20795), (823, 20873), (825, 20888), (833, 20927), (839, 20951), (843, 20975), (851, 21020), (855, 21041), (905, 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 159 MA's), (Start: 22 @13533 has 3 MA's), (42, 13635), (45, 13686), (61, 13794), (79, 13977), (87, 14103), (90, 14139), (96, 14178), (110, 14268), (153, 14655), (176, 14805), (181, 14829), (193, 14901), (242, 15132), (277, 15210), (280, 15228), (281, 15231), (288, 15264), (313, 15372), (326, 15432), (349, 15513), (360, 15582), (372, 15636), (394, 15723), (395, 15726), (397, 15735), (416, 15837), (428, 15873), (431, 15891), (442, 15942), (464, 16044), (467, 16056), (470, 16071), (484, 16140), (485, 16149), (490, 16179), (503, 16224), (509, 16245), (516, 16275), (519, 16287), (520, 16290), (524, 16311), (525, 16320), (533, 16356), (542, 16389), (567, 16473), (574, 16518), (575, 16521), (576, 16524), (590, 16569), (600, 16599), (614, 16644), (618, 16659), (628, 16692), (633, 16713), (635, 16722), (637, 16731), (643, 16755), (644, 16758), (647, 16767), (652, 16788), (655, 16800), (663, 16827), (672, 16866), (677, 16887), (685, 16923), (687, 16929), (721, 17061), (723, 17070), (725, 17079), (728, 17088), (729, 17091), (732, 17103), (733, 17106), (734, 17115), (736, 17124), (755, 17217), (762, 17271), (790, 17379), (793, 17394), (800, 17433), (824, 17592), (872, 17826), (893, 17901), (930, 18180), (931, 18183), (934, 18204), (941, 18252), (943, 18258), (958, 18366), (963, 18411), (967, 18438), (977, 18540), (987, 18693),

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

Candidate Starts for Mossy_33:

(Start: 19 @24706 has 159 MA's), (Start: 22 @24736 has 3 MA's), (27, 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), (136, 25696), (150, 25804), (151, 25816), (157, 25873), (162, 25909), (163, 25912), (174, 25981), (176, 25987), (212, 26170), (213, 26176), (231, 26272), (234, 26290), (275, 26446), (302, 26572), (304, 26581), (345, 26791), (349, 26812), (350, 26818), (360, 26881), (365, 26899), (370, 26926), (375, 26944), (391, 27013), (398, 27037), (400, 27043), (403, 27064), (406, 27085), (420, 27148), (431, 27193), (435, 27214), (441, 27241), (443, 27247), (446, 27265), (447, 27274), (451, 27301), (456, 27319), (457, 27322), (460, 27331), (463, 27343), (465, 27349), (466, 27352), (468, 27364), (487, 27460), (496, 27493), (501, 27514), (503, 27520), (504, 27523), (507, 27535), (510, 27544), (513, 27559), (515, 27565), (516, 27571), (518, 27580), (521, 27595), (522, 27598), (525, 27616), (533, 27652), (539, 27673), (544, 27694), (555, 27724), (559, 27739), (560, 27745), (563, 27754), (565, 27760), (568, 27769), (570, 27775), (571, 27784), (572, 27799), (573, 27805), (578, 27829), (582, 27841), (590, 27871), (595, 27892), (597, 27904), (604, 27925), (605, 27928), (612, 27952), (615, 27961), (622, 27985), (624, 27991), (629, 28009), (630, 28018), (631, 28021), (645, 28075), (654, 28108), (691, 28258), (694, 28270), (698, 28282), (706, 28318), (712, 28339), (732, 28414), (762, 28582), (768, 28612), (773, 28645), (786, 28738), (798, 28810), (801, 28822), (802, 28831), (807, 28885), (817, 28933), (828, 28996), (839, 29047), (845, 29080), (860, 29167), (865, 29185), (874, 29215), (882, 29236), (883, 29242), (884, 29248), (892, 29275), (897, 29302), (909, 29386), (914, 29449), (917, 29461), (933, 29572), (938, 29590), (945, 29638), (969, 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 159 MA's), (Start: 22 @17270 has 3 MA's), (25, 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), (118, 18050), (121, 18083), (125, 18098), (131, 18146), (145, 18296), (150, 18317), (163, 18425), (166, 18434), (172, 18482), (199, 18617), (209, 18659), (228, 18773), (240, 18824), (247, 18836), (268, 18917), (291, 19001), (295, 19019), (306, 19064), (315, 19109), (317, 19112), (318, 19118), (327, 19151), (349, 19262), (360, 19331), (361, 19334), (370, 19376), (372, 19385), (375, 19394), (384, 19424), (391, 19463), (393, 19469), (397, 19484), (404, 19526), (428, 19622), (431, 19643), (432, 19646), (436, 19667), (447, 19724), (449, 19739), (456, 19769), (460, 19781), (467, 19808), (470, 19823), (481, 19871), (485, 19901), (487, 19916), (496, 19949), (498, 19955), (507, 19994), (510, 20003), (512, 20015), (517, 20036), (530, 20102), (533, 20111), (542, 20144), (543, 20150), (544, 20153), (550, 20165), (551, 20168), (556, 20189), (561, 20210), (571, 20246), (579, 20294), (590, 20324), (618, 20414), (634, 20471), (645, 20516), (649, 20534), (657, 20561), (659, 20570), (661, 20576), (675, 20636), (679, 20648), (682, 20660), (694, 20714), (704, 20756), (706, 20762), (708, 20768), (717, 20801), (718, 20804), (724, 20828), (725, 20834), (727, 20840), (728, 20843), (738, 20894), (741, 20906), (748, 20945), (771, 21077), (779, 21113), (784, 21155), (790, 21200), (805, 21290), (819, 21380), (823, 21404), (827, 21428), (829, 21440), (831, 21449), (834, 21461), (837, 21473), (846, 21518), (852, 21548), (855, 21566), (864, 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 159 MA's), (Start: 22 @19124 has 3 MA's), (25, 19157), (30, 19178), (68, 19409), (71, 19439), (78, 19520), (79, 19562), (80, 19580), (84, 19622), (89, 19709), (96, 19763), (99, 19778), (105, 19811), (116, 19889), (118, 19904), (125, 19952), (127, 19967), (132, 20009), (136, 20063), (140, 20105), (141, 20108), (144, 20138), (150, 20171), (163, 20279), (173, 20345), (181, 20378), (183, 20387), (184, 20390), (186, 20408), (246, 20690), (260, 20714), (266, 20744), (310, 20903), (317, 20936), (324, 20963), (349, 21092), (363, 21170), (372,

21215), (375, 21224), (379, 21236), (382, 21248), (388, 21275), (391, 21293), (397, 21314), (410, 21389), (414, 21410), (415, 21413), (418, 21422), (428, 21452), (431, 21473), (435, 21494), (447, 21554), (448, 21560), (456, 21599), (457, 21602), (462, 21617), (476, 21680), (481, 21701), (485, 21731), (490, 21761), (496, 21779), (507, 21827), (513, 21851), (517, 21869), (520, 21878), (521, 21887), (523, 21893), (526, 21914), (533, 21944), (542, 21977), (543, 21983), (544, 21986), (550, 21998), (555, 22019), (570, 22070), (571, 22079), (575, 22109), (577, 22115), (587, 22148), (590, 22157), (600, 22187), (603, 22196), (606, 22208), (618, 22247), (626, 22274), (628, 22280), (629, 22283), (632, 22298), (639, 22325), (643, 22343), (647, 22355), (656, 22391), (682, 22493), (697, 22556), (705, 22592), (706, 22595), (708, 22601), (712, 22616), (717, 22634), (723, 22658), (727, 22673), (728, 22676), (733, 22694), (738, 22727), (743, 22748), (755, 22805), (762, 22859), (764, 22868), (784, 22922), (787, 22949), (790, 22967), (799, 23015), (800, 23021), (808, 23093), (823, 23171), (825, 23186), (833, 23225), (839, 23249), (851, 23318), (855, 23339), (905, 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 159 MA's), (Start: 22 @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), (116, 21367), (118, 21382), (130, 21472), (136, 21541), (150, 21649), (156, 21703), (163, 21757), (174, 21826), (184, 21868), (193, 21928), (194, 21934), (197, 21943), (202, 21958), (203, 21967), (223, 22066), (224, 22078), (226, 22099), (290, 22306), (296, 22330), (309, 22384), (324, 22453), (347, 22582), (349, 22591), (363, 22669), (372, 22714), (374, 22720), (375, 22723), (382, 22747), (386, 22765), (397, 22813), (400, 22822), (404, 22855), (421, 22930), (428, 22951), (431, 22972), (435, 22993), (441, 23020), (447, 23053), (449, 23068), (465, 23128), (487, 23245), (512, 23344), (513, 23347), (525, 23404), (530, 23431), (533, 23440), (542, 23473), (544, 23482), (550, 23494), (555, 23515), (560, 23536), (562, 23542), (571, 23575), (575, 23605), (590, 23653), (600, 23683), (609, 23713), (618, 23743), (621, 23752), (643, 23839), (644, 23842), (645, 23845), (649, 23863), (653, 23878), (658, 23893), (669, 23932), (675, 23965), (677, 23971), (679, 23977), (682, 23989), (694, 24043), (702, 24079), (711, 24109), (712, 24112), (717, 24130), (723, 24154), (724, 24157), (745, 24259), (752, 24289), (755, 24301), (765, 24367), (784, 24484), (790, 24529), (823, 24733), (827, 24757), (837, 24802), (839, 24808), (846, 24847), (852, 24877), (855, 24895),

Gene: Mysticmoon_32 Start: 23315, Stop: 28429, Start Num: 19

Candidate Starts for Mysticmoon_32:

(Start: 19 @23315 has 159 MA's), (Start: 22 @23345 has 3 MA's), (27, 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), (121, 24194), (144, 24395), (150, 24428), (153, 24461), (159, 24512), (162, 24533), (163, 24536), (176, 24611), (203, 24746), (216, 24812), (220, 24827), (231, 24896), (234, 24914), (241, 24947), (250, 24968), (255, 24977), (261, 25001), (275, 25070), (279, 25091), (284, 25124), (286, 25127), (302, 25196), (304, 25205), (324, 25292), (336, 25352), (344, 25403), (349, 25436), (350, 25442), (360, 25505), (365, 25523), (375, 25568), (391, 25637), (398, 25661), (400, 25667), (403, 25688), (407, 25718), (420, 25772), (421, 25775), (434, 25832), (435, 25838), (443, 25871), (446, 25889), (447, 25898), (449, 25913), (451, 25925), (456, 25943), (457, 25946), (460, 25955), (463, 25967), (465, 25973), (466, 25976), (473, 26009), (478, 26030), (485, 26069), (496, 26117), (500, 26132), (501, 26138), (504, 26147), (507, 26159), (510, 26168), (512, 26180), (513, 26183), (514, 26186), (515, 26189), (516, 26195), (518, 26204), (530, 26267), (537, 26288), (539, 26297), (544, 26318), (560, 26369), (568, 26393), (570, 26399), (572, 26423), (573, 26429), (579, 26456), (580, 26459), (590, 26495), (595, 26516), (597, 26528), (600, 26537), (604, 26549), (612, 26576), (615, 26585), (622, 26609), (624, 26615), (629, 26633), (636, 26663), (646, 26702), (654, 26732), (663, 26762), (694, 26894), (712, 26963), (749, 27128), (770, 27251), (798, 27434), (801, 27446), (802, 27455), (807, 27509), (817, 27557), (836, 27659), (841, 27680), (848, 27728), (860, 27791), (865, 27809), (881, 27857), (882, 27860), (884, 27872), (892, 27899), (909, 28010), (917, 28085), (932, 28187), (938, 28214), (939, 28217), (955, 28325), (961,

28364), (969, 28415),

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

Candidate Starts for Nadmeg_33:

(Start: 19 @24715 has 159 MA's), (Start: 22 @24745 has 3 MA's), (27, 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), (116, 25546), (121, 25594), (136, 25720), (144, 25795), (145, 25807), (150, 25828), (162, 25933), (163, 25936), (183, 26044), (231, 26296), (261, 26401), (275, 26470), (279, 26491), (297, 26572), (298, 26575), (304, 26602), (313, 26641), (319, 26668), (345, 26809), (349, 26830), (359, 26893), (360, 26899), (365, 26917), (366, 26923), (376, 26965), (382, 26986), (391, 27031), (403, 27082), (404, 27094), (406, 27103), (407, 27112), (431, 27211), (435, 27232), (438, 27241), (443, 27265), (444, 27268), (445, 27274), (456, 27337), (457, 27340), (460, 27349), (465, 27367), (466, 27370), (468, 27382), (473, 27403), (475, 27409), (476, 27412), (481, 27433), (485, 27463), (487, 27478), (490, 27493), (504, 27541), (507, 27553), (509, 27559), (510, 27562), (512, 27574), (513, 27577), (525, 27634), (538, 27688), (544, 27712), (551, 27724), (552, 27727), (563, 27772), (564, 27775), (569, 27790), (570, 27793), (571, 27802), (572, 27817), (573, 27823), (574, 27829), (579, 27850), (580, 27853), (584, 27865), (587, 27880), (590, 27889), (595, 27910), (597, 27922), (604, 27943), (612, 27970), (622, 28003), (624, 28009), (629, 28027), (636, 28057), (646, 28096), (712, 28357), (732, 28432), (749, 28522), (774, 28666), (783, 28729), (793, 28795), (798, 28828), (801, 28840), (807, 28903), (812, 28924), (814, 28936), (818, 28957), (828, 29014), (845, 29098), (860, 29185), (865, 29203), (874, 29233), (881, 29251), (882, 29254), (883, 29260), (884, 29266), (892, 29293), (909, 29404), (917, 29479), (927, 29548), (932, 29581), (937, 29605), (955, 29722), (969, 29812),

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

Candidate Starts for Namo_23:

(1, 16145), (Start: 2 @16166 has 31 MA's), (3, 16196), (14, 16340), (42, 16550), (53, 16667), (68, 16739), (71, 16769), (79, 16892), (87, 17018), (96, 17093), (105, 17141), (110, 17183), (132, 17372), (153, 17567), (162, 17639), (176, 17717), (195, 17822), (206, 17864), (230, 17999), (247, 18053), (280, 18140), (288, 18176), (290, 18185), (299, 18227), (308, 18260), (314, 18290), (345, 18413), (349, 18434), (359, 18497), (360, 18503), (362, 18509), (367, 18536), (372, 18557), (374, 18563), (375, 18566), (382, 18590), (391, 18635), (394, 18644), (395, 18647), (397, 18656), (410, 18731), (416, 18758), (422, 18776), (428, 18794), (431, 18812), (435, 18833), (446, 18884), (460, 18950), (464, 18965), (483, 19052), (485, 19070), (489, 19097), (514, 19187), (515, 19190), (524, 19232), (525, 19241), (533, 19277), (538, 19295), (539, 19298), (555, 19352), (556, 19355), (570, 19403), (574, 19439), (576, 19445), (581, 19466), (590, 19490), (600, 19520), (618, 19580), (628, 19613), (629, 19616), (632, 19631), (641, 19667), (652, 19709), (655, 19721), (656, 19724), (670, 19772), (675, 19802), (680, 19817), (687, 19850), (690, 19865), (706, 19928), (727, 20006), (728, 20009), (736, 20045), (748, 20111), (763, 20198), (764, 20201), (790, 20300), (799, 20348), (800, 20354), (824, 20513), (884, 20786), (893, 20822), (903, 20888), (918, 21011), (925, 21062), (931, 21104), (934, 21125), (941, 21173), (943, 21179), (944, 21185), (951, 21230), (964, 21338), (967, 21359), (973, 21407), (980, 21494), (986, 21596), (987, 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 159 MA's), (Start: 22 @17223 has 3 MA's), (25, 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), (118, 18003), (125, 18051), (127, 18066), (132, 18108), (136, 18162), (144, 18237), (150, 18270), (163, 18378), (173, 18444), (181, 18477), (183, 18486), (184, 18489), (186, 18507), (246, 18789), (260, 18813), (266, 18843), (310, 19002), (324, 19062), (349, 19191), (363, 19269), (369, 19299), (372, 19314), (375, 19323), (382, 19347), (388, 19374), (391, 19392), (397, 19413), (410, 19488), (414, 19509), (418, 19521), (428, 19551), (435, 19593), (447, 19653), (448, 19659), (456, 19698), (476, 19779), (481, 19800), (485, 19830),

(490, 19860), (496, 19878), (507, 19926), (513, 19950), (517, 19968), (520, 19977), (521, 19986), (523, 19992), (526, 20013), (533, 20043), (542, 20076), (543, 20082), (544, 20085), (550, 20097), (555, 20118), (570, 20169), (571, 20178), (575, 20208), (577, 20214), (587, 20247), (590, 20256), (600, 20286), (603, 20295), (606, 20307), (613, 20328), (618, 20346), (626, 20373), (628, 20379), (629, 20382), (632, 20397), (639, 20424), (643, 20442), (647, 20454), (656, 20490), (682, 20592), (697, 20655), (705, 20691), (706, 20694), (708, 20700), (712, 20715), (717, 20733), (727, 20772), (728, 20775), (733, 20793), (738, 20826), (743, 20847), (755, 20904), (762, 20958), (764, 20967), (784, 21021), (787, 21048), (790, 21066), (799, 21114), (800, 21120), (808, 21192), (823, 21270), (825, 21285), (833, 21324), (839, 21348), (851, 21417), (855, 21438), (879, 21531), (905, 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 159 MA's), (Start: 22 @17700 has 3 MA's), (25, 17733), (30, 17754), (68, 17985), (71, 18015), (78, 18096), (79, 18138), (80, 18156), (84, 18198), (89, 18285), (96, 18339), (99, 18354), (105, 18387), (118, 18480), (125, 18528), (127, 18543), (132, 18585), (136, 18639), (144, 18714), (150, 18747), (163, 18855), (173, 18921), (181, 18954), (183, 18963), (184, 18966), (186, 18984), (246, 19266), (260, 19290), (266, 19320), (310, 19479), (324, 19539), (349, 19668), (356, 19716), (367, 19770), (370, 19782), (372, 19791), (375, 19800), (382, 19824), (391, 19869), (397, 19890), (410, 19965), (418, 19998), (428, 20028), (431, 20049), (435, 20070), (447, 20130), (448, 20136), (456, 20175), (457, 20178), (462, 20193), (476, 20256), (481, 20277), (485, 20307), (490, 20337), (496, 20355), (507, 20403), (513, 20427), (517, 20445), (520, 20454), (521, 20463), (523, 20469), (526, 20490), (533, 20520), (542, 20553), (543, 20559), (544, 20562), (550, 20574), (555, 20595), (570, 20646), (571, 20655), (575, 20685), (577, 20691), (587, 20724), (590, 20733), (600, 20763), (603, 20772), (606, 20784), (618, 20823), (626, 20850), (628, 20856), (629, 20859), (632, 20874), (639, 20901), (643, 20919), (647, 20931), (656, 20967), (682, 21069), (697, 21132), (705, 21168), (706, 21171), (708, 21177), (712, 21192), (717, 21210), (723, 21234), (727, 21249), (728, 21252), (733, 21270), (738, 21303), (743, 21324), (755, 21381), (762, 21435), (764, 21444), (784, 21498), (787, 21525), (790, 21543), (799, 21591), (800, 21597), (808, 21669), (823, 21747), (825, 21762), (833, 21801), (839, 21825), (851, 21894), (855, 21915), (879, 22008), (905, 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 159 MA's), (Start: 22 @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), (116, 17446), (118, 17461), (121, 17494), (125, 17509), (126, 17518), (131, 17557), (136, 17620), (144, 17695), (151, 17740), (153, 17761), (157, 17797), (163, 17836), (165, 17842), (174, 17905), (176, 17911), (197, 18022), (280, 18343), (291, 18391), (299, 18430), (306, 18454), (313, 18490), (314, 18493), (315, 18499), (324, 18535), (345, 18649), (349, 18670), (357, 18724), (365, 18757), (374, 18799), (375, 18802), (382, 18826), (389, 18862), (391, 18871), (394, 18880), (397, 18892), (406, 18943), (414, 18988), (421, 19009), (428, 19030), (431, 19051), (436, 19075), (445, 19114), (447, 19132), (449, 19147), (454, 19168), (465, 19207), (470, 19231), (481, 19279), (485, 19309), (487, 19324), (496, 19357), (498, 19363), (507, 19402), (512, 19423), (517, 19444), (520, 19453), (538, 19537), (542, 19552), (544, 19561), (550, 19573), (555, 19594), (570, 19645), (571, 19654), (587, 19723), (590, 19732), (600, 19762), (601, 19765), (614, 19807), (618, 19822), (632, 19873), (637, 19894), (651, 19948), (661, 19984), (662, 19987), (675, 20044), (676, 20047), (683, 20071), (692, 20113), (700, 20152), (702, 20158), (708, 20176), (710, 20182), (731, 20263), (738, 20302), (743, 20323), (746, 20341), (755, 20380), (757, 20389), (771, 20485), (775, 20506), (784, 20563), (790, 20608), (792, 20620), (796, 20641), (805, 20698), (807, 20728), (825, 20827), (839, 20887), (844, 20917), (852, 20956), (855, 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 159 MA's), (Start: 22 @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), (116, 20042), (118, 20057), (125, 20105), (156, 20378), (163, 20432), (166, 20441), (174, 20501), (184, 20543), (193, 20603), (194, 20609), (197, 20618), (202, 20633), (203, 20642), (223, 20741), (224, 20753), (225, 20762), (226, 20774), (309, 21059), (320, 21119), (324, 21128), (347, 21260), (349, 21269), (356, 21317), (357, 21323), (361, 21341), (363, 21347), (367, 21371), (372, 21392), (375, 21401), (382, 21425), (386, 21443), (394, 21479), (396, 21488), (397, 21491), (400, 21500), (417, 21596), (421, 21608), (425, 21620), (428, 21629), (431, 21650), (435, 21671), (441, 21698), (447, 21731), (472, 21842), (475, 21854), (476, 21857), (486, 21914), (512, 22022), (521, 22061), (525, 22082), (530, 22109), (533, 22118), (542, 22151), (544, 22160), (550, 22172), (555, 22193), (562, 22220), (570, 22244), (571, 22253), (587, 22322), (588, 22325), (589, 22328), (590, 22331), (600, 22361), (606, 22382), (613, 22403), (616, 22412), (618, 22421), (626, 22448), (649, 22541), (653, 22556), (656, 22565), (662, 22586), (669, 22610), (675, 22643), (676, 22646), (677, 22649), (682, 22667), (712, 22790), (717, 22808), (730, 22856), (739, 22907), (755, 22979), (765, 23045), (779, 23120), (784, 23162), (790, 23207), (799, 23255), (820, 23390), (823, 23411), (827, 23435), (839, 23486), (852, 23555), (855, 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 159 MA's), (Start: 22 @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), (118, 21331), (121, 21364), (125, 21379), (131, 21427), (150, 21598), (165, 21712), (166, 21715), (172, 21763), (193, 21877), (200, 21901), (237, 22096), (244, 22111), (247, 22117), (257, 22135), (277, 22207), (291, 22273), (314, 22375), (315, 22381), (323, 22414), (324, 22417), (329, 22444), (349, 22561), (358, 22618), (360, 22630), (372, 22684), (375, 22693), (376, 22696), (382, 22717), (391, 22762), (397, 22783), (419, 22894), (421, 22900), (428, 22921), (430, 22939), (435, 22963), (447, 23023), (449, 23038), (450, 23041), (456, 23068), (457, 23071), (485, 23200), (487, 23215), (488, 23218), (492, 23236), (494, 23242), (495, 23245), (499, 23257), (507, 23293), (510, 23302), (517, 23335), (528, 23389), (529, 23392), (533, 23410), (537, 23422), (544, 23452), (550, 23467), (553, 23476), (555, 23488), (571, 23548), (582, 23605), (587, 23617), (590, 23626), (603, 23665), (606, 23677), (616, 23707), (618, 23716), (638, 23791), (639, 23794), (643, 23812), (661, 23878), (663, 23884), (664, 23887), (676, 23941), (677, 23944), (708, 24070), (709, 24073), (715, 24094), (723, 24127), (725, 24136), (743, 24217), (749, 24250), (757, 24283), (765, 24340), (775, 24400), (780, 24424), (790, 24502), (792, 24514), (811, 24640), (819, 24682), (827, 24730), (834, 24763), (837, 24775), (839, 24781), (842, 24802), (843, 24805), (844, 24811), (852, 24850), (857, 24877), (900, 25063), (904, 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 159 MA's), (Start: 22 @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), (118, 21496), (121, 21529), (125, 21544), (131, 21592), (145, 21742), (150, 21763), (163, 21871), (165, 21877), (166, 21880), (172, 21928), (193, 22042), (200, 22066), (203, 22081), (206, 22093), (221, 22168), (226, 22213), (237, 22261), (244, 22276), (247, 22282), (257, 22300), (277, 22372), (284, 22414), (287, 22423), (298, 22468), (314, 22540), (315, 22546), (323, 22579), (324, 22582), (329, 22609), (349, 22723), (356, 22771), (358, 22780), (360, 22792), (372, 22846), (375, 22855), (376, 22858), (382, 22879), (391, 22924), (397, 22945), (419, 23056), (421, 23062), (428, 23083), (430, 23101), (431, 23104), (435, 23125), (447, 23185), (449, 23200), (450, 23203), (456, 23230), (457, 23233), (485, 23362), (487, 23377), (488, 23380), (492,

23398), (494, 23404), (499, 23419), (507, 23455), (510, 23464), (517, 23497), (528, 23551), (529, 23554), (533, 23572), (537, 23584), (544, 23614), (550, 23629), (553, 23638), (555, 23650), (571, 23710), (580, 23761), (582, 23767), (587, 23779), (590, 23788), (603, 23827), (606, 23839), (610, 23851), (616, 23869), (618, 23878), (638, 23953), (639, 23956), (643, 23974), (661, 24040), (663, 24046), (664, 24049), (676, 24103), (677, 24106), (708, 24232), (709, 24235), (715, 24256), (723, 24289), (725, 24298), (743, 24379), (749, 24412), (757, 24445), (765, 24502), (775, 24562), (780, 24586), (790, 24664), (792, 24676), (811, 24802), (819, 24844), (827, 24892), (834, 24925), (837, 24937), (839, 24943), (842, 24964), (843, 24967), (852, 25012), (857, 25039), (862, 25066), (864, 25069), (900, 25225), (904, 25252),

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

Candidate Starts for Nithya_32:

(Start: 19 @23499 has 159 MA's), (Start: 22 @23529 has 3 MA's), (27, 23574), (49, 23718), (61, 23784), (71, 23844), (72, 23865), (79, 23967), (86, 24057), (87, 24093), (90, 24129), (96, 24168), (105, 24216), (110, 24258), (116, 24330), (121, 24378), (136, 24504), (144, 24579), (145, 24591), (150, 24612), (162, 24717), (163, 24720), (206, 24942), (219, 25008), (220, 25011), (231, 25080), (261, 25185), (275, 25254), (297, 25356), (298, 25359), (304, 25386), (313, 25425), (319, 25452), (349, 25614), (356, 25662), (360, 25683), (365, 25701), (376, 25749), (391, 25815), (399, 25842), (400, 25845), (402, 25863), (403, 25866), (406, 25887), (407, 25896), (420, 25950), (431, 25995), (435, 26016), (438, 26025), (445, 26058), (446, 26067), (449, 26091), (456, 26121), (457, 26124), (460, 26133), (463, 26145), (466, 26154), (468, 26166), (473, 26187), (475, 26193), (485, 26247), (504, 26325), (507, 26337), (509, 26343), (510, 26346), (513, 26361), (518, 26382), (525, 26418), (538, 26472), (539, 26475), (542, 26487), (544, 26496), (551, 26508), (552, 26511), (555, 26526), (562, 26553), (564, 26559), (569, 26574), (570, 26577), (571, 26586), (572, 26601), (573, 26607), (577, 26622), (579, 26634), (580, 26637), (590, 26673), (595, 26694), (597, 26706), (600, 26715), (604, 26727), (612, 26754), (619, 26778), (622, 26787), (624, 26793), (629, 26811), (646, 26880), (665, 26949), (701, 27105), (749, 27306), (774, 27450), (783, 27513), (786, 27540), (798, 27612), (801, 27624), (802, 27633), (807, 27687), (812, 27708), (814, 27720), (845, 27882), (860, 27969), (865, 27987), (874, 28017), (881, 28035), (882, 28038), (884, 28050), (892, 28077), (909, 28188), (917, 28263), (923, 28311), (932, 28365), (938, 28392), (955, 28506), (969, 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 159 MA's), (Start: 22 @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), (118, 20884), (121, 20917), (125, 20932), (131, 20980), (150, 21151), (165, 21265), (166, 21268), (193, 21430), (200, 21454), (203, 21469), (206, 21481), (221, 21556), (237, 21649), (244, 21664), (247, 21670), (257, 21688), (277, 21760), (287, 21811), (291, 21826), (298, 21856), (314, 21928), (315, 21934), (323, 21967), (324, 21970), (329, 21997), (349, 22111), (358, 22168), (360, 22180), (372, 22234), (375, 22243), (376, 22246), (382, 22267), (391, 22312), (397, 22333), (404, 22375), (407, 22393), (421, 22450), (428, 22471), (431, 22492), (447, 22573), (449, 22588), (450, 22591), (456, 22618), (457, 22621), (470, 22672), (485, 22750), (487, 22765), (488, 22768), (492, 22786), (494, 22792), (496, 22798), (499, 22807), (507, 22843), (510, 22852), (517, 22885), (528, 22939), (529, 22942), (533, 22960), (537, 22972), (544, 23002), (550, 23017), (553, 23026), (555, 23038), (560, 23059), (571, 23098), (582, 23155), (587, 23167), (590, 23176), (603, 23215), (606, 23227), (616, 23257), (618, 23266), (629, 23302), (638, 23341), (639, 23344), (643, 23362), (645, 23368), (661, 23428), (664, 23437), (676, 23491), (677, 23494), (680, 23503), (708, 23620), (709, 23623), (715, 23644), (723, 23677), (724, 23680), (725, 23686), (728, 23695), (734, 23722), (743, 23767), (757, 23833), (763, 23884), (765, 23890), (775, 23950), (787, 24034), (790, 24052), (792, 24064), (818, 24223), (819, 24232), (827, 24280), (834, 24313), (837, 24325), (839, 24331), (842, 24352), (843, 24355), (844, 24361), (852, 24400), (857, 24427), (900, 24613), (904, 24640),

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

Candidate Starts for NoPickles_29:

(Start: 19 @20260 has 159 MA's), (Start: 22 @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), (123, 21124), (124, 21127), (134, 21226), (137, 21250), (150, 21346), (162, 21451), (163, 21454), (174, 21523), (176, 21529), (177, 21535), (212, 21712), (223, 21763), (231, 21814), (243, 21868), (245, 21871), (284, 22042), (304, 22123), (306, 22126), (321, 22201), (335, 22258), (347, 22342), (349, 22351), (359, 22414), (360, 22420), (362, 22426), (365, 22438), (367, 22453), (368, 22456), (373, 22477), (386, 22525), (391, 22552), (397, 22573), (400, 22582), (403, 22603), (404, 22615), (406, 22624), (407, 22633), (412, 22660), (420, 22687), (421, 22690), (428, 22711), (435, 22753), (441, 22780), (444, 22789), (446, 22804), (447, 22813), (449, 22828), (451, 22840), (454, 22849), (457, 22861), (463, 22882), (466, 22891), (484, 22975), (485, 22984), (487, 22999), (488, 23002), (492, 23020), (496, 23032), (497, 23035), (504, 23062), (510, 23083), (513, 23098), (523, 23140), (525, 23155), (539, 23212), (542, 23224), (544, 23233), (551, 23245), (554, 23257), (555, 23263), (560, 23284), (564, 23296), (570, 23314), (571, 23323), (572, 23338), (573, 23344), (576, 23356), (586, 23398), (587, 23401), (590, 23410), (595, 23431), (597, 23443), (612, 23491), (615, 23500), (622, 23524), (624, 23530), (629, 23548), (630, 23557), (636, 23578), (654, 23647), (659, 23665), (660, 23668), (665, 23686), (695, 23812), (706, 23857), (720, 23908), (751, 24052), (774, 24187), (782, 24238), (793, 24316), (801, 24361), (807, 24424), (811, 24442), (817, 24472), (818, 24478), (828, 24535), (842, 24607), (854, 24667), (858, 24688), (859, 24691), (866, 24742), (869, 24751), (882, 24790), (884, 24802), (901, 24895), (909, 24940), (917, 25015), (921, 25054), (927, 25084), (937, 25141), (954, 25252), (969, 25348),

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

Candidate Starts for Odesza_29:

(Start: 19 @20616 has 159 MA's), (Start: 22 @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), (123, 21492), (124, 21495), (150, 21714), (162, 21819), (163, 21822), (174, 21891), (176, 21897), (212, 22080), (223, 22131), (231, 22182), (243, 22236), (245, 22239), (278, 22371), (299, 22473), (304, 22491), (306, 22494), (321, 22569), (335, 22626), (347, 22710), (349, 22719), (365, 22806), (373, 22845), (386, 22893), (391, 22920), (397, 22941), (400, 22950), (403, 22971), (404, 22983), (406, 22992), (407, 23001), (412, 23028), (420, 23055), (421, 23058), (428, 23079), (435, 23121), (441, 23148), (444, 23157), (446, 23172), (447, 23181), (449, 23196), (451, 23208), (454, 23217), (457, 23229), (463, 23250), (466, 23259), (484, 23343), (485, 23352), (487, 23367), (488, 23370), (492, 23388), (496, 23400), (497, 23403), (504, 23430), (510, 23451), (513, 23466), (523, 23508), (525, 23523), (539, 23580), (542, 23592), (544, 23601), (551, 23613), (554, 23625), (555, 23631), (560, 23652), (564, 23664), (570, 23682), (571, 23691), (572, 23706), (573, 23712), (576, 23724), (586, 23766), (587, 23769), (590, 23778), (595, 23799), (597, 23811), (612, 23859), (615, 23868), (622, 23892), (624, 23898), (629, 23916), (630, 23925), (636, 23946), (654, 24015), (659, 24033), (660, 24036), (665, 24054), (695, 24180), (706, 24225), (720, 24276), (751, 24420), (774, 24555), (782, 24606), (793, 24684), (801, 24729), (807, 24792), (811, 24810), (817, 24840), (818, 24846), (828, 24903), (842, 24975), (854, 25035), (858, 25056), (859, 25059), (866, 25110), (869, 25119), (882, 25158), (884, 25170), (901, 25263), (909, 25308), (917, 25383), (921, 25422), (927, 25452), (937, 25509), (954, 25620), (969, 25716),

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

Candidate Starts for OhMyWard_32:

(Start: 19 @24046 has 159 MA's), (Start: 22 @24076 has 3 MA's), (27, 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), (136, 25036), (150, 25144), (151, 25156), (157, 25213), (162,

25249), (163, 25252), (166, 25261), (174, 25321), (176, 25327), (212, 25510), (213, 25516), (231, 25612), (234, 25630), (275, 25786), (302, 25912), (304, 25921), (349, 26152), (350, 26158), (360, 26221), (365, 26239), (370, 26266), (375, 26284), (391, 26353), (398, 26377), (400, 26383), (403, 26404), (405, 26422), (406, 26425), (420, 26488), (431, 26533), (435, 26554), (441, 26581), (447, 26614), (451, 26641), (456, 26659), (457, 26662), (460, 26671), (465, 26689), (466, 26692), (468, 26704), (487, 26800), (496, 26833), (501, 26854), (504, 26863), (507, 26875), (510, 26884), (513, 26899), (515, 26905), (516, 26911), (518, 26920), (521, 26935), (522, 26938), (524, 26947), (525, 26956), (533, 26992), (539, 27013), (544, 27034), (555, 27064), (559, 27079), (560, 27085), (568, 27109), (570, 27115), (571, 27124), (572, 27139), (573, 27145), (582, 27181), (586, 27199), (590, 27211), (595, 27232), (597, 27244), (604, 27265), (605, 27268), (612, 27292), (615, 27301), (622, 27325), (624, 27331), (629, 27349), (630, 27358), (631, 27361), (654, 27448), (663, 27478), (694, 27610), (712, 27679), (749, 27844), (768, 27952), (773, 27985), (786, 28078), (798, 28150), (801, 28162), (802, 28171), (807, 28225), (817, 28273), (828, 28336), (839, 28387), (845, 28420), (860, 28507), (865, 28525), (874, 28555), (882, 28576), (883, 28582), (884, 28588), (892, 28615), (897, 28642), (909, 28726), (914, 28789), (917, 28801), (933, 28912), (938, 28930), (945, 28978), (969, 29134),

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

Candidate Starts for OlgasClover_32:

(Start: 19 @24235 has 159 MA's), (Start: 22 @24265 has 3 MA's), (27, 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), (136, 25225), (150, 25333), (151, 25345), (157, 25402), (162, 25438), (163, 25441), (174, 25510), (176, 25516), (191, 25600), (206, 25663), (212, 25699), (220, 25732), (233, 25807), (234, 25819), (243, 25855), (261, 25906), (269, 25954), (273, 25966), (304, 26110), (313, 26149), (319, 26176), (349, 26338), (356, 26386), (360, 26407), (365, 26425), (376, 26473), (391, 26539), (403, 26590), (404, 26602), (407, 26620), (420, 26674), (431, 26719), (435, 26740), (438, 26749), (442, 26770), (445, 26782), (446, 26791), (456, 26845), (457, 26848), (460, 26857), (466, 26878), (468, 26890), (473, 26911), (475, 26917), (479, 26935), (485, 26971), (490, 27001), (504, 27049), (507, 27061), (509, 27067), (510, 27070), (512, 27082), (513, 27085), (518, 27106), (525, 27142), (538, 27196), (539, 27199), (544, 27220), (551, 27232), (552, 27235), (564, 27283), (569, 27298), (570, 27301), (571, 27310), (573, 27331), (579, 27358), (580, 27361), (586, 27385), (590, 27397), (595, 27418), (597, 27430), (600, 27439), (604, 27451), (612, 27478), (622, 27511), (624, 27517), (629, 27535), (631, 27547), (642, 27589), (646, 27604), (665, 27673), (691, 27784), (720, 27895), (732, 27940), (749, 28030), (774, 28174), (783, 28237), (786, 28264), (798, 28336), (801, 28348), (802, 28357), (807, 28411), (812, 28432), (814, 28444), (845, 28606), (860, 28693), (865, 28711), (874, 28741), (881, 28759), (882, 28762), (884, 28774), (892, 28801), (909, 28912), (917, 28987), (923, 29035), (932, 29089), (938, 29116), (955, 29230), (969, 29320),

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

Candidate Starts for OlympicHelado_23:

(1, 16145), (Start: 2 @16166 has 31 MA's), (3, 16196), (14, 16340), (42, 16550), (53, 16667), (68, 16739), (71, 16769), (79, 16892), (87, 17018), (96, 17093), (105, 17141), (110, 17183), (132, 17372), (153, 17567), (162, 17639), (176, 17717), (191, 17801), (195, 17822), (206, 17864), (230, 17999), (247, 18053), (280, 18140), (288, 18176), (290, 18185), (299, 18227), (308, 18260), (314, 18290), (345, 18413), (349, 18434), (359, 18497), (360, 18503), (362, 18509), (367, 18536), (372, 18557), (374, 18563), (375, 18566), (382, 18590), (391, 18635), (394, 18644), (395, 18647), (410, 18731), (416, 18758), (421, 18773), (422, 18776), (428, 18794), (431, 18812), (435, 18833), (446, 18884), (460, 18950), (464, 18965), (483, 19052), (485, 19070), (489, 19097), (515, 19190), (524, 19232), (525, 19241), (533, 19277), (538, 19295), (539, 19298), (542, 19310), (555, 19352), (556, 19355), (570, 19403), (574, 19439), (576, 19445), (581, 19466), (590, 19490), (600, 19520), (618, 19580), (628, 19613), (629, 19616), (632, 19631), (641, 19667), (652, 19709), (655, 19721), (656, 19724), (670, 19772), (675, 19802), (680, 19817), (687, 19850), (690, 19865), (706, 19928), (726, 20003),

(727, 20006), (728, 20009), (736, 20045), (748, 20111), (763, 20198), (764, 20201), (790, 20300), (799, 20348), (800, 20354), (823, 20504), (824, 20513), (884, 20786), (918, 21011), (931, 21104), (934, 21125), (940, 21149), (941, 21173), (943, 21179), (944, 21185), (951, 21230), (964, 21338), (973, 21407), (980, 21494), (986, 21596), (987, 21605),

Gene: Onestar_23 Start: 17044, Stop: 21576, Start Num: 22

Candidate Starts for Onestar_23:

(Start: 18 @16993 has 2 MA's), (Start: 19 @17014 has 159 MA's), (Start: 22 @17044 has 3 MA's), (25, 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), (116, 17809), (118, 17824), (121, 17857), (125, 17872), (127, 17887), (131, 17920), (163, 18199), (166, 18208), (172, 18256), (201, 18397), (209, 18433), (231, 18559), (242, 18601), (249, 18613), (268, 18697), (291, 18781), (295, 18799), (306, 18844), (322, 18922), (345, 19033), (349, 19054), (351, 19066), (360, 19123), (361, 19126), (372, 19177), (374, 19183), (375, 19186), (379, 19198), (386, 19228), (391, 19255), (397, 19276), (406, 19327), (417, 19381), (428, 19414), (431, 19435), (437, 19462), (456, 19561), (460, 19573), (470, 19615), (481, 19663), (504, 19771), (507, 19786), (512, 19807), (520, 19837), (533, 19903), (542, 19936), (544, 19945), (550, 19957), (552, 19963), (556, 19981), (570, 20029), (571, 20038), (580, 20089), (588, 20110), (590, 20116), (618, 20206), (633, 20260), (637, 20278), (644, 20305), (645, 20308), (657, 20353), (661, 20368), (669, 20395), (675, 20428), (688, 20485), (694, 20506), (697, 20515), (704, 20548), (711, 20572), (720, 20605), (724, 20620), (725, 20626), (728, 20635), (729, 20638), (748, 20737), (749, 20740), (755, 20764), (784, 20947), (790, 20992), (795, 21022), (796, 21025), (800, 21046), (804, 21070), (805, 21082), (827, 21220), (834, 21253), (837, 21265), (852, 21340), (864, 21397), (889, 21469),

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

Candidate Starts for Paella_40:

(Start: 19 @29221 has 159 MA's), (Start: 22 @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), (121, 30097), (128, 30142), (131, 30160), (143, 30283), (145, 30310), (148, 30322), (151, 30343), (181, 30538), (197, 30625), (199, 30631), (209, 30673), (218, 30724), (228, 30787), (251, 30862), (253, 30871), (285, 30991), (305, 31069), (308, 31078), (349, 31246), (363, 31324), (372, 31369), (375, 31378), (382, 31402), (391, 31447), (397, 31468), (414, 31564), (425, 31597), (431, 31627), (447, 31708), (449, 31723), (450, 31726), (470, 31807), (476, 31834), (485, 31885), (489, 31912), (496, 31933), (497, 31936), (507, 31978), (528, 32074), (533, 32095), (537, 32107), (542, 32128), (544, 32137), (550, 32149), (560, 32191), (570, 32221), (571, 32230), (579, 32278), (580, 32281), (587, 32299), (590, 32308), (606, 32359), (609, 32368), (618, 32398), (629, 32434), (635, 32461), (656, 32542), (657, 32545), (677, 32626), (681, 32638), (687, 32668), (690, 32683), (693, 32692), (697, 32707), (706, 32746), (717, 32785), (721, 32800), (723, 32809), (726, 32821), (729, 32830), (730, 32833), (738, 32878), (739, 32884), (751, 32941), (755, 32956), (759, 32986), (775, 33082), (784, 33139), (790, 33184), (803, 33253), (813, 33334), (818, 33355), (823, 33388), (831, 33433), (833, 33442), (837, 33457), (839, 33463), (851, 33532), (855, 33550), (867, 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 159 MA's), (Start: 22 @30047 has 3 MA's), (27, 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), (115, 30827), (122, 30881), (123, 30884), (127, 30899), (151, 31115), (158, 31175), (160, 31196), (166, 31220), (206, 31433), (212, 31469), (230, 31568), (292, 31826), (304, 31877), (313, 31916), (314, 31919), (323, 31961), (325, 31967), (334, 32012), (337, 32033), (345, 32087), (349, 32108), (370, 32222), (378, 32249), (382, 32264), (385, 32273), (389, 32300), (397, 32330), (398, 32333), (400, 32339), (405, 32378), (407, 32390), (417, 32435), (418, 32438), (431, 32489), (435, 32510), (438, 32519),

(442, 32540), (447, 32570), (451, 32597), (454, 32606), (455, 32612), (466, 32648), (468, 32660), (478, 32702), (479, 32705), (482, 32717), (484, 32732), (489, 32768), (494, 32783), (504, 32819), (507, 32831), (514, 32858), (524, 32903), (525, 32912), (528, 32927), (537, 32960), (539, 32969), (541, 32975), (544, 32990), (556, 33023), (562, 33047), (567, 33062), (571, 33080), (577, 33116), (585, 33152), (587, 33158), (595, 33188), (597, 33200), (599, 33206), (604, 33221), (611, 33245), (615, 33257), (617, 33263), (619, 33272), (620, 33275), (636, 33335), (642, 33359), (663, 33434), (685, 33530), (750, 33806), (755, 33824), (756, 33830), (759, 33854), (768, 33908), (785, 34016), (788, 34043), (790, 34058), (797, 34112), (817, 34238), (826, 34298), (885, 34586), (922, 34850), (929, 34898), (947, 35000), (952, 35033), (963, 35132), (965, 35141), (976, 35246), (977, 35264), (980, 35300), (985, 35345), (989, 35627), (990, 35660), (991, 35855),

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

Candidate Starts for Perkunas_31:

(Start: 19 @21027 has 159 MA's), (Start: 22 @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), (123, 21891), (124, 21894), (134, 21993), (150, 22113), (162, 22218), (163, 22221), (174, 22290), (176, 22296), (203, 22431), (243, 22635), (245, 22638), (299, 22872), (304, 22890), (313, 22929), (319, 22956), (321, 22968), (324, 22977), (347, 23109), (349, 23118), (362, 23193), (365, 23205), (366, 23211), (386, 23292), (390, 23313), (391, 23319), (397, 23340), (400, 23349), (403, 23370), (404, 23382), (406, 23391), (407, 23400), (412, 23427), (420, 23454), (421, 23457), (428, 23478), (435, 23520), (443, 23553), (444, 23556), (446, 23571), (447, 23580), (451, 23607), (454, 23616), (457, 23628), (463, 23649), (466, 23658), (473, 23691), (484, 23742), (485, 23751), (487, 23766), (492, 23787), (497, 23802), (503, 23826), (504, 23829), (507, 23841), (509, 23847), (510, 23850), (523, 23907), (525, 23922), (539, 23979), (542, 23991), (544, 24000), (551, 24012), (554, 24024), (555, 24030), (563, 24060), (564, 24063), (567, 24072), (570, 24081), (571, 24090), (572, 24105), (573, 24111), (576, 24123), (586, 24165), (590, 24177), (595, 24198), (597, 24210), (615, 24267), (622, 24291), (624, 24297), (625, 24300), (629, 24315), (631, 24327), (636, 24345), (654, 24414), (660, 24435), (682, 24522), (706, 24624), (711, 24642), (738, 24756), (743, 24777), (751, 24819), (774, 24954), (801, 25128), (807, 25191), (811, 25209), (817, 25239), (818, 25245), (822, 25266), (842, 25374), (854, 25434), (858, 25455), (859, 25458), (866, 25509), (869, 25518), (874, 25536), (882, 25557), (884, 25569), (901, 25662), (909, 25707), (914, 25770), (917, 25782), (921, 25821), (927, 25851), (932, 25884), (937, 25908), (947, 25968), (969, 26115),

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

Candidate Starts for PerroGrande22_39:

(Start: 19 @31343 has 159 MA's), (Start: 22 @31373 has 3 MA's), (27, 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), (148, 32447), (150, 32456), (154, 32492), (159, 32540), (162, 32561), (163, 32564), (165, 32570), (176, 32639), (213, 32828), (221, 32861), (228, 32912), (233, 32930), (237, 32954), (292, 33179), (304, 33230), (313, 33269), (319, 33296), (334, 33365), (341, 33407), (345, 33440), (349, 33461), (358, 33518), (370, 33575), (382, 33617), (385, 33626), (397, 33683), (398, 33686), (399, 33689), (400, 33692), (405, 33731), (407, 33743), (418, 33791), (431, 33842), (435, 33863), (438, 33872), (442, 33893), (447, 33923), (448, 33929), (459, 33977), (466, 34001), (468, 34013), (472, 34028), (478, 34055), (479, 34058), (482, 34070), (484, 34085), (494, 34136), (501, 34163), (504, 34172), (507, 34184), (513, 34208), (514, 34211), (524, 34256), (525, 34265), (528, 34280), (537, 34313), (539, 34322), (542, 34334), (544, 34343), (556, 34376), (560, 34394), (562, 34400), (567, 34415), (568, 34418), (571, 34433), (573, 34454), (577, 34469), (586, 34508), (595, 34541), (597, 34553), (599, 34559), (604, 34574), (611, 34598), (615, 34610), (617, 34616), (636, 34688), (663, 34787), (680, 34856), (685, 34883), (750, 35159), (755, 35177), (759, 35207), (764, 35240), (768, 35261), (785, 35369), (788, 35396), (801, 35480), (817, 35591), (826, 35651), (832, 35681), (850, 35780), (922, 36203), (929, 36251), (947, 36353), (965, 36494), (976, 36599), (980,

36653), (985, 36698), (986, 36764), (988, 36863), (989, 36980), (990, 37013), (991, 37208),

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

Candidate Starts for PestoPenguin_35:

(Start: 19 @23289 has 159 MA's), (Start: 22 @23319 has 3 MA's), (27, 23364), (49, 23508), (61, 23574), (71, 23634), (72, 23655), (79, 23757), (87, 23883), (90, 23919), (96, 23958), (101, 23985), (105, 24006), (110, 24048), (121, 24168), (134, 24282), (136, 24294), (144, 24369), (150, 24402), (162, 24507), (163, 24510), (231, 24870), (234, 24888), (275, 25044), (297, 25146), (298, 25149), (304, 25176), (313, 25215), (319, 25242), (324, 25263), (328, 25287), (349, 25404), (359, 25467), (360, 25473), (365, 25491), (366, 25497), (372, 25527), (380, 25551), (391, 25605), (398, 25629), (402, 25653), (403, 25656), (406, 25677), (407, 25686), (417, 25731), (420, 25740), (431, 25785), (435, 25806), (438, 25815), (439, 25821), (442, 25836), (444, 25842), (446, 25857), (456, 25911), (457, 25914), (460, 25923), (463, 25935), (466, 25944), (468, 25956), (473, 25977), (475, 25983), (481, 26007), (485, 26037), (487, 26052), (504, 26115), (507, 26127), (509, 26133), (510, 26136), (512, 26148), (513, 26151), (525, 26208), (538, 26262), (539, 26265), (544, 26286), (551, 26298), (552, 26301), (564, 26349), (569, 26364), (570, 26367), (571, 26376), (572, 26391), (573, 26397), (579, 26424), (580, 26427), (582, 26433), (590, 26463), (595, 26484), (597, 26496), (600, 26505), (604, 26517), (612, 26544), (622, 26577), (624, 26583), (629, 26601), (636, 26631), (665, 26739), (686, 26829), (691, 26850), (720, 26961), (732, 27006), (743, 27063), (749, 27096), (774, 27240), (783, 27303), (793, 27369), (798, 27402), (801, 27414), (807, 27477), (812, 27498), (814, 27510), (818, 27531), (845, 27672), (860, 27759), (865, 27777), (874, 27807), (881, 27825), (882, 27828), (883, 27834), (884, 27840), (892, 27867), (909, 27978), (914, 28041), (917, 28053), (927, 28122), (932, 28155), (937, 28179), (955, 28296), (969, 28386),

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

Candidate Starts for Petito_31:

(Start: 19 @21794 has 159 MA's), (Start: 22 @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), (123, 22658), (124, 22661), (134, 22760), (137, 22784), (150, 22880), (156, 22934), (159, 22964), (162, 22985), (163, 22988), (174, 23057), (176, 23063), (206, 23210), (212, 23246), (219, 23276), (231, 23348), (237, 23378), (243, 23402), (304, 23657), (321, 23735), (324, 23744), (335, 23792), (347, 23876), (349, 23885), (359, 23948), (365, 23972), (368, 23990), (373, 24011), (386, 24059), (391, 24086), (400, 24116), (403, 24137), (404, 24149), (406, 24158), (407, 24167), (420, 24221), (421, 24224), (428, 24245), (435, 24287), (441, 24314), (444, 24323), (446, 24338), (447, 24347), (449, 24362), (451, 24374), (454, 24383), (457, 24395), (463, 24416), (466, 24425), (479, 24482), (484, 24509), (485, 24518), (487, 24533), (488, 24536), (492, 24554), (504, 24596), (507, 24608), (510, 24617), (513, 24632), (523, 24674), (525, 24689), (539, 24746), (542, 24758), (544, 24767), (551, 24779), (554, 24791), (555, 24797), (560, 24818), (564, 24830), (567, 24839), (570, 24848), (571, 24857), (572, 24872), (573, 24878), (576, 24890), (582, 24914), (586, 24932), (590, 24944), (595, 24965), (597, 24977), (612, 25025), (615, 25034), (622, 25058), (624, 25064), (625, 25067), (629, 25082), (630, 25091), (631, 25094), (636, 25112), (654, 25181), (660, 25202), (680, 25280), (694, 25343), (699, 25364), (708, 25397), (734, 25499), (743, 25544), (751, 25586), (762, 25655), (774, 25721), (785, 25793), (798, 25883), (807, 25958), (818, 26012), (822, 26033), (828, 26069), (836, 26108), (839, 26120), (842, 26141), (859, 26225), (865, 26258), (874, 26288), (876, 26294), (882, 26309), (884, 26321), (907, 26447), (909, 26459), (917, 26534), (919, 26552), (921, 26573), (924, 26585), (937, 26660), (938, 26663), (969, 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 159 MA's), (Start: 22 @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), (116, 21050), (118, 21065), (121, 21098), (125,

21113), (126, 21122), (129, 21149), (131, 21161), (135, 21215), (145, 21311), (150, 21332), (166, 21449), (173, 21506), (175, 21512), (186, 21569), (202, 21641), (209, 21674), (210, 21677), (266, 21911), (290, 22004), (291, 22007), (314, 22109), (315, 22115), (324, 22151), (349, 22298), (357, 22352), (358, 22355), (372, 22421), (375, 22430), (376, 22433), (382, 22454), (388, 22481), (397, 22520), (398, 22523), (421, 22637), (428, 22658), (430, 22676), (431, 22679), (449, 22775), (451, 22787), (481, 22907), (485, 22937), (487, 22952), (499, 22994), (504, 23015), (507, 23030), (510, 23039), (512, 23051), (517, 23072), (528, 23126), (533, 23147), (542, 23180), (543, 23186), (544, 23189), (551, 23207), (552, 23210), (555, 23228), (570, 23279), (571, 23288), (581, 23342), (590, 23366), (601, 23399), (608, 23423), (618, 23456), (637, 23528), (638, 23531), (643, 23552), (649, 23576), (652, 23585), (661, 23618), (662, 23621), (664, 23627), (674, 23672), (675, 23678), (687, 23726), (715, 23834), (725, 23876), (728, 23885), (759, 24044), (762, 24068), (764, 24077), (771, 24119), (775, 24140), (779, 24155), (790, 24242), (792, 24254), (800, 24296), (811, 24380), (823, 24446), (827, 24470), (837, 24515), (839, 24521), (852, 24590), (853, 24593), (857, 24617), (900, 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 159 MA's), (Start: 22 @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), (116, 19453), (118, 19468), (125, 19516), (156, 19789), (163, 19843), (166, 19852), (174, 19912), (184, 19954), (193, 20014), (194, 20020), (197, 20029), (202, 20044), (203, 20053), (223, 20152), (224, 20164), (225, 20173), (226, 20185), (309, 20470), (320, 20530), (324, 20539), (349, 20680), (356, 20728), (357, 20734), (363, 20758), (372, 20803), (375, 20812), (382, 20836), (386, 20854), (396, 20899), (397, 20902), (400, 20911), (410, 20977), (421, 21019), (425, 21031), (428, 21040), (431, 21061), (442, 21112), (447, 21142), (449, 21157), (460, 21199), (465, 21217), (475, 21265), (476, 21268), (486, 21325), (512, 21433), (515, 21442), (525, 21493), (528, 21508), (533, 21529), (542, 21562), (544, 21571), (550, 21583), (555, 21604), (557, 21610), (562, 21631), (570, 21655), (571, 21664), (587, 21733), (588, 21736), (589, 21739), (590, 21742), (600, 21772), (606, 21793), (613, 21814), (618, 21832), (621, 21841), (626, 21859), (641, 21919), (643, 21928), (649, 21952), (653, 21967), (655, 21973), (656, 21976), (669, 22021), (675, 22054), (676, 22057), (677, 22060), (682, 22078), (711, 22198), (712, 22201), (717, 22219), (736, 22297), (739, 22318), (755, 22390), (762, 22444), (765, 22456), (784, 22573), (790, 22618), (820, 22801), (823, 22822), (827, 22846), (839, 22897), (852, 22966), (855, 22984),

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

Candidate Starts for Phepper_32:

(Start: 19 @23282 has 159 MA's), (Start: 22 @23312 has 3 MA's), (27, 23357), (49, 23501), (61, 23567), (71, 23627), (72, 23648), (79, 23750), (87, 23876), (90, 23912), (96, 23951), (101, 23978), (105, 23999), (110, 24041), (121, 24161), (136, 24287), (144, 24362), (150, 24395), (162, 24500), (163, 24503), (231, 24863), (261, 24968), (275, 25037), (279, 25058), (297, 25139), (298, 25142), (304, 25169), (313, 25208), (319, 25235), (349, 25397), (356, 25445), (360, 25466), (365, 25484), (376, 25532), (380, 25544), (391, 25598), (403, 25649), (404, 25661), (406, 25670), (407, 25679), (420, 25733), (431, 25778), (434, 25793), (435, 25799), (438, 25808), (439, 25814), (443, 25832), (444, 25835), (445, 25841), (446, 25850), (456, 25904), (457, 25907), (460, 25916), (465, 25934), (466, 25937), (468, 25949), (473, 25970), (475, 25976), (476, 25979), (481, 26000), (485, 26030), (487, 26045), (496, 26078), (500, 26093), (504, 26108), (507, 26120), (509, 26126), (510, 26129), (512, 26141), (513, 26144), (525, 26201), (538, 26255), (539, 26258), (544, 26279), (551, 26291), (552, 26294), (564, 26342), (569, 26357), (570, 26360), (571, 26369), (573, 26390), (579, 26417), (580, 26420), (586, 26444), (590, 26456), (595, 26477), (597, 26489), (604, 26510), (612, 26537), (622, 26570), (624, 26576), (629, 26594), (636, 26624), (646, 26663), (691, 26843), (694, 26855), (712, 26924), (749, 27089), (770, 27212), (774, 27233), (793, 27362), (798, 27395), (801, 27407), (807, 27470), (812, 27491), (814, 27503), (817, 27518), (828, 27581), (845, 27665), (860, 27752),

(865, 27770), (874, 27800), (881, 27818), (882, 27821), (883, 27827), (884, 27833), (892, 27860), (909, 27971), (917, 28046), (919, 28064), (932, 28148), (937, 28172), (955, 28289), (969, 28379),

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

Candidate Starts for Pherobrine_31:

(Start: 19 @23313 has 159 MA's), (Start: 22 @23343 has 3 MA's), (27, 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), (121, 24192), (144, 24393), (150, 24426), (153, 24459), (159, 24510), (162, 24531), (163, 24534), (176, 24609), (203, 24744), (216, 24810), (220, 24825), (231, 24894), (234, 24912), (241, 24945), (250, 24966), (255, 24975), (261, 24999), (275, 25068), (279, 25089), (284, 25122), (286, 25125), (302, 25194), (304, 25203), (324, 25290), (336, 25350), (344, 25401), (349, 25434), (350, 25440), (360, 25503), (365, 25521), (375, 25566), (391, 25635), (398, 25659), (400, 25665), (403, 25686), (407, 25716), (420, 25770), (421, 25773), (434, 25830), (435, 25836), (443, 25869), (446, 25887), (447, 25896), (449, 25911), (451, 25923), (456, 25941), (457, 25944), (460, 25953), (463, 25965), (465, 25971), (466, 25974), (473, 26007), (478, 26028), (485, 26067), (496, 26115), (500, 26130), (501, 26136), (504, 26145), (507, 26157), (510, 26166), (512, 26178), (513, 26181), (514, 26184), (515, 26187), (516, 26193), (518, 26202), (530, 26265), (537, 26286), (539, 26295), (544, 26316), (560, 26367), (562, 26373), (563, 26376), (568, 26391), (570, 26397), (572, 26421), (573, 26427), (579, 26454), (580, 26457), (590, 26493), (595, 26514), (597, 26526), (600, 26535), (604, 26547), (612, 26574), (615, 26583), (622, 26607), (624, 26613), (629, 26631), (636, 26661), (646, 26700), (654, 26730), (663, 26760), (694, 26892), (712, 26961), (749, 27126), (768, 27234), (773, 27267), (786, 27360), (798, 27432), (801, 27444), (807, 27507), (817, 27555), (836, 27657), (841, 27678), (845, 27702), (848, 27726), (860, 27789), (865, 27807), (881, 27855), (882, 27858), (884, 27870), (892, 27897), (909, 28008), (917, 28083), (932, 28185), (938, 28212), (939, 28215), (955, 28323), (961, 28362), (969, 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 159 MA's), (Start: 22 @13518 has 3 MA's), (42, 13620), (45, 13671), (61, 13779), (79, 13962), (87, 14088), (90, 14124), (96, 14163), (110, 14253), (153, 14640), (176, 14790), (181, 14814), (193, 14886), (242, 15117), (277, 15195), (280, 15213), (281, 15216), (288, 15249), (313, 15357), (326, 15417), (349, 15498), (359, 15561), (360, 15567), (372, 15621), (379, 15642), (394, 15708), (395, 15711), (416, 15822), (428, 15858), (431, 15876), (442, 15927), (464, 16029), (467, 16041), (470, 16056), (484, 16125), (485, 16134), (490, 16164), (503, 16209), (509, 16230), (516, 16260), (519, 16272), (520, 16275), (524, 16296), (525, 16305), (533, 16341), (542, 16374), (566, 16455), (567, 16458), (574, 16503), (575, 16506), (576, 16509), (590, 16554), (600, 16584), (614, 16629), (618, 16644), (628, 16677), (633, 16698), (635, 16707), (637, 16716), (643, 16740), (644, 16743), (647, 16752), (652, 16773), (655, 16785), (663, 16812), (672, 16851), (677, 16872), (683, 16893), (685, 16908), (687, 16914), (721, 17046), (723, 17055), (725, 17064), (728, 17073), (729, 17076), (732, 17088), (733, 17091), (734, 17100), (736, 17109), (755, 17202), (762, 17256), (790, 17364), (793, 17379), (824, 17577), (872, 17811), (893, 17886), (930, 18165), (931, 18168), (934, 18189), (941, 18237), (943, 18243), (958, 18351), (967, 18423), (977, 18525), (987, 18678),

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

Candidate Starts for Pippin15_25:

(Start: 19 @18211 has 159 MA's), (Start: 22 @18244 has 3 MA's), (45, 18391), (58, 18484), (79, 18679), (81, 18715), (87, 18805), (105, 18928), (110, 18970), (121, 19090), (155, 19372), (159, 19408), (166, 19441), (176, 19507), (206, 19654), (220, 19735), (236, 19828), (281, 19954), (293, 20008), (349, 20260), (374, 20389), (375, 20392), (379, 20404), (388, 20443), (401, 20503), (404, 20524), (418, 20590), (421, 20599), (431, 20641), (433, 20647), (435, 20662), (440, 20683), (461, 20782), (472, 20833), (478, 20860), (483, 20881), (485, 20899), (492, 20935), (498, 20953), (507, 20995), (513, 21019), (514, 21022), (517, 21037), (520, 21046), (533, 21115), (539, 21136), (542,

21148), (545, 21157), (550, 21169), (556, 21193), (570, 21241), (587, 21319), (590, 21328), (613, 21400), (616, 21409), (618, 21418), (637, 21490), (648, 21532), (655, 21559), (668, 21604), (678, 21649), (679, 21652), (687, 21688), (697, 21727), (703, 21757), (717, 21805), (729, 21850), (740, 21907), (759, 22006), (760, 22015), (764, 22039), (768, 22060), (784, 22159), (790, 22204), (821, 22390), (827, 22432), (829, 22444), (834, 22465), (837, 22477), (852, 22552), (853, 22555), (855, 22570), (887, 22681), (905, 22780),

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

Candidate Starts for Poco6_036:

(Start: 19 @32036 has 159 MA's), (Start: 22 @32066 has 3 MA's), (27, 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), (115, 32861), (123, 32909), (146, 33110), (151, 33140), (176, 33311), (193, 33407), (212, 33494), (292, 33851), (304, 33902), (313, 33941), (323, 33986), (334, 34037), (337, 34058), (345, 34112), (349, 34133), (358, 34190), (370, 34247), (378, 34274), (382, 34289), (385, 34298), (389, 34325), (397, 34355), (398, 34358), (400, 34364), (407, 34415), (418, 34463), (431, 34514), (435, 34535), (438, 34544), (442, 34565), (446, 34586), (455, 34637), (457, 34643), (463, 34664), (466, 34673), (468, 34685), (472, 34700), (478, 34727), (479, 34730), (484, 34757), (500, 34829), (504, 34844), (507, 34856), (514, 34883), (524, 34928), (525, 34937), (537, 34985), (539, 34994), (544, 35015), (556, 35048), (560, 35066), (562, 35072), (567, 35087), (568, 35090), (569, 35093), (571, 35105), (585, 35177), (587, 35183), (595, 35213), (597, 35225), (599, 35231), (602, 35240), (604, 35246), (611, 35270), (615, 35282), (617, 35288), (636, 35360), (642, 35384), (660, 35450), (663, 35459), (680, 35528), (685, 35555), (750, 35831), (755, 35849), (759, 35879), (764, 35912), (768, 35933), (785, 36041), (788, 36068), (797, 36137), (801, 36152), (866, 36542), (922, 36872), (929, 36920), (947, 37022), (965, 37163), (976, 37268), (980, 37322), (985, 37367), (986, 37433), (988, 37532), (989, 37649), (990, 37682), (991, 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 159 MA's), (Start: 22 @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), (116, 20734), (118, 20749), (125, 20797), (156, 21070), (163, 21124), (166, 21133), (174, 21193), (184, 21235), (193, 21295), (194, 21301), (197, 21310), (203, 21334), (223, 21433), (224, 21445), (225, 21454), (226, 21466), (274, 21601), (309, 21751), (320, 21811), (324, 21820), (349, 21958), (354, 21991), (356, 22006), (361, 22030), (363, 22036), (367, 22060), (372, 22081), (375, 22090), (382, 22114), (386, 22132), (396, 22177), (397, 22180), (400, 22189), (421, 22297), (425, 22309), (428, 22318), (431, 22339), (442, 22390), (447, 22420), (449, 22435), (460, 22477), (465, 22495), (475, 22543), (476, 22546), (491, 22630), (493, 22636), (512, 22711), (515, 22720), (525, 22771), (533, 22807), (542, 22840), (544, 22849), (550, 22861), (551, 22864), (560, 22903), (570, 22933), (571, 22942), (587, 23011), (590, 23020), (600, 23050), (606, 23071), (618, 23110), (638, 23185), (641, 23197), (649, 23230), (653, 23245), (656, 23254), (658, 23260), (669, 23299), (675, 23332), (676, 23335), (677, 23338), (682, 23356), (708, 23464), (712, 23479), (717, 23497), (719, 23506), (723, 23521), (724, 23524), (739, 23596), (755, 23668), (762, 23722), (775, 23794), (784, 23851), (790, 23896), (820, 24079), (823, 24100), (827, 24124), (839, 24175), (852, 24244), (855, 24262),

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

Candidate Starts for Popy_23:

(1, 16655), (Start: 2 @16676 has 31 MA's), (3, 16706), (14, 16850), (17, 16901), (24, 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), (132, 17885), (137, 17951), (145, 18026), (150, 18047), (153, 18080), (161, 18143), (162, 18152), (176, 18230), (206, 18377), (229, 18509), (247, 18566), (279, 18644), (280, 18653), (282, 18662), (288, 18689), (306, 18764), (308, 18773), (322, 18839), (323, 18842), (340, 18881), (349, 18935), (360, 19004), (372, 19058), (382,

19091), (391, 19136), (394, 19145), (397, 19157), (410, 19232), (424, 19283), (428, 19295), (435, 19334), (442, 19364), (445, 19376), (452, 19424), (464, 19466), (474, 19514), (485, 19571), (515, 19691), (524, 19733), (525, 19742), (533, 19778), (538, 19796), (539, 19799), (542, 19811), (555, 19853), (556, 19856), (570, 19904), (574, 19940), (576, 19946), (581, 19967), (590, 19991), (618, 20081), (628, 20114), (632, 20132), (635, 20144), (637, 20153), (652, 20210), (655, 20222), (656, 20225), (661, 20243), (675, 20303), (680, 20318), (687, 20351), (690, 20366), (709, 20438), (721, 20483), (725, 20501), (728, 20510), (736, 20546), (739, 20567), (740, 20570), (784, 20756), (786, 20777), (787, 20783), (790, 20801), (791, 20804), (793, 20816), (799, 20849), (800, 20855), (823, 21005), (824, 21014), (884, 21287), (903, 21389), (931, 21605), (934, 21626), (941, 21674), (943, 21680), (944, 21686), (951, 21731), (967, 21860), (973, 21908), (986, 22100), (987, 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 159 MA's), (Start: 22 @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), (116, 17799), (118, 17814), (121, 17847), (125, 17862), (131, 17910), (134, 17961), (136, 17973), (145, 18060), (147, 18069), (148, 18072), (151, 18093), (156, 18135), (159, 18165), (163, 18189), (174, 18258), (181, 18288), (182, 18291), (186, 18318), (191, 18348), (203, 18399), (274, 18669), (284, 18720), (304, 18804), (309, 18819), (318, 18867), (334, 18915), (349, 18996), (358, 19053), (361, 19068), (364, 19080), (371, 19113), (372, 19119), (375, 19128), (382, 19152), (386, 19170), (391, 19197), (397, 19218), (400, 19227), (402, 19245), (406, 19269), (410, 19293), (428, 19356), (429, 19365), (447, 19458), (462, 19521), (465, 19533), (472, 19569), (485, 19635), (508, 19731), (512, 19749), (517, 19770), (522, 19791), (525, 19809), (528, 19824), (530, 19836), (533, 19845), (537, 19857), (542, 19878), (544, 19887), (550, 19899), (553, 19908), (558, 19929), (563, 19950), (570, 19971), (571, 19980), (576, 20013), (587, 20049), (589, 20055), (590, 20058), (600, 20088), (611, 20124), (612, 20127), (613, 20130), (618, 20148), (635, 20211), (639, 20226), (642, 20238), (645, 20250), (646, 20253), (651, 20274), (652, 20277), (655, 20289), (659, 20304), (661, 20310), (667, 20331), (679, 20382), (683, 20397), (685, 20412), (693, 20442), (705, 20493), (709, 20505), (711, 20514), (724, 20562), (733, 20595), (738, 20628), (739, 20634), (740, 20637), (748, 20679), (763, 20766), (776, 20835), (786, 20910), (790, 20934), (792, 20946), (808, 21060), (816, 21099), (834, 21195), (837, 21207), (839, 21213), (878, 21387), (898, 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 159 MA's), (Start: 22 @17270 has 3 MA's), (25, 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), (118, 18050), (121, 18083), (125, 18098), (131, 18146), (145, 18296), (150, 18317), (163, 18425), (166, 18434), (172, 18482), (199, 18617), (209, 18659), (228, 18773), (240, 18824), (247, 18836), (268, 18917), (291, 19001), (295, 19019), (306, 19064), (315, 19109), (317, 19112), (318, 19118), (327, 19151), (349, 19262), (360, 19331), (361, 19334), (370, 19376), (372, 19385), (375, 19394), (384, 19424), (391, 19463), (393, 19469), (397, 19484), (404, 19526), (428, 19622), (431, 19643), (432, 19646), (436, 19667), (447, 19724), (449, 19739), (456, 19769), (460, 19781), (467, 19808), (470, 19823), (481, 19871), (485, 19901), (487, 19916), (496, 19949), (498, 19955), (507, 19994), (510, 20003), (512, 20015), (517, 20036), (530, 20102), (533, 20111), (542, 20144), (543, 20150), (544, 20153), (550, 20165), (551, 20168), (556, 20189), (561, 20210), (571, 20246), (579, 20294), (590, 20324), (618, 20414), (634, 20471), (645, 20516), (649, 20534), (657, 20561), (659, 20570), (661, 20576), (675, 20636), (679, 20648), (682, 20660), (694, 20714), (704, 20756), (706, 20762), (708, 20768), (717, 20801), (718, 20804), (724, 20828), (725, 20834), (727, 20840), (728, 20843), (738, 20894), (741, 20906), (748, 20945), (771, 21077), (779, 21113), (784, 21155), (790, 21200), (805, 21290), (819, 21380), (823, 21404), (827, 21428), (829, 21440), (831, 21449), (834, 21461), (837, 21473), (846, 21518), (852, 21548), (855, 21566), (864, 21605),

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

Candidate Starts for Qui_40:

(Start: 19 @29221 has 159 MA's), (Start: 22 @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), (121, 30097), (128, 30142), (131, 30160), (143, 30283), (145, 30310), (148, 30322), (151, 30343), (181, 30538), (197, 30625), (199, 30631), (209, 30673), (218, 30724), (228, 30787), (251, 30862), (253, 30871), (285, 30991), (305, 31069), (308, 31078), (349, 31246), (363, 31324), (372, 31369), (375, 31378), (382, 31402), (391, 31447), (397, 31468), (414, 31564), (425, 31597), (431, 31627), (447, 31708), (449, 31723), (450, 31726), (470, 31807), (476, 31834), (485, 31885), (489, 31912), (496, 31933), (497, 31936), (507, 31978), (528, 32074), (533, 32095), (537, 32107), (542, 32128), (544, 32137), (550, 32149), (560, 32191), (570, 32221), (571, 32230), (579, 32278), (580, 32281), (587, 32299), (590, 32308), (606, 32359), (609, 32368), (618, 32398), (629, 32434), (635, 32461), (656, 32542), (657, 32545), (677, 32626), (681, 32638), (687, 32668), (690, 32683), (693, 32692), (697, 32707), (706, 32746), (717, 32785), (721, 32800), (723, 32809), (726, 32821), (729, 32830), (730, 32833), (738, 32878), (739, 32884), (751, 32941), (755, 32956), (759, 32986), (775, 33082), (784, 33139), (790, 33184), (803, 33253), (813, 33334), (818, 33355), (823, 33388), (831, 33433), (833, 33442), (837, 33457), (839, 33463), (851, 33532), (855, 33550), (867, 33601),

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

Candidate Starts for Rainydai_21:

(Start: 2 @15072 has 31 MA's), (3, 15102), (9, 15183), (11, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (117, 16173), (132, 16281), (150, 16443), (153, 16476), (162, 16548), (176, 16626), (206, 16773), (288, 17085), (290, 17094), (307, 17157), (349, 17331), (355, 17373), (360, 17400), (363, 17409), (375, 17463), (382, 17487), (395, 17544), (417, 17658), (428, 17691), (435, 17730), (445, 17772), (446, 17781), (451, 17817), (464, 17862), (475, 17913), (483, 17949), (485, 17967), (490, 17997), (501, 18036), (502, 18039), (512, 18078), (513, 18081), (520, 18108), (524, 18129), (525, 18138), (532, 18171), (533, 18174), (539, 18195), (558, 18258), (574, 18336), (576, 18342), (587, 18378), (588, 18381), (589, 18384), (590, 18387), (609, 18447), (612, 18456), (618, 18477), (627, 18507), (628, 18510), (643, 18573), (644, 18576), (645, 18579), (656, 18621), (661, 18639), (670, 18669), (680, 18714), (682, 18723), (687, 18747), (705, 18822), (707, 18828), (721, 18879), (728, 18906), (732, 18921), (734, 18933), (736, 18942), (740, 18966), (754, 19032), (763, 19095), (768, 19119), (790, 19197), (799, 19245), (805, 19287), (824, 19410), (847, 19527), (872, 19644), (894, 19725), (900, 19770), (908, 19815), (931, 20001), (934, 20022), (936, 20034), (943, 20076), (951, 20127), (957, 20175), (962, 20214), (970, 20265), (979, 20388), (984, 20427),

Gene: Raunak_23 Start: 17270, Stop: 21790, Start Num: 22

Candidate Starts for Raunak_23:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 159 MA's), (Start: 22 @17270 has 3 MA's), (25, 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), (118, 18050), (121, 18083), (125, 18098), (131, 18146), (145, 18296), (150, 18317), (163, 18425), (166, 18434), (172, 18482), (209, 18659), (228, 18773), (240, 18824), (247, 18836), (268, 18917), (291, 19001), (295, 19019), (306, 19064), (315, 19109), (317, 19112), (318, 19118), (327, 19151), (349, 19262), (360, 19331), (361, 19334), (363, 19340), (370, 19376), (372, 19385), (375, 19394), (384, 19424), (391, 19463), (393, 19469), (397, 19484), (404, 19526), (428, 19622), (431, 19643), (432, 19646), (436, 19667), (447, 19724), (449, 19739), (456, 19769), (460, 19781), (467, 19808), (470, 19823), (481, 19871), (485, 19901), (487, 19916), (496, 19949), (498, 19955), (507, 19994), (510, 20003), (512, 20015), (517, 20036), (530, 20102), (533, 20111), (542, 20144), (543, 20150), (544, 20153), (550, 20165), (551, 20168), (556, 20189), (561, 20210), (571, 20246), (579, 20294), (590, 20324), (618, 20414), (634, 20471), (645, 20516), (649, 20534), (657, 20561), (659, 20570),

(661, 20576), (679, 20648), (682, 20660), (694, 20714), (702, 20750), (706, 20762), (708, 20768), (718, 20804), (725, 20834), (727, 20840), (728, 20843), (738, 20894), (741, 20906), (748, 20945), (771, 21077), (779, 21113), (784, 21155), (790, 21200), (805, 21290), (819, 21380), (823, 21404), (827, 21428), (829, 21440), (831, 21449), (834, 21461), (837, 21473), (846, 21518), (852, 21548), (855, 21566), (864, 21605), (889, 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 159 MA's), (Start: 22 @13518 has 3 MA's), (42, 13620), (45, 13671), (61, 13779), (79, 13962), (87, 14088), (90, 14124), (96, 14163), (110, 14253), (153, 14640), (176, 14790), (181, 14814), (193, 14886), (242, 15117), (277, 15195), (280, 15213), (281, 15216), (288, 15249), (313, 15357), (326, 15417), (349, 15498), (359, 15561), (360, 15567), (372, 15621), (379, 15642), (394, 15708), (395, 15711), (416, 15822), (428, 15858), (431, 15876), (442, 15927), (464, 16029), (467, 16041), (470, 16056), (484, 16125), (485, 16134), (490, 16164), (503, 16209), (509, 16230), (516, 16260), (519, 16272), (520, 16275), (524, 16296), (525, 16305), (533, 16341), (542, 16374), (566, 16455), (567, 16458), (574, 16503), (575, 16506), (576, 16509), (590, 16554), (600, 16584), (614, 16629), (618, 16644), (628, 16677), (633, 16698), (635, 16707), (637, 16716), (643, 16740), (644, 16743), (647, 16752), (652, 16773), (655, 16785), (663, 16812), (672, 16851), (677, 16872), (683, 16893), (685, 16908), (687, 16914), (721, 17046), (723, 17055), (725, 17064), (728, 17073), (729, 17076), (732, 17088), (733, 17091), (734, 17100), (736, 17109), (755, 17202), (762, 17256), (790, 17364), (793, 17379), (824, 17577), (872, 17811), (893, 17886), (930, 18165), (931, 18168), (934, 18189), (941, 18237), (943, 18243), (958, 18351), (967, 18423), (977, 18525), (987, 18678),

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

Candidate Starts for Regigigas_22:

(Start: 2 @15072 has 31 MA's), (3, 15102), (9, 15183), (11, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (117, 16173), (132, 16281), (150, 16443), (153, 16476), (162, 16548), (176, 16626), (206, 16773), (288, 17085), (290, 17094), (307, 17157), (349, 17331), (355, 17373), (360, 17400), (363, 17409), (375, 17463), (382, 17487), (395, 17544), (417, 17658), (428, 17691), (435, 17730), (445, 17772), (446, 17781), (451, 17817), (464, 17862), (475, 17913), (483, 17949), (485, 17967), (490, 17997), (501, 18036), (502, 18039), (512, 18078), (513, 18081), (520, 18108), (524, 18129), (525, 18138), (532, 18171), (533, 18174), (539, 18195), (558, 18258), (574, 18336), (576, 18342), (587, 18378), (588, 18381), (589, 18384), (590, 18387), (609, 18447), (612, 18456), (618, 18477), (627, 18507), (628, 18510), (643, 18573), (644, 18576), (645, 18579), (656, 18621), (661, 18639), (670, 18669), (680, 18714), (682, 18723), (687, 18747), (705, 18822), (707, 18828), (721, 18879), (728, 18906), (732, 18921), (734, 18933), (736, 18942), (740, 18966), (754, 19032), (763, 19095), (768, 19119), (790, 19197), (799, 19245), (805, 19287), (824, 19410), (847, 19527), (872, 19644), (894, 19725), (900, 19770), (908, 19815), (931, 20001), (934, 20022), (936, 20034), (943, 20076), (951, 20127), (957, 20175), (962, 20214), (970, 20265), (979, 20388), (984, 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 159 MA's), (Start: 22 @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), (116, 21806), (118, 21821), (130, 21911), (136, 21980), (156, 22142), (163, 22196), (174, 22265), (184, 22307), (193, 22367), (194, 22373), (197, 22382), (202, 22397), (203, 22406), (223, 22505), (224, 22517), (226, 22538), (290, 22745), (296, 22769), (309, 22823), (324, 22892), (349, 23033), (361, 23105), (363, 23111), (372, 23156), (374, 23162), (375, 23165), (382, 23189), (386, 23207), (396, 23252), (397, 23255), (399, 23261), (400, 23264), (404, 23297), (407, 23315), (421, 23372), (428, 23393), (431, 23414), (441, 23462), (447, 23495), (449, 23510), (465, 23570), (512, 23786), (513, 23789),

(525, 23846), (528, 23861), (530, 23873), (533, 23882), (542, 23915), (544, 23924), (550, 23936), (555, 23957), (570, 24008), (571, 24017), (579, 24065), (587, 24086), (589, 24092), (590, 24095), (609, 24155), (618, 24185), (621, 24194), (643, 24281), (644, 24284), (645, 24287), (649, 24305), (653, 24320), (658, 24335), (669, 24374), (675, 24407), (676, 24410), (677, 24413), (679, 24419), (682, 24431), (712, 24554), (717, 24572), (740, 24674), (755, 24743), (762, 24797), (784, 24926), (790, 24971), (803, 25040), (823, 25175), (827, 25199), (837, 25244), (839, 25250), (846, 25289), (852, 25319),

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

Candidate Starts for Rickmore_31:

(Start: 19 @21933 has 159 MA's), (Start: 22 @21963 has 3 MA's), (27, 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), (116, 22764), (121, 22812), (136, 22938), (140, 22980), (144, 23013), (145, 23025), (150, 23046), (162, 23151), (163, 23154), (206, 23376), (216, 23430), (269, 23667), (272, 23676), (279, 23709), (281, 23721), (297, 23790), (298, 23793), (304, 23820), (319, 23886), (349, 24048), (356, 24096), (359, 24111), (360, 24117), (363, 24126), (365, 24135), (391, 24249), (403, 24300), (404, 24312), (406, 24321), (407, 24330), (412, 24357), (431, 24429), (435, 24450), (438, 24459), (444, 24486), (446, 24501), (447, 24510), (456, 24555), (457, 24558), (466, 24588), (468, 24600), (474, 24624), (478, 24642), (479, 24645), (484, 24672), (485, 24681), (488, 24699), (496, 24729), (504, 24759), (507, 24771), (509, 24777), (510, 24780), (513, 24795), (515, 24801), (525, 24852), (538, 24906), (542, 24921), (544, 24930), (551, 24942), (552, 24945), (554, 24954), (563, 24990), (564, 24993), (569, 25008), (570, 25011), (571, 25020), (573, 25041), (579, 25068), (580, 25071), (587, 25098), (590, 25107), (595, 25128), (597, 25140), (604, 25161), (612, 25188), (622, 25221), (624, 25227), (629, 25245), (631, 25257), (636, 25275), (660, 25365), (665, 25383), (666, 25386), (709, 25563), (718, 25596), (749, 25740), (751, 25749), (770, 25863), (774, 25884), (786, 25974), (798, 26046), (801, 26058), (802, 26067), (807, 26121), (812, 26142), (817, 26169), (818, 26175), (828, 26232), (837, 26274), (860, 26403), (865, 26421), (874, 26451), (882, 26472), (884, 26484), (909, 26622), (917, 26697), (932, 26799), (937, 26823), (938, 26826), (948, 26892), (955, 26940), (969, 27030),

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

Candidate Starts for Rima_23:

(1, 16145), (Start: 2 @16166 has 31 MA's), (3, 16196), (14, 16340), (42, 16550), (53, 16667), (68, 16739), (71, 16769), (79, 16892), (87, 17018), (96, 17093), (105, 17141), (110, 17183), (132, 17372), (153, 17567), (162, 17639), (176, 17717), (195, 17822), (206, 17864), (230, 17999), (247, 18053), (280, 18140), (288, 18176), (290, 18185), (299, 18227), (308, 18260), (314, 18290), (345, 18413), (349, 18434), (359, 18497), (360, 18503), (362, 18509), (367, 18536), (372, 18557), (374, 18563), (375, 18566), (382, 18590), (391, 18635), (394, 18644), (395, 18647), (397, 18656), (410, 18731), (416, 18758), (422, 18776), (428, 18794), (431, 18812), (435, 18833), (446, 18884), (460, 18950), (464, 18965), (483, 19052), (485, 19070), (489, 19097), (514, 19187), (515, 19190), (524, 19232), (525, 19241), (533, 19277), (538, 19295), (539, 19298), (555, 19352), (556, 19355), (570, 19403), (574, 19439), (576, 19445), (581, 19466), (590, 19490), (600, 19520), (618, 19580), (628, 19613), (629, 19616), (632, 19631), (641, 19667), (652, 19709), (655, 19721), (656, 19724), (670, 19772), (675, 19802), (680, 19817), (687, 19850), (690, 19865), (706, 19928), (727, 20006), (728, 20009), (736, 20045), (748, 20111), (763, 20198), (764, 20201), (790, 20300), (799, 20348), (800, 20354), (824, 20513), (884, 20786), (893, 20822), (903, 20888), (918, 21011), (925, 21062), (931, 21104), (934, 21125), (941, 21173), (943, 21179), (944, 21185), (951, 21230), (964, 21338), (967, 21359), (973, 21407), (980, 21494), (986, 21596), (987, 21605),

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

Candidate Starts for Roney_29:

(Start: 19 @20616 has 159 MA's), (Start: 22 @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), (123, 21492), (124, 21495), (150, 21714), (162, 21819), (163, 21822), (174, 21891), (176, 21897), (212, 22080), (223, 22131), (231, 22182), (243, 22236), (245, 22239), (278, 22371), (299, 22473), (304, 22491), (306, 22494), (321, 22569), (335, 22626), (347, 22710), (349, 22719), (365, 22806), (373, 22845), (386, 22893), (391, 22920), (397, 22941), (400, 22950), (403, 22971), (404, 22983), (406, 22992), (407, 23001), (412, 23028), (420, 23055), (421, 23058), (428, 23079), (435, 23121), (441, 23148), (444, 23157), (446, 23172), (447, 23181), (449, 23196), (451, 23208), (454, 23217), (457, 23229), (463, 23250), (466, 23259), (484, 23343), (485, 23352), (487, 23367), (488, 23370), (492, 23388), (496, 23400), (497, 23403), (504, 23430), (510, 23451), (513, 23466), (517, 23484), (523, 23508), (525, 23523), (539, 23580), (542, 23592), (544, 23601), (551, 23613), (554, 23625), (555, 23631), (560, 23652), (564, 23664), (570, 23682), (571, 23691), (572, 23706), (573, 23712), (576, 23724), (586, 23766), (587, 23769), (590, 23778), (595, 23799), (597, 23811), (612, 23859), (615, 23868), (622, 23892), (624, 23898), (629, 23916), (630, 23925), (636, 23946), (654, 24015), (659, 24033), (660, 24036), (665, 24054), (695, 24180), (706, 24225), (720, 24276), (751, 24420), (774, 24555), (782, 24606), (793, 24684), (801, 24729), (807, 24792), (811, 24810), (817, 24840), (818, 24846), (828, 24903), (842, 24975), (854, 25035), (858, 25056), (859, 25059), (866, 25110), (869, 25119), (882, 25158), (884, 25170), (901, 25263), (909, 25308), (917, 25383), (921, 25422), (927, 25452), (937, 25509), (954, 25620), (969, 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 159 MA's), (Start: 22 @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), (132, 14249), (135, 14294), (145, 14390), (153, 14444), (176, 14594), (192, 14687), (208, 14750), (279, 15008), (308, 15137), (322, 15203), (324, 15209), (342, 15257), (349, 15308), (356, 15356), (360, 15377), (375, 15440), (382, 15464), (391, 15509), (394, 15518), (418, 15638), (421, 15647), (428, 15668), (435, 15707), (454, 15803), (461, 15827), (464, 15839), (475, 15890), (484, 15935), (502, 16016), (512, 16055), (513, 16058), (517, 16076), (519, 16082), (520, 16085), (524, 16106), (525, 16115), (531, 16145), (533, 16151), (537, 16163), (574, 16313), (576, 16319), (590, 16364), (618, 16454), (620, 16460), (628, 16487), (644, 16553), (661, 16616), (679, 16688), (687, 16724), (690, 16739), (702, 16790), (725, 16874), (728, 16883), (732, 16898), (736, 16919), (737, 16922), (739, 16940), (754, 17009), (790, 17174), (794, 17198), (824, 17387), (856, 17558), (872, 17621), (893, 17696), (908, 17792), (931, 17978), (934, 17999), (943, 18053), (950, 18095), (953, 18116), (955, 18137), (959, 18173), (960, 18182), (962, 18191), (967, 18233), (975, 18305), (982, 18392),

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

Candidate Starts for Runhaar_32:

(Start: 19 @23285 has 159 MA's), (Start: 22 @23315 has 3 MA's), (27, 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), (119, 24143), (121, 24164), (136, 24290), (144, 24365), (145, 24377), (150, 24398), (162, 24503), (163, 24506), (231, 24866), (261, 24971), (275, 25040), (279, 25061), (297, 25142), (298, 25145), (304, 25172), (313, 25211), (319, 25238), (349, 25400), (356, 25448), (360, 25469), (365, 25487), (376, 25535), (380, 25547), (391, 25601), (403, 25652), (404, 25664), (406, 25673), (407, 25682), (420, 25736), (431, 25781), (434, 25796), (435, 25802), (438, 25811), (439, 25817), (443, 25835), (444, 25838), (445, 25844), (446, 25853), (456, 25907), (457, 25910), (460, 25919), (465, 25937), (466, 25940), (468, 25952), (473, 25973), (475, 25979), (476, 25982), (481, 26003), (485, 26033), (487, 26048), (496, 26081), (500, 26096), (504, 26111), (507, 26123), (509, 26129), (510, 26132), (512, 26144), (513, 26147), (525, 26204), (538, 26258), (539, 26261), (544, 26282), (551, 26294), (552, 26297), (564, 26345), (569, 26360), (570, 26363), (571, 26372), (573, 26393), (579, 26420), (580, 26423), (586, 26447), (590, 26459), (595, 26480), (597, 26492), (604, 26513), (612, 26540), (622, 26573), (624, 26579), (629, 26597), (636, 26627), (646, 26666), (691, 26846), (694, 26858), (712, 26927), (749, 27092), (770, 27215), (774, 27236), (793,

27365), (798, 27398), (801, 27410), (807, 27473), (812, 27494), (814, 27506), (817, 27521), (828, 27584), (845, 27668), (860, 27755), (865, 27773), (874, 27803), (881, 27821), (882, 27824), (883, 27830), (884, 27836), (892, 27863), (909, 27974), (917, 28049), (919, 28067), (932, 28151), (937, 28175), (955, 28292), (969, 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 159 MA's), (Start: 22 @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), (116, 17428), (118, 17443), (121, 17476), (125, 17491), (126, 17500), (131, 17539), (136, 17602), (144, 17677), (151, 17722), (153, 17743), (157, 17779), (163, 17818), (165, 17824), (174, 17887), (176, 17893), (197, 18004), (274, 18298), (280, 18325), (291, 18373), (298, 18403), (299, 18412), (306, 18436), (313, 18472), (314, 18475), (315, 18481), (324, 18517), (345, 18631), (349, 18652), (357, 18706), (365, 18739), (374, 18781), (375, 18784), (382, 18808), (389, 18844), (391, 18853), (394, 18862), (397, 18874), (404, 18916), (406, 18925), (414, 18970), (421, 18991), (428, 19012), (431, 19033), (436, 19057), (445, 19096), (447, 19114), (449, 19129), (454, 19150), (465, 19189), (470, 19213), (481, 19261), (485, 19291), (487, 19306), (496, 19339), (498, 19345), (507, 19384), (512, 19405), (517, 19426), (520, 19435), (538, 19519), (542, 19534), (544, 19543), (550, 19555), (555, 19576), (570, 19627), (571, 19636), (587, 19705), (590, 19714), (600, 19744), (601, 19747), (614, 19789), (618, 19804), (632, 19855), (637, 19876), (651, 19930), (661, 19966), (662, 19969), (675, 20026), (676, 20029), (683, 20053), (692, 20095), (700, 20134), (702, 20140), (708, 20158), (710, 20164), (731, 20245), (738, 20284), (743, 20305), (746, 20323), (755, 20362), (757, 20371), (771, 20467), (775, 20488), (784, 20545), (790, 20590), (792, 20602), (796, 20623), (805, 20680), (807, 20710), (825, 20809), (839, 20869), (852, 20938), (855, 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 159 MA's), (Start: 22 @17270 has 3 MA's), (25, 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), (118, 18050), (121, 18083), (125, 18098), (131, 18146), (145, 18296), (150, 18317), (163, 18425), (166, 18434), (172, 18482), (199, 18617), (209, 18659), (228, 18773), (240, 18824), (247, 18836), (268, 18917), (291, 19001), (295, 19019), (306, 19064), (315, 19109), (317, 19112), (318, 19118), (327, 19151), (349, 19262), (360, 19331), (361, 19334), (370, 19376), (372, 19385), (375, 19394), (384, 19424), (391, 19463), (393, 19469), (397, 19484), (404, 19526), (428, 19622), (431, 19643), (432, 19646), (436, 19667), (447, 19724), (449, 19739), (456, 19769), (460, 19781), (467, 19808), (470, 19823), (481, 19871), (485, 19901), (487, 19916), (496, 19949), (498, 19955), (507, 19994), (510, 20003), (512, 20015), (517, 20036), (530, 20102), (533, 20111), (542, 20144), (543, 20150), (544, 20153), (550, 20165), (551, 20168), (556, 20189), (561, 20210), (571, 20246), (579, 20294), (590, 20324), (618, 20414), (634, 20471), (645, 20516), (649, 20534), (657, 20561), (659, 20570), (661, 20576), (675, 20636), (679, 20648), (682, 20660), (694, 20714), (702, 20750), (704, 20756), (706, 20762), (708, 20768), (718, 20804), (724, 20828), (725, 20834), (727, 20840), (728, 20843), (738, 20894), (741, 20906), (748, 20945), (771, 21077), (779, 21113), (784, 21155), (790, 21200), (805, 21290), (819, 21380), (823, 21404), (827, 21428), (829, 21440), (831, 21449), (834, 21461), (837, 21473), (846, 21518), (852, 21548), (855, 21566), (864, 21605), (889, 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 159 MA's), (Start: 22 @13519 has 3 MA's), (42, 13621), (45, 13672), (61, 13780), (79, 13963), (87, 14089), (90, 14125), (96, 14164), (110, 14254), (153, 14641), (176, 14791), (181, 14815), (193, 14887), (242, 15118), (277, 15196), (280, 15214), (281, 15217), (288, 15250), (313, 15358), (326, 15418), (349, 15499), (360, 15568), (372, 15622),

(394, 15709), (395, 15712), (416, 15823), (428, 15859), (431, 15877), (442, 15928), (464, 16030), (467, 16042), (470, 16057), (484, 16126), (485, 16135), (490, 16165), (503, 16210), (509, 16231), (516, 16261), (519, 16273), (520, 16276), (524, 16297), (525, 16306), (533, 16342), (542, 16375), (566, 16456), (567, 16459), (574, 16504), (575, 16507), (576, 16510), (590, 16555), (600, 16585), (614, 16630), (618, 16645), (628, 16678), (633, 16699), (635, 16708), (637, 16717), (643, 16741), (644, 16744), (672, 16852), (683, 16894), (685, 16909), (687, 16915), (707, 16996), (721, 17047), (723, 17056), (725, 17065), (728, 17074), (729, 17077), (732, 17089), (733, 17092), (734, 17101), (736, 17110), (740, 17134), (755, 17203), (762, 17257), (790, 17365), (793, 17380), (800, 17419), (824, 17578), (872, 17812), (893, 17887), (899, 17920), (924, 18124), (930, 18166), (931, 18169), (934, 18190), (941, 18238), (943, 18244), (958, 18352), (967, 18424), (977, 18526), (987, 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 159 MA's), (Start: 22 @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), (135, 14448), (153, 14598), (176, 14748), (181, 14772), (205, 14889), (242, 15075), (264, 15123), (280, 15171), (288, 15207), (290, 15216), (322, 15357), (324, 15363), (349, 15456), (360, 15525), (375, 15588), (380, 15603), (382, 15612), (383, 15615), (395, 15669), (404, 15720), (422, 15798), (428, 15816), (445, 15897), (464, 15987), (475, 16038), (484, 16083), (485, 16092), (490, 16122), (503, 16167), (509, 16188), (512, 16203), (519, 16230), (520, 16233), (524, 16254), (525, 16263), (533, 16299), (574, 16461), (576, 16467), (587, 16503), (590, 16512), (600, 16542), (606, 16563), (608, 16569), (612, 16581), (614, 16587), (618, 16602), (628, 16635), (633, 16656), (635, 16665), (637, 16674), (644, 16701), (652, 16731), (655, 16743), (656, 16746), (680, 16839), (687, 16872), (690, 16887), (723, 17013), (725, 17022), (728, 17031), (729, 17034), (732, 17046), (736, 17067), (737, 17070), (758, 17178), (787, 17304), (790, 17322), (824, 17535), (830, 17565), (847, 17652), (882, 17796), (899, 17877), (910, 17973), (931, 18126), (934, 18147), (948, 18231), (955, 18285), (957, 18300), (964, 18360), (967, 18381), (968, 18384), (972, 18420), (975, 18453), (987, 18633),

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

Candidate Starts for Schwartz33_33:

(Start: 19 @23640 has 159 MA's), (20, 23646), (Start: 22 @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), (123, 24504), (124, 24507), (144, 24693), (150, 24726), (159, 24810), (162, 24831), (163, 24834), (174, 24903), (176, 24909), (177, 24915), (201, 25032), (203, 25044), (209, 25068), (219, 25122), (220, 25125), (227, 25179), (234, 25212), (304, 25503), (319, 25569), (334, 25635), (347, 25722), (348, 25728), (349, 25731), (359, 25794), (360, 25800), (365, 25818), (380, 25878), (391, 25932), (400, 25962), (404, 25995), (406, 26004), (407, 26013), (420, 26067), (422, 26073), (431, 26112), (435, 26133), (438, 26142), (443, 26166), (444, 26169), (445, 26175), (446, 26184), (449, 26208), (456, 26238), (457, 26241), (458, 26244), (466, 26271), (478, 26325), (485, 26364), (492, 26400), (504, 26442), (509, 26460), (510, 26463), (512, 26475), (513, 26478), (515, 26484), (518, 26499), (521, 26514), (525, 26535), (530, 26562), (539, 26592), (544, 26613), (560, 26664), (570, 26694), (571, 26703), (581, 26757), (590, 26790), (595, 26811), (597, 26823), (604, 26844), (612, 26871), (622, 26904), (624, 26910), (629, 26928), (630, 26937), (631, 26940), (654, 27027), (665, 27066), (666, 27069), (676, 27114), (694, 27189), (709, 27246), (714, 27264), (751, 27432), (756, 27453), (770, 27546), (785, 27639), (790, 27681), (798, 27729), (801, 27741), (807, 27804), (810, 27816), (814, 27837), (817, 27852), (818, 27858), (845, 27999), (863, 28095), (865, 28104), (881, 28152), (882, 28155), (884, 28167), (909, 28305), (917, 28380), (937, 28506), (969, 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 159 MA's), (Start: 22 @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), (118, 21285), (121, 21318), (125, 21333), (131, 21381), (136, 21444), (150, 21552), (165, 21666), (166, 21669), (172, 21717), (193, 21831), (200, 21855), (203, 21870), (206, 21882), (237, 22050), (244, 22065), (247, 22071), (257, 22089), (277, 22161), (287, 22212), (291, 22227), (298, 22257), (314, 22329), (315, 22335), (319, 22353), (323, 22368), (324, 22371), (329, 22398), (349, 22512), (358, 22569), (360, 22581), (372, 22635), (375, 22644), (376, 22647), (382, 22668), (391, 22713), (397, 22734), (404, 22776), (407, 22794), (421, 22851), (428, 22872), (431, 22893), (447, 22974), (449, 22989), (450, 22992), (456, 23019), (457, 23022), (470, 23073), (485, 23151), (487, 23166), (488, 23169), (492, 23187), (494, 23193), (496, 23199), (499, 23208), (507, 23244), (508, 23247), (510, 23253), (511, 23259), (517, 23286), (528, 23340), (529, 23343), (533, 23361), (537, 23373), (544, 23403), (550, 23418), (553, 23427), (555, 23439), (560, 23460), (571, 23499), (582, 23556), (587, 23568), (590, 23577), (603, 23616), (606, 23628), (616, 23658), (618, 23667), (638, 23742), (639, 23745), (643, 23763), (645, 23769), (661, 23829), (662, 23832), (664, 23838), (670, 23859), (676, 23892), (677, 23895), (708, 24021), (709, 24024), (715, 24045), (723, 24078), (724, 24081), (725, 24087), (728, 24096), (734, 24123), (743, 24168), (757, 24234), (763, 24285), (765, 24291), (775, 24351), (780, 24375), (787, 24435), (790, 24453), (792, 24465), (818, 24624), (819, 24633), (827, 24681), (834, 24714), (837, 24726), (839, 24732), (842, 24753), (843, 24756), (844, 24762), (852, 24801), (857, 24828), (900, 25014), (904, 25041),

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

Candidate Starts for Secretariat_30:

(Start: 19 @22365 has 159 MA's), (Start: 22 @22395 has 3 MA's), (26, 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), (123, 23241), (124, 23244), (127, 23259), (159, 23547), (162, 23568), (174, 23640), (220, 23862), (227, 23916), (233, 23937), (234, 23949), (258, 24024), (271, 24087), (279, 24126), (281, 24138), (284, 24159), (299, 24222), (304, 24240), (306, 24243), (312, 24276), (336, 24384), (344, 24435), (345, 24447), (347, 24459), (349, 24468), (360, 24537), (362, 24543), (365, 24555), (370, 24582), (376, 24603), (391, 24669), (398, 24693), (400, 24699), (404, 24732), (406, 24741), (407, 24750), (420, 24804), (431, 24849), (435, 24870), (438, 24879), (444, 24906), (446, 24921), (449, 24945), (456, 24975), (457, 24978), (463, 24999), (465, 25005), (466, 25008), (473, 25041), (485, 25101), (501, 25170), (504, 25179), (507, 25191), (509, 25197), (510, 25200), (511, 25206), (518, 25236), (522, 25254), (524, 25263), (525, 25272), (530, 25299), (537, 25320), (539, 25329), (551, 25362), (563, 25410), (570, 25431), (571, 25440), (572, 25455), (573, 25461), (590, 25527), (595, 25548), (597, 25560), (604, 25581), (612, 25608), (615, 25617), (617, 25623), (618, 25629), (624, 25647), (629, 25665), (636, 25695), (659, 25782), (663, 25794), (669, 25815), (670, 25818), (673, 25836), (705, 25971), (708, 25980), (709, 25983), (762, 26238), (765, 26250), (770, 26283), (783, 26367), (798, 26466), (807, 26541), (810, 26553), (812, 26562), (818, 26595), (825, 26640), (860, 26823), (865, 26841), (872, 26865), (882, 26892), (883, 26898), (884, 26904), (909, 27042), (912, 27081), (917, 27117), (919, 27135), (937, 27237), (969, 27444),

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

Candidate Starts for SendItCS_20:

(Start: 2 @15072 has 31 MA's), (3, 15102), (9, 15183), (11, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (117, 16173), (132, 16281), (150, 16443), (153, 16476), (162, 16548), (176, 16626), (206, 16773), (288, 17085), (290, 17094), (307, 17157), (349, 17331), (355, 17373), (360, 17400), (363, 17409), (375, 17463), (382, 17487), (395, 17544), (417, 17658), (428, 17691), (435, 17730), (445, 17772), (446, 17781), (451, 17817), (464, 17862), (475, 17913), (483, 17949), (485, 17967), (490, 17997), (501, 18036), (502, 18039), (512, 18078), (513, 18081), (520, 18108), (524, 18129), (525, 18138), (532, 18171), (533, 18174),

(539, 18195), (558, 18258), (574, 18336), (576, 18342), (587, 18378), (588, 18381), (589, 18384), (590, 18387), (609, 18447), (612, 18456), (618, 18477), (627, 18507), (628, 18510), (643, 18573), (644, 18576), (645, 18579), (656, 18621), (661, 18639), (670, 18669), (680, 18714), (682, 18723), (687, 18747), (705, 18822), (707, 18828), (721, 18879), (728, 18906), (732, 18921), (734, 18933), (736, 18942), (740, 18966), (754, 19032), (763, 19095), (768, 19119), (790, 19197), (799, 19245), (805, 19287), (824, 19410), (847, 19527), (872, 19644), (894, 19725), (900, 19770), (908, 19815), (931, 20001), (934, 20022), (936, 20034), (943, 20076), (951, 20127), (957, 20175), (962, 20214), (970, 20265), (979, 20388), (984, 20427),

Gene: Serenabean_25 Start: 18537, Stop: 23141, Start Num: 19

Candidate Starts for Serenabean_25:

(Start: 19 @18537 has 159 MA's), (Start: 22 @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), (117, 19344), (118, 19347), (120, 19368), (125, 19395), (132, 19452), (135, 19497), (139, 19542), (149, 19611), (151, 19626), (153, 19647), (156, 19668), (179, 19809), (183, 19830), (186, 19851), (196, 19905), (223, 20043), (231, 20094), (244, 20139), (323, 20445), (326, 20463), (349, 20607), (353, 20637), (372, 20730), (374, 20736), (375, 20739), (379, 20751), (388, 20790), (393, 20814), (405, 20877), (428, 20967), (431, 20988), (437, 21015), (445, 21051), (472, 21180), (489, 21273), (495, 21291), (504, 21324), (507, 21342), (512, 21363), (514, 21369), (517, 21384), (525, 21423), (533, 21459), (535, 21465), (542, 21492), (558, 21549), (570, 21591), (571, 21600), (574, 21627), (575, 21630), (582, 21657), (587, 21669), (590, 21678), (594, 21687), (609, 21738), (610, 21741), (618, 21768), (626, 21795), (667, 21951), (679, 22002), (687, 22038), (697, 22077), (702, 22104), (706, 22116), (711, 22134), (717, 22155), (724, 22182), (729, 22200), (738, 22248), (752, 22314), (772, 22434), (777, 22458), (779, 22467), (780, 22476), (784, 22509), (790, 22554), (800, 22608), (823, 22758), (827, 22782), (829, 22794), (831, 22803), (836, 22824), (852, 22902), (853, 22905), (868, 22977), (905, 23130),

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

Candidate Starts for ShaggyRogers_32:

(Start: 19 @23288 has 159 MA's), (Start: 22 @23318 has 3 MA's), (27, 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), (121, 24167), (134, 24281), (136, 24293), (144, 24368), (145, 24380), (150, 24401), (162, 24506), (163, 24509), (231, 24869), (234, 24887), (275, 25043), (297, 25145), (298, 25148), (304, 25175), (313, 25214), (319, 25241), (324, 25262), (349, 25403), (359, 25466), (360, 25472), (365, 25490), (366, 25496), (376, 25538), (380, 25550), (391, 25604), (398, 25628), (401, 25646), (403, 25655), (404, 25667), (406, 25676), (407, 25685), (417, 25730), (420, 25739), (431, 25784), (435, 25805), (438, 25814), (444, 25841), (446, 25856), (456, 25910), (457, 25913), (460, 25922), (463, 25934), (466, 25943), (468, 25955), (473, 25976), (475, 25982), (481, 26006), (485, 26036), (487, 26051), (504, 26114), (507, 26126), (509, 26132), (510, 26135), (512, 26147), (513, 26150), (525, 26207), (538, 26261), (539, 26264), (544, 26285), (551, 26297), (552, 26300), (564, 26348), (569, 26363), (570, 26366), (571, 26375), (572, 26390), (573, 26396), (579, 26423), (580, 26426), (590, 26462), (595, 26483), (597, 26495), (600, 26504), (604, 26516), (612, 26543), (622, 26576), (624, 26582), (629, 26600), (636, 26630), (665, 26738), (691, 26849), (720, 26960), (732, 27005), (743, 27062), (749, 27095), (774, 27239), (783, 27302), (793, 27368), (798, 27401), (801, 27413), (807, 27476), (812, 27497), (814, 27509), (818, 27530), (845, 27671), (860, 27758), (865, 27776), (874, 27806), (881, 27824), (882, 27827), (883, 27833), (884, 27839), (892, 27866), (909, 27977), (914, 28040), (917, 28052), (927, 28121), (932, 28154), (937, 28178), (955, 28295), (969, 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 159 MA's), (Start: 22 @13517 has 3 MA's), (42, 13619), (45, 13670), (61, 13778), (79, 13961), (87, 14087), (90, 14123), (96, 14162), (110, 14252),

(153, 14639), (176, 14789), (181, 14813), (193, 14885), (242, 15116), (277, 15194), (280, 15212), (281, 15215), (288, 15248), (313, 15356), (326, 15416), (349, 15497), (360, 15566), (372, 15620), (379, 15641), (394, 15707), (395, 15710), (416, 15821), (428, 15857), (431, 15875), (442, 15926), (464, 16028), (467, 16040), (470, 16055), (484, 16124), (485, 16133), (490, 16163), (509, 16229), (516, 16259), (519, 16271), (520, 16274), (524, 16295), (525, 16304), (533, 16340), (534, 16343), (542, 16373), (567, 16457), (574, 16502), (575, 16505), (576, 16508), (590, 16553), (600, 16583), (614, 16628), (618, 16643), (628, 16676), (633, 16697), (635, 16706), (637, 16715), (643, 16739), (644, 16742), (652, 16772), (655, 16784), (672, 16850), (677, 16871), (683, 16892), (685, 16907), (687, 16913), (721, 17045), (723, 17054), (725, 17063), (728, 17072), (729, 17075), (732, 17087), (733, 17090), (734, 17099), (736, 17108), (755, 17201), (762, 17255), (790, 17363), (793, 17378), (800, 17417), (824, 17576), (872, 17810), (893, 17885), (930, 18164), (931, 18167), (934, 18188), (941, 18236), (943, 18242), (958, 18350), (967, 18422), (972, 18461), (973, 18470), (977, 18524), (987, 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 159 MA's), (Start: 22 @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), (116, 21124), (118, 21139), (121, 21172), (125, 21187), (131, 21235), (140, 21340), (150, 21406), (157, 21475), (163, 21514), (166, 21523), (170, 21538), (173, 21580), (174, 21583), (185, 21634), (209, 21748), (220, 21805), (232, 21877), (242, 21916), (257, 21943), (266, 21985), (291, 22081), (314, 22183), (315, 22189), (324, 22225), (349, 22372), (351, 22384), (357, 22426), (358, 22429), (367, 22474), (372, 22495), (375, 22504), (376, 22507), (382, 22528), (397, 22594), (398, 22597), (421, 22711), (428, 22732), (430, 22750), (431, 22753), (449, 22849), (451, 22861), (481, 22981), (485, 23011), (499, 23068), (507, 23104), (510, 23113), (512, 23125), (517, 23146), (520, 23155), (531, 23215), (541, 23248), (543, 23260), (544, 23263), (549, 23275), (557, 23302), (560, 23317), (562, 23323), (563, 23326), (570, 23347), (571, 23356), (587, 23425), (590, 23434), (603, 23473), (618, 23524), (634, 23581), (645, 23626), (651, 23650), (652, 23653), (661, 23686), (662, 23689), (663, 23692), (664, 23695), (676, 23749), (677, 23752), (683, 23773), (706, 23872), (715, 23902), (718, 23914), (721, 23926), (725, 23944), (728, 23953), (729, 23956), (759, 24112), (762, 24136), (764, 24145), (775, 24208), (779, 24223), (790, 24310), (792, 24322), (800, 24364), (811, 24448), (823, 24514), (827, 24538), (837, 24583), (838, 24586), (839, 24589), (852, 24658), (853, 24661), (857, 24685), (900, 24868),

Gene: Shiba_23 Start: 17270, Stop: 21790, Start Num: 22

Candidate Starts for Shiba_23:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 159 MA's), (Start: 22 @17270 has 3 MA's), (25, 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), (118, 18050), (121, 18083), (125, 18098), (131, 18146), (145, 18296), (150, 18317), (163, 18425), (166, 18434), (172, 18482), (199, 18617), (209, 18659), (228, 18773), (240, 18824), (242, 18827), (247, 18836), (268, 18917), (291, 19001), (295, 19019), (306, 19064), (315, 19109), (317, 19112), (318, 19118), (327, 19151), (349, 19262), (360, 19331), (361, 19334), (370, 19376), (372, 19385), (375, 19394), (384, 19424), (391, 19463), (393, 19469), (397, 19484), (404, 19526), (428, 19622), (431, 19643), (432, 19646), (436, 19667), (447, 19724), (449, 19739), (456, 19769), (460, 19781), (467, 19808), (470, 19823), (481, 19871), (485, 19901), (487, 19916), (496, 19949), (498, 19955), (507, 19994), (510, 20003), (512, 20015), (517, 20036), (530, 20102), (533, 20111), (542, 20144), (543, 20150), (544, 20153), (550, 20165), (551, 20168), (556, 20189), (561, 20210), (571, 20246), (579, 20294), (590, 20324), (618, 20414), (634, 20471), (645, 20516), (649, 20534), (657, 20561), (659, 20570), (661, 20576), (675, 20636), (679, 20648), (682, 20660), (694, 20714), (704, 20756), (706, 20762), (708, 20768), (717, 20801), (718, 20804), (724, 20828), (725, 20834), (727, 20840), (728, 20843), (738, 20894), (741, 20906), (748, 20945), (771, 21077), (779, 21113), (784, 21155),

(790, 21200), (805, 21290), (819, 21380), (823, 21404), (827, 21428), (829, 21440), (831, 21449), (834, 21461), (837, 21473), (846, 21518), (852, 21548), (855, 21566), (864, 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 159 MA's), (Start: 22 @17271 has 3 MA's), (25, 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), (118, 18051), (121, 18084), (125, 18099), (131, 18147), (145, 18297), (150, 18318), (163, 18426), (166, 18435), (172, 18483), (199, 18618), (209, 18660), (228, 18774), (240, 18825), (247, 18837), (268, 18918), (291, 19002), (295, 19020), (306, 19065), (315, 19110), (317, 19113), (318, 19119), (327, 19152), (349, 19263), (360, 19332), (361, 19335), (370, 19377), (372, 19386), (375, 19395), (384, 19425), (391, 19464), (393, 19470), (397, 19485), (404, 19527), (428, 19623), (431, 19644), (432, 19647), (436, 19668), (447, 19725), (449, 19740), (456, 19770), (460, 19782), (467, 19809), (470, 19824), (481, 19872), (485, 19902), (487, 19917), (496, 19950), (498, 19956), (507, 19995), (510, 20004), (512, 20016), (517, 20037), (530, 20103), (533, 20112), (542, 20145), (543, 20151), (544, 20154), (550, 20166), (551, 20169), (556, 20190), (561, 20211), (571, 20247), (579, 20295), (590, 20325), (618, 20415), (634, 20472), (645, 20517), (649, 20535), (657, 20562), (659, 20571), (661, 20577), (675, 20637), (679, 20649), (682, 20661), (694, 20715), (704, 20757), (706, 20763), (708, 20769), (717, 20802), (718, 20805), (724, 20829), (725, 20835), (727, 20841), (728, 20844), (738, 20895), (741, 20907), (748, 20946), (771, 21078), (779, 21114), (784, 21156), (790, 21201), (805, 21291), (819, 21381), (823, 21405), (827, 21429), (829, 21441), (831, 21450), (834, 21462), (837, 21474), (846, 21519), (852, 21549), (855, 21567), (864, 21606), (889, 21684),

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

Candidate Starts for Soshi_23:

(1, 16664), (Start: 2 @16685 has 31 MA's), (3, 16715), (14, 16859), (24, 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), (132, 17894), (137, 17960), (145, 18035), (150, 18056), (153, 18089), (161, 18152), (162, 18161), (176, 18239), (206, 18386), (229, 18518), (247, 18575), (279, 18653), (280, 18662), (282, 18671), (288, 18698), (306, 18773), (308, 18782), (322, 18848), (323, 18851), (340, 18890), (349, 18944), (360, 19013), (372, 19067), (382, 19100), (391, 19145), (394, 19154), (397, 19166), (410, 19241), (412, 19253), (424, 19292), (428, 19304), (435, 19343), (442, 19373), (452, 19433), (464, 19475), (474, 19523), (475, 19526), (485, 19580), (515, 19700), (524, 19742), (525, 19751), (533, 19787), (539, 19808), (542, 19820), (555, 19862), (556, 19865), (560, 19883), (570, 19913), (574, 19949), (576, 19955), (581, 19976), (590, 20000), (600, 20030), (618, 20090), (628, 20123), (632, 20141), (635, 20153), (637, 20162), (652, 20219), (655, 20231), (656, 20234), (661, 20252), (670, 20282), (675, 20312), (687, 20360), (690, 20375), (709, 20447), (721, 20492), (725, 20510), (728, 20519), (736, 20555), (739, 20576), (740, 20579), (784, 20765), (786, 20786), (787, 20792), (790, 20810), (793, 20825), (799, 20858), (800, 20864), (823, 21014), (824, 21023), (884, 21296), (886, 21305), (918, 21521), (931, 21614), (934, 21635), (941, 21683), (943, 21689), (944, 21695), (951, 21740), (973, 21917), (986, 22109), (987, 22118),

Gene: Spain_22 Start: 17270, Stop: 21790, Start Num: 22

Candidate Starts for Spain_22:

(Start: 18 @17219 has 2 MA's), (Start: 19 @17240 has 159 MA's), (Start: 22 @17270 has 3 MA's), (25, 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), (118, 18050), (121, 18083), (125, 18098), (131, 18146), (145, 18296), (150, 18317), (163, 18425), (166, 18434), (172, 18482), (199, 18617), (209, 18659), (228, 18773), (240, 18824), (247, 18836), (268, 18917), (291, 19001), (295, 19019), (306, 19064), (315, 19109), (317, 19112), (318, 19118), (327, 19151), (349, 19262), (360, 19331), (361, 19334), (370, 19376), (372, 19385), (375, 19394),

(384, 19424), (391, 19463), (393, 19469), (397, 19484), (404, 19526), (428, 19622), (431, 19643), (432, 19646), (436, 19667), (447, 19724), (449, 19739), (456, 19769), (460, 19781), (467, 19808), (470, 19823), (481, 19871), (485, 19901), (487, 19916), (496, 19949), (498, 19955), (507, 19994), (510, 20003), (512, 20015), (517, 20036), (530, 20102), (533, 20111), (542, 20144), (543, 20150), (544, 20153), (550, 20165), (551, 20168), (556, 20189), (561, 20210), (571, 20246), (579, 20294), (590, 20324), (618, 20414), (634, 20471), (645, 20516), (649, 20534), (657, 20561), (659, 20570), (661, 20576), (675, 20636), (679, 20648), (682, 20660), (694, 20714), (704, 20756), (706, 20762), (708, 20768), (717, 20801), (718, 20804), (724, 20828), (725, 20834), (727, 20840), (728, 20843), (738, 20894), (741, 20906), (748, 20945), (771, 21077), (779, 21113), (784, 21155), (790, 21200), (805, 21290), (819, 21380), (823, 21404), (827, 21428), (829, 21440), (831, 21449), (834, 21461), (837, 21473), (846, 21518), (852, 21548), (855, 21566), (864, 21605),

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

Candidate Starts for Spectropatronm_23:

(1, 16139), (Start: 2 @16160 has 31 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), (121, 17294), (133, 17399), (144, 17495), (153, 17561), (176, 17711), (191, 17795), (195, 17816), (206, 17858), (230, 17993), (279, 18125), (280, 18134), (288, 18170), (290, 18179), (299, 18221), (308, 18254), (345, 18407), (349, 18428), (359, 18491), (360, 18497), (362, 18503), (367, 18530), (372, 18551), (374, 18557), (375, 18560), (382, 18584), (391, 18629), (394, 18638), (395, 18641), (397, 18650), (410, 18725), (416, 18752), (421, 18767), (422, 18770), (428, 18788), (431, 18806), (435, 18827), (446, 18878), (464, 18959), (483, 19046), (485, 19064), (489, 19091), (515, 19184), (524, 19226), (525, 19235), (533, 19271), (538, 19289), (539, 19292), (555, 19346), (570, 19397), (574, 19433), (576, 19439), (581, 19460), (590, 19484), (600, 19514), (618, 19574), (628, 19607), (629, 19610), (632, 19625), (641, 19661), (652, 19703), (655, 19715), (656, 19718), (670, 19766), (675, 19796), (680, 19811), (687, 19844), (690, 19859), (706, 19922), (727, 20000), (736, 20039), (748, 20105), (763, 20192), (764, 20195), (790, 20294), (799, 20342), (800, 20348), (824, 20507), (884, 20780), (893, 20816), (903, 20882), (918, 21005), (931, 21098), (934, 21119), (941, 21167), (943, 21173), (944, 21179), (951, 21224), (964, 21332), (967, 21353), (973, 21401), (980, 21488), (986, 21590), (987, 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 159 MA's), (Start: 22 @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), (116, 19246), (118, 19261), (121, 19294), (125, 19309), (131, 19357), (136, 19420), (145, 19507), (147, 19516), (157, 19597), (158, 19600), (159, 19612), (163, 19636), (166, 19645), (171, 19687), (174, 19705), (197, 19822), (266, 20095), (291, 20191), (295, 20209), (306, 20254), (315, 20299), (324, 20335), (345, 20449), (349, 20470), (351, 20482), (352, 20497), (372, 20593), (375, 20602), (380, 20617), (382, 20626), (388, 20653), (392, 20674), (394, 20680), (397, 20692), (407, 20752), (410, 20767), (428, 20830), (431, 20851), (436, 20875), (447, 20932), (449, 20947), (450, 20950), (457, 20980), (460, 20989), (467, 21016), (470, 21031), (483, 21091), (485, 21109), (487, 21124), (496, 21157), (498, 21163), (507, 21202), (510, 21211), (512, 21223), (517, 21244), (522, 21265), (530, 21310), (533, 21319), (542, 21352), (543, 21358), (544, 21361), (550, 21373), (555, 21394), (558, 21403), (567, 21436), (571, 21454), (577, 21490), (579, 21502), (587, 21523), (590, 21532), (595, 21544), (606, 21583), (618, 21622), (629, 21658), (633, 21676), (645, 21724), (653, 21757), (657, 21769), (661, 21784), (675, 21844), (682, 21868), (693, 21916), (694, 21922), (700, 21952), (711, 21988), (724, 22036), (725, 22042), (727, 22048), (728, 22051), (738, 22102), (747, 22144), (755, 22180), (757, 22189), (759, 22210), (784, 22363), (790, 22408), (805, 22498), (813, 22558), (819, 22588), (827, 22636), (829, 22648), (837, 22681), (843, 22711), (864, 22816), (875, 22852), (905, 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 159 MA's), (Start: 22 @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), (118, 18190), (121, 18223), (125, 18238), (127, 18253), (131, 18286), (137, 18361), (151, 18469), (153, 18490), (157, 18526), (159, 18541), (163, 18565), (174, 18634), (192, 18733), (196, 18748), (197, 18751), (221, 18862), (224, 18886), (257, 18988), (291, 19120), (295, 19138), (306, 19183), (323, 19261), (347, 19372), (349, 19381), (365, 19468), (367, 19483), (375, 19513), (382, 19537), (391, 19582), (394, 19591), (397, 19603), (400, 19612), (421, 19720), (428, 19741), (431, 19762), (436, 19786), (447, 19843), (449, 19858), (467, 19927), (481, 19990), (485, 20020), (487, 20035), (498, 20074), (503, 20095), (507, 20113), (517, 20155), (520, 20164), (528, 20209), (533, 20230), (542, 20263), (543, 20269), (544, 20272), (550, 20284), (557, 20311), (570, 20356), (572, 20380), (587, 20434), (590, 20443), (600, 20473), (613, 20515), (618, 20533), (635, 20596), (647, 20641), (651, 20659), (653, 20668), (661, 20695), (667, 20716), (679, 20767), (687, 20803), (697, 20842), (710, 20893), (711, 20899), (712, 20902), (717, 20920), (731, 20974), (746, 21052), (755, 21091), (757, 21100), (779, 21232), (784, 21274), (790, 21319), (800, 21373), (805, 21409), (807, 21439), (808, 21445), (825, 21538), (834, 21580), (846, 21637), (852, 21667), (853, 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 159 MA's), (Start: 22 @17271 has 3 MA's), (25, 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), (118, 18051), (121, 18084), (125, 18099), (131, 18147), (145, 18297), (150, 18318), (163, 18426), (166, 18435), (172, 18483), (199, 18618), (209, 18660), (228, 18774), (240, 18825), (247, 18837), (268, 18918), (291, 19002), (295, 19020), (306, 19065), (315, 19110), (317, 19113), (318, 19119), (327, 19152), (349, 19263), (360, 19332), (361, 19335), (370, 19377), (372, 19386), (375, 19395), (384, 19425), (391, 19464), (393, 19470), (397, 19485), (404, 19527), (428, 19623), (431, 19644), (432, 19647), (436, 19668), (447, 19725), (449, 19740), (456, 19770), (460, 19782), (467, 19809), (470, 19824), (481, 19872), (485, 19902), (487, 19917), (496, 19950), (498, 19956), (507, 19995), (510, 20004), (512, 20016), (517, 20037), (530, 20103), (533, 20112), (542, 20145), (543, 20151), (544, 20154), (550, 20166), (551, 20169), (556, 20190), (561, 20211), (571, 20247), (579, 20295), (590, 20325), (618, 20415), (634, 20472), (645, 20517), (649, 20535), (657, 20562), (659, 20571), (661, 20577), (675, 20637), (679, 20649), (682, 20661), (694, 20715), (704, 20757), (706, 20763), (708, 20769), (717, 20802), (718, 20805), (724, 20829), (725, 20835), (727, 20841), (728, 20844), (738, 20895), (741, 20907), (748, 20946), (771, 21078), (779, 21114), (784, 21156), (790, 21201), (805, 21291), (819, 21381), (823, 21405), (827, 21429), (829, 21441), (831, 21450), (834, 21462), (837, 21474), (846, 21519), (852, 21549), (855, 21567), (864, 21606), (889, 21684),

Gene: Stardrop_27 Start: 19557, Stop: 24191, Start Num: 19

Candidate Starts for Stardrop_27:

(Start: 18 @19536 has 2 MA's), (Start: 19 @19557 has 159 MA's), (Start: 22 @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), (116, 20430), (118, 20445), (125, 20493), (156, 20766), (163, 20820), (166, 20829), (174, 20889), (193, 20991), (194, 20997), (197, 21006), (203, 21030), (223, 21129), (224, 21141), (225, 21150), (274, 21297), (309, 21447), (320, 21507), (324, 21516), (349, 21654), (356, 21702), (361, 21726), (363, 21732), (367, 21756), (372, 21777), (375, 21786), (382, 21810), (386, 21828), (396, 21873), (397, 21876), (400, 21885), (421, 21993), (428, 22014), (431, 22035), (442, 22086), (447, 22116), (449, 22131), (460, 22173), (465, 22191), (475, 22239), (476, 22242), (491, 22326), (493, 22332), (512, 22407), (515, 22416), (525, 22467), (533, 22503), (542, 22536), (544, 22545), (550, 22557), (555, 22578), (557,

22584), (562, 22605), (570, 22629), (571, 22638), (574, 22665), (587, 22707), (588, 22710), (589, 22713), (590, 22716), (606, 22767), (613, 22788), (618, 22806), (626, 22833), (644, 22905), (645, 22908), (649, 22926), (656, 22950), (669, 22995), (675, 23028), (676, 23031), (677, 23034), (682, 23052), (712, 23175), (717, 23193), (719, 23202), (723, 23217), (724, 23220), (739, 23292), (755, 23364), (762, 23418), (775, 23490), (784, 23547), (790, 23592), (820, 23775), (823, 23796), (827, 23820), (839, 23871), (852, 23940), (855, 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 159 MA's), (Start: 22 @17270 has 3 MA's), (25, 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), (118, 18050), (121, 18083), (125, 18098), (131, 18146), (145, 18296), (150, 18317), (163, 18425), (166, 18434), (172, 18482), (199, 18617), (209, 18659), (228, 18773), (240, 18824), (242, 18827), (247, 18836), (268, 18917), (291, 19001), (295, 19019), (306, 19064), (315, 19109), (317, 19112), (318, 19118), (327, 19151), (349, 19262), (360, 19331), (361, 19334), (370, 19376), (372, 19385), (375, 19394), (384, 19424), (391, 19463), (393, 19469), (397, 19484), (404, 19526), (428, 19622), (431, 19643), (432, 19646), (436, 19667), (447, 19724), (449, 19739), (456, 19769), (460, 19781), (467, 19808), (470, 19823), (481, 19871), (485, 19901), (487, 19916), (496, 19949), (498, 19955), (507, 19994), (510, 20003), (512, 20015), (517, 20036), (530, 20102), (533, 20111), (542, 20144), (543, 20150), (544, 20153), (550, 20165), (551, 20168), (556, 20189), (561, 20210), (571, 20246), (579, 20294), (590, 20324), (618, 20414), (634, 20471), (645, 20516), (649, 20534), (657, 20561), (659, 20570), (661, 20576), (675, 20636), (679, 20648), (682, 20660), (694, 20714), (704, 20756), (706, 20762), (708, 20768), (717, 20801), (718, 20804), (724, 20828), (725, 20834), (727, 20840), (728, 20843), (738, 20894), (741, 20906), (748, 20945), (771, 21077), (779, 21113), (784, 21155), (790, 21200), (805, 21290), (819, 21380), (823, 21404), (827, 21428), (829, 21440), (831, 21449), (834, 21461), (837, 21473), (846, 21518), (852, 21548), (855, 21566), (864, 21605),

Gene: Sunny4976_23 Start: 18500, Stop: 23560, Start Num: 4

Candidate Starts for Sunny4976_23:

(4, 18500), (6, 18530), (10, 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), (118, 19523), (119, 19535), (120, 19544), (126, 19580), (144, 19757), (150, 19790), (158, 19862), (162, 19895), (163, 19898), (178, 19982), (211, 20207), (215, 20243), (217, 20267), (220, 20279), (238, 20405), (272, 20573), (295, 20726), (296, 20729), (314, 20852), (315, 20858), (326, 20909), (341, 20972), (349, 21026), (353, 21056), (367, 21128), (375, 21158), (378, 21167), (382, 21182), (391, 21227), (397, 21248), (399, 21254), (406, 21299), (428, 21386), (435, 21428), (449, 21503), (467, 21572), (481, 21635), (485, 21665), (496, 21713), (499, 21722), (512, 21782), (533, 21878), (542, 21911), (544, 21920), (550, 21932), (551, 21935), (555, 21953), (560, 21974), (570, 22004), (571, 22013), (574, 22040), (582, 22070), (590, 22091), (605, 22136), (613, 22163), (618, 22181), (639, 22259), (651, 22307), (652, 22310), (662, 22346), (672, 22388), (680, 22418), (681, 22421), (685, 22445), (687, 22451), (688, 22460), (710, 22541), (723, 22592), (728, 22610), (735, 22643), (736, 22646), (748, 22712), (762, 22793), (784, 22922), (790, 22967), (805, 23057), (818, 23138), (819, 23147), (823, 23171), (831, 23216), (835, 23234), (839, 23249), (851, 23318), (880, 23429),

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

Candidate Starts for Sweetclover_26:

(Start: 19 @17996 has 159 MA's), (Start: 22 @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), (116, 18791), (118, 18806), (120, 18827), (132, 18911), (139, 19001), (151, 19085), (153, 19106), (156, 19127), (186, 19310), (196, 19364), (206, 19403), (223, 19502), (247, 19604), (343, 19994), (349, 20048), (356, 20096), (357, 20102), (372, 20171), (375, 20180), (382, 20204), (384, 20210),

(388, 20231), (397, 20270), (409, 20339), (416, 20372), (420, 20384), (428, 20408), (431, 20429), (434, 20444), (446, 20501), (449, 20525), (457, 20558), (458, 20561), (489, 20714), (492, 20723), (495, 20732), (504, 20765), (507, 20783), (512, 20804), (525, 20864), (528, 20879), (533, 20900), (535, 20906), (542, 20933), (547, 20951), (559, 20996), (570, 21032), (571, 21041), (574, 21068), (575, 21071), (587, 21110), (590, 21119), (609, 21179), (613, 21191), (635, 21272), (655, 21350), (667, 21392), (679, 21443), (687, 21479), (692, 21500), (697, 21518), (700, 21539), (702, 21545), (711, 21575), (724, 21623), (729, 21641), (737, 21677), (738, 21689), (747, 21731), (765, 21833), (779, 21908), (780, 21917), (784, 21950), (808, 22121), (823, 22199), (827, 22223), (829, 22235), (831, 22244), (852, 22343), (853, 22346), (855, 22361), (861, 22391), (905, 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 159 MA's), (Start: 22 @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), (118, 20948), (121, 20981), (125, 20996), (131, 21044), (145, 21194), (150, 21215), (165, 21329), (166, 21332), (172, 21380), (193, 21494), (200, 21518), (203, 21533), (206, 21545), (237, 21713), (244, 21728), (247, 21734), (257, 21752), (277, 21824), (287, 21875), (291, 21890), (298, 21920), (314, 21992), (315, 21998), (323, 22031), (324, 22034), (329, 22061), (349, 22175), (358, 22232), (360, 22244), (372, 22298), (375, 22307), (376, 22310), (382, 22331), (391, 22376), (397, 22397), (407, 22457), (421, 22514), (428, 22535), (431, 22556), (447, 22637), (449, 22652), (450, 22655), (456, 22682), (457, 22685), (470, 22736), (485, 22814), (487, 22829), (488, 22832), (492, 22850), (494, 22856), (496, 22862), (499, 22871), (507, 22907), (510, 22916), (517, 22949), (528, 23003), (529, 23006), (533, 23024), (537, 23036), (544, 23066), (550, 23081), (553, 23090), (555, 23102), (560, 23123), (571, 23162), (582, 23219), (587, 23231), (590, 23240), (603, 23279), (606, 23291), (616, 23321), (618, 23330), (629, 23366), (638, 23405), (639, 23408), (643, 23426), (645, 23432), (661, 23492), (664, 23501), (670, 23522), (676, 23555), (677, 23558), (680, 23567), (708, 23684), (709, 23687), (715, 23708), (723, 23741), (724, 23744), (725, 23750), (728, 23759), (734, 23786), (743, 23831), (757, 23897), (763, 23948), (765, 23954), (775, 24014), (780, 24038), (787, 24098), (790, 24116), (792, 24128), (818, 24287), (819, 24296), (827, 24344), (834, 24377), (837, 24389), (839, 24395), (842, 24416), (843, 24419), (844, 24425), (852, 24464), (857, 24491), (900, 24677), (904, 24704),

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

Candidate Starts for TaidaOne_23:

(1, 16787), (Start: 2 @16808 has 31 MA's), (3, 16838), (14, 16982), (42, 17192), (53, 17309), (68, 17381), (71, 17411), (79, 17534), (87, 17660), (96, 17735), (105, 17783), (110, 17825), (132, 18014), (153, 18209), (162, 18281), (176, 18359), (195, 18464), (206, 18506), (230, 18641), (279, 18773), (280, 18782), (288, 18818), (290, 18827), (299, 18869), (308, 18902), (314, 18932), (345, 19055), (349, 19076), (359, 19139), (360, 19145), (362, 19151), (367, 19178), (372, 19199), (374, 19205), (375, 19208), (382, 19232), (391, 19277), (394, 19286), (395, 19289), (410, 19373), (416, 19400), (421, 19415), (422, 19418), (428, 19436), (431, 19454), (435, 19475), (446, 19526), (460, 19592), (464, 19607), (483, 19694), (485, 19712), (489, 19739), (515, 19832), (524, 19874), (525, 19883), (533, 19919), (538, 19937), (539, 19940), (542, 19952), (555, 19994), (556, 19997), (570, 20045), (574, 20081), (576, 20087), (581, 20108), (590, 20132), (600, 20162), (618, 20222), (628, 20255), (629, 20258), (632, 20273), (635, 20285), (641, 20309), (652, 20351), (655, 20363), (656, 20366), (670, 20414), (675, 20444), (680, 20459), (687, 20492), (690, 20507), (706, 20570), (725, 20642), (727, 20648), (728, 20651), (736, 20687), (748, 20753), (763, 20840), (764, 20843), (790, 20942), (799, 20990), (800, 20996), (823, 21146), (824, 21155), (884, 21428), (918, 21653), (931, 21746), (934, 21767), (940, 21791), (941, 21815), (943, 21821), (944, 21827), (951, 21872), (964, 21980), (973, 22049), (980, 22136), (986, 22238), (987, 22247),

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

Candidate Starts for Tairn4Wing_31:

(Start: 19 @20533 has 159 MA's), (Start: 22 @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), (123, 21397), (124, 21400), (134, 21499), (137, 21523), (142, 21559), (150, 21619), (162, 21724), (163, 21727), (174, 21796), (176, 21802), (177, 21808), (212, 21985), (223, 22036), (231, 22087), (243, 22141), (245, 22144), (256, 22171), (273, 22252), (278, 22276), (284, 22315), (304, 22396), (306, 22399), (321, 22474), (324, 22483), (335, 22531), (347, 22615), (349, 22624), (360, 22693), (362, 22699), (365, 22711), (367, 22726), (368, 22729), (373, 22750), (386, 22798), (391, 22825), (397, 22846), (400, 22855), (403, 22876), (404, 22888), (406, 22897), (407, 22906), (421, 22963), (428, 22984), (435, 23026), (441, 23053), (444, 23062), (446, 23077), (447, 23086), (449, 23101), (451, 23113), (454, 23122), (457, 23134), (463, 23155), (466, 23164), (484, 23248), (485, 23257), (487, 23272), (488, 23275), (492, 23293), (504, 23335), (510, 23356), (513, 23371), (523, 23413), (525, 23428), (539, 23485), (542, 23497), (544, 23506), (551, 23518), (554, 23530), (555, 23536), (560, 23557), (564, 23569), (570, 23587), (571, 23596), (572, 23611), (573, 23617), (576, 23629), (586, 23671), (590, 23683), (595, 23704), (597, 23716), (612, 23764), (615, 23773), (622, 23797), (624, 23803), (625, 23806), (629, 23821), (630, 23830), (631, 23833), (636, 23851), (654, 23920), (665, 23959), (706, 24130), (720, 24181), (751, 24325), (762, 24394), (774, 24460), (782, 24511), (801, 24634), (807, 24697), (817, 24745), (818, 24751), (819, 24760), (828, 24808), (842, 24880), (854, 24940), (858, 24961), (859, 24964), (866, 25015), (869, 25024), (874, 25042), (882, 25063), (884, 25075), (901, 25168), (909, 25213), (917, 25288), (919, 25306), (921, 25327), (937, 25414), (954, 25525), (969, 25621),

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

Candidate Starts for Talon44_30:

(Start: 19 @20700 has 159 MA's), (Start: 22 @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), (123, 21564), (124, 21567), (134, 21666), (150, 21786), (162, 21891), (163, 21894), (174, 21963), (176, 21969), (203, 22104), (243, 22308), (245, 22311), (299, 22545), (304, 22563), (313, 22602), (319, 22629), (321, 22641), (324, 22650), (347, 22782), (349, 22791), (362, 22866), (365, 22878), (366, 22884), (386, 22965), (390, 22986), (391, 22992), (397, 23013), (400, 23022), (403, 23043), (404, 23055), (406, 23064), (407, 23073), (412, 23100), (420, 23127), (421, 23130), (428, 23151), (435, 23193), (443, 23226), (444, 23229), (446, 23244), (447, 23253), (451, 23280), (454, 23289), (457, 23301), (463, 23322), (466, 23331), (473, 23364), (484, 23415), (485, 23424), (487, 23439), (492, 23460), (497, 23475), (503, 23499), (504, 23502), (507, 23514), (509, 23520), (510, 23523), (523, 23580), (525, 23595), (539, 23652), (542, 23664), (544, 23673), (551, 23685), (554, 23697), (555, 23703), (563, 23733), (564, 23736), (567, 23745), (570, 23754), (571, 23763), (572, 23778), (573, 23784), (576, 23796), (586, 23838), (590, 23850), (595, 23871), (597, 23883), (615, 23940), (622, 23964), (624, 23970), (625, 23973), (629, 23988), (631, 24000), (636, 24018), (654, 24087), (660, 24108), (682, 24195), (706, 24297), (711, 24315), (738, 24429), (743, 24450), (751, 24492), (774, 24627), (801, 24801), (807, 24864), (811, 24882), (817, 24912), (818, 24918), (822, 24939), (842, 25047), (854, 25107), (858, 25128), (859, 25131), (866, 25182), (869, 25191), (874, 25209), (882, 25230), (884, 25242), (901, 25335), (909, 25380), (914, 25443), (917, 25455), (921, 25494), (927, 25524), (932, 25557), (937, 25581), (947, 25641), (969, 25788),

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

Candidate Starts for Tanis_29:

(Start: 19 @20466 has 159 MA's), (Start: 22 @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), (123, 21342), (124, 21345), (150, 21564), (162, 21669), (163, 21672), (174, 21741), (176, 21747), (212, 21930), (223, 21981), (231, 22032), (243, 22086), (245, 22089), (278, 22221), (299, 22323), (304, 22341), (306, 22344), (321,

22419), (335, 22476), (347, 22560), (349, 22569), (365, 22656), (373, 22695), (386, 22743), (391, 22770), (397, 22791), (400, 22800), (403, 22821), (404, 22833), (406, 22842), (407, 22851), (412, 22878), (420, 22905), (421, 22908), (428, 22929), (435, 22971), (441, 22998), (444, 23007), (446, 23022), (447, 23031), (449, 23046), (451, 23058), (454, 23067), (457, 23079), (463, 23100), (466, 23109), (484, 23193), (485, 23202), (487, 23217), (488, 23220), (492, 23238), (496, 23250), (497, 23253), (504, 23280), (510, 23301), (513, 23316), (523, 23358), (525, 23373), (539, 23430), (542, 23442), (544, 23451), (551, 23463), (554, 23475), (555, 23481), (560, 23502), (564, 23514), (570, 23532), (571, 23541), (572, 23556), (573, 23562), (576, 23574), (586, 23616), (587, 23619), (590, 23628), (595, 23649), (597, 23661), (612, 23709), (615, 23718), (622, 23742), (624, 23748), (629, 23766), (630, 23775), (636, 23796), (654, 23865), (659, 23883), (660, 23886), (665, 23904), (695, 24030), (706, 24075), (720, 24126), (751, 24270), (774, 24405), (782, 24456), (793, 24534), (801, 24579), (807, 24642), (811, 24660), (817, 24690), (818, 24696), (828, 24753), (842, 24825), (854, 24885), (858, 24906), (859, 24909), (866, 24960), (869, 24969), (882, 25008), (884, 25020), (901, 25113), (909, 25158), (917, 25233), (921, 25272), (927, 25302), (937, 25359), (954, 25470), (969, 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 159 MA's), (Start: 22 @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), (118, 21432), (121, 21465), (125, 21480), (131, 21528), (145, 21678), (150, 21699), (165, 21813), (166, 21816), (172, 21864), (193, 21978), (200, 22002), (203, 22017), (206, 22029), (237, 22197), (244, 22212), (247, 22218), (257, 22236), (277, 22308), (287, 22359), (291, 22374), (298, 22404), (314, 22476), (315, 22482), (319, 22500), (323, 22515), (324, 22518), (329, 22545), (349, 22659), (358, 22716), (360, 22728), (372, 22782), (375, 22791), (376, 22794), (382, 22815), (391, 22860), (397, 22881), (421, 22998), (428, 23019), (431, 23040), (435, 23061), (447, 23121), (449, 23136), (450, 23139), (456, 23166), (457, 23169), (483, 23280), (485, 23298), (487, 23313), (488, 23316), (492, 23334), (494, 23340), (495, 23343), (499, 23355), (507, 23391), (510, 23400), (517, 23433), (528, 23487), (529, 23490), (533, 23508), (537, 23520), (544, 23550), (550, 23565), (553, 23574), (555, 23586), (571, 23646), (580, 23697), (582, 23703), (587, 23715), (590, 23724), (603, 23763), (606, 23775), (616, 23805), (618, 23814), (638, 23889), (639, 23892), (643, 23910), (661, 23976), (663, 23982), (664, 23985), (676, 24039), (677, 24042), (708, 24168), (709, 24171), (715, 24192), (723, 24225), (725, 24234), (743, 24315), (749, 24348), (757, 24381), (765, 24438), (775, 24498), (790, 24600), (792, 24612), (818, 24771), (819, 24780), (827, 24828), (834, 24861), (837, 24873), (839, 24879), (842, 24900), (843, 24903), (844, 24909), (852, 24948), (857, 24975), (900, 25161), (904, 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 159 MA's), (Start: 22 @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), (116, 20786), (118, 20801), (120, 20822), (121, 20834), (132, 20906), (135, 20951), (140, 21002), (144, 21035), (150, 21068), (155, 21116), (166, 21185), (172, 21233), (193, 21347), (200, 21371), (206, 21398), (221, 21473), (237, 21566), (244, 21581), (247, 21587), (257, 21605), (266, 21647), (287, 21728), (298, 21773), (314, 21845), (315, 21851), (323, 21884), (324, 21887), (329, 21914), (349, 22031), (358, 22088), (360, 22100), (372, 22154), (375, 22163), (376, 22166), (382, 22187), (391, 22232), (397, 22253), (421, 22370), (428, 22391), (430, 22409), (431, 22412), (435, 22433), (447, 22493), (449, 22508), (450, 22511), (456, 22538), (457, 22541), (485, 22670), (487, 22685), (488, 22688), (492, 22706), (494, 22712), (495, 22715), (499, 22727), (507, 22763), (510, 22772), (517, 22805), (528, 22859), (529, 22862), (533, 22880), (537, 22892), (544, 22922), (550, 22937), (553, 22946), (555, 22958), (571, 23018), (580, 23069), (582, 23075), (587, 23087), (590, 23096), (603, 23135), (606, 23147),

(608, 23153), (610, 23159), (616, 23177), (618, 23186), (638, 23261), (639, 23264), (643, 23282), (661, 23348), (663, 23354), (664, 23357), (675, 23408), (708, 23540), (709, 23543), (715, 23564), (723, 23597), (725, 23606), (743, 23687), (749, 23720), (757, 23753), (765, 23810), (775, 23870), (780, 23894), (790, 23972), (792, 23984), (811, 24110), (819, 24152), (827, 24200), (834, 24233), (837, 24245), (839, 24251), (842, 24272), (843, 24275), (844, 24281), (852, 24320), (857, 24347), (862, 24374), (900, 24533), (904, 24560),

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

Candidate Starts for TenaciousP_33:

(Start: 19 @24936 has 159 MA's), (Start: 22 @24966 has 3 MA's), (27, 25011), (49, 25155), (61, 25221), (71, 25281), (72, 25302), (79, 25404), (87, 25530), (90, 25566), (96, 25605), (105, 25653), (110, 25695), (116, 25767), (121, 25815), (136, 25941), (144, 26016), (145, 26028), (150, 26049), (162, 26154), (163, 26157), (206, 26379), (219, 26445), (234, 26535), (243, 26571), (261, 26622), (269, 26670), (273, 26682), (304, 26826), (313, 26865), (319, 26892), (349, 27054), (356, 27102), (359, 27117), (360, 27123), (365, 27141), (376, 27189), (391, 27255), (403, 27306), (404, 27318), (407, 27336), (420, 27390), (431, 27435), (435, 27456), (438, 27465), (442, 27486), (446, 27507), (456, 27561), (457, 27564), (460, 27573), (466, 27594), (468, 27606), (473, 27627), (475, 27633), (479, 27651), (485, 27687), (490, 27717), (504, 27765), (507, 27777), (509, 27783), (510, 27786), (512, 27798), (513, 27801), (518, 27822), (525, 27858), (538, 27912), (539, 27915), (542, 27927), (544, 27936), (551, 27948), (552, 27951), (564, 27999), (569, 28014), (570, 28017), (571, 28026), (573, 28047), (579, 28074), (580, 28077), (586, 28101), (590, 28113), (595, 28134), (597, 28146), (600, 28155), (604, 28167), (612, 28194), (615, 28203), (622, 28227), (624, 28233), (629, 28251), (642, 28305), (646, 28320), (665, 28389), (691, 28500), (720, 28611), (732, 28656), (749, 28746), (770, 28869), (774, 28890), (783, 28953), (786, 28980), (798, 29052), (801, 29064), (802, 29073), (807, 29127), (812, 29148), (814, 29160), (845, 29322), (860, 29409), (865, 29427), (874, 29457), (881, 29475), (882, 29478), (884, 29490), (892, 29517), (909, 29628), (917, 29703), (923, 29751), (932, 29805), (938, 29832), (955, 29946), (969, 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 159 MA's), (Start: 22 @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), (116, 20164), (118, 20179), (125, 20227), (162, 20551), (166, 20563), (174, 20623), (184, 20665), (193, 20725), (194, 20731), (197, 20740), (202, 20755), (203, 20764), (223, 20863), (224, 20875), (225, 20884), (226, 20896), (309, 21181), (320, 21241), (324, 21250), (349, 21391), (356, 21439), (361, 21463), (363, 21469), (372, 21514), (375, 21523), (382, 21547), (386, 21565), (396, 21610), (397, 21613), (400, 21622), (410, 21688), (421, 21730), (425, 21742), (428, 21751), (431, 21772), (442, 21823), (447, 21853), (449, 21868), (460, 21910), (465, 21928), (475, 21976), (476, 21979), (486, 22036), (491, 22063), (512, 22144), (515, 22153), (525, 22204), (533, 22240), (542, 22273), (544, 22282), (550, 22294), (557, 22321), (562, 22342), (570, 22366), (571, 22375), (587, 22444), (588, 22447), (589, 22450), (590, 22453), (600, 22483), (606, 22504), (613, 22525), (618, 22543), (621, 22552), (626, 22570), (641, 22630), (649, 22663), (653, 22678), (655, 22684), (656, 22687), (669, 22732), (675, 22765), (676, 22768), (677, 22771), (682, 22789), (711, 22909), (712, 22912), (717, 22930), (736, 23008), (739, 23029), (755, 23101), (762, 23155), (765, 23167), (784, 23284), (790, 23329), (799, 23377), (820, 23512), (823, 23533), (827, 23557), (839, 23608), (852, 23677), (855, 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 159 MA's), (Start: 22 @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), (116, 22018), (118, 22033), (120, 22054),

(121, 22066), (126, 22090), (132, 22138), (140, 22234), (144, 22267), (150, 22300), (159, 22384), (163, 22408), (166, 22417), (199, 22600), (206, 22630), (221, 22705), (222, 22711), (237, 22798), (244, 22813), (247, 22819), (257, 22837), (259, 22846), (266, 22879), (267, 22888), (287, 22960), (298, 23005), (314, 23077), (315, 23083), (323, 23116), (324, 23119), (329, 23146), (349, 23260), (358, 23317), (360, 23329), (372, 23383), (375, 23392), (376, 23395), (382, 23416), (391, 23461), (397, 23482), (419, 23593), (421, 23599), (428, 23620), (430, 23638), (435, 23662), (447, 23722), (449, 23737), (450, 23740), (456, 23767), (457, 23770), (465, 23797), (483, 23881), (485, 23899), (487, 23914), (488, 23917), (492, 23935), (494, 23941), (495, 23944), (499, 23956), (500, 23962), (507, 23992), (510, 24001), (517, 24034), (528, 24088), (529, 24091), (533, 24109), (544, 24151), (550, 24166), (553, 24175), (555, 24187), (571, 24247), (582, 24304), (587, 24316), (590, 24325), (603, 24364), (606, 24376), (608, 24382), (612, 24394), (616, 24406), (618, 24415), (638, 24490), (639, 24493), (643, 24511), (661, 24577), (664, 24586), (676, 24640), (677, 24643), (708, 24769), (715, 24793), (723, 24826), (725, 24835), (730, 24850), (734, 24871), (743, 24916), (749, 24949), (757, 24982), (765, 25039), (775, 25099), (786, 25177), (790, 25201), (792, 25213), (811, 25339), (819, 25381), (827, 25429), (834, 25462), (837, 25474), (839, 25480), (842, 25501), (843, 25504), (844, 25510), (852, 25549), (857, 25576), (900, 25762), (904, 25789),

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

Candidate Starts for Thiqqums_21:

(Start: 2 @15072 has 31 MA's), (3, 15102), (9, 15183), (11, 15213), (12, 15216), (14, 15246), (79, 15798), (87, 15924), (94, 15987), (96, 15999), (104, 16041), (110, 16089), (117, 16173), (132, 16281), (150, 16443), (153, 16476), (162, 16548), (176, 16626), (206, 16773), (288, 17085), (290, 17094), (307, 17157), (349, 17331), (355, 17373), (360, 17400), (363, 17409), (375, 17463), (382, 17487), (395, 17544), (417, 17658), (428, 17691), (435, 17730), (445, 17772), (446, 17781), (451, 17817), (464, 17862), (475, 17913), (483, 17949), (485, 17967), (490, 17997), (501, 18036), (502, 18039), (512, 18078), (513, 18081), (520, 18108), (524, 18129), (525, 18138), (532, 18171), (533, 18174), (539, 18195), (558, 18258), (574, 18336), (576, 18342), (587, 18378), (588, 18381), (589, 18384), (590, 18387), (609, 18447), (612, 18456), (618, 18477), (627, 18507), (628, 18510), (643, 18573), (644, 18576), (645, 18579), (656, 18621), (661, 18639), (670, 18669), (680, 18714), (682, 18723), (687, 18747), (705, 18822), (707, 18828), (721, 18879), (728, 18906), (732, 18921), (734, 18933), (736, 18942), (740, 18966), (754, 19032), (763, 19095), (768, 19119), (790, 19197), (799, 19245), (805, 19287), (824, 19410), (847, 19527), (872, 19644), (894, 19725), (900, 19770), (908, 19815), (931, 20001), (934, 20022), (936, 20034), (943, 20076), (951, 20127), (957, 20175), (962, 20214), (970, 20265), (979, 20388), (984, 20427),

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

Candidate Starts for TieDye_22:

(1, 15831), (Start: 2 @15852 has 31 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), (121, 16986), (133, 17091), (144, 17187), (153, 17253), (176, 17403), (191, 17487), (195, 17508), (206, 17550), (230, 17685), (247, 17739), (280, 17826), (288, 17862), (290, 17871), (299, 17913), (308, 17946), (314, 17976), (345, 18099), (349, 18120), (359, 18183), (360, 18189), (362, 18195), (367, 18222), (372, 18243), (374, 18249), (375, 18252), (382, 18276), (391, 18321), (394, 18330), (395, 18333), (410, 18417), (416, 18444), (421, 18459), (422, 18462), (428, 18480), (431, 18498), (435, 18519), (446, 18570), (460, 18636), (464, 18651), (483, 18738), (485, 18756), (489, 18783), (515, 18876), (524, 18918), (525, 18927), (533, 18963), (538, 18981), (539, 18984), (542, 18996), (555, 19038), (556, 19041), (570, 19089), (574, 19125), (576, 19131), (581, 19152), (590, 19176), (600, 19206), (618, 19266), (628, 19299), (629, 19302), (632, 19317), (635, 19329), (641, 19353), (652, 19395), (655, 19407), (656, 19410), (670, 19458), (675, 19488), (680, 19503), (687, 19536), (690, 19551), (706, 19614), (725, 19686), (727, 19692), (728, 19695), (736, 19731), (748, 19797), (763, 19884), (764, 19887), (790, 19986), (799, 20034), (800, 20040), (823, 20190), (824, 20199), (884, 20472), (918, 20697), (931, 20790), (934, 20811), (940, 20835),

(941, 20859), (943, 20865), (944, 20871), (951, 20916), (964, 21024), (973, 21093), (980, 21180), (986, 21282), (987, 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 159 MA's), (Start: 22 @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), (116, 21114), (118, 21129), (121, 21162), (125, 21177), (126, 21186), (129, 21213), (131, 21225), (135, 21279), (145, 21375), (150, 21396), (166, 21513), (173, 21570), (175, 21576), (186, 21633), (202, 21705), (209, 21738), (210, 21741), (266, 21975), (290, 22068), (291, 22071), (314, 22173), (315, 22179), (324, 22215), (349, 22362), (357, 22416), (358, 22419), (372, 22485), (375, 22494), (376, 22497), (382, 22518), (388, 22545), (397, 22584), (398, 22587), (421, 22701), (428, 22722), (430, 22740), (431, 22743), (449, 22839), (451, 22851), (481, 22971), (485, 23001), (487, 23016), (499, 23058), (504, 23079), (507, 23094), (510, 23103), (512, 23115), (517, 23136), (528, 23190), (533, 23211), (542, 23244), (543, 23250), (544, 23253), (551, 23271), (552, 23274), (555, 23292), (570, 23343), (571, 23352), (581, 23406), (590, 23430), (601, 23463), (608, 23487), (618, 23520), (637, 23592), (643, 23616), (649, 23640), (652, 23649), (661, 23682), (662, 23685), (664, 23691), (674, 23736), (675, 23742), (687, 23790), (715, 23898), (725, 23940), (728, 23949), (759, 24108), (762, 24132), (764, 24141), (771, 24183), (775, 24204), (779, 24219), (790, 24306), (792, 24318), (800, 24360), (811, 24444), (823, 24510), (827, 24534), (837, 24579), (839, 24585), (852, 24654), (853, 24657), (857, 24681), (900, 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 159 MA's), (Start: 22 @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), (116, 21075), (118, 21090), (121, 21123), (125, 21138), (126, 21147), (129, 21174), (131, 21186), (135, 21240), (150, 21357), (165, 21471), (166, 21474), (173, 21531), (175, 21537), (202, 21666), (209, 21699), (266, 21936), (291, 22032), (314, 22134), (315, 22140), (324, 22176), (349, 22320), (357, 22374), (358, 22377), (372, 22443), (375, 22452), (376, 22455), (382, 22476), (397, 22542), (399, 22548), (407, 22602), (421, 22659), (428, 22680), (430, 22698), (431, 22701), (435, 22722), (437, 22728), (442, 22752), (449, 22797), (451, 22809), (478, 22920), (481, 22929), (483, 22941), (485, 22959), (499, 23016), (507, 23052), (508, 23055), (510, 23061), (512, 23073), (513, 23076), (517, 23094), (520, 23103), (530, 23160), (544, 23211), (549, 23223), (556, 23247), (557, 23250), (570, 23295), (571, 23304), (587, 23373), (590, 23382), (603, 23421), (606, 23433), (618, 23472), (645, 23574), (651, 23598), (652, 23601), (661, 23634), (662, 23637), (663, 23640), (664, 23643), (676, 23697), (677, 23700), (683, 23721), (706, 23820), (715, 23850), (718, 23862), (721, 23874), (725, 23892), (728, 23901), (729, 23904), (759, 24060), (762, 24084), (764, 24093), (775, 24156), (779, 24171), (790, 24258), (792, 24270), (800, 24312), (811, 24396), (823, 24462), (827, 24486), (837, 24531), (839, 24537), (852, 24606), (853, 24609), (857, 24633), (900, 24816),

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

Candidate Starts for Tonaltzin_34:

(Start: 19 @23506 has 159 MA's), (Start: 22 @23536 has 3 MA's), (27, 23581), (49, 23725), (61, 23791), (71, 23851), (72, 23872), (79, 23974), (87, 24100), (90, 24136), (96, 24175), (105, 24223), (110, 24265), (116, 24337), (121, 24385), (136, 24511), (144, 24586), (145, 24598), (150, 24619), (162, 24724), (163, 24727), (206, 24949), (219, 25015), (234, 25105), (243, 25141), (261, 25192), (269, 25240), (273, 25252), (304, 25396), (313, 25435), (319, 25462), (349, 25624), (356, 25672), (359, 25687), (360, 25693), (365, 25711), (376, 25759), (391, 25825), (403, 25876), (404, 25888), (407, 25906), (420, 25960), (431, 26005), (435, 26026), (438, 26035), (442, 26056), (446, 26077), (456, 26131), (457, 26134), (460, 26143), (466, 26164), (468, 26176), (473, 26197), (475, 26203), (479, 26221), (485, 26257), (490, 26287), (504, 26335), (507, 26347), (509, 26353), (510, 26356),

(512, 26368), (513, 26371), (518, 26392), (525, 26428), (538, 26482), (539, 26485), (544, 26506), (551, 26518), (552, 26521), (564, 26569), (569, 26584), (570, 26587), (571, 26596), (573, 26617), (579, 26644), (580, 26647), (586, 26671), (590, 26683), (595, 26704), (597, 26716), (600, 26725), (604, 26737), (612, 26764), (622, 26797), (624, 26803), (629, 26821), (642, 26875), (646, 26890), (665, 26959), (691, 27070), (720, 27181), (732, 27226), (749, 27316), (770, 27439), (774, 27460), (783, 27523), (786, 27550), (798, 27622), (801, 27634), (802, 27643), (807, 27697), (812, 27718), (814, 27730), (845, 27892), (860, 27979), (865, 27997), (874, 28027), (881, 28045), (882, 28048), (884, 28060), (892, 28087), (909, 28198), (917, 28273), (923, 28321), (932, 28375), (938, 28402), (955, 28516), (969, 28606),

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

Candidate Starts for TonyStarch_23:

(1, 16145), (Start: 2 @16166 has 31 MA's), (3, 16196), (14, 16340), (42, 16550), (53, 16667), (68, 16739), (71, 16769), (79, 16892), (87, 17018), (96, 17093), (105, 17141), (110, 17183), (132, 17372), (153, 17567), (162, 17639), (176, 17717), (191, 17801), (206, 17864), (230, 17999), (247, 18053), (280, 18140), (288, 18176), (290, 18185), (299, 18227), (308, 18260), (314, 18290), (345, 18413), (349, 18434), (359, 18497), (360, 18503), (362, 18509), (367, 18536), (372, 18557), (374, 18563), (375, 18566), (382, 18590), (391, 18635), (394, 18644), (395, 18647), (397, 18656), (410, 18731), (416, 18758), (422, 18776), (428, 18794), (431, 18812), (435, 18833), (446, 18884), (460, 18950), (464, 18965), (483, 19052), (485, 19070), (489, 19097), (515, 19190), (524, 19232), (525, 19241), (533, 19277), (534, 19280), (538, 19295), (539, 19298), (542, 19310), (555, 19352), (556, 19355), (570, 19403), (574, 19439), (576, 19445), (581, 19466), (590, 19490), (600, 19520), (618, 19580), (628, 19613), (629, 19616), (632, 19631), (635, 19643), (641, 19667), (652, 19709), (655, 19721), (656, 19724), (670, 19772), (675, 19802), (680, 19817), (687, 19850), (690, 19865), (706, 19928), (725, 20000), (727, 20006), (728, 20009), (736, 20045), (748, 20111), (763, 20198), (764, 20201), (790, 20300), (799, 20348), (800, 20354), (824, 20513), (884, 20786), (893, 20822), (903, 20888), (918, 21011), (931, 21104), (934, 21125), (941, 21173), (943, 21179), (944, 21185), (951, 21230), (964, 21338), (967, 21359), (973, 21407), (980, 21494), (986, 21596), (987, 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 159 MA's), (Start: 22 @17415 has 3 MA's), (25, 17448), (30, 17469), (68, 17700), (71, 17730), (78, 17811), (79, 17853), (80, 17871), (84, 17913), (89, 18000), (96, 18054), (99, 18069), (105, 18102), (116, 18180), (118, 18195), (125, 18243), (127, 18258), (132, 18300), (136, 18354), (144, 18429), (150, 18462), (163, 18570), (173, 18636), (181, 18669), (183, 18678), (184, 18681), (186, 18699), (246, 18981), (260, 19005), (266, 19035), (279, 19065), (310, 19194), (324, 19254), (349, 19383), (363, 19461), (370, 19497), (372, 19506), (375, 19515), (382, 19539), (388, 19566), (391, 19584), (397, 19605), (410, 19680), (418, 19713), (428, 19743), (435, 19785), (447, 19845), (448, 19851), (456, 19890), (457, 19893), (462, 19908), (476, 19971), (481, 19992), (485, 20022), (490, 20052), (496, 20070), (507, 20118), (513, 20142), (517, 20160), (520, 20169), (523, 20184), (526, 20205), (533, 20235), (542, 20268), (543, 20274), (544, 20277), (550, 20289), (555, 20310), (570, 20361), (571, 20370), (575, 20400), (577, 20406), (587, 20439), (590, 20448), (600, 20478), (606, 20499), (618, 20538), (626, 20565), (628, 20571), (629, 20574), (632, 20589), (639, 20616), (647, 20646), (656, 20682), (682, 20784), (692, 20829), (705, 20883), (706, 20886), (708, 20892), (717, 20925), (727, 20964), (729, 20970), (733, 20985), (738, 21018), (762, 21150), (784, 21213), (787, 21240), (790, 21258), (799, 21306), (800, 21312), (808, 21384), (823, 21462), (829, 21498), (833, 21516), (839, 21540), (843, 21564), (851, 21609), (855, 21630), (905, 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 159 MA's), (Start: 22 @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), (116, 19999),
(118, 20014), (125, 20062), (140, 20215), (145, 20260), (150, 20281), (153, 20314), (163, 20389),
(166, 20398), (171, 20440), (174, 20458), (184, 20500), (193, 20560), (194, 20566), (197, 20575),
(202, 20590), (203, 20599), (223, 20698), (224, 20710), (225, 20719), (226, 20731), (309, 21016),
(320, 21076), (324, 21085), (345, 21205), (349, 21226), (361, 21298), (363, 21304), (372, 21349),
(375, 21358), (382, 21382), (386, 21400), (397, 21448), (400, 21457), (413, 21538), (421, 21565),
(425, 21577), (428, 21586), (431, 21607), (447, 21688), (472, 21799), (475, 21811), (476, 21814),
(491, 21898), (495, 21910), (512, 21979), (521, 22018), (525, 22039), (533, 22075), (542, 22108),
(544, 22117), (550, 22129), (551, 22132), (570, 22201), (571, 22210), (575, 22240), (587, 22279),
(590, 22288), (600, 22318), (606, 22339), (618, 22378), (641, 22465), (645, 22480), (649, 22498),
(653, 22513), (656, 22522), (658, 22528), (669, 22567), (675, 22600), (676, 22603), (682, 22624),
(683, 22627), (702, 22714), (711, 22744), (712, 22747), (717, 22765), (723, 22789), (729, 22810),
(739, 22864), (740, 22867), (755, 22936), (762, 22990), (784, 23119), (790, 23164), (819, 23344),
(823, 23368), (827, 23392), (837, 23437), (839, 23443), (846, 23482), (852, 23512), (855, 23530),
(891, 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 159 MA's), (Start: 22 @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), (116, 20958),
(118, 20973), (128, 21051), (136, 21132), (150, 21240), (166, 21357), (168, 21363), (191, 21507),
(192, 21516), (209, 21582), (266, 21819), (283, 21879), (290, 21912), (291, 21915), (314, 22017),
(315, 22023), (324, 22059), (349, 22203), (356, 22251), (357, 22257), (358, 22260), (367, 22305),
(372, 22326), (375, 22335), (376, 22338), (382, 22359), (383, 22362), (397, 22425), (398, 22428),
(421, 22542), (428, 22563), (430, 22581), (431, 22584), (442, 22635), (447, 22665), (449, 22680),
(451, 22692), (478, 22803), (481, 22812), (485, 22842), (506, 22932), (507, 22935), (510, 22944),
(512, 22956), (517, 22977), (521, 22995), (528, 23031), (533, 23052), (542, 23085), (558, 23142),
(570, 23184), (571, 23193), (579, 23241), (587, 23262), (590, 23271), (600, 23301), (618, 23361),
(629, 23397), (637, 23433), (649, 23481), (662, 23526), (664, 23532), (670, 23553), (675, 23583),
(687, 23631), (697, 23670), (698, 23673), (725, 23781), (728, 23790), (735, 23823), (753, 23913),
(761, 23961), (775, 24045), (790, 24147), (792, 24159), (800, 24201), (818, 24318), (819, 24327),
(827, 24375), (837, 24420), (839, 24426), (852, 24495), (857, 24522), (900, 24705),

Gene: Trufflozitus_32 Start: 20534, Stop: 25636, Start Num: 19

Candidate Starts for Trufflozitus_32:

(Start: 19 @20534 has 159 MA's), (Start: 22 @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), (123, 21398), (124, 21401), (134, 21500), (137, 21524), (142, 21560),
(150, 21620), (162, 21725), (163, 21728), (174, 21797), (176, 21803), (177, 21809), (212, 21986),
(223, 22037), (231, 22088), (243, 22142), (245, 22145), (256, 22172), (278, 22277), (284, 22316),
(304, 22397), (306, 22400), (321, 22475), (324, 22484), (335, 22532), (347, 22616), (349, 22625),
(360, 22694), (362, 22700), (365, 22712), (367, 22727), (368, 22730), (373, 22751), (386, 22799),
(391, 22826), (397, 22847), (400, 22856), (403, 22877), (404, 22889), (406, 22898), (407, 22907),
(420, 22961), (421, 22964), (428, 22985), (435, 23027), (441, 23054), (444, 23063), (446, 23078),
(447, 23087), (449, 23102), (451, 23114), (454, 23123), (457, 23135), (463, 23156), (466, 23165),
(484, 23249), (485, 23258), (487, 23273), (492, 23294), (504, 23336), (510, 23357), (513, 23372),
(523, 23414), (525, 23429), (539, 23486), (542, 23498), (544, 23507), (551, 23519), (554, 23531),
(555, 23537), (560, 23558), (562, 23564), (564, 23570), (570, 23588), (571, 23597), (572, 23612),
(573, 23618), (576, 23630), (586, 23672), (590, 23684), (595, 23705), (597, 23717), (612, 23765),
(615, 23774), (622, 23798), (624, 23804), (625, 23807), (629, 23822), (630, 23831), (631, 23834),
(636, 23852), (654, 23921), (665, 23960), (706, 24131), (720, 24182), (751, 24326), (762, 24395),

(774, 24461), (782, 24512), (801, 24635), (807, 24698), (817, 24746), (818, 24752), (819, 24761), (828, 24809), (842, 24881), (854, 24941), (858, 24962), (859, 24965), (866, 25016), (869, 25025), (874, 25043), (882, 25064), (884, 25076), (901, 25169), (909, 25214), (917, 25289), (919, 25307), (921, 25328), (937, 25415), (954, 25526), (969, 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 159 MA's), (Start: 22 @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), (118, 21498), (121, 21531), (125, 21546), (131, 21594), (145, 21744), (150, 21765), (165, 21879), (166, 21882), (193, 22044), (200, 22068), (203, 22083), (206, 22095), (237, 22263), (244, 22278), (247, 22284), (257, 22302), (277, 22374), (287, 22425), (291, 22440), (298, 22470), (314, 22542), (315, 22548), (323, 22581), (324, 22584), (349, 22728), (356, 22776), (358, 22785), (360, 22797), (372, 22851), (375, 22860), (376, 22863), (382, 22884), (391, 22929), (397, 22950), (404, 22992), (407, 23010), (421, 23067), (428, 23088), (431, 23109), (447, 23190), (449, 23205), (450, 23208), (456, 23235), (470, 23289), (485, 23367), (487, 23382), (488, 23385), (492, 23403), (494, 23409), (496, 23415), (499, 23424), (507, 23460), (510, 23469), (517, 23502), (528, 23556), (529, 23559), (533, 23577), (537, 23589), (544, 23619), (550, 23634), (553, 23643), (555, 23655), (560, 23676), (571, 23715), (582, 23772), (587, 23784), (590, 23793), (603, 23832), (606, 23844), (616, 23874), (618, 23883), (629, 23919), (638, 23958), (639, 23961), (643, 23979), (645, 23985), (661, 24045), (664, 24054), (676, 24108), (677, 24111), (680, 24120), (708, 24237), (709, 24240), (715, 24261), (723, 24294), (724, 24297), (725, 24303), (728, 24312), (734, 24339), (757, 24450), (763, 24501), (765, 24507), (775, 24567), (780, 24591), (787, 24651), (790, 24669), (792, 24681), (818, 24840), (819, 24849), (827, 24897), (834, 24930), (837, 24942), (839, 24948), (842, 24969), (843, 24972), (844, 24978), (852, 25017), (857, 25044), (900, 25230), (904, 25257),

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

Candidate Starts for Untouchable_32:

(Start: 19 @23641 has 159 MA's), (Start: 22 @23671 has 3 MA's), (27, 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), (116, 24472), (121, 24520), (136, 24646), (144, 24721), (145, 24733), (150, 24754), (162, 24859), (163, 24862), (183, 24970), (231, 25222), (261, 25327), (275, 25396), (279, 25417), (297, 25498), (298, 25501), (304, 25528), (313, 25567), (319, 25594), (345, 25735), (349, 25756), (359, 25819), (360, 25825), (365, 25843), (366, 25849), (376, 25891), (380, 25903), (382, 25912), (391, 25957), (401, 25999), (403, 26008), (404, 26020), (406, 26029), (407, 26038), (431, 26137), (435, 26158), (438, 26167), (443, 26191), (444, 26194), (456, 26263), (457, 26266), (460, 26275), (465, 26293), (466, 26296), (468, 26308), (473, 26329), (475, 26335), (476, 26338), (481, 26359), (485, 26389), (487, 26404), (490, 26419), (504, 26467), (507, 26479), (509, 26485), (510, 26488), (512, 26500), (513, 26503), (525, 26560), (538, 26614), (544, 26638), (551, 26650), (552, 26653), (563, 26698), (564, 26701), (569, 26716), (570, 26719), (571, 26728), (572, 26743), (573, 26749), (574, 26755), (579, 26776), (580, 26779), (584, 26791), (587, 26806), (590, 26815), (595, 26836), (597, 26848), (604, 26869), (612, 26896), (622, 26929), (624, 26935), (629, 26953), (636, 26983), (646, 27022), (665, 27091), (691, 27202), (694, 27214), (712, 27283), (732, 27358), (749, 27448), (774, 27592), (778, 27616), (793, 27721), (798, 27754), (801, 27766), (807, 27829), (812, 27850), (814, 27862), (818, 27883), (828, 27940), (845, 28024), (860, 28111), (865, 28129), (874, 28159), (881, 28177), (882, 28180), (883, 28186), (884, 28192), (892, 28219), (909, 28330), (917, 28405), (927, 28474), (932, 28507), (937, 28531), (955, 28648), (969, 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 159 MA's), (Start: 22 @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), (116, 20694), (118, 20709), (125, 20757), (162, 21081), (166, 21093), (174, 21153), (180, 21174), (184, 21195), (193, 21255), (194, 21261), (197, 21270), (202, 21285), (203, 21294), (223, 21393), (224, 21405), (225, 21414), (226, 21426), (309, 21711), (320, 21771), (324, 21780), (349, 21921), (356, 21969), (357, 21975), (361, 21993), (363, 21999), (372, 22044), (375, 22053), (382, 22077), (386, 22095), (396, 22140), (397, 22143), (400, 22152), (410, 22218), (421, 22260), (428, 22281), (431, 22302), (442, 22353), (447, 22383), (449, 22398), (460, 22440), (465, 22458), (475, 22506), (476, 22509), (486, 22566), (512, 22674), (515, 22683), (525, 22734), (528, 22749), (533, 22770), (542, 22803), (544, 22812), (550, 22824), (555, 22845), (557, 22851), (562, 22872), (570, 22896), (571, 22905), (587, 22974), (588, 22977), (589, 22980), (590, 22983), (600, 23013), (606, 23034), (613, 23055), (618, 23073), (621, 23082), (626, 23100), (641, 23160), (649, 23193), (653, 23208), (655, 23214), (656, 23217), (669, 23262), (676, 23298), (677, 23301), (679, 23307), (682, 23319), (683, 23322), (711, 23439), (712, 23442), (717, 23460), (726, 23496), (736, 23538), (740, 23562), (755, 23631), (762, 23685), (765, 23697), (784, 23814), (790, 23859), (799, 23907), (820, 24042), (823, 24063), (827, 24087), (839, 24138), (852, 24207), (853, 24210), (855, 24225),

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

Candidate Starts for Vardy_32:

(Start: 19 @23250 has 159 MA's), (Start: 22 @23280 has 3 MA's), (27, 23325), (49, 23469), (61, 23535), (71, 23595), (72, 23616), (79, 23718), (87, 23844), (90, 23880), (96, 23919), (101, 23946), (105, 23967), (110, 24009), (119, 24108), (121, 24129), (136, 24255), (144, 24330), (145, 24342), (150, 24363), (162, 24468), (163, 24471), (231, 24831), (261, 24936), (275, 25005), (279, 25026), (297, 25107), (298, 25110), (304, 25137), (313, 25176), (319, 25203), (349, 25365), (356, 25413), (360, 25434), (365, 25452), (376, 25500), (380, 25512), (391, 25566), (403, 25617), (404, 25629), (406, 25638), (407, 25647), (420, 25701), (431, 25746), (434, 25761), (435, 25767), (438, 25776), (439, 25782), (443, 25800), (444, 25803), (445, 25809), (446, 25818), (456, 25872), (457, 25875), (460, 25884), (465, 25902), (466, 25905), (468, 25917), (473, 25938), (475, 25944), (476, 25947), (481, 25968), (485, 25998), (487, 26013), (496, 26046), (500, 26061), (504, 26076), (507, 26088), (509, 26094), (510, 26097), (512, 26109), (513, 26112), (525, 26169), (538, 26223), (539, 26226), (544, 26247), (551, 26259), (552, 26262), (564, 26310), (569, 26325), (570, 26328), (571, 26337), (573, 26358), (579, 26385), (580, 26388), (586, 26412), (590, 26424), (595, 26445), (597, 26457), (604, 26478), (612, 26505), (622, 26538), (624, 26544), (629, 26562), (636, 26592), (646, 26631), (691, 26811), (694, 26823), (712, 26892), (749, 27057), (770, 27180), (774, 27201), (793, 27330), (798, 27363), (801, 27375), (807, 27438), (812, 27459), (814, 27471), (817, 27486), (828, 27549), (845, 27633), (860, 27720), (865, 27738), (874, 27768), (881, 27786), (882, 27789), (883, 27795), (884, 27801), (892, 27828), (909, 27939), (917, 28014), (919, 28032), (932, 28116), (937, 28140), (955, 28257), (969, 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 159 MA's), (Start: 22 @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), (116, 22595), (118, 22610), (120, 22631), (121, 22643), (126, 22667), (132, 22715), (140, 22811), (144, 22844), (150, 22877), (159, 22961), (163, 22985), (166, 22994), (206, 23207), (213, 23249), (221, 23282), (222, 23288), (237, 23375), (244, 23390), (247, 23396), (254, 23408), (257, 23414), (266, 23456), (287, 23537), (291, 23552), (314, 23654), (315, 23660), (323, 23693), (324, 23696), (329, 23723), (349, 23840), (358, 23897), (360, 23909), (372, 23963), (375, 23972), (376, 23975), (382, 23996), (391, 24041), (397, 24062), (404, 24104), (419, 24173), (421, 24179), (428, 24200), (431, 24221), (435, 24242), (447, 24302), (449, 24317), (450, 24320), (456, 24347), (457, 24350), (485, 24479), (487, 24494), (488, 24497), (492, 24515), (494, 24521), (495, 24524), (499, 24536), (507, 24572), (510, 24581),

(517, 24614), (528, 24668), (529, 24671), (533, 24689), (537, 24701), (544, 24731), (550, 24746), (553, 24755), (555, 24767), (571, 24827), (580, 24878), (582, 24884), (587, 24896), (590, 24905), (603, 24944), (606, 24956), (608, 24962), (610, 24968), (616, 24986), (618, 24995), (638, 25070), (639, 25073), (643, 25091), (661, 25157), (663, 25163), (664, 25166), (675, 25217), (708, 25349), (709, 25352), (715, 25373), (723, 25406), (725, 25415), (743, 25496), (749, 25529), (757, 25562), (765, 25619), (775, 25679), (780, 25703), (790, 25781), (792, 25793), (811, 25919), (819, 25961), (827, 26009), (834, 26042), (837, 26054), (839, 26060), (842, 26081), (843, 26084), (844, 26090), (852, 26129), (857, 26156), (862, 26183), (900, 26342), (904, 26369),

Gene: Wigberry_24 Start: 15580, Stop: 21045, Start Num: 2

Candidate Starts for Wigberry_24:

(1, 15559), (Start: 2 @15580 has 31 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), (132, 16795), (137, 16861), (150, 16957), (153, 16990), (176, 17140), (247, 17476), (264, 17515), (288, 17599), (299, 17650), (308, 17683), (320, 17746), (349, 17845), (358, 17902), (360, 17914), (375, 17977), (394, 18055), (395, 18058), (416, 18169), (428, 18205), (446, 18295), (464, 18376), (475, 18427), (484, 18472), (502, 18553), (517, 18613), (519, 18619), (525, 18652), (533, 18688), (566, 18802), (570, 18814), (574, 18850), (576, 18856), (579, 18871), (590, 18901), (601, 18934), (614, 18976), (618, 18991), (623, 19006), (628, 19024), (632, 19042), (641, 19078), (655, 19132), (661, 19153), (675, 19213), (680, 19228), (687, 19261), (707, 19342), (709, 19348), (721, 19393), (725, 19411), (728, 19420), (732, 19435), (736, 19456), (737, 19459), (740, 19480), (755, 19549), (786, 19687), (790, 19711), (799, 19759), (824, 19924), (884, 20197), (931, 20515), (934, 20536), (943, 20590), (951, 20641), (967, 20770), (981, 20923), (984, 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 159 MA's), (Start: 22 @17433 has 3 MA's), (25, 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), (116, 18198), (118, 18213), (125, 18261), (127, 18276), (132, 18318), (134, 18360), (136, 18372), (140, 18414), (144, 18447), (150, 18480), (163, 18588), (173, 18654), (181, 18687), (183, 18696), (184, 18699), (186, 18717), (192, 18756), (246, 18999), (266, 19053), (310, 19212), (317, 19245), (324, 19272), (349, 19401), (363, 19479), (372, 19524), (374, 19530), (375, 19533), (379, 19545), (382, 19557), (388, 19584), (391, 19602), (397, 19623), (410, 19698), (414, 19719), (415, 19722), (418, 19731), (428, 19761), (435, 19803), (436, 19806), (447, 19863), (448, 19869), (449, 19878), (457, 19911), (461, 19923), (462, 19926), (474, 19983), (476, 19989), (481, 20010), (485, 20040), (490, 20070), (496, 20088), (507, 20136), (513, 20160), (517, 20178), (520, 20187), (523, 20202), (526, 20223), (533, 20253), (542, 20286), (543, 20292), (544, 20295), (550, 20307), (555, 20328), (570, 20379), (571, 20388), (575, 20418), (577, 20424), (587, 20457), (590, 20466), (600, 20496), (603, 20505), (606, 20517), (612, 20535), (618, 20556), (626, 20583), (628, 20589), (629, 20592), (632, 20607), (639, 20634), (647, 20664), (656, 20700), (682, 20802), (697, 20865), (705, 20901), (706, 20904), (712, 20925), (717, 20943), (727, 20982), (729, 20988), (733, 21003), (737, 21024), (738, 21036), (762, 21168), (784, 21231), (787, 21258), (790, 21276), (799, 21324), (800, 21330), (808, 21402), (823, 21480), (829, 21516), (833, 21534), (839, 21558), (843, 21582), (851, 21627), (855, 21648), (905, 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 159 MA's), (Start: 22 @17464 has 3 MA's), (25, 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), (116, 18229), (118, 18244), (125, 18292), (127, 18307), (132, 18349), (134, 18391), (136, 18403), (140, 18445), (144, 18478), (150, 18511), (163, 18619), (173, 18685), (181, 18718), (183, 18727), (184, 18730), (186, 18748), (192, 18787), (246, 19030), (265, 19075), (266, 19084), (310, 19243), (317, 19276),

(324, 19303), (349, 19432), (363, 19510), (372, 19555), (375, 19564), (379, 19576), (382, 19588), (388, 19615), (391, 19633), (397, 19654), (410, 19729), (414, 19750), (415, 19753), (418, 19762), (428, 19792), (435, 19834), (447, 19894), (448, 19900), (449, 19909), (457, 19942), (461, 19954), (462, 19957), (474, 20014), (476, 20020), (481, 20041), (485, 20071), (490, 20101), (496, 20119), (507, 20167), (513, 20191), (517, 20209), (520, 20218), (526, 20254), (533, 20284), (542, 20317), (543, 20323), (544, 20326), (550, 20338), (555, 20359), (570, 20410), (571, 20419), (577, 20455), (581, 20473), (587, 20488), (590, 20497), (603, 20536), (606, 20548), (618, 20587), (626, 20614), (628, 20620), (629, 20623), (632, 20638), (639, 20665), (647, 20695), (656, 20731), (682, 20833), (697, 20896), (705, 20932), (706, 20935), (712, 20956), (717, 20974), (727, 21013), (729, 21019), (733, 21034), (737, 21055), (738, 21067), (762, 21199), (784, 21262), (787, 21289), (790, 21307), (799, 21355), (800, 21361), (808, 21433), (823, 21511), (829, 21547), (833, 21565), (839, 21589), (843, 21613), (851, 21658), (855, 21679), (905, 21901),

Gene: Yotsuba_26 Start: 20608, Stop: 25152, Start Num: 22

Candidate Starts for Yotsuba_26:

(Start: 19 @20575 has 159 MA's), (Start: 22 @20608 has 3 MA's), (45, 20755), (57, 20845), (58, 20848), (79, 21043), (87, 21169), (96, 21244), (105, 21292), (110, 21334), (121, 21454), (135, 21571), (145, 21667), (176, 21871), (179, 21883), (192, 21964), (220, 22099), (236, 22192), (262, 22255), (276, 22294), (289, 22357), (293, 22372), (338, 22576), (349, 22627), (365, 22714), (371, 22744), (374, 22756), (375, 22759), (379, 22771), (382, 22783), (388, 22810), (398, 22852), (405, 22897), (425, 22978), (427, 22984), (431, 23008), (433, 23014), (446, 23080), (451, 23116), (458, 23140), (467, 23173), (472, 23200), (474, 23209), (478, 23227), (483, 23248), (487, 23281), (494, 23308), (495, 23311), (507, 23362), (515, 23392), (517, 23404), (533, 23479), (539, 23500), (541, 23506), (545, 23521), (570, 23605), (571, 23614), (574, 23641), (590, 23692), (602, 23728), (618, 23782), (639, 23860), (663, 23950), (671, 23980), (679, 24016), (687, 24052), (697, 24091), (711, 24148), (717, 24169), (723, 24193), (724, 24196), (727, 24208), (729, 24214), (747, 24304), (753, 24334), (754, 24337), (755, 24340), (763, 24400), (767, 24415), (776, 24469), (790, 24568), (807, 24688), (808, 24694), (827, 24796), (829, 24808), (831, 24817), (852, 24913), (853, 24916), (905, 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 159 MA's), (Start: 22 @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), (116, 20075), (118, 20090), (125, 20138), (156, 20411), (163, 20465), (166, 20474), (174, 20534), (184, 20576), (193, 20636), (194, 20642), (197, 20651), (202, 20666), (203, 20675), (223, 20774), (224, 20786), (225, 20795), (226, 20807), (309, 21092), (320, 21152), (324, 21161), (349, 21302), (356, 21350), (361, 21374), (363, 21380), (372, 21425), (375, 21434), (382, 21458), (386, 21476), (396, 21521), (397, 21524), (400, 21533), (410, 21599), (421, 21641), (425, 21653), (428, 21662), (431, 21683), (442, 21734), (447, 21764), (449, 21779), (460, 21821), (465, 21839), (475, 21887), (476, 21890), (491, 21974), (512, 22055), (515, 22064), (525, 22115), (533, 22151), (542, 22184), (544, 22193), (550, 22205), (555, 22226), (557, 22232), (562, 22253), (570, 22277), (571, 22286), (574, 22313), (587, 22355), (588, 22358), (589, 22361), (590, 22364), (606, 22415), (613, 22436), (618, 22454), (626, 22481), (645, 22556), (649, 22574), (656, 22598), (669, 22643), (675, 22676), (676, 22679), (677, 22682), (682, 22700), (711, 22820), (712, 22823), (717, 22841), (736, 22919), (740, 22943), (755, 23012), (762, 23066), (779, 23153), (784, 23195), (790, 23240), (799, 23288), (820, 23423), (823, 23444), (827, 23468), (839, 23519), (852, 23588), (855, 23606),

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

Candidate Starts for Zeph_33:

(Start: 19 @23999 has 159 MA's), (Start: 22 @24029 has 3 MA's), (27, 24074), (49, 24218), (60, 24278), (61, 24284), (71, 24344), (72, 24365), (79, 24467), (87, 24593), (90, 24629), (96, 24668), (105, 24716), (110, 24758), (116, 24830), (121, 24878), (136, 25004), (144, 25079), (145, 25091), (150,

25112), (158, 25184), (162, 25217), (163, 25220), (183, 25328), (231, 25580), (261, 25685), (275, 25754), (279, 25775), (297, 25856), (298, 25859), (304, 25886), (313, 25925), (319, 25952), (345, 26093), (349, 26114), (359, 26177), (360, 26183), (365, 26201), (366, 26207), (376, 26249), (380, 26261), (382, 26270), (391, 26315), (401, 26357), (403, 26366), (404, 26378), (406, 26387), (407, 26396), (431, 26495), (435, 26516), (438, 26525), (443, 26549), (444, 26552), (456, 26621), (457, 26624), (460, 26633), (465, 26651), (466, 26654), (468, 26666), (473, 26687), (475, 26693), (476, 26696), (481, 26717), (485, 26747), (487, 26762), (490, 26777), (504, 26825), (507, 26837), (509, 26843), (510, 26846), (512, 26858), (513, 26861), (525, 26918), (538, 26972), (544, 26996), (551, 27008), (552, 27011), (563, 27056), (564, 27059), (569, 27074), (570, 27077), (571, 27086), (572, 27101), (573, 27107), (574, 27113), (579, 27134), (580, 27137), (584, 27149), (587, 27164), (590, 27173), (595, 27194), (597, 27206), (604, 27227), (612, 27254), (622, 27287), (624, 27293), (629, 27311), (636, 27341), (646, 27380), (665, 27449), (712, 27641), (732, 27716), (749, 27806), (774, 27950), (783, 28013), (793, 28079), (798, 28112), (801, 28124), (807, 28187), (812, 28208), (814, 28220), (818, 28241), (828, 28298), (845, 28382), (860, 28469), (865, 28487), (874, 28517), (881, 28535), (882, 28538), (883, 28544), (884, 28550), (892, 28577), (909, 28688), (917, 28763), (932, 28865), (937, 28889), (955, 29006), (969, 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 159 MA's), (Start: 22 @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), (116, 21271), (118, 21286), (120, 21307), (121, 21319), (132, 21391), (144, 21520), (150, 21553), (163, 21661), (166, 21670), (184, 21772), (206, 21883), (209, 21895), (214, 21928), (221, 21958), (237, 22051), (254, 22084), (266, 22126), (291, 22222), (314, 22324), (315, 22330), (318, 22345), (324, 22366), (349, 22510), (355, 22552), (357, 22564), (358, 22567), (372, 22633), (375, 22642), (376, 22645), (382, 22666), (383, 22669), (397, 22732), (399, 22738), (410, 22807), (413, 22822), (421, 22849), (423, 22855), (428, 22870), (430, 22888), (431, 22891), (435, 22912), (447, 22972), (449, 22987), (450, 22990), (455, 23014), (456, 23017), (457, 23020), (485, 23149), (487, 23164), (488, 23167), (492, 23185), (494, 23191), (496, 23197), (499, 23206), (507, 23242), (508, 23245), (510, 23251), (517, 23284), (528, 23338), (529, 23341), (533, 23359), (544, 23401), (550, 23416), (553, 23425), (555, 23437), (556, 23440), (559, 23452), (560, 23458), (562, 23464), (563, 23467), (571, 23497), (581, 23551), (582, 23554), (589, 23572), (590, 23575), (591, 23578), (604, 23617), (618, 23665), (637, 23737), (638, 23740), (639, 23743), (645, 23767), (646, 23770), (651, 23791), (662, 23830), (663, 23833), (675, 23887), (687, 23935), (715, 24043), (725, 24085), (727, 24091), (728, 24094), (736, 24130), (757, 24232), (759, 24253), (765, 24289), (771, 24328), (775, 24349), (784, 24406), (792, 24463), (815, 24607), (823, 24655), (827, 24679), (834, 24712), (837, 24724), (839, 24730), (843, 24754), (852, 24799), (857, 24826), (900, 25009), (905, 25039),