

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 292454 Report

This analysis was run 04/18/26 on database version 643.

Pham number 292454 has 314 members, 41 are drafts.

Phages represented in each track:

- Track 1 : 8UZL_19
- Track 2 : Salvus_20, LongHai_20
- Track 3 : Muddy_19
- Track 4 : NoShow_16
- Track 5 : Maco6_17
- Track 6 : FF47_19
- Track 7 : PinkYoshi_16, Darionha_16, CLED96_16, Frosty24_16, ShaboiShabazz_16, Crespo_16, Jeilious_16, DingDing_16, LouisV14_16, Jolene_16, Rattrick_16, AizenPogi_16, BQuat_16, Jane_16, Zombie_16, TomBrady_16, CassieYates_16, Camri_16, Angel_16, Halo_16, OctaviousRex_16, DMoney_16, ECartman_16, Barkley26_16, Kasen3_16, Richarlison_16, Wendigo_16, Remy19_16, Gomashi_16, BPs_16, ZoMa_16, Gideon_16, Peeb_16, Jonghyun_16, JorRay_16, Sweets_16, Phloodle_16, Neoh_16, Cherrybomb426_16, Sizemore_16, Plagueis_16, Phreak_16, Olga_16, Aroostook_16, Ruriko_16, Phish_16, Hope_16, MZKinsey_16, Coleslaw_16, DNAlll_0016, Hotshotbaby7_16, Mowgli_16, Schiebel_16, Avrafan_16, Chance64_16, BruceB_16, TinaBug_16, Marmie_16, Cedasite_16, Maliketh_16, Renaissance_16, GoldenAsh_16, Annihilator_16, Periodt_16, Kareem_16, AzulaCat_16
- Track 8 : Paito_16
- Track 9 : Grizzly_16
- Track 10 : Taheera_16, Terror_16
- Track 11 : Rabbs_16, Sneeze_16
- Track 12 : Liefie_16
- Track 13 : Cambiare_17
- Track 14 : FlagStaff_16
- Track 15 : Avocado_16
- Track 16 : Pace1224_16
- Track 17 : GodSpeed_17
- Track 18 : Cloudyecho_16
- Track 19 : MOOREtheMARYer_16
- Track 20 : Pinnie_17
- Track 21 : Lemuria_16
- Track 22 : Jolie2_16
- Track 23 : Mercurio_17
- Track 24 : Antsirabe_16
- Track 25 : YangYin_16
- Track 26 : Stargaze_16

- Track 27 : Piatt_21, Durfee_21, BaghaKamala_21, Boiii_21, Peel_21, Dalmuri_21, Blizzard_21, Topper_21, Inky_21, JAWS_21, Asayake_21, BGlluviae_21, Capricorn_21, Jeckyll_21, CREW_21, Padfoot_21, Rosmarinus_21, Twitch_21, BEEST_21, BarrelRoll_21, Hyperbowlee_21, Jarvi_21, Spock_21, ShiaSurprise_21, Lunahalos_21, CaseJules_21
- Track 28 : LilPharaoh_17, Mdavu_17, Nutello_17, Amelie_17, Teejan_17, SgtBeansprout_17, Enkosi_17, Trice_17, Torres_17, Biglebops_17
- Track 29 : Apocalypse_21
- Track 30 : Murucutumbu_21, Ageofdapage_21, Stinson_21, LaterM_21
- Track 31 : Slimphazie_21, Jayhawk_21, HedwigODU_21, Adephagia_21, ActinUp_21, Tachez_21, Zabiza_21, Atiba_21, Ramen_21, TruffulaTree_21, Rapunzel97_21
- Track 32 : Chavito_21
- Track 33 : CrimD_21
- Track 34 : Bella96_21, DartGoblin_21
- Track 35 : McMater_21, Niklas_21, Dartin_21, Richo_21, Peanam_21
- Track 36 : YoureAdopted_20
- Track 37 : Joy99_21, Geraldini_21, MeaningOfLife_21
- Track 38 : Mynx_21, Pokerus_20
- Track 39 : Bern_21
- Track 40 : Belladonna_21
- Track 41 : LindNT_21, TreyKay_21, Prithvi_21
- Track 42 : Dole_21, Illumine_21, Devera_21
- Track 43 : Clipper_21, MacKat_21
- Track 44 : MarkPhew_21
- Track 45 : TiniBug_21
- Track 46 : CheetoDust_21
- Track 47 : TaiwanKao_22
- Track 48 : Adonis_21
- Track 49 : Oscar_20
- Track 50 : Zavala_21
- Track 51 : Angelica_21, Deby_21, Sulley_21
- Track 52 : AlishaPH_21, Emerson_21, Padpat_21
- Track 53 : Anaya_22
- Track 54 : Anma_21, SamuelLPlaqson_21, DrHayes_21, Urkel_21
- Track 55 : Guanica15_21, Yunkel11_21
- Track 56 : Validus_21
- Track 57 : Nibb_20
- Track 58 : Nikao_17
- Track 59 : Curiosium_22
- Track 60 : Pisa1_20, Pisa4_20
- Track 61 : Beezoo_21
- Track 62 : CallaLilly_21
- Track 63 : Shaobing_21
- Track 64 : LeMond_20
- Track 65 : Scarlett_20
- Track 66 : Veliki_21
- Track 67 : LastHope_21
- Track 68 : KiSi_20
- Track 69 : Chris_20
- Track 70 : Tiri_21
- Track 71 : Efra2_21
- Track 72 : Homura_21

- Track 73 : QuincyRose_20
- Track 74 : Ganymede_22
- Track 75 : Megsy_21
- Track 76 : TingHuaYa_21
- Track 77 : Llorens_21
- Track 78 : ZoeJ_17
- Track 79 : Doughnut_17
- Track 80 : Milly_17
- Track 81 : DismalStressor_17, DismalFunk_17, Marcoliusprime_17
- Track 82 : BoostSeason_17
- Track 83 : Mufasa_17
- Track 84 : Strobilo_17
- Track 85 : TM4_17
- Track 86 : Findley_17
- Track 87 : Neighly_19, Larva_19
- Track 88 : MacnCheese_21
- Track 89 : TBond007_20
- Track 90 : Pharb_20
- Track 91 : Keshu_20
- Track 92 : Lea83_20, ShedlockHolmes_20
- Track 93 : Pixie_20
- Track 94 : Hurricane_20
- Track 95 : TribbleTrouble_19
- Track 96 : YasnayaPolyana_22
- Track 97 : OmniCritical_22, Mitti_22, SamScheppers_20
- Track 98 : MissDaisy_22, Patt_22, Reptar3000_22
- Track 99 : Bobquesha_22
- Track 100 : Juliette_22, Ruthiejr_21
- Track 101 : Fionnbharth_22, Wintermute_22
- Track 102 : Chancellor_22
- Track 103 : Y10_22, JF1_22, Y2_22
- Track 104 : Lebo14_22
- Track 105 : Qhanda_22, Slarp_22
- Track 106 : DanSyl44_22
- Track 107 : Cheetobro_22
- Track 108 : Eponine_22
- Track 109 : Malthus_22, Kraw_22
- Track 110 : Taquito_20
- Track 111 : Omnicron_19
- Track 112 : LilDirt_18, Collard_19, InvictusManeo_19, ViviJ_18, DoubleChamp_19, Agent47_19, BananenDer11_19
- Track 113 : Thyatira_19, Waterfoul_19
- Track 114 : Miryou_19
- Track 115 : Kratio_18
- Track 116 : Psycho_19
- Track 117 : Dadosky_19
- Track 118 : Feyre_19
- Track 119 : AlleyCat_19
- Track 120 : OkiRoe_19
- Track 121 : SoSeph_19, Heftyboy_19
- Track 122 : Paola_19, Gengar_19, Guillsminger_19, Leston_19
- Track 123 : Rando14_19
- Track 124 : Edugator_18

- Track 125 : PhelpsODU_20, Unicorn_20
- Track 126 : DarthP_20, Hammy_20
- Track 127 : November_19
- Track 128 : Krueger_20
- Track 129 : Bryler_20, Cain_20, Tierra_20, Phrank_20
- Track 130 : SirPhilip_20
- Track 131 : Amgine_19
- Track 132 : Fefferhead_20
- Track 133 : Applecrisp_19
- Track 134 : Shadow1_19
- Track 135 : Amohnition_20
- Track 136 : TClif_20
- Track 137 : Yuna_21
- Track 138 : Ximenita_21
- Track 139 : Lavahound_19
- Track 140 : Sunflower1121_19
- Track 141 : Syra333_20
- Track 142 : Marshawn_22
- Track 143 : Ekdilam_18
- Track 144 : Ellie_18
- Track 145 : Tigress9_20
- Track 146 : Aminay_19
- Track 147 : Boilgate_18

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

The start number called the most often in the published annotations is 17, it was called in 171 of the 273 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp_21, Adephegia_21, Adonis_21, Ageofdapage_21, AizenPogi_16, AlishaPH_21, Amelie_17, Amgine_19, Amohnition_20, Anaya_22, Angel_16, Angelica_21, Anma_21, Annihilator_16, Apocalypse_21, Applecrisp_19, Aroostook_16, Asayake_21, Atiba_21, Avrafan_16, AzulaCat_16, BEEST_21, BGlluviae_21, BPs_16, BQuat_16, BaghaKamala_21, Barkley26_16, BarrelRoll_21, Beezoo_21, Bella96_21, Bern_21, Biglebops_17, Blizzard_21, Boiiii_21, BruceB_16, CLED96_16, CREW_21, CallaLilly_21, Camri_16, Capricorn_21, CaseJules_21, CassieYates_16, Cedasite_16, Chance64_16, CheetoDust_21, Cherrybomb426_16, Clipper_21, Coleslaw_16, Crespo_16, CrimD_21, DMoney_16, DNAlll_0016, Dalmuri_21, Darionha_16, DartGoblin_21, DarthP_20, Deby_21, Devera_21, DingDing_16, Dole_21, DrHayes_21, Durfee_21, ECartman_16, Ekdilam_18, Ellie_18, Emerson_21, Enkosi_17, Fefferhead_20, Frosty24_16, Ganymede_22, Geraldini_21, Gideon_16, GoldenAsh_16, Gomashi_16, Grizzly_16, Halo_16, Hammy_20, HedwigODU_21, Homura_21, Hope_16, Hotshotbaby7_16, Hurricane_20, Hyperbowlee_21, Illumine_21, Inky_21, JAWS_21, Jane_16, Jarvi_21, Jayhawk_21, Jeckyll_21, Jeilious_16, Jolene_16, Jonghyun_16, JorRay_16, Joy99_21, Kareem_16, Kasen3_16, Keshu_20, LaterM_21, Lavahound_19, Lea83_20, Liefie_16, LilPharaoh_17, LindNT_21, Llorens_21, LouisV14_16, Lunahalos_21, MZKinsey_16, MacKat_21, MacnCheese_21, Maliketh_16, Marmie_16, Mdavu_17, MeaningOfLife_21, Megsy_21, Mowgli_16,

Murucutumbu_21, Mynx_21, Neoh_16, Nikao_17, November_19, Nutello_17, OctaviousRex_16, Olga_16, Padfoot_21, Padpat_21, Paito_16, Peeb_16, Peel_21, Periodt_16, Pharb_20, Phish_16, Phloodle_16, Phreak_16, Piatt_21, PinkYoshi_16, Pisa1_20, Pisa4_20, Pixie_20, Plagueis_16, Pokerus_20, Prithvi_21, QuincyRose_20, Rabbs_16, Ramen_21, Rapunzel97_21, Rattrick_16, Remy19_16, Renaissance_16, Richarlison_16, Rosmarinus_21, Ruriko_16, SamuelLPlaqson_21, Schiebel_16, SgtBeansprout_17, ShaboiShabazz_16, ShedlockHolmes_20, ShiaSurprise_21, Sizemore_16, Slimphazie_21, Sneeze_16, Spock_21, Stinson_21, Sulley_21, Sweets_16, TBond007_20, Tachez_21, Taheera_16, TaiwanKao_22, Teejan_17, Terror_16, TinaBug_16, TiniBug_21, Tiri_21, TomBrady_16, Topper_21, Torres_17, TreyKay_21, TribbleTrouble_19, Trice_17, TruffulaTree_21, Twitch_21, Urkel_21, Veliki_21, Wendigo_16, YoureAdopted_20, Zabiza_21, Zavala_21, ZoMa_16, Zombie_16,

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

- Belladonna_21,

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

- 8UZL_19, Agent47_19, AlleyCat_19, Aminay_19, Antsirabe_16, Avocado_16, BananenDer11_19, Bobquesha_22, Boilgate_18, BoostSeason_17, Bryler_20, Cain_20, Cambiare_17, Chancellor_22, Chavito_21, Cheetobro_22, Chris_20, Cloudyecho_16, Collard_19, Curiosium_22, Dadosky_19, DanSyl44_22, Dartin_21, DismalFunk_17, DismalStressor_17, DoubleChamp_19, Doughnut_17, Edugator_18, Efra2_21, Eponine_22, FF47_19, Feyre_19, Findley_17, Fionnbharth_22, FlagStaff_16, Gengar_19, GodSpeed_17, Guanica15_21, Guillsminger_19, Heftyboy_19, InvictusManeo_19, JF1_22, Jolie2_16, Juliette_22, KiSi_20, Kratio_18, Kraw_22, Krueger_20, Larva_19, LastHope_21, LeMond_20, Lebo14_22, Lemuria_16, Leston_19, LiDirt_18, LongHai_20, MOOREtheMARYer_16, Maco6_17, Malthus_22, Marcoliusprime_17, MarkPhew_21, Marshawn_22, McMater_21, Mercurio_17, Milly_17, Miryou_19, MissDaisy_22, Mitti_22, Muddy_19, Mufasa_17, Neighly_19, Nibb_20, Niklas_21, NoShow_16, OkiRoe_19, OmniCritical_22, Omnicron_19, Oscar_20, Pace1224_16, Paola_19, Patt_22, Peanam_21, PhelpsODU_20, Phrank_20, Pinnie_17, Psycho_19, Qhanda_22, Rando14_19, Reptar3000_22, Richo_21, Ruthiejr_21, Salvus_20, SamScheppers_20, Scarlett_20, Shadow1_19, Shaobing_21, SirPhilip_20, Slarp_22, SoSeph_19, Stargaze_16, Strobilo_17, Sunflower1121_19, Syra333_20, TCLif_20, TM4_17, Taquito_20, Thyatira_19, Tierra_20, Tigress9_20, TingHuaYa_21, Unicorn_20, Validus_21, ViviJ_18, Waterfoul_19, Wintermute_22, Ximenita_21, Y10_22, Y2_22, YangYin_16, YasnayaPolyana_22, Yuna_21, Yunkel11_21, ZoeJ_17,

Summary by start number:

Start 5:

- Found in 1 of 314 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 273
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NoShow_16 (AB),

Start 13:

- Found in 2 of 314 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 273
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Psycho_19 (K5),

Start 16:

- Found in 38 of 314 (12.1%) of genes in pham
- Manual Annotations of this start: 33 of 273
- Called 97.4% of time when present
- Phage (with cluster) where this start called: Agent47_19 (K5), AlleyCat_19 (K5), BananenDer11_19 (K5), BoostSeason_17 (K2), Collard_19 (K5), Dadosky_19 (K5), DismalFunk_17 (K2), DismalStressor_17 (K2), DoubleChamp_19 (K5), Doughnut_17 (K2), Edugator_18 (K5), Feyre_19 (K5), Findley_17 (K2), Gengar_19 (K5), Guillsminger_19 (K5), Heftyboy_19 (K5), InvictusManeo_19 (K5), Kratio_18 (K5), Larva_19 (K5), Leston_19 (K5), LiIDirt_18 (K5), Marcoliusprime_17 (K2), Milly_17 (K2), Miryou_19 (K5), Mufasa_17 (K2), Neighly_19 (K3), OkiRoe_19 (K5), Omnicron_19 (K5), Paola_19 (K5), Rando14_19 (K5), SoSeph_19 (K5), Strobilo_17 (K2), TM4_17 (K2), Thyatira_19 (K5), ViviJ_18 (K5), Waterfoul_19 (K5), ZoeJ_17 (K2),

Start 17:

- Found in 191 of 314 (60.8%) of genes in pham
- Manual Annotations of this start: 171 of 273
- Called 99.5% of time when present
- Phage (with cluster) where this start called: ActinUp_21 (K1), Adephegia_21 (K1), Adonis_21 (K1), Ageofdapage_21 (K1), AizenPogi_16 (G1), AlishaPH_21 (K1), Amelie_17 (K1), Amgine_19 (K6), Amohnition_20 (K6), Anaya_22 (K1), Angel_16 (G1), Angelica_21 (K1), Anma_21 (K1), Annihilator_16 (G1), Apocalypse_21 (K1), Applecrisp_19 (K6), Aroostook_16 (G1), Asayake_21 (K1), Atiba_21 (K1), Avrafan_16 (G1), AzulaCat_16 (G1), BEEST_21 (K1), BGlluviae_21 (K1), BPs_16 (G1), BQuat_16 (G1), BaghaKamala_21 (K1), Barkley26_16 (G1), BarrelRoll_21 (K1), Beezoo_21 (K1), Bella96_21 (K1), Bern_21 (K1), Binglebops_17 (K1), Blizzard_21 (K1), Boiiii_21 (K1), BruceB_16 (G1), CLED96_16 (G1), CREW_21 (K1), CallaLilly_21 (K1), Camri_16 (G1), Capricorn_21 (K1), CaseJules_21 (K1), CassieYates_16 (G1), Cedasite_16 (G1), Chance64_16 (G1), CheetoDust_21 (K1), Cherrybomb426_16 (G1), Clipper_21 (K1), Coleslaw_16 (G1), Crespo_16 (G1), CrimD_21 (K1), DMoney_16 (G1), DNAll_0016 (G1), Dalmuri_21 (K1), Darionha_16 (G1), DartGoblin_21 (K1), DarthP_20 (K6), Deby_21 (K1), Devera_21 (K1), DingDing_16 (G1), Dole_21 (K1), DrHayes_21 (K1), Durfee_21 (K1), ECartman_16 (G1), Ekdilam_18 (K6), Ellie_18 (K6), Emerson_21 (K1), Enkosi_17 (K1), Fefferhead_20 (K6), Frosty24_16 (G1), Ganymede_22 (K1), Geraldini_21 (K1), Gideon_16 (G1), GoldenAsh_16 (G1), Gomashi_16 (G1), Grizzly_16 (G1), Halo_16 (G1), Hammy_20 (K6), HedwigODU_21 (K1), Homura_21 (K1), Hope_16 (G1), Hotshotbaby7_16 (G1), Hurricane_20 (K3), Hyperbowlee_21 (K1), Illumine_21 (K1), Inky_21 (K1), JAWS_21 (K1), Jane_16 (G1), Jarvi_21 (K1), Jayhawk_21 (K1), Jeckyll_21 (K1), Jeilious_16 (G), Jolene_16 (G1), Jonghyun_16 (G1), JorRay_16 (G1), Joy99_21 (K1), Kareem_16 (G1), Kasen3_16 (G1), Keshu_20 (K3), LaterM_21 (K1), Lavahound_19 (K6), Lea83_20 (K3), Liefie_16 (G1), LilPharaoh_17 (K1), LindNT_21 (K1), Llorens_21 (K1), LouisV14_16 (G1), Lunahalos_21 (K1), MZKinsey_16 (G1), MacKat_21 (K1), MacnCheese_21 (K3), Maliketh_16 (G1), Marmie_16 (G1), Mdavu_17 (K1), MeaningOfLife_21 (K1), Megsy_21 (K1), Mowgli_16 (G1), Murucutumbu_21 (K1), Mynx_21 (K1), Neoh_16 (G), Nikao_17 (K1), November_19 (K6), Nutello_17 (K1), OctaviousRex_16 (G1), Olga_16 (G1), Padfoot_21 (K1), Padpat_21 (K1), Paito_16 (G1), Peeb_16 (G1), Peel_21 (K1), Periodt_16 (G1), Pharb_20 (K3), Phish_16 (G1), Phloodle_16 (G1), Phreak_16 (G1), Piatt_21 (K1), PinkYoshi_16 (G1), Pisa1_20 (K1), Pisa4_20 (K1), Pixie_20 (K3), Plagueis_16 (G1), Pokerus_20 (K1), Prithvi_21 (K1), QuincyRose_20 (K1), Rabbs_16

(G1), Ramen_21 (K1), Rapunzel97_21 (K1), Rattrick_16 (G1), Remy19_16 (G1), Renaissance_16 (G1), Richarlison_16 (G1), Rosmarinus_21 (K1), Ruriko_16 (G1), SamuelLPlaqson_21 (K1), Schiebel_16 (G1), SgtBeansprout_17 (K1), ShaboiShabazz_16 (G1), ShedlockHolmes_20 (K3), ShiaSurprise_21 (K1), Sizemore_16 (G1), Slimphazie_21 (K1), Sneeze_16 (G1), Spock_21 (K1), Stinson_21 (K1), Sulley_21 (K1), Sweets_16 (G1), TBond007_20 (K3), Tachez_21 (K1), Taheera_16 (G1), TaiwanKao_22 (K1), Teejan_17 (K1), Terror_16 (G1), TinaBug_16 (G1), TiniBug_21 (K1), Tiri_21 (K1), TomBrady_16 (G1), Topper_21 (K1), Torres_17 (K1), TreyKay_21 (K1), TribbleTrouble_19 (K3), Trice_17 (K1), TruffulaTree_21 (K1), Twitch_21 (K1), Urkel_21 (K1), Veliki_21 (K1), Wendigo_16 (G1), YoureAdopted_20 (K1), Zabiza_21 (K1), Zavala_21 (K1), ZoMa_16 (G1), Zombie_16 (G1),

Start 18:

- Found in 78 of 314 (24.8%) of genes in pham
- Manual Annotations of this start: 63 of 273
- Called 98.7% of time when present
- Phage (with cluster) where this start called: Aminay_19 (K7), Antsirabe_16 (G5), Avocado_16 (G2), Bobquesha_22 (K4), Bryler_20 (K6), Cain_20 (K6), Cambiare_17 (G2), Chancellor_22 (K4), Chavito_21 (K1), Cheetobro_22 (K4), Chris_20 (K1), Cloudyecho_16 (G3), Curiosium_22 (K1), DanSyl44_22 (K4), Dartin_21 (K1), Efra2_21 (K1), Eponine_22 (K4), Fionnbharth_22 (K4), FlagStaff_16 (G2), GodSpeed_17 (G2), Guanica15_21 (K1), JF1_22 (K4), Jolie2_16 (G4), Juliette_22 (K4), KiSi_20 (K1), Kraw_22 (K4), Krueger_20 (K6), LastHope_21 (K1), LeMond_20 (K1), Lebo14_22 (K4), Lemuria_16 (G4), MOOREtheMARYer_16 (G3), Malthus_22 (K4), MarkPhew_21 (K1), Marshawn_22 (K6), McMater_21 (K1), Mercurio_17 (G4), MissDaisy_22 (K4), Mitti_22 (K4), Nibb_20 (K1), Niklas_21 (K1), OmniCritical_22 (K4), Oscar_20 (K1), Pace1224_16 (G2), Patt_22 (K4), Peanam_21 (K1), PhelpsODU_20 (K6), Phrank_20 (K6), Pinnie_17 (G3), Qhanda_22 (K4), Reptar3000_22 (K4), Richo_21 (K1), Ruthiejr_21 (K4), SamScheppers_20 (K4), Scarlett_20 (K1), Shadow1_19 (K6), Shaobing_21 (K1), SirPhilip_20 (K6), Slarp_22 (K4), Stargaze_16 (G5), Sunflower1121_19 (K6), Syra333_20 (K6), TClif_20 (K6), Taquito_20 (K4), Tierra_20 (K6), Tigress9_20 (K6), TingHuaYa_21 (K1), Unicorn_20 (K6), Validus_21 (K1), Wintermute_22 (K4), Ximenita_21 (K6), Y10_22 (K4), Y2_22 (K4), YangYin_16 (G5), YasnayaPolyana_22 (K4), Yuna_21 (K6), Yunkel11_21 (K1),

Start 26:

- Found in 129 of 314 (41.1%) of genes in pham
- Manual Annotations of this start: 1 of 273
- Called 0.8% of time when present
- Phage (with cluster) where this start called: Belladonna_21 (K1),

Start 27:

- Found in 35 of 314 (11.1%) of genes in pham
- Manual Annotations of this start: 1 of 273
- Called 2.9% of time when present
- Phage (with cluster) where this start called: Boilgate_18 (K8),

Start 31:

- Found in 7 of 314 (2.2%) of genes in pham
- Manual Annotations of this start: 2 of 273
- Called 85.7% of time when present
- Phage (with cluster) where this start called: 8UZL_19 (AB), FF47_19 (AB), LongHai_20 (AB), Maco6_17 (AB), Muddy_19 (AB), Salvus_20 (AB),

Summary by clusters:

There are 15 clusters represented in this pham: G5, G4, G3, G, G1, K3, K2, K1, AB, K7, K6, K5, K4, K8, G2,

Info for manual annotations of cluster AB:

- Start number 5 was manually annotated 1 time for cluster AB.
- Start number 31 was manually annotated 2 times for cluster AB.

Info for manual annotations of cluster G1:

- Start number 17 was manually annotated 62 times for cluster G1.

Info for manual annotations of cluster G2:

- Start number 18 was manually annotated 3 times for cluster G2.

Info for manual annotations of cluster G3:

- Start number 18 was manually annotated 2 times for cluster G3.

Info for manual annotations of cluster G4:

- Start number 18 was manually annotated 2 times for cluster G4.

Info for manual annotations of cluster G5:

- Start number 18 was manually annotated 2 times for cluster G5.

Info for manual annotations of cluster K1:

- Start number 17 was manually annotated 91 times for cluster K1.
- Start number 18 was manually annotated 16 times for cluster K1.
- Start number 26 was manually annotated 1 time for cluster K1.

Info for manual annotations of cluster K2:

- Start number 16 was manually annotated 11 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 17 was manually annotated 9 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 18 was manually annotated 22 times for cluster K4.

Info for manual annotations of cluster K5:

- Start number 13 was manually annotated 1 time for cluster K5.
- Start number 16 was manually annotated 22 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 17 was manually annotated 9 times for cluster K6.
- Start number 18 was manually annotated 15 times for cluster K6.

Info for manual annotations of cluster K7:

- Start number 18 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster K8:

- Start number 27 was manually annotated 1 time for cluster K8.

Gene Information:

Gene: 8UZL_19 Start: 11439, Stop: 14888, Start Num: 31

Candidate Starts for 8UZL_19:

(Start: 31 @11439 has 2 MA's), (33, 11454), (40, 11502), (42, 11505), (48, 11550), (84, 11673), (143, 12000), (146, 12012), (149, 12033), (162, 12117), (169, 12171), (172, 12180), (181, 12234), (182, 12243), (188, 12267), (190, 12276), (195, 12318), (203, 12363), (204, 12375), (207, 12396), (212, 12420), (225, 12474), (239, 12528), (246, 12549), (250, 12561), (255, 12585), (257, 12594), (273, 12672), (337, 12798), (345, 12840), (366, 13008), (367, 13014), (376, 13059), (406, 13182), (423, 13260), (433, 13293), (437, 13320), (440, 13332), (458, 13440), (459, 13449), (483, 13542), (488, 13572), (498, 13608), (506, 13638), (512, 13656), (522, 13683), (524, 13686), (541, 13740), (542, 13743), (562, 13833), (572, 13881), (576, 13896), (578, 13914), (583, 13929), (591, 13989), (596, 14022), (597, 14031), (599, 14040), (612, 14076), (616, 14091), (653, 14286), (670, 14481), (680, 14577), (683, 14595), (691, 14637), (693, 14643), (700, 14670), (717, 14772), (719, 14781), (727, 14820),

Gene: ActinUp_21 Start: 12079, Stop: 15918, Start Num: 17

Candidate Starts for ActinUp_21:

(Start: 17 @12079 has 171 MA's), (Start: 26 @12148 has 1 MA's), (34, 12235), (60, 12412), (67, 12439), (85, 12511), (87, 12523), (88, 12532), (97, 12604), (111, 12679), (128, 12763), (130, 12772), (134, 12793), (142, 12832), (157, 12910), (168, 12988), (184, 13078), (198, 13153), (212, 13246), (214, 13255), (216, 13267), (218, 13276), (273, 13537), (277, 13552), (286, 13585), (304, 13672), (310, 13696), (322, 13780), (340, 13864), (343, 13876), (347, 13897), (431, 14053), (442, 14134), (451, 14182), (454, 14200), (457, 14221), (463, 14257), (474, 14308), (481, 14365), (496, 14443), (499, 14452), (520, 14530), (535, 14587), (549, 14641), (596, 14881), (614, 14956), (645, 15067), (659, 15286), (661, 15298), (679, 15487), (680, 15496), (694, 15568), (702, 15598), (706, 15619), (721, 15739), (734, 15811), (738, 15829), (739, 15835),

Gene: Adephagia_21 Start: 12079, Stop: 15915, Start Num: 17

Candidate Starts for Adephagia_21:

(Start: 17 @12079 has 171 MA's), (Start: 26 @12148 has 1 MA's), (34, 12235), (60, 12412), (67, 12439), (85, 12511), (87, 12523), (88, 12532), (97, 12604), (111, 12679), (128, 12763), (130, 12772), (134, 12793), (142, 12832), (157, 12910), (168, 12988), (184, 13078), (198, 13153), (212, 13246), (214, 13255), (216, 13267), (218, 13276), (273, 13537), (277, 13552), (286, 13585), (304, 13672), (310, 13696), (322, 13780), (340, 13864), (343, 13876), (347, 13897), (431, 14053), (442, 14134), (451, 14182), (454, 14200), (457, 14221), (463, 14257), (474, 14308), (481, 14365), (496, 14443), (499, 14452), (520, 14530), (535, 14587), (549, 14641), (596, 14881), (614, 14956), (645, 15067), (659, 15286), (661, 15298), (679, 15484), (680, 15493), (694, 15565), (702, 15595), (706, 15616), (721, 15736), (734, 15808), (738, 15826), (739, 15832),

Gene: Adonis_21 Start: 12088, Stop: 15921, Start Num: 17

Candidate Starts for Adonis_21:

(2, 11869), (9, 12049), (Start: 17 @12088 has 171 MA's), (Start: 26 @12157 has 1 MA's), (34, 12244), (60, 12421), (67, 12448), (87, 12532), (88, 12541), (97, 12613), (111, 12688), (128, 12772), (130, 12781), (134, 12802), (142, 12841), (157, 12919), (168, 12997), (184, 13087), (198, 13162), (212, 13255), (214, 13264), (216, 13276), (218, 13285), (257, 13468), (267, 13522), (277, 13561), (286, 13594), (304, 13681), (310, 13705), (322, 13789), (340, 13873), (343, 13885), (347, 13906), (431, 14062), (442, 14143), (451, 14191), (454, 14209), (457, 14230), (463, 14266), (474, 14317), (481, 14374), (496, 14452), (499, 14461), (520, 14539), (535, 14596), (549, 14650), (596, 14890), (614, 14965), (645, 15076), (659, 15295), (661, 15307), (679, 15490), (680, 15499), (702, 15601), (706,

15622), (721, 15742), (734, 15814), (738, 15832), (739, 15838),

Gene: Agent47_19 Start: 12236, Stop: 16342, Start Num: 16

Candidate Starts for Agent47_19:

(Start: 16 @12236 has 33 MA's), (Start: 27 @12329 has 1 MA's), (35, 12407), (36, 12431), (46, 12491), (62, 12575), (64, 12587), (88, 12689), (96, 12749), (97, 12761), (103, 12782), (111, 12836), (121, 12884), (130, 12929), (134, 12950), (157, 13067), (168, 13145), (174, 13169), (184, 13235), (198, 13310), (212, 13403), (218, 13433), (255, 13607), (257, 13616), (263, 13646), (267, 13670), (272, 13691), (289, 13751), (304, 13829), (306, 13838), (319, 13916), (332, 13982), (341, 14024), (343, 14033), (350, 14117), (356, 14138), (358, 14171), (369, 14237), (373, 14258), (383, 14312), (386, 14321), (390, 14339), (399, 14357), (400, 14366), (404, 14396), (411, 14432), (421, 14486), (429, 14522), (431, 14528), (432, 14546), (449, 14651), (460, 14717), (496, 14912), (504, 14942), (513, 14975), (529, 15026), (532, 15047), (536, 15062), (537, 15068), (555, 15152), (568, 15200), (577, 15239), (586, 15299), (593, 15332), (596, 15353), (600, 15377), (610, 15407), (632, 15473), (647, 15545), (671, 15860), (672, 15869), (673, 15872), (675, 15914), (679, 15941), (685, 15971), (694, 16022), (698, 16040), (713, 16106), (718, 16154), (721, 16178), (724, 16190), (740, 16271), (742, 16295), (747, 16334),

Gene: Ageofdapage_21 Start: 12015, Stop: 15848, Start Num: 17

Candidate Starts for Ageofdapage_21:

(Start: 17 @12015 has 171 MA's), (Start: 26 @12084 has 1 MA's), (34, 12171), (60, 12351), (67, 12378), (87, 12462), (88, 12471), (96, 12531), (97, 12543), (111, 12618), (120, 12660), (128, 12702), (130, 12711), (134, 12732), (142, 12771), (157, 12849), (168, 12927), (198, 13092), (212, 13185), (216, 13206), (218, 13215), (267, 13452), (273, 13476), (277, 13491), (286, 13524), (304, 13611), (322, 13719), (340, 13803), (343, 13815), (347, 13836), (355, 13917), (431, 13992), (442, 14073), (444, 14082), (451, 14121), (454, 14139), (457, 14160), (463, 14196), (474, 14247), (481, 14304), (496, 14382), (499, 14391), (520, 14469), (526, 14484), (535, 14526), (549, 14580), (596, 14820), (614, 14895), (645, 15006), (659, 15225), (671, 15339), (679, 15420), (680, 15429), (694, 15501), (702, 15531), (706, 15552), (721, 15669), (734, 15741), (739, 15765),

Gene: AizenPogi_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for AizenPogi_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: AlishaPH_21 Start: 12075, Stop: 15908, Start Num: 17

Candidate Starts for AlishaPH_21:

(Start: 17 @12075 has 171 MA's), (Start: 26 @12144 has 1 MA's), (34, 12231), (44, 12306), (60, 12408), (67, 12435), (85, 12507), (87, 12519), (88, 12528), (97, 12600), (111, 12675), (128, 12759), (130, 12768), (134, 12789), (142, 12828), (157, 12906), (168, 12984), (184, 13074), (198, 13149), (212, 13242), (214, 13251), (216, 13263), (218, 13272), (267, 13509), (277, 13548), (286, 13581), (304, 13668), (310, 13692), (322, 13776), (340, 13860), (343, 13872), (347, 13893), (431, 14049), (442, 14130), (451, 14178), (454, 14196), (457, 14217), (463, 14253), (474, 14304), (481, 14361), (496, 14439), (499, 14448), (520, 14526), (526, 14541), (535, 14583), (549, 14637), (596, 14877), (614, 14952), (645, 15063), (659, 15282), (661, 15294), (679, 15477), (680, 15486), (694, 15558), (702, 15588), (706, 15609), (721, 15729), (734, 15801), (738, 15819), (739, 15825),

Gene: AlleyCat_19 Start: 12112, Stop: 16224, Start Num: 16

Candidate Starts for AlleyCat_19:

(Start: 16 @12112 has 33 MA's), (Start: 27 @12205 has 1 MA's), (35, 12283), (36, 12307), (46, 12367), (62, 12451), (88, 12565), (96, 12625), (97, 12637), (103, 12658), (111, 12712), (121, 12760), (130, 12805), (134, 12826), (157, 12943), (168, 13021), (174, 13045), (180, 13087), (184, 13111), (198, 13186), (212, 13279), (218, 13309), (255, 13483), (263, 13522), (267, 13546), (272, 13567), (289, 13627), (304, 13705), (306, 13714), (319, 13792), (332, 13858), (341, 13900), (343, 13909), (350, 13993), (356, 14014), (358, 14047), (360, 14068), (369, 14113), (373, 14134), (383, 14188), (386, 14197), (390, 14215), (400, 14242), (404, 14272), (411, 14308), (429, 14398), (431, 14404), (432, 14422), (449, 14527), (460, 14593), (496, 14788), (504, 14818), (513, 14851), (529, 14902), (532, 14923), (536, 14938), (537, 14944), (555, 15028), (568, 15076), (577, 15115), (586, 15175), (593, 15208), (596, 15229), (600, 15253), (610, 15283), (632, 15349), (647, 15421), (671, 15736), (672, 15745), (673, 15748), (674, 15775), (675, 15790), (677, 15805), (679, 15817), (685, 15847), (694, 15901), (698, 15919), (713, 15988), (718, 16036), (721, 16060), (724, 16072), (727, 16081), (740, 16153), (742, 16177), (747, 16216),

Gene: Amelie_17 Start: 11327, Stop: 15460, Start Num: 17

Candidate Starts for Amelie_17:

(9, 11288), (Start: 17 @11327 has 171 MA's), (Start: 26 @11396 has 1 MA's), (34, 11483), (44, 11561), (62, 11669), (67, 11690), (76, 11723), (97, 11855), (101, 11870), (103, 11876), (111, 11930), (117, 11960), (130, 12023), (134, 12044), (142, 12083), (157, 12161), (168, 12239), (174, 12263), (212, 12497), (232, 12578), (240, 12638), (253, 12695), (262, 12731), (267, 12764), (273, 12788), (290, 12854), (292, 12863), (304, 12923), (322, 13031), (332, 13076), (356, 13232), (371, 13343), (373, 13352), (375, 13364), (386, 13415), (390, 13433), (400, 13460), (404, 13490), (422, 13583), (431, 13622), (457, 13790), (467, 13844), (474, 13877), (480, 13922), (496, 14003), (497, 14006), (520, 14090), (523, 14096), (526, 14105), (535, 14147), (545, 14183), (549, 14201), (554, 14240), (569, 14300), (596, 14441), (611, 14501), (614, 14516), (661, 14858), (679, 15047), (680, 15056), (691, 15119), (739, 15395),

Gene: Amgine_19 Start: 11863, Stop: 16011, Start Num: 17

Candidate Starts for Amgine_19:

(Start: 17 @11863 has 171 MA's), (Start: 26 @11932 has 1 MA's), (44, 12094), (60, 12196), (62, 12202), (67, 12223), (96, 12376), (97, 12388), (111, 12463), (130, 12556), (134, 12577), (142, 12616), (157, 12694), (168, 12772), (174, 12796), (182, 12850), (184, 12862), (198, 12937), (212, 13030), (232, 13111), (242, 13174), (253, 13228), (258, 13249), (261, 13261), (267, 13297), (272, 13318), (280, 13345), (286, 13369), (291, 13390), (294, 13411), (304, 13456), (326, 13582), (332, 13630), (345, 13690), (346, 13696), (356, 13786), (371, 13897), (381, 13948), (382, 13954), (399, 14005), (404, 14044), (407, 14065), (431, 14176), (440, 14236), (445, 14269), (447, 14287), (451, 14305), (454, 14323), (456, 14335), (463, 14380), (474, 14431), (481, 14479), (496, 14557), (520, 14644), (523, 14650), (538, 14716), (539, 14719), (554, 14794), (571, 14860), (596, 14995), (611, 15055), (614, 15070), (617, 15076), (672, 15526), (679, 15598), (680, 15607), (696, 15694), (721, 15847), (739, 15946), (742, 15973), (743, 15985),

Gene: Aminay_19 Start: 11993, Stop: 16294, Start Num: 18

Candidate Starts for Aminay_19:

(Start: 18 @11993 has 63 MA's), (19, 12002), (25, 12041), (Start: 27 @12083 has 1 MA's), (34, 12149), (38, 12194), (57, 12308), (69, 12356), (80, 12395), (81, 12398), (87, 12434), (96, 12503), (97, 12515), (101, 12530), (103, 12536), (130, 12683), (134, 12704), (142, 12743), (144, 12746), (157, 12821), (164, 12866), (168, 12899), (174, 12923), (184, 12989), (185, 12992), (190, 13010), (192, 13019), (196, 13052), (200, 13076), (203, 13097), (226, 13214), (254, 13355), (255, 13358), (257, 13367), (267, 13421), (268, 13427), (276, 13457), (285, 13490), (291, 13514), (296, 13541), (304, 13580), (307, 13595), (309, 13601), (314, 13628), (322, 13688), (326, 13706), (329, 13736), (333, 13757),

(343, 13805), (344, 13808), (345, 13814), (347, 13826), (354, 13904), (373, 14030), (385, 14099), (387, 14117), (391, 14150), (392, 14153), (393, 14180), (396, 14234), (404, 14288), (412, 14327), (416, 14348), (420, 14372), (431, 14420), (440, 14480), (444, 14489), (456, 14546), (461, 14579), (462, 14588), (471, 14630), (482, 14696), (496, 14777), (499, 14786), (554, 14993), (596, 15194), (614, 15269), (626, 15299), (651, 15485), (672, 15749), (675, 15794), (679, 15821), (698, 15947), (703, 15965), (708, 15986), (712, 16043), (713, 16046), (721, 16118), (740, 16220), (742, 16244), (746, 16283),

Gene: Amohnition_20 Start: 12196, Stop: 16386, Start Num: 17

Candidate Starts for Amohnition_20:

(10, 12151), (Start: 17 @12196 has 171 MA's), (Start: 26 @12265 has 1 MA's), (34, 12352), (44, 12427), (57, 12514), (58, 12517), (76, 12589), (87, 12640), (88, 12649), (96, 12709), (97, 12721), (103, 12742), (111, 12796), (117, 12826), (130, 12889), (134, 12910), (142, 12949), (157, 13027), (168, 13105), (174, 13129), (184, 13195), (197, 13261), (203, 13303), (208, 13342), (210, 13354), (216, 13384), (218, 13393), (241, 13507), (245, 13522), (257, 13576), (263, 13606), (267, 13630), (272, 13651), (285, 13699), (294, 13744), (295, 13747), (304, 13789), (309, 13810), (317, 13858), (326, 13915), (328, 13930), (333, 13966), (336, 13978), (345, 14023), (346, 14029), (356, 14119), (399, 14338), (404, 14377), (407, 14398), (426, 14485), (431, 14509), (434, 14536), (435, 14539), (440, 14569), (447, 14620), (454, 14656), (474, 14764), (496, 14899), (497, 14902), (516, 14968), (518, 14974), (529, 15013), (547, 15085), (550, 15091), (553, 15112), (574, 15196), (579, 15226), (584, 15247), (585, 15259), (596, 15340), (603, 15373), (606, 15382), (608, 15388), (620, 15430), (633, 15481), (636, 15487), (659, 15778), (671, 15892), (672, 15901), (673, 15904), (679, 15973), (706, 16108), (714, 16177), (721, 16225), (739, 16321), (743, 16360),

Gene: Anaya_22 Start: 12098, Stop: 15934, Start Num: 17

Candidate Starts for Anaya_22:

(Start: 17 @12098 has 171 MA's), (Start: 26 @12167 has 1 MA's), (34, 12254), (60, 12431), (67, 12458), (85, 12530), (87, 12542), (88, 12551), (97, 12623), (111, 12698), (117, 12728), (128, 12782), (130, 12791), (134, 12812), (142, 12851), (157, 12929), (163, 12971), (168, 13007), (174, 13031), (184, 13097), (198, 13172), (212, 13265), (214, 13274), (216, 13286), (218, 13295), (267, 13532), (273, 13556), (277, 13571), (286, 13604), (304, 13691), (310, 13715), (322, 13799), (340, 13883), (343, 13895), (347, 13916), (431, 14072), (442, 14153), (454, 14219), (457, 14240), (463, 14276), (474, 14327), (481, 14384), (496, 14462), (499, 14471), (520, 14549), (535, 14606), (549, 14660), (596, 14900), (614, 14975), (617, 14981), (645, 15086), (659, 15305), (679, 15503), (680, 15512), (702, 15614), (706, 15635), (715, 15710), (721, 15755), (734, 15827), (738, 15845), (739, 15851),

Gene: Angel_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Angel_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Angelica_21 Start: 12050, Stop: 15883, Start Num: 17

Candidate Starts for Angelica_21:

(Start: 17 @12050 has 171 MA's), (Start: 26 @12119 has 1 MA's), (34, 12206), (60, 12383), (67, 12410), (87, 12494), (88, 12503), (97, 12575), (111, 12650), (128, 12734), (130, 12743), (134, 12764), (142, 12803), (157, 12881), (168, 12959), (184, 13049), (198, 13124), (212, 13217), (216, 13238),

(218, 13247), (267, 13484), (277, 13523), (286, 13556), (304, 13643), (310, 13667), (322, 13751), (340, 13835), (343, 13847), (347, 13868), (431, 14024), (442, 14105), (451, 14153), (454, 14171), (457, 14192), (463, 14228), (474, 14279), (481, 14336), (496, 14414), (499, 14423), (520, 14501), (526, 14516), (535, 14558), (549, 14612), (596, 14852), (614, 14927), (645, 15038), (659, 15257), (661, 15269), (679, 15452), (680, 15461), (702, 15563), (706, 15584), (721, 15704), (734, 15776), (738, 15794), (739, 15800),

Gene: Anma_21 Start: 12024, Stop: 15863, Start Num: 17

Candidate Starts for Anma_21:

(Start: 17 @12024 has 171 MA's), (Start: 26 @12093 has 1 MA's), (34, 12180), (60, 12360), (67, 12387), (87, 12471), (88, 12480), (96, 12540), (97, 12552), (111, 12627), (122, 12678), (130, 12720), (134, 12741), (142, 12780), (157, 12858), (168, 12936), (174, 12960), (198, 13101), (212, 13194), (216, 13215), (218, 13224), (267, 13461), (273, 13485), (277, 13500), (286, 13533), (304, 13620), (319, 13707), (322, 13728), (340, 13812), (343, 13824), (347, 13845), (431, 14001), (442, 14082), (454, 14148), (457, 14169), (463, 14205), (474, 14256), (476, 14274), (481, 14313), (496, 14391), (520, 14478), (526, 14493), (535, 14535), (549, 14589), (596, 14829), (614, 14904), (645, 15015), (647, 15036), (648, 15057), (657, 15177), (671, 15351), (679, 15432), (680, 15441), (694, 15513), (702, 15543), (706, 15564), (721, 15684), (734, 15756), (738, 15774), (739, 15780),

Gene: Annihilator_16 Start: 11455, Stop: 15468, Start Num: 17

Candidate Starts for Annihilator_16:

(Start: 17 @11455 has 171 MA's), (38, 11656), (57, 11770), (67, 11812), (75, 11842), (97, 11977), (100, 11989), (103, 11998), (139, 12187), (142, 12205), (144, 12208), (148, 12229), (150, 12241), (161, 12313), (168, 12361), (194, 12493), (197, 12517), (208, 12598), (235, 12721), (251, 12805), (259, 12841), (267, 12886), (268, 12892), (294, 13000), (300, 13024), (304, 13045), (346, 13264), (363, 13414), (378, 13501), (403, 13609), (431, 13744), (447, 13855), (451, 13873), (456, 13903), (494, 14125), (502, 14149), (505, 14164), (509, 14185), (520, 14212), (529, 14239), (543, 14299), (562, 14389), (567, 14422), (583, 14485), (590, 14542), (596, 14575), (597, 14584), (673, 15088), (674, 15115), (677, 15145), (679, 15157), (680, 15166), (694, 15235), (713, 15316), (720, 15376), (722, 15394), (725, 15403),

Gene: Antsirabe_16 Start: 11833, Stop: 15810, Start Num: 18

Candidate Starts for Antsirabe_16:

(Start: 18 @11833 has 63 MA's), (28, 11926), (41, 12046), (51, 12109), (55, 12127), (68, 12190), (78, 12226), (90, 12298), (92, 12304), (96, 12331), (98, 12349), (107, 12394), (115, 12430), (119, 12445), (145, 12568), (151, 12610), (154, 12625), (160, 12661), (168, 12724), (173, 12745), (186, 12817), (190, 12835), (213, 12976), (221, 13018), (228, 13048), (229, 13051), (231, 13060), (233, 13069), (238, 13111), (255, 13183), (256, 13189), (260, 13204), (263, 13222), (264, 13225), (270, 13258), (279, 13285), (290, 13330), (304, 13393), (310, 13417), (312, 13429), (313, 13432), (335, 13561), (343, 13603), (344, 13606), (356, 13708), (363, 13768), (371, 13819), (388, 13903), (404, 13966), (415, 14023), (426, 14074), (429, 14092), (431, 14098), (438, 14149), (445, 14191), (460, 14287), (484, 14410), (487, 14428), (502, 14494), (505, 14509), (527, 14575), (538, 14629), (543, 14644), (558, 14725), (562, 14734), (583, 14827), (588, 14881), (590, 14884), (596, 14917), (618, 14992), (673, 15454), (674, 15481), (679, 15523), (694, 15610), (695, 15613), (699, 15631), (701, 15634), (720, 15718), (722, 15736),

Gene: Apocalypse_21 Start: 12053, Stop: 15886, Start Num: 17

Candidate Starts for Apocalypse_21:

(Start: 17 @12053 has 171 MA's), (Start: 26 @12122 has 1 MA's), (34, 12209), (60, 12386), (67, 12413), (87, 12497), (88, 12506), (97, 12578), (111, 12653), (128, 12737), (130, 12746), (134, 12767), (142, 12806), (157, 12884), (168, 12962), (174, 12986), (184, 13052), (198, 13127), (212, 13220), (214, 13229), (216, 13241), (218, 13250), (267, 13487), (277, 13526), (286, 13559), (304, 13646), (310, 13670), (322, 13754), (340, 13838), (343, 13850), (347, 13871), (431, 14027), (442, 14108),

(446, 14132), (451, 14156), (454, 14174), (457, 14195), (463, 14231), (474, 14282), (481, 14339), (496, 14417), (499, 14426), (520, 14504), (526, 14519), (535, 14561), (549, 14615), (596, 14855), (614, 14930), (645, 15041), (659, 15260), (661, 15272), (679, 15455), (680, 15464), (694, 15536), (702, 15566), (706, 15587), (721, 15707), (734, 15779), (738, 15797), (739, 15803),

Gene: Applecrisp_19 Start: 12274, Stop: 16422, Start Num: 17

Candidate Starts for Applecrisp_19:

(Start: 17 @12274 has 171 MA's), (Start: 26 @12343 has 1 MA's), (44, 12505), (60, 12607), (62, 12613), (67, 12634), (96, 12787), (97, 12799), (111, 12874), (117, 12904), (130, 12967), (134, 12988), (142, 13027), (157, 13105), (168, 13183), (174, 13207), (184, 13273), (198, 13348), (212, 13441), (220, 13474), (232, 13522), (242, 13585), (253, 13639), (254, 13642), (258, 13660), (261, 13672), (272, 13729), (280, 13756), (286, 13780), (291, 13801), (294, 13822), (304, 13867), (332, 14041), (356, 14197), (373, 14317), (381, 14359), (382, 14365), (401, 14437), (404, 14455), (407, 14476), (431, 14587), (440, 14647), (445, 14680), (447, 14698), (451, 14716), (454, 14734), (456, 14746), (463, 14791), (474, 14842), (481, 14890), (496, 14968), (520, 15055), (523, 15061), (526, 15070), (538, 15127), (539, 15130), (554, 15205), (571, 15271), (596, 15406), (611, 15466), (614, 15481), (617, 15487), (672, 15937), (679, 16009), (680, 16018), (696, 16105), (721, 16258), (739, 16357), (742, 16384), (743, 16396),

Gene: Aroostook_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Aroostook_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Asayake_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Asayake_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: Atiba_21 Start: 12042, Stop: 15878, Start Num: 17

Candidate Starts for Atiba_21:

(Start: 17 @12042 has 171 MA's), (Start: 26 @12111 has 1 MA's), (34, 12198), (60, 12375), (67, 12402), (85, 12474), (87, 12486), (88, 12495), (97, 12567), (111, 12642), (128, 12726), (130, 12735), (134, 12756), (142, 12795), (157, 12873), (168, 12951), (184, 13041), (198, 13116), (212, 13209), (214, 13218), (216, 13230), (218, 13239), (273, 13500), (277, 13515), (286, 13548), (304, 13635), (310, 13659), (322, 13743), (340, 13827), (343, 13839), (347, 13860), (431, 14016), (442, 14097), (451, 14145), (454, 14163), (457, 14184), (463, 14220), (474, 14271), (481, 14328), (496, 14406), (499, 14415), (520, 14493), (535, 14550), (549, 14604), (596, 14844), (614, 14919), (645, 15030), (659, 15249), (661, 15261), (679, 15447), (680, 15456), (694, 15528), (702, 15558), (706, 15579),

(721, 15699), (734, 15771), (738, 15789), (739, 15795),

Gene: Avocado_16 Start: 11691, Stop: 15731, Start Num: 18

Candidate Starts for Avocado_16:

(Start: 18 @11691 has 63 MA's), (28, 11784), (32, 11814), (46, 11961), (62, 12045), (74, 12093), (97, 12231), (103, 12252), (111, 12306), (130, 12399), (134, 12420), (139, 12441), (142, 12459), (148, 12483), (150, 12495), (161, 12567), (164, 12582), (168, 12615), (194, 12747), (197, 12771), (200, 12792), (204, 12825), (208, 12852), (216, 12894), (226, 12942), (253, 13080), (254, 13083), (263, 13125), (279, 13194), (280, 13197), (295, 13266), (304, 13308), (318, 13386), (341, 13503), (343, 13512), (346, 13527), (353, 13608), (356, 13617), (363, 13677), (383, 13791), (400, 13845), (402, 13869), (403, 13872), (404, 13875), (410, 13905), (416, 13935), (435, 14037), (438, 14058), (455, 14163), (456, 14166), (484, 14319), (487, 14337), (502, 14403), (505, 14418), (511, 14442), (527, 14484), (529, 14493), (543, 14553), (562, 14643), (583, 14739), (590, 14796), (596, 14829), (623, 14904), (654, 15099), (671, 15309), (677, 15378), (679, 15390), (680, 15399), (684, 15420), (713, 15579), (722, 15657),

Gene: Avrafan_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Avrafan_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: AzulaCat_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for AzulaCat_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: BEEST_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for BEEST_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: BGlluviae_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for BGlluviae_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: BPs_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for BPs_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: BQuat_16 Start: 11455, Stop: 15468, Start Num: 17

Candidate Starts for BQuat_16:

(Start: 17 @11455 has 171 MA's), (38, 11656), (57, 11770), (67, 11812), (75, 11842), (97, 11977), (100, 11989), (103, 11998), (139, 12187), (142, 12205), (144, 12208), (148, 12229), (150, 12241), (161, 12313), (168, 12361), (194, 12493), (197, 12517), (208, 12598), (235, 12721), (251, 12805), (259, 12841), (267, 12886), (268, 12892), (294, 13000), (300, 13024), (304, 13045), (346, 13264), (363, 13414), (378, 13501), (403, 13609), (431, 13744), (447, 13855), (451, 13873), (456, 13903), (494, 14125), (502, 14149), (505, 14164), (509, 14185), (520, 14212), (529, 14239), (543, 14299), (562, 14389), (567, 14422), (583, 14485), (590, 14542), (596, 14575), (597, 14584), (673, 15088), (674, 15115), (677, 15145), (679, 15157), (680, 15166), (694, 15235), (713, 15316), (720, 15376), (722, 15394), (725, 15403),

Gene: BaghaKamala_21 Start: 12045, Stop: 15878, Start Num: 17

Candidate Starts for BaghaKamala_21:

(Start: 17 @12045 has 171 MA's), (Start: 26 @12114 has 1 MA's), (34, 12201), (44, 12276), (60, 12378), (67, 12405), (85, 12477), (87, 12489), (88, 12498), (97, 12570), (111, 12645), (128, 12729), (130, 12738), (134, 12759), (142, 12798), (150, 12834), (157, 12876), (168, 12954), (184, 13044), (198, 13119), (212, 13212), (214, 13221), (216, 13233), (218, 13242), (267, 13479), (277, 13518), (286, 13551), (304, 13638), (310, 13662), (322, 13746), (340, 13830), (343, 13842), (347, 13863), (431, 14019), (442, 14100), (451, 14148), (454, 14166), (457, 14187), (463, 14223), (474, 14274), (481, 14331), (496, 14409), (499, 14418), (520, 14496), (526, 14511), (535, 14553), (549, 14607), (596, 14847), (614, 14922), (645, 15033), (659, 15252), (661, 15264), (679, 15447), (680, 15456), (694, 15528), (702, 15558), (706, 15579), (721, 15699), (734, 15771), (738, 15789), (739, 15795),

Gene: BananenDer11_19 Start: 12197, Stop: 16303, Start Num: 16

Candidate Starts for BananenDer11_19:

(Start: 16 @12197 has 33 MA's), (Start: 27 @12290 has 1 MA's), (35, 12368), (36, 12392), (46, 12452), (62, 12536), (64, 12548), (88, 12650), (96, 12710), (97, 12722), (103, 12743), (111, 12797), (121, 12845), (130, 12890), (134, 12911), (157, 13028), (168, 13106), (174, 13130), (184, 13196), (198, 13271), (212, 13364), (218, 13394), (255, 13568), (257, 13577), (263, 13607), (267, 13631), (272,

13652), (289, 13712), (304, 13790), (306, 13799), (319, 13877), (332, 13943), (341, 13985), (343, 13994), (350, 14078), (356, 14099), (358, 14132), (369, 14198), (373, 14219), (383, 14273), (386, 14282), (390, 14300), (399, 14318), (400, 14327), (404, 14357), (411, 14393), (421, 14447), (429, 14483), (431, 14489), (432, 14507), (449, 14612), (460, 14678), (496, 14873), (504, 14903), (513, 14936), (529, 14987), (532, 15008), (536, 15023), (537, 15029), (555, 15113), (568, 15161), (577, 15200), (586, 15260), (593, 15293), (596, 15314), (600, 15338), (610, 15368), (632, 15434), (647, 15506), (671, 15821), (672, 15830), (673, 15833), (675, 15875), (679, 15902), (685, 15932), (694, 15983), (698, 16001), (713, 16067), (718, 16115), (721, 16139), (724, 16151), (740, 16232), (742, 16256), (747, 16295),

Gene: Barkley26_16 Start: 11464, Stop: 15480, Start Num: 17

Candidate Starts for Barkley26_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15100), (674, 15127), (677, 15157), (679, 15169), (680, 15178), (694, 15247), (713, 15328), (720, 15388), (722, 15406), (725, 15415),

Gene: BarrelRoll_21 Start: 12068, Stop: 15901, Start Num: 17

Candidate Starts for BarrelRoll_21:

(Start: 17 @12068 has 171 MA's), (Start: 26 @12137 has 1 MA's), (34, 12224), (44, 12299), (60, 12401), (67, 12428), (85, 12500), (87, 12512), (88, 12521), (97, 12593), (111, 12668), (128, 12752), (130, 12761), (134, 12782), (142, 12821), (150, 12857), (157, 12899), (168, 12977), (184, 13067), (198, 13142), (212, 13235), (214, 13244), (216, 13256), (218, 13265), (267, 13502), (277, 13541), (286, 13574), (304, 13661), (310, 13685), (322, 13769), (340, 13853), (343, 13865), (347, 13886), (431, 14042), (442, 14123), (451, 14171), (454, 14189), (457, 14210), (463, 14246), (474, 14297), (481, 14354), (496, 14432), (499, 14441), (520, 14519), (526, 14534), (535, 14576), (549, 14630), (596, 14870), (614, 14945), (645, 15056), (659, 15275), (661, 15287), (679, 15470), (680, 15479), (694, 15551), (702, 15581), (706, 15602), (721, 15722), (734, 15794), (738, 15812), (739, 15818),

Gene: Beezoo_21 Start: 12092, Stop: 15925, Start Num: 17

Candidate Starts for Beezoo_21:

(Start: 17 @12092 has 171 MA's), (Start: 26 @12161 has 1 MA's), (Start: 27 @12182 has 1 MA's), (34, 12248), (60, 12425), (67, 12452), (85, 12524), (87, 12536), (88, 12545), (97, 12617), (111, 12692), (128, 12776), (130, 12785), (134, 12806), (142, 12845), (157, 12923), (168, 13001), (184, 13091), (198, 13166), (212, 13259), (214, 13268), (216, 13280), (218, 13289), (267, 13526), (277, 13565), (286, 13598), (304, 13685), (310, 13709), (322, 13793), (340, 13877), (343, 13889), (344, 13892), (347, 13910), (431, 14066), (442, 14147), (451, 14195), (454, 14213), (457, 14234), (463, 14270), (474, 14321), (481, 14378), (496, 14456), (499, 14465), (520, 14543), (526, 14558), (535, 14600), (549, 14654), (596, 14894), (614, 14969), (645, 15080), (659, 15299), (661, 15311), (679, 15494), (680, 15503), (702, 15605), (706, 15626), (721, 15746), (734, 15818), (738, 15836), (739, 15842),

Gene: Bella96_21 Start: 12006, Stop: 15845, Start Num: 17

Candidate Starts for Bella96_21:

(Start: 17 @12006 has 171 MA's), (Start: 26 @12075 has 1 MA's), (34, 12162), (60, 12342), (67, 12369), (87, 12453), (88, 12462), (96, 12522), (97, 12534), (111, 12609), (120, 12651), (128, 12693), (130, 12702), (134, 12723), (142, 12762), (144, 12765), (157, 12840), (168, 12918), (198, 13083), (212, 13176), (216, 13197), (218, 13206), (267, 13443), (273, 13467), (277, 13482), (286, 13515), (304, 13602), (319, 13689), (322, 13710), (340, 13794), (343, 13806), (347, 13827), (431, 13983),

(442, 14064), (454, 14130), (457, 14151), (463, 14187), (474, 14238), (476, 14256), (481, 14295), (496, 14373), (499, 14382), (520, 14460), (526, 14475), (535, 14517), (549, 14571), (596, 14811), (614, 14886), (645, 14997), (647, 15018), (648, 15039), (657, 15159), (671, 15333), (679, 15414), (680, 15423), (694, 15495), (702, 15525), (706, 15546), (721, 15666), (734, 15738), (738, 15756), (739, 15762),

Gene: Belladonna_21 Start: 12185, Stop: 15949, Start Num: 26

Candidate Starts for Belladonna_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: Bern_21 Start: 12034, Stop: 15873, Start Num: 17

Candidate Starts for Bern_21:

(Start: 17 @12034 has 171 MA's), (Start: 26 @12103 has 1 MA's), (34, 12190), (60, 12370), (67, 12397), (87, 12481), (96, 12550), (97, 12562), (111, 12637), (122, 12688), (130, 12730), (134, 12751), (142, 12790), (157, 12868), (168, 12946), (198, 13111), (212, 13204), (216, 13225), (218, 13234), (267, 13471), (273, 13495), (277, 13510), (286, 13543), (304, 13630), (319, 13717), (322, 13738), (340, 13822), (343, 13834), (346, 13849), (347, 13855), (442, 14092), (451, 14140), (454, 14158), (457, 14179), (463, 14215), (467, 14233), (474, 14266), (496, 14401), (499, 14410), (520, 14488), (526, 14503), (535, 14545), (549, 14599), (596, 14839), (614, 14914), (645, 15025), (647, 15046), (648, 15067), (657, 15187), (671, 15361), (679, 15442), (680, 15451), (694, 15523), (702, 15553), (706, 15574), (721, 15694), (734, 15766), (738, 15784), (739, 15790),

Gene: Biglebops_17 Start: 11327, Stop: 15460, Start Num: 17

Candidate Starts for Biglebops_17:

(9, 11288), (Start: 17 @11327 has 171 MA's), (Start: 26 @11396 has 1 MA's), (34, 11483), (44, 11561), (62, 11669), (67, 11690), (76, 11723), (97, 11855), (101, 11870), (103, 11876), (111, 11930), (117, 11960), (130, 12023), (134, 12044), (142, 12083), (157, 12161), (168, 12239), (174, 12263), (212, 12497), (232, 12578), (240, 12638), (253, 12695), (262, 12731), (267, 12764), (273, 12788), (290, 12854), (292, 12863), (304, 12923), (322, 13031), (332, 13076), (356, 13232), (371, 13343), (373, 13352), (375, 13364), (386, 13415), (390, 13433), (400, 13460), (404, 13490), (422, 13583), (431, 13622), (457, 13790), (467, 13844), (474, 13877), (480, 13922), (496, 14003), (497, 14006), (520, 14090), (523, 14096), (526, 14105), (535, 14147), (545, 14183), (549, 14201), (554, 14240), (569, 14300), (596, 14441), (611, 14501), (614, 14516), (661, 14858), (679, 15047), (680, 15056), (691, 15119), (739, 15395),

Gene: Blizzard_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Blizzard_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527),

(694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: Bobquesha_22 Start: 13067, Stop: 17233, Start Num: 18

Candidate Starts for Bobquesha_22:

(12, 13031), (Start: 18 @13067 has 63 MA's), (38, 13265), (85, 13493), (87, 13505), (88, 13514), (91, 13544), (103, 13607), (130, 13754), (134, 13775), (142, 13814), (144, 13817), (157, 13892), (168, 13970), (183, 14057), (184, 14060), (192, 14090), (196, 14123), (200, 14147), (213, 14231), (219, 14261), (226, 14288), (248, 14396), (252, 14417), (254, 14429), (257, 14441), (267, 14495), (304, 14654), (309, 14675), (322, 14783), (344, 14903), (378, 15152), (404, 15263), (414, 15314), (416, 15323), (425, 15368), (429, 15389), (448, 15488), (451, 15503), (452, 15509), (464, 15578), (468, 15599), (469, 15608), (473, 15620), (475, 15629), (487, 15701), (496, 15752), (497, 15755), (504, 15782), (535, 15881), (539, 15899), (554, 15974), (595, 16163), (596, 16175), (614, 16250), (648, 16430), (657, 16550), (665, 16658), (679, 16805), (698, 16925), (700, 16934), (702, 16937), (716, 17036), (721, 17063), (739, 17159), (745, 17222),

Gene: Boiiii_21 Start: 12118, Stop: 15951, Start Num: 17

Candidate Starts for Boiiii_21:

(Start: 17 @12118 has 171 MA's), (Start: 26 @12187 has 1 MA's), (34, 12274), (44, 12349), (60, 12451), (67, 12478), (85, 12550), (87, 12562), (88, 12571), (97, 12643), (111, 12718), (128, 12802), (130, 12811), (134, 12832), (142, 12871), (150, 12907), (157, 12949), (168, 13027), (184, 13117), (198, 13192), (212, 13285), (214, 13294), (216, 13306), (218, 13315), (267, 13552), (277, 13591), (286, 13624), (304, 13711), (310, 13735), (322, 13819), (340, 13903), (343, 13915), (347, 13936), (431, 14092), (442, 14173), (451, 14221), (454, 14239), (457, 14260), (463, 14296), (474, 14347), (481, 14404), (496, 14482), (499, 14491), (520, 14569), (526, 14584), (535, 14626), (549, 14680), (596, 14920), (614, 14995), (645, 15106), (659, 15325), (661, 15337), (679, 15520), (680, 15529), (694, 15601), (702, 15631), (706, 15652), (721, 15772), (734, 15844), (738, 15862), (739, 15868),

Gene: Boilgate_18 Start: 12212, Stop: 16429, Start Num: 27

Candidate Starts for Boilgate_18:

(11, 12077), (14, 12101), (Start: 18 @12122 has 63 MA's), (Start: 27 @12212 has 1 MA's), (38, 12323), (71, 12494), (76, 12512), (83, 12536), (85, 12551), (87, 12563), (96, 12632), (97, 12644), (103, 12665), (117, 12749), (128, 12803), (130, 12812), (134, 12833), (141, 12866), (142, 12872), (144, 12875), (147, 12890), (153, 12926), (157, 12950), (158, 12953), (168, 13028), (171, 13040), (183, 13115), (184, 13118), (185, 13121), (197, 13184), (214, 13295), (229, 13352), (237, 13406), (247, 13448), (257, 13496), (258, 13502), (262, 13517), (267, 13550), (275, 13583), (286, 13622), (287, 13625), (296, 13670), (304, 13709), (306, 13718), (309, 13730), (314, 13757), (324, 13850), (327, 13862), (336, 13919), (348, 14015), (364, 14090), (371, 14138), (372, 14144), (379, 14156), (401, 14192), (413, 14234), (452, 14432), (465, 14507), (487, 14624), (496, 14675), (497, 14678), (513, 14738), (514, 14741), (544, 14837), (556, 14915), (557, 14918), (586, 15074), (594, 15107), (595, 15116), (596, 15128), (601, 15152), (625, 15227), (629, 15236), (630, 15239), (637, 15263), (639, 15272), (640, 15275), (641, 15296), (648, 15368), (651, 15410), (654, 15440), (655, 15482), (660, 15554), (663, 15575), (669, 15662), (671, 15677), (679, 15758), (700, 15890), (736, 16112), (737, 16118), (748, 16232), (749, 16262), (750, 16280), (751, 16322), (752, 16355), (753, 16418),

Gene: BoostSeason_17 Start: 10144, Stop: 13818, Start Num: 16

Candidate Starts for BoostSeason_17:

(Start: 16 @10144 has 33 MA's), (Start: 26 @10216 has 1 MA's), (65, 10450), (85, 10501), (97, 10594), (111, 10669), (130, 10762), (134, 10783), (139, 10804), (140, 10810), (157, 10900), (163, 10942), (168, 10978), (177, 11011), (178, 11023), (181, 11047), (184, 11068), (191, 11092), (192, 11098), (197, 11134), (198, 11143), (203, 11176), (204, 11188), (208, 11215), (251, 11398), (253, 11410), (255, 11416), (263, 11455), (267, 11479), (296, 11512), (300, 11530), (307, 11539), (321, 11572), (352, 11761), (353, 11767), (357, 11803), (362, 11830), (366, 11848), (370, 11866), (400, 11974), (405, 12007), (415, 12040), (430, 12094), (436, 12127), (440, 12148), (445, 12172), (449, 12202),

(453, 12223), (503, 12445), (531, 12538), (551, 12616), (582, 12739), (621, 12892), (671, 13309), (672, 13318), (674, 13348), (682, 13408), (704, 13516), (721, 13648), (739, 13741),

Gene: BruceB_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for BruceB_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Bryler_20 Start: 11095, Stop: 15096, Start Num: 18

Candidate Starts for Bryler_20:

(Start: 18 @11095 has 63 MA's), (29, 11188), (38, 11293), (44, 11320), (47, 11347), (51, 11365), (55, 11383), (57, 11407), (59, 11413), (66, 11440), (68, 11446), (78, 11482), (81, 11491), (85, 11515), (96, 11587), (98, 11605), (99, 11608), (126, 11737), (151, 11854), (165, 11950), (173, 11989), (179, 12019), (190, 12079), (221, 12262), (222, 12268), (223, 12271), (234, 12325), (238, 12355), (252, 12415), (255, 12427), (256, 12433), (260, 12448), (264, 12469), (266, 12487), (302, 12625), (304, 12637), (309, 12658), (316, 12697), (342, 12751), (343, 12757), (361, 12919), (373, 12982), (390, 13063), (398, 13078), (404, 13120), (414, 13171), (418, 13192), (424, 13222), (426, 13228), (431, 13252), (438, 13303), (447, 13363), (457, 13420), (463, 13456), (467, 13474), (474, 13507), (496, 13648), (497, 13651), (520, 13735), (529, 13762), (548, 13846), (596, 14086), (614, 14161), (660, 14494), (671, 14596), (672, 14605), (679, 14677), (694, 14761), (702, 14791), (709, 14812), (721, 14929), (734, 15004), (741, 15043), (742, 15055),

Gene: CLED96_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for CLED96_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: CREW_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for CREW_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: Cain_20 Start: 11083, Stop: 15084, Start Num: 18

Candidate Starts for Cain_20:

(Start: 18 @11083 has 63 MA's), (29, 11176), (38, 11281), (44, 11308), (47, 11335), (51, 11353), (55, 11371), (57, 11395), (59, 11401), (66, 11428), (68, 11434), (78, 11470), (81, 11479), (85, 11503), (96, 11575), (98, 11593), (99, 11596), (126, 11725), (151, 11842), (165, 11938), (173, 11977), (179, 12007), (190, 12067), (221, 12250), (222, 12256), (223, 12259), (234, 12313), (238, 12343), (252, 12403), (255, 12415), (256, 12421), (260, 12436), (264, 12457), (266, 12475), (302, 12613), (304, 12625), (309, 12646), (316, 12685), (342, 12739), (343, 12745), (361, 12907), (373, 12970), (390, 13051), (398, 13066), (404, 13108), (414, 13159), (418, 13180), (424, 13210), (426, 13216), (431, 13240), (438, 13291), (447, 13351), (457, 13408), (463, 13444), (467, 13462), (474, 13495), (496, 13636), (497, 13639), (520, 13723), (529, 13750), (548, 13834), (596, 14074), (614, 14149), (660, 14482), (671, 14584), (672, 14593), (679, 14665), (694, 14749), (702, 14779), (709, 14800), (721, 14917), (734, 14992), (741, 15031), (742, 15043),

Gene: CallaLilly_21 Start: 12039, Stop: 15872, Start Num: 17

Candidate Starts for CallaLilly_21:

(Start: 17 @12039 has 171 MA's), (Start: 26 @12108 has 1 MA's), (Start: 27 @12129 has 1 MA's), (34, 12195), (60, 12372), (67, 12399), (85, 12471), (87, 12483), (88, 12492), (97, 12564), (111, 12639), (128, 12723), (130, 12732), (134, 12753), (142, 12792), (150, 12828), (157, 12870), (168, 12948), (184, 13038), (198, 13113), (212, 13206), (214, 13215), (216, 13227), (218, 13236), (267, 13473), (277, 13512), (286, 13545), (304, 13632), (310, 13656), (322, 13740), (340, 13824), (343, 13836), (347, 13857), (431, 14013), (442, 14094), (451, 14142), (454, 14160), (457, 14181), (463, 14217), (474, 14268), (481, 14325), (496, 14403), (499, 14412), (520, 14490), (526, 14505), (535, 14547), (549, 14601), (596, 14841), (614, 14916), (645, 15027), (659, 15246), (661, 15258), (679, 15441), (680, 15450), (694, 15522), (702, 15552), (706, 15573), (721, 15693), (734, 15765), (738, 15783), (739, 15789),

Gene: Cambiare_17 Start: 12153, Stop: 16196, Start Num: 18

Candidate Starts for Cambiare_17:

(Start: 18 @12153 has 63 MA's), (28, 12246), (32, 12276), (46, 12423), (62, 12507), (74, 12555), (97, 12693), (103, 12714), (111, 12768), (130, 12861), (134, 12882), (139, 12903), (142, 12921), (148, 12945), (150, 12957), (161, 13029), (164, 13044), (168, 13077), (194, 13209), (197, 13233), (200, 13254), (204, 13287), (208, 13314), (216, 13356), (226, 13404), (253, 13542), (254, 13545), (263, 13587), (279, 13656), (280, 13659), (295, 13728), (304, 13770), (318, 13848), (341, 13965), (343, 13974), (346, 13989), (353, 14070), (356, 14079), (363, 14139), (383, 14253), (400, 14307), (403, 14334), (414, 14388), (416, 14397), (424, 14439), (429, 14463), (431, 14469), (435, 14499), (438, 14520), (441, 14538), (448, 14583), (484, 14790), (486, 14805), (495, 14853), (502, 14874), (505, 14889), (511, 14913), (526, 14952), (527, 14955), (529, 14964), (534, 14991), (538, 15006), (552, 15057), (554, 15084), (580, 15189), (596, 15285), (614, 15360), (648, 15504), (662, 15705), (673, 15789), (674, 15816), (677, 15846), (679, 15858), (713, 16044), (722, 16122),

Gene: Camri_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Camri_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Capricorn_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Capricorn_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: CaseJules_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for CaseJules_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: CassieYates_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for CassieYates_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Cedasite_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Cedasite_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Chance64_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Chance64_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814),

(259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Chancellor_22 Start: 13324, Stop: 17499, Start Num: 18

Candidate Starts for Chancellor_22:

(12, 13288), (Start: 18 @13324 has 63 MA's), (38, 13522), (87, 13762), (88, 13771), (103, 13864), (130, 14011), (134, 14032), (142, 14071), (144, 14074), (157, 14149), (168, 14227), (183, 14314), (184, 14317), (192, 14347), (196, 14380), (200, 14404), (213, 14488), (219, 14518), (226, 14545), (248, 14653), (252, 14674), (254, 14686), (257, 14698), (267, 14752), (304, 14911), (309, 14932), (322, 15040), (344, 15160), (404, 15520), (414, 15571), (416, 15580), (425, 15625), (429, 15646), (469, 15865), (473, 15877), (475, 15886), (487, 15958), (496, 16009), (497, 16012), (504, 16039), (535, 16138), (539, 16156), (554, 16231), (595, 16420), (596, 16432), (614, 16507), (648, 16693), (657, 16813), (665, 16921), (679, 17071), (698, 17191), (700, 17200), (702, 17203), (708, 17224), (716, 17302), (721, 17329), (739, 17425), (745, 17488),

Gene: Chavito_21 Start: 11138, Stop: 15292, Start Num: 18

Candidate Starts for Chavito_21:

(10, 11090), (Start: 18 @11138 has 63 MA's), (29, 11231), (47, 11390), (53, 11417), (72, 11507), (73, 11510), (90, 11597), (109, 11705), (110, 11708), (124, 11774), (145, 11876), (151, 11918), (154, 11933), (155, 11942), (160, 11969), (164, 11999), (168, 12032), (178, 12074), (190, 12143), (221, 12329), (222, 12335), (231, 12371), (233, 12380), (234, 12392), (236, 12404), (238, 12422), (252, 12482), (255, 12494), (256, 12500), (260, 12515), (263, 12533), (264, 12536), (266, 12554), (270, 12569), (282, 12608), (296, 12665), (297, 12674), (304, 12704), (309, 12725), (315, 12755), (325, 12824), (329, 12845), (334, 12872), (340, 12902), (343, 12914), (355, 13016), (365, 13094), (373, 13139), (377, 13163), (389, 13217), (390, 13220), (398, 13235), (399, 13238), (404, 13277), (409, 13304), (414, 13328), (415, 13334), (440, 13469), (441, 13478), (446, 13514), (447, 13520), (451, 13538), (455, 13565), (457, 13577), (467, 13631), (474, 13664), (482, 13724), (496, 13805), (497, 13808), (520, 13892), (526, 13907), (554, 14042), (571, 14108), (596, 14243), (651, 14516), (656, 14591), (679, 14852), (680, 14861), (688, 14924), (712, 15047), (721, 15119), (727, 15140), (734, 15191), (738, 15209), (739, 15215), (743, 15254),

Gene: CheetoDust_21 Start: 12093, Stop: 15926, Start Num: 17

Candidate Starts for CheetoDust_21:

(Start: 17 @12093 has 171 MA's), (Start: 26 @12162 has 1 MA's), (34, 12249), (60, 12426), (67, 12453), (85, 12525), (87, 12537), (88, 12546), (97, 12618), (111, 12693), (128, 12777), (130, 12786), (134, 12807), (142, 12846), (157, 12924), (168, 13002), (174, 13026), (184, 13092), (198, 13167), (212, 13260), (214, 13269), (216, 13281), (218, 13290), (267, 13527), (277, 13566), (286, 13599), (304, 13686), (310, 13710), (322, 13794), (340, 13878), (343, 13890), (347, 13911), (431, 14067), (442, 14148), (446, 14172), (451, 14196), (454, 14214), (457, 14235), (463, 14271), (474, 14322), (481, 14379), (496, 14457), (499, 14466), (520, 14544), (526, 14559), (535, 14601), (549, 14655), (596, 14895), (614, 14970), (645, 15081), (659, 15300), (661, 15312), (679, 15495), (680, 15504), (694, 15576), (702, 15606), (706, 15627), (721, 15747), (734, 15819), (738, 15837), (739, 15843),

Gene: Cheetobro_22 Start: 13324, Stop: 17496, Start Num: 18

Candidate Starts for Cheetobro_22:

(12, 13288), (Start: 18 @13324 has 63 MA's), (38, 13522), (87, 13762), (88, 13771), (103, 13864), (130, 14011), (134, 14032), (142, 14071), (144, 14074), (157, 14149), (168, 14227), (183, 14314), (184, 14317), (192, 14347), (196, 14380), (200, 14404), (213, 14488), (219, 14518), (226, 14545), (248, 14653), (252, 14674), (254, 14686), (257, 14698), (267, 14752), (304, 14911), (309, 14932),

(322, 15040), (344, 15160), (404, 15520), (414, 15571), (416, 15580), (425, 15625), (429, 15646), (469, 15865), (473, 15877), (475, 15886), (487, 15958), (496, 16009), (497, 16012), (504, 16039), (535, 16138), (539, 16156), (554, 16231), (595, 16420), (596, 16432), (614, 16507), (648, 16693), (657, 16813), (665, 16921), (679, 17068), (698, 17188), (700, 17197), (702, 17200), (716, 17299), (721, 17326), (739, 17422), (745, 17485),

Gene: Cherrybomb426_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Cherrybomb426_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Chris_20 Start: 11071, Stop: 15138, Start Num: 18

Candidate Starts for Chris_20:

(Start: 18 @11071 has 63 MA's), (29, 11164), (44, 11296), (47, 11323), (49, 11332), (50, 11338), (71, 11434), (96, 11563), (98, 11581), (99, 11584), (105, 11611), (110, 11641), (126, 11722), (132, 11752), (136, 11776), (151, 11839), (154, 11854), (167, 11950), (168, 11953), (178, 11995), (190, 12064), (221, 12247), (223, 12256), (233, 12298), (234, 12310), (252, 12400), (255, 12412), (256, 12418), (260, 12433), (263, 12451), (264, 12454), (269, 12484), (270, 12487), (302, 12610), (304, 12622), (305, 12628), (309, 12643), (311, 12649), (341, 12733), (348, 12802), (373, 12967), (382, 13015), (386, 13030), (404, 13105), (414, 13156), (418, 13177), (426, 13213), (431, 13237), (435, 13267), (454, 13384), (456, 13396), (457, 13405), (467, 13459), (474, 13492), (481, 13549), (496, 13627), (497, 13630), (520, 13714), (529, 13741), (539, 13789), (548, 13825), (554, 13864), (580, 13969), (596, 14065), (607, 14107), (614, 14140), (659, 14482), (679, 14680), (696, 14794), (721, 14968), (734, 15052), (739, 15073),

Gene: Clipper_21 Start: 12093, Stop: 15926, Start Num: 17

Candidate Starts for Clipper_21:

(Start: 17 @12093 has 171 MA's), (Start: 26 @12162 has 1 MA's), (34, 12249), (60, 12426), (67, 12453), (87, 12537), (88, 12546), (97, 12618), (111, 12693), (128, 12777), (130, 12786), (134, 12807), (142, 12846), (157, 12924), (168, 13002), (184, 13092), (198, 13167), (212, 13260), (214, 13269), (216, 13281), (218, 13290), (267, 13527), (277, 13566), (286, 13599), (304, 13686), (310, 13710), (322, 13794), (340, 13878), (343, 13890), (347, 13911), (431, 14067), (442, 14148), (446, 14172), (451, 14196), (454, 14214), (457, 14235), (463, 14271), (474, 14322), (481, 14379), (496, 14457), (499, 14466), (520, 14544), (526, 14559), (535, 14601), (549, 14655), (596, 14895), (614, 14970), (645, 15081), (659, 15300), (661, 15312), (679, 15495), (680, 15504), (694, 15576), (702, 15606), (706, 15627), (721, 15747), (734, 15819), (738, 15837), (739, 15843),

Gene: Cloudyecho_16 Start: 11718, Stop: 15656, Start Num: 18

Candidate Starts for Cloudyecho_16:

(Start: 18 @11718 has 63 MA's), (28, 11811), (29, 11814), (37, 11919), (38, 11922), (43, 11937), (49, 11985), (55, 12012), (59, 12042), (66, 12069), (92, 12189), (94, 12204), (96, 12216), (98, 12234), (107, 12279), (125, 12357), (126, 12366), (145, 12453), (151, 12495), (154, 12510), (159, 12540), (168, 12609), (170, 12621), (190, 12720), (206, 12834), (213, 12861), (221, 12903), (228, 12933), (233, 12954), (238, 12996), (255, 13068), (256, 13074), (260, 13089), (263, 13107), (264, 13110), (279, 13170), (290, 13215), (296, 13239), (300, 13257), (304, 13278), (310, 13302), (312, 13314), (313, 13317), (320, 13374), (335, 13446), (343, 13488), (355, 13590), (360, 13647), (383, 13767), (388,

13788), (415, 13908), (426, 13959), (438, 14034), (445, 14076), (455, 14139), (460, 14172), (484, 14295), (502, 14379), (505, 14394), (511, 14418), (527, 14460), (529, 14469), (538, 14514), (543, 14529), (558, 14610), (562, 14619), (583, 14712), (588, 14766), (590, 14769), (596, 14802), (673, 15270), (674, 15297), (676, 15324), (679, 15339), (680, 15348), (720, 15564), (722, 15582), (729, 15621),

Gene: Coleslaw_16 Start: 11455, Stop: 15468, Start Num: 17

Candidate Starts for Coleslaw_16:

(Start: 17 @11455 has 171 MA's), (38, 11656), (57, 11770), (67, 11812), (75, 11842), (97, 11977), (100, 11989), (103, 11998), (139, 12187), (142, 12205), (144, 12208), (148, 12229), (150, 12241), (161, 12313), (168, 12361), (194, 12493), (197, 12517), (208, 12598), (235, 12721), (251, 12805), (259, 12841), (267, 12886), (268, 12892), (294, 13000), (300, 13024), (304, 13045), (346, 13264), (363, 13414), (378, 13501), (403, 13609), (431, 13744), (447, 13855), (451, 13873), (456, 13903), (494, 14125), (502, 14149), (505, 14164), (509, 14185), (520, 14212), (529, 14239), (543, 14299), (562, 14389), (567, 14422), (583, 14485), (590, 14542), (596, 14575), (597, 14584), (673, 15088), (674, 15115), (677, 15145), (679, 15157), (680, 15166), (694, 15235), (713, 15316), (720, 15376), (722, 15394), (725, 15403),

Gene: Collard_19 Start: 12197, Stop: 16303, Start Num: 16

Candidate Starts for Collard_19:

(Start: 16 @12197 has 33 MA's), (Start: 27 @12290 has 1 MA's), (35, 12368), (36, 12392), (46, 12452), (62, 12536), (64, 12548), (88, 12650), (96, 12710), (97, 12722), (103, 12743), (111, 12797), (121, 12845), (130, 12890), (134, 12911), (157, 13028), (168, 13106), (174, 13130), (184, 13196), (198, 13271), (212, 13364), (218, 13394), (255, 13568), (257, 13577), (263, 13607), (267, 13631), (272, 13652), (289, 13712), (304, 13790), (306, 13799), (319, 13877), (332, 13943), (341, 13985), (343, 13994), (350, 14078), (356, 14099), (358, 14132), (369, 14198), (373, 14219), (383, 14273), (386, 14282), (390, 14300), (399, 14318), (400, 14327), (404, 14357), (411, 14393), (421, 14447), (429, 14483), (431, 14489), (432, 14507), (449, 14612), (460, 14678), (496, 14873), (504, 14903), (513, 14936), (529, 14987), (532, 15008), (536, 15023), (537, 15029), (555, 15113), (568, 15161), (577, 15200), (586, 15260), (593, 15293), (596, 15314), (600, 15338), (610, 15368), (632, 15434), (647, 15506), (671, 15821), (672, 15830), (673, 15833), (675, 15875), (679, 15902), (685, 15932), (694, 15983), (698, 16001), (713, 16067), (718, 16115), (721, 16139), (724, 16151), (740, 16232), (742, 16256), (747, 16295),

Gene: Crespo_16 Start: 11465, Stop: 15478, Start Num: 17

Candidate Starts for Crespo_16:

(Start: 17 @11465 has 171 MA's), (38, 11666), (57, 11780), (67, 11822), (75, 11852), (97, 11987), (100, 11999), (103, 12008), (139, 12197), (142, 12215), (144, 12218), (148, 12239), (150, 12251), (161, 12323), (168, 12371), (194, 12503), (197, 12527), (208, 12608), (235, 12731), (251, 12815), (259, 12851), (267, 12896), (268, 12902), (294, 13010), (300, 13034), (304, 13055), (346, 13274), (363, 13424), (378, 13511), (403, 13619), (431, 13754), (447, 13865), (451, 13883), (456, 13913), (494, 14135), (502, 14159), (505, 14174), (509, 14195), (520, 14222), (529, 14249), (543, 14309), (562, 14399), (567, 14432), (583, 14495), (590, 14552), (596, 14585), (597, 14594), (673, 15098), (674, 15125), (677, 15155), (679, 15167), (680, 15176), (694, 15245), (713, 15326), (720, 15386), (722, 15404), (725, 15413),

Gene: CrimD_21 Start: 12051, Stop: 15887, Start Num: 17

Candidate Starts for CrimD_21:

(Start: 17 @12051 has 171 MA's), (Start: 26 @12120 has 1 MA's), (34, 12207), (60, 12387), (67, 12414), (87, 12498), (88, 12507), (96, 12567), (97, 12579), (111, 12654), (120, 12696), (128, 12738), (130, 12747), (134, 12768), (142, 12807), (157, 12885), (168, 12963), (198, 13128), (212, 13221), (214, 13230), (216, 13242), (218, 13251), (267, 13488), (273, 13512), (277, 13527), (286, 13560), (304, 13647), (310, 13671), (322, 13755), (340, 13839), (343, 13851), (347, 13872), (355, 13953),

(427, 14010), (431, 14028), (442, 14109), (451, 14157), (454, 14175), (456, 14187), (457, 14196), (463, 14232), (474, 14283), (481, 14340), (496, 14418), (520, 14505), (526, 14520), (535, 14562), (549, 14616), (596, 14856), (614, 14931), (645, 15042), (659, 15261), (661, 15273), (671, 15375), (679, 15456), (680, 15465), (694, 15537), (702, 15567), (706, 15588), (721, 15708), (734, 15780), (738, 15798), (739, 15804),

Gene: Curiosium_22 Start: 11510, Stop: 15637, Start Num: 18

Candidate Starts for Curiosium_22:

(Start: 18 @11510 has 63 MA's), (23, 11537), (29, 11603), (44, 11735), (46, 11759), (53, 11789), (56, 11810), (57, 11822), (72, 11879), (73, 11882), (90, 11969), (96, 12002), (98, 12020), (99, 12023), (108, 12065), (118, 12110), (145, 12239), (151, 12281), (154, 12296), (155, 12305), (160, 12332), (168, 12395), (177, 12425), (190, 12506), (198, 12557), (212, 12644), (221, 12689), (231, 12731), (232, 12734), (233, 12740), (238, 12782), (252, 12842), (255, 12854), (256, 12860), (260, 12875), (263, 12893), (264, 12896), (266, 12914), (270, 12929), (288, 12989), (292, 13010), (296, 13025), (304, 13064), (308, 13082), (309, 13085), (340, 13262), (343, 13274), (345, 13283), (348, 13334), (355, 13376), (373, 13499), (377, 13523), (399, 13598), (409, 13664), (426, 13745), (435, 13799), (438, 13820), (441, 13838), (447, 13880), (451, 13898), (455, 13925), (457, 13937), (463, 13973), (467, 13991), (475, 14036), (496, 14165), (497, 14168), (520, 14252), (526, 14267), (534, 14306), (535, 14309), (548, 14363), (554, 14402), (571, 14468), (596, 14603), (631, 14729), (663, 15044), (671, 15125), (672, 15134), (679, 15206), (721, 15458), (734, 15530), (739, 15554), (742, 15581),

Gene: DMoney_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for DMoney_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: DNAIII_0016 Start: 11473, Stop: 15486, Start Num: 17

Candidate Starts for DNAIII_0016:

(Start: 17 @11473 has 171 MA's), (38, 11674), (57, 11788), (67, 11830), (75, 11860), (97, 11995), (100, 12007), (103, 12016), (139, 12205), (142, 12223), (144, 12226), (148, 12247), (150, 12259), (161, 12331), (168, 12379), (194, 12511), (197, 12535), (208, 12616), (235, 12739), (251, 12823), (259, 12859), (267, 12904), (268, 12910), (294, 13018), (300, 13042), (304, 13063), (346, 13282), (363, 13432), (378, 13519), (403, 13627), (431, 13762), (447, 13873), (451, 13891), (456, 13921), (494, 14143), (502, 14167), (505, 14182), (509, 14203), (520, 14230), (529, 14257), (543, 14317), (562, 14407), (567, 14440), (583, 14503), (590, 14560), (596, 14593), (597, 14602), (673, 15106), (674, 15133), (677, 15163), (679, 15175), (680, 15184), (694, 15253), (713, 15334), (720, 15394), (722, 15412), (725, 15421),

Gene: Dadosky_19 Start: 12113, Stop: 16225, Start Num: 16

Candidate Starts for Dadosky_19:

(Start: 16 @12113 has 33 MA's), (Start: 27 @12206 has 1 MA's), (35, 12284), (36, 12308), (46, 12368), (62, 12452), (88, 12566), (96, 12626), (97, 12638), (103, 12659), (111, 12713), (121, 12761), (130, 12806), (134, 12827), (157, 12944), (168, 13022), (174, 13046), (180, 13088), (184, 13112), (198, 13187), (212, 13280), (218, 13310), (255, 13484), (263, 13523), (267, 13547), (272, 13568), (289, 13628), (304, 13706), (319, 13793), (332, 13859), (341, 13901), (343, 13910), (350, 13994), (356, 14015), (358, 14048), (369, 14114), (373, 14135), (383, 14189), (386, 14198), (390, 14216), (400,

14243), (404, 14273), (411, 14309), (429, 14399), (431, 14405), (432, 14423), (449, 14528), (460, 14594), (496, 14789), (504, 14819), (513, 14852), (529, 14903), (532, 14924), (536, 14939), (537, 14945), (555, 15029), (568, 15077), (577, 15116), (586, 15176), (593, 15209), (596, 15230), (600, 15254), (610, 15284), (632, 15350), (647, 15422), (671, 15737), (672, 15746), (673, 15749), (674, 15776), (675, 15791), (677, 15806), (679, 15818), (685, 15848), (694, 15902), (698, 15920), (713, 15989), (718, 16037), (721, 16061), (724, 16073), (727, 16082), (740, 16154), (742, 16178), (747, 16217),

Gene: Dalmuri_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Dalmuri_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: DanSyl44_22 Start: 13327, Stop: 17502, Start Num: 18

Candidate Starts for DanSyl44_22:

(12, 13291), (Start: 18 @13327 has 63 MA's), (38, 13525), (87, 13765), (88, 13774), (103, 13867), (130, 14014), (134, 14035), (142, 14074), (144, 14077), (157, 14152), (168, 14230), (183, 14317), (184, 14320), (192, 14350), (196, 14383), (200, 14407), (213, 14491), (219, 14521), (226, 14548), (248, 14656), (252, 14677), (254, 14689), (257, 14701), (267, 14755), (304, 14914), (309, 14935), (322, 15043), (344, 15163), (404, 15523), (414, 15574), (416, 15583), (425, 15628), (429, 15649), (469, 15868), (473, 15880), (475, 15889), (483, 15934), (487, 15961), (496, 16012), (497, 16015), (504, 16042), (514, 16078), (535, 16141), (539, 16159), (554, 16234), (595, 16423), (596, 16435), (614, 16510), (648, 16696), (657, 16816), (665, 16924), (679, 17074), (698, 17194), (700, 17203), (702, 17206), (716, 17305), (721, 17332), (739, 17428), (745, 17491),

Gene: Darionha_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Darionha_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: DartGoblin_21 Start: 12003, Stop: 15842, Start Num: 17

Candidate Starts for DartGoblin_21:

(Start: 17 @12003 has 171 MA's), (Start: 26 @12072 has 1 MA's), (34, 12159), (60, 12339), (67, 12366), (87, 12450), (88, 12459), (96, 12519), (97, 12531), (111, 12606), (120, 12648), (128, 12690), (130, 12699), (134, 12720), (142, 12759), (144, 12762), (157, 12837), (168, 12915), (198, 13080), (212, 13173), (216, 13194), (218, 13203), (267, 13440), (273, 13464), (277, 13479), (286, 13512), (304, 13599), (319, 13686), (322, 13707), (340, 13791), (343, 13803), (347, 13824), (431, 13980), (442, 14061), (454, 14127), (457, 14148), (463, 14184), (474, 14235), (476, 14253), (481, 14292), (496, 14370), (499, 14379), (520, 14457), (526, 14472), (535, 14514), (549, 14568), (596, 14808),

(614, 14883), (645, 14994), (647, 15015), (648, 15036), (657, 15156), (671, 15330), (679, 15411), (680, 15420), (694, 15492), (702, 15522), (706, 15543), (721, 15663), (734, 15735), (738, 15753), (739, 15759),

Gene: DarthP_20 Start: 12196, Stop: 16335, Start Num: 17

Candidate Starts for DarthP_20:

(10, 12151), (Start: 17 @12196 has 171 MA's), (Start: 26 @12265 has 1 MA's), (34, 12352), (44, 12427), (60, 12529), (62, 12535), (67, 12556), (76, 12589), (80, 12601), (87, 12640), (88, 12649), (96, 12709), (97, 12721), (103, 12742), (111, 12796), (117, 12826), (130, 12889), (134, 12910), (142, 12949), (157, 13027), (168, 13105), (174, 13129), (203, 13303), (208, 13342), (209, 13351), (210, 13354), (216, 13384), (241, 13507), (245, 13522), (253, 13561), (263, 13606), (267, 13630), (293, 13732), (294, 13744), (296, 13750), (304, 13789), (326, 13915), (328, 13930), (333, 13966), (336, 13978), (345, 14023), (356, 14119), (399, 14338), (404, 14377), (407, 14398), (426, 14485), (431, 14509), (434, 14536), (435, 14539), (440, 14569), (447, 14620), (454, 14656), (474, 14764), (496, 14899), (497, 14902), (516, 14968), (518, 14974), (529, 15013), (547, 15085), (550, 15091), (553, 15112), (574, 15196), (579, 15226), (584, 15247), (585, 15259), (596, 15340), (603, 15373), (606, 15382), (608, 15388), (620, 15430), (627, 15448), (633, 15481), (636, 15487), (646, 15532), (659, 15742), (671, 15841), (672, 15850), (673, 15853), (679, 15922), (706, 16057), (714, 16126), (721, 16174), (739, 16270), (743, 16309),

Gene: Dartin_21 Start: 11128, Stop: 15282, Start Num: 18

Candidate Starts for Dartin_21:

(10, 11086), (Start: 18 @11128 has 63 MA's), (29, 11221), (47, 11380), (53, 11407), (72, 11497), (73, 11500), (90, 11587), (109, 11695), (124, 11764), (127, 11782), (145, 11866), (151, 11908), (154, 11923), (155, 11932), (160, 11959), (168, 12022), (178, 12064), (190, 12133), (200, 12196), (201, 12205), (221, 12319), (222, 12325), (231, 12361), (233, 12370), (234, 12382), (236, 12394), (238, 12412), (252, 12472), (255, 12484), (256, 12490), (260, 12505), (263, 12523), (264, 12526), (266, 12544), (270, 12559), (282, 12598), (296, 12655), (297, 12664), (304, 12694), (309, 12715), (315, 12745), (319, 12778), (334, 12862), (340, 12892), (343, 12904), (355, 13006), (365, 13084), (373, 13129), (377, 13153), (389, 13207), (390, 13210), (398, 13225), (404, 13267), (409, 13294), (411, 13303), (414, 13318), (415, 13324), (416, 13327), (441, 13468), (446, 13504), (447, 13510), (451, 13528), (455, 13555), (457, 13567), (467, 13621), (474, 13654), (482, 13714), (496, 13795), (497, 13798), (520, 13882), (526, 13897), (554, 14032), (571, 14098), (596, 14233), (657, 14584), (679, 14839), (680, 14848), (688, 14914), (721, 15109), (727, 15130), (734, 15181), (738, 15199), (739, 15205), (743, 15244),

Gene: Deby_21 Start: 12050, Stop: 15883, Start Num: 17

Candidate Starts for Deby_21:

(Start: 17 @12050 has 171 MA's), (Start: 26 @12119 has 1 MA's), (34, 12206), (60, 12383), (67, 12410), (87, 12494), (88, 12503), (97, 12575), (111, 12650), (128, 12734), (130, 12743), (134, 12764), (142, 12803), (157, 12881), (168, 12959), (184, 13049), (198, 13124), (212, 13217), (216, 13238), (218, 13247), (267, 13484), (277, 13523), (286, 13556), (304, 13643), (310, 13667), (322, 13751), (340, 13835), (343, 13847), (347, 13868), (431, 14024), (442, 14105), (451, 14153), (454, 14171), (457, 14192), (463, 14228), (474, 14279), (481, 14336), (496, 14414), (499, 14423), (520, 14501), (526, 14516), (535, 14558), (549, 14612), (596, 14852), (614, 14927), (645, 15038), (659, 15257), (661, 15269), (679, 15452), (680, 15461), (702, 15563), (706, 15584), (721, 15704), (734, 15776), (738, 15794), (739, 15800),

Gene: Devera_21 Start: 12075, Stop: 15929, Start Num: 17

Candidate Starts for Devera_21:

(Start: 17 @12075 has 171 MA's), (Start: 26 @12144 has 1 MA's), (34, 12231), (60, 12411), (67, 12438), (87, 12522), (88, 12531), (96, 12591), (97, 12603), (111, 12678), (120, 12720), (128, 12762), (130, 12771), (134, 12792), (142, 12831), (157, 12909), (163, 12951), (168, 12987), (198, 13152),

(212, 13245), (216, 13266), (218, 13275), (273, 13557), (277, 13572), (286, 13605), (304, 13692), (322, 13800), (340, 13884), (343, 13896), (347, 13917), (431, 14073), (442, 14154), (451, 14202), (454, 14220), (457, 14241), (463, 14277), (474, 14328), (481, 14385), (496, 14463), (499, 14472), (520, 14550), (526, 14565), (535, 14607), (549, 14661), (575, 14778), (596, 14901), (614, 14976), (648, 15129), (659, 15306), (671, 15420), (679, 15501), (680, 15510), (694, 15582), (702, 15612), (706, 15633), (721, 15750), (734, 15822), (739, 15846),

Gene: DingDing_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for DingDing_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: DismalFunk_17 Start: 10116, Stop: 13784, Start Num: 16

Candidate Starts for DismalFunk_17:

(Start: 16 @10116 has 33 MA's), (Start: 26 @10188 has 1 MA's), (65, 10422), (85, 10473), (97, 10566), (103, 10587), (111, 10641), (130, 10734), (134, 10755), (139, 10776), (140, 10782), (157, 10872), (163, 10914), (168, 10950), (177, 10983), (178, 10995), (181, 11019), (184, 11040), (191, 11064), (192, 11070), (197, 11106), (198, 11115), (203, 11148), (204, 11160), (208, 11187), (251, 11370), (253, 11382), (255, 11388), (259, 11406), (263, 11427), (267, 11451), (273, 11475), (296, 11484), (299, 11499), (307, 11511), (321, 11544), (332, 11592), (352, 11733), (353, 11739), (357, 11775), (362, 11802), (366, 11820), (400, 11946), (415, 12012), (430, 12066), (436, 12099), (440, 12120), (445, 12144), (449, 12174), (453, 12195), (503, 12417), (531, 12510), (551, 12588), (582, 12711), (604, 12816), (621, 12864), (666, 13251), (671, 13281), (672, 13290), (674, 13320), (704, 13485), (721, 13614), (739, 13707),

Gene: DismalStressor_17 Start: 10116, Stop: 13784, Start Num: 16

Candidate Starts for DismalStressor_17:

(Start: 16 @10116 has 33 MA's), (Start: 26 @10188 has 1 MA's), (65, 10422), (85, 10473), (97, 10566), (103, 10587), (111, 10641), (130, 10734), (134, 10755), (139, 10776), (140, 10782), (157, 10872), (163, 10914), (168, 10950), (177, 10983), (178, 10995), (181, 11019), (184, 11040), (191, 11064), (192, 11070), (197, 11106), (198, 11115), (203, 11148), (204, 11160), (208, 11187), (251, 11370), (253, 11382), (255, 11388), (259, 11406), (263, 11427), (267, 11451), (273, 11475), (296, 11484), (299, 11499), (307, 11511), (321, 11544), (332, 11592), (352, 11733), (353, 11739), (357, 11775), (362, 11802), (366, 11820), (400, 11946), (415, 12012), (430, 12066), (436, 12099), (440, 12120), (445, 12144), (449, 12174), (453, 12195), (503, 12417), (531, 12510), (551, 12588), (582, 12711), (604, 12816), (621, 12864), (666, 13251), (671, 13281), (672, 13290), (674, 13320), (704, 13485), (721, 13614), (739, 13707),

Gene: Dole_21 Start: 12077, Stop: 15931, Start Num: 17

Candidate Starts for Dole_21:

(Start: 17 @12077 has 171 MA's), (Start: 26 @12146 has 1 MA's), (34, 12233), (60, 12413), (67, 12440), (87, 12524), (88, 12533), (96, 12593), (97, 12605), (111, 12680), (120, 12722), (128, 12764), (130, 12773), (134, 12794), (142, 12833), (157, 12911), (163, 12953), (168, 12989), (198, 13154), (212, 13247), (216, 13268), (218, 13277), (273, 13559), (277, 13574), (286, 13607), (304, 13694), (322, 13802), (340, 13886), (343, 13898), (347, 13919), (431, 14075), (442, 14156), (451, 14204), (454, 14222), (457, 14243), (463, 14279), (474, 14330), (481, 14387), (496, 14465), (499, 14474),

(520, 14552), (526, 14567), (535, 14609), (549, 14663), (575, 14780), (596, 14903), (614, 14978), (648, 15131), (659, 15308), (671, 15422), (679, 15503), (680, 15512), (694, 15584), (702, 15614), (706, 15635), (721, 15752), (734, 15824), (739, 15848),

Gene: DoubleChamp_19 Start: 12197, Stop: 16303, Start Num: 16

Candidate Starts for DoubleChamp_19:

(Start: 16 @12197 has 33 MA's), (Start: 27 @12290 has 1 MA's), (35, 12368), (36, 12392), (46, 12452), (62, 12536), (64, 12548), (88, 12650), (96, 12710), (97, 12722), (103, 12743), (111, 12797), (121, 12845), (130, 12890), (134, 12911), (157, 13028), (168, 13106), (174, 13130), (184, 13196), (198, 13271), (212, 13364), (218, 13394), (255, 13568), (257, 13577), (263, 13607), (267, 13631), (272, 13652), (289, 13712), (304, 13790), (306, 13799), (319, 13877), (332, 13943), (341, 13985), (343, 13994), (350, 14078), (356, 14099), (358, 14132), (369, 14198), (373, 14219), (383, 14273), (386, 14282), (390, 14300), (399, 14318), (400, 14327), (404, 14357), (411, 14393), (421, 14447), (429, 14483), (431, 14489), (432, 14507), (449, 14612), (460, 14678), (496, 14873), (504, 14903), (513, 14936), (529, 14987), (532, 15008), (536, 15023), (537, 15029), (555, 15113), (568, 15161), (577, 15200), (586, 15260), (593, 15293), (596, 15314), (600, 15338), (610, 15368), (632, 15434), (647, 15506), (671, 15821), (672, 15830), (673, 15833), (675, 15875), (679, 15902), (685, 15932), (694, 15983), (698, 16001), (713, 16067), (718, 16115), (721, 16139), (724, 16151), (740, 16232), (742, 16256), (747, 16295),

Gene: Doughnut_17 Start: 10138, Stop: 13812, Start Num: 16

Candidate Starts for Doughnut_17:

(Start: 16 @10138 has 33 MA's), (Start: 26 @10210 has 1 MA's), (65, 10444), (85, 10495), (97, 10588), (111, 10663), (130, 10756), (134, 10777), (139, 10798), (140, 10804), (157, 10894), (163, 10936), (168, 10972), (177, 11005), (178, 11017), (181, 11041), (184, 11062), (191, 11086), (192, 11092), (197, 11128), (198, 11137), (203, 11170), (204, 11182), (208, 11209), (251, 11392), (253, 11404), (255, 11410), (263, 11449), (267, 11473), (296, 11506), (300, 11524), (307, 11533), (321, 11566), (352, 11755), (353, 11761), (357, 11797), (362, 11824), (366, 11842), (370, 11860), (400, 11968), (405, 12001), (415, 12034), (430, 12088), (436, 12121), (440, 12142), (445, 12166), (449, 12196), (453, 12217), (503, 12439), (531, 12532), (551, 12610), (582, 12733), (621, 12886), (666, 13273), (671, 13303), (672, 13312), (674, 13342), (682, 13402), (704, 13510), (721, 13642), (739, 13735),

Gene: DrHayes_21 Start: 12024, Stop: 15863, Start Num: 17

Candidate Starts for DrHayes_21:

(Start: 17 @12024 has 171 MA's), (Start: 26 @12093 has 1 MA's), (34, 12180), (60, 12360), (67, 12387), (87, 12471), (88, 12480), (96, 12540), (97, 12552), (111, 12627), (122, 12678), (130, 12720), (134, 12741), (142, 12780), (157, 12858), (168, 12936), (174, 12960), (198, 13101), (212, 13194), (216, 13215), (218, 13224), (267, 13461), (273, 13485), (277, 13500), (286, 13533), (304, 13620), (319, 13707), (322, 13728), (340, 13812), (343, 13824), (347, 13845), (431, 14001), (442, 14082), (454, 14148), (457, 14169), (463, 14205), (474, 14256), (476, 14274), (481, 14313), (496, 14391), (520, 14478), (526, 14493), (535, 14535), (549, 14589), (596, 14829), (614, 14904), (645, 15015), (647, 15036), (648, 15057), (657, 15177), (671, 15351), (679, 15432), (680, 15441), (694, 15513), (702, 15543), (706, 15564), (721, 15684), (734, 15756), (738, 15774), (739, 15780),

Gene: Durfee_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Durfee_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678),

(596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: ECartman_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for ECartman_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Edugator_18 Start: 12113, Stop: 16225, Start Num: 16

Candidate Starts for Edugator_18:

(Start: 13 @12092 has 1 MA's), (Start: 16 @12113 has 33 MA's), (Start: 27 @12206 has 1 MA's), (35, 12284), (36, 12308), (46, 12368), (62, 12452), (88, 12566), (96, 12626), (97, 12638), (103, 12659), (111, 12713), (121, 12761), (130, 12806), (134, 12827), (157, 12944), (168, 13022), (174, 13046), (180, 13088), (184, 13112), (198, 13187), (212, 13280), (218, 13310), (255, 13484), (263, 13523), (267, 13547), (272, 13568), (289, 13628), (304, 13706), (319, 13793), (332, 13859), (341, 13901), (343, 13910), (350, 13994), (356, 14015), (358, 14048), (369, 14114), (373, 14135), (383, 14189), (386, 14198), (390, 14216), (400, 14243), (404, 14273), (411, 14309), (429, 14399), (431, 14405), (432, 14423), (449, 14528), (460, 14594), (496, 14789), (504, 14819), (513, 14852), (529, 14903), (532, 14924), (536, 14939), (537, 14945), (555, 15029), (568, 15077), (577, 15116), (586, 15176), (593, 15209), (596, 15230), (600, 15254), (610, 15284), (632, 15350), (647, 15422), (671, 15737), (672, 15746), (673, 15749), (674, 15776), (675, 15791), (677, 15806), (679, 15818), (685, 15848), (694, 15902), (698, 15920), (713, 15989), (718, 16037), (721, 16061), (724, 16073), (727, 16082), (740, 16154), (742, 16178), (747, 16217),

Gene: Efra2_21 Start: 11000, Stop: 15127, Start Num: 18

Candidate Starts for Efra2_21:

(10, 10952), (Start: 18 @11000 has 63 MA's), (29, 11093), (44, 11225), (46, 11249), (53, 11279), (56, 11300), (57, 11312), (73, 11372), (90, 11459), (96, 11492), (98, 11510), (99, 11513), (114, 11585), (145, 11729), (151, 11771), (154, 11786), (160, 11822), (169, 11894), (190, 11996), (221, 12179), (227, 12206), (232, 12224), (233, 12230), (238, 12272), (255, 12344), (256, 12350), (260, 12365), (264, 12386), (266, 12404), (270, 12419), (284, 12467), (292, 12500), (296, 12515), (304, 12554), (309, 12575), (315, 12605), (345, 12773), (348, 12824), (373, 12989), (377, 13013), (390, 13070), (402, 13121), (409, 13154), (411, 13163), (426, 13235), (438, 13310), (441, 13328), (447, 13370), (451, 13388), (455, 13415), (457, 13427), (477, 13556), (482, 13574), (496, 13655), (497, 13658), (520, 13742), (534, 13796), (535, 13799), (554, 13892), (571, 13958), (596, 14093), (631, 14219), (671, 14615), (672, 14624), (679, 14696), (694, 14780), (702, 14810), (706, 14831), (721, 14948), (734, 15020), (739, 15044), (743, 15083),

Gene: Ekdilam_18 Start: 11907, Stop: 16097, Start Num: 17

Candidate Starts for Ekdilam_18:

(10, 11862), (Start: 17 @11907 has 171 MA's), (Start: 26 @11976 has 1 MA's), (34, 12063), (44, 12138), (60, 12240), (67, 12267), (76, 12300), (80, 12312), (87, 12351), (96, 12420), (97, 12432), (103, 12453), (111, 12507), (116, 12531), (117, 12537), (130, 12600), (134, 12621), (142, 12660), (148, 12684), (157, 12738), (168, 12816), (174, 12840), (187, 12915), (203, 13014), (208, 13053), (210, 13065), (216, 13095), (241, 13218), (245, 13233), (253, 13272), (257, 13287), (267, 13341), (294, 13455), (295, 13458), (304, 13500), (309, 13521), (326, 13626), (328, 13641), (329, 13656), (333,

13677), (336, 13689), (345, 13734), (356, 13830), (373, 13950), (404, 14088), (407, 14109), (426, 14196), (431, 14220), (434, 14247), (435, 14250), (440, 14280), (447, 14331), (454, 14367), (474, 14475), (496, 14610), (497, 14613), (516, 14679), (518, 14685), (529, 14724), (547, 14796), (550, 14802), (553, 14823), (574, 14907), (579, 14937), (584, 14958), (585, 14970), (596, 15051), (603, 15084), (606, 15093), (608, 15099), (620, 15141), (627, 15159), (633, 15192), (636, 15198), (659, 15486), (671, 15600), (672, 15609), (673, 15612), (679, 15681), (706, 15813), (721, 15933), (735, 16011), (739, 16032), (743, 16071),

Gene: Ellie_18 Start: 11944, Stop: 16092, Start Num: 17

Candidate Starts for Ellie_18:

(Start: 17 @11944 has 171 MA's), (Start: 26 @12013 has 1 MA's), (44, 12175), (60, 12277), (62, 12283), (67, 12304), (96, 12457), (97, 12469), (111, 12544), (117, 12574), (130, 12637), (134, 12658), (142, 12697), (157, 12775), (168, 12853), (174, 12877), (184, 12943), (198, 13018), (212, 13111), (232, 13192), (242, 13255), (253, 13309), (254, 13312), (258, 13330), (261, 13342), (272, 13399), (280, 13426), (286, 13450), (291, 13471), (294, 13492), (304, 13537), (332, 13711), (356, 13867), (373, 13987), (381, 14029), (382, 14035), (401, 14107), (404, 14125), (407, 14146), (431, 14257), (440, 14317), (445, 14350), (447, 14368), (451, 14386), (454, 14404), (456, 14416), (463, 14461), (474, 14512), (481, 14560), (496, 14638), (520, 14725), (523, 14731), (526, 14740), (538, 14797), (539, 14800), (554, 14875), (571, 14941), (596, 15076), (611, 15136), (614, 15151), (617, 15157), (672, 15607), (679, 15679), (680, 15688), (696, 15775), (721, 15928), (739, 16027), (742, 16054), (743, 16066),

Gene: Emerson_21 Start: 12076, Stop: 15909, Start Num: 17

Candidate Starts for Emerson_21:

(Start: 17 @12076 has 171 MA's), (Start: 26 @12145 has 1 MA's), (34, 12232), (44, 12307), (60, 12409), (67, 12436), (85, 12508), (87, 12520), (88, 12529), (97, 12601), (111, 12676), (128, 12760), (130, 12769), (134, 12790), (142, 12829), (157, 12907), (168, 12985), (184, 13075), (198, 13150), (212, 13243), (214, 13252), (216, 13264), (218, 13273), (267, 13510), (277, 13549), (286, 13582), (304, 13669), (310, 13693), (322, 13777), (340, 13861), (343, 13873), (347, 13894), (431, 14050), (442, 14131), (451, 14179), (454, 14197), (457, 14218), (463, 14254), (474, 14305), (481, 14362), (496, 14440), (499, 14449), (520, 14527), (526, 14542), (535, 14584), (549, 14638), (596, 14878), (614, 14953), (645, 15064), (659, 15283), (661, 15295), (679, 15478), (680, 15487), (694, 15559), (702, 15589), (706, 15610), (721, 15730), (734, 15802), (738, 15820), (739, 15826),

Gene: Enkosi_17 Start: 11327, Stop: 15460, Start Num: 17

Candidate Starts for Enkosi_17:

(9, 11288), (Start: 17 @11327 has 171 MA's), (Start: 26 @11396 has 1 MA's), (34, 11483), (44, 11561), (62, 11669), (67, 11690), (76, 11723), (97, 11855), (101, 11870), (103, 11876), (111, 11930), (117, 11960), (130, 12023), (134, 12044), (142, 12083), (157, 12161), (168, 12239), (174, 12263), (212, 12497), (232, 12578), (240, 12638), (253, 12695), (262, 12731), (267, 12764), (273, 12788), (290, 12854), (292, 12863), (304, 12923), (322, 13031), (332, 13076), (356, 13232), (371, 13343), (373, 13352), (375, 13364), (386, 13415), (390, 13433), (400, 13460), (404, 13490), (422, 13583), (431, 13622), (457, 13790), (467, 13844), (474, 13877), (480, 13922), (496, 14003), (497, 14006), (520, 14090), (523, 14096), (526, 14105), (535, 14147), (545, 14183), (549, 14201), (554, 14240), (569, 14300), (596, 14441), (611, 14501), (614, 14516), (661, 14858), (679, 15047), (680, 15056), (691, 15119), (739, 15395),

Gene: Eponine_22 Start: 13193, Stop: 17389, Start Num: 18

Candidate Starts for Eponine_22:

(Start: 18 @13193 has 63 MA's), (38, 13391), (83, 13604), (87, 13631), (88, 13640), (97, 13712), (103, 13733), (128, 13871), (130, 13880), (134, 13901), (142, 13940), (155, 14009), (157, 14018), (168, 14096), (171, 14108), (184, 14186), (192, 14216), (196, 14249), (197, 14252), (200, 14273), (226, 14414), (229, 14423), (254, 14555), (257, 14567), (267, 14621), (278, 14660), (286, 14693), (304,

14780), (309, 14801), (333, 14978), (344, 15029), (361, 15188), (404, 15389), (414, 15440), (416, 15449), (425, 15494), (429, 15515), (431, 15521), (450, 15626), (452, 15635), (469, 15734), (473, 15746), (475, 15755), (487, 15827), (492, 15860), (496, 15878), (497, 15881), (504, 15908), (535, 16007), (539, 16025), (554, 16100), (595, 16289), (596, 16301), (614, 16376), (634, 16445), (648, 16577), (655, 16691), (679, 16958), (682, 16976), (700, 17087), (702, 17090), (716, 17189), (721, 17216), (722, 17219), (739, 17315), (745, 17378),

Gene: FF47_19 Start: 11405, Stop: 14815, Start Num: 31

Candidate Starts for FF47_19:

(Start: 31 @11405 has 2 MA's), (33, 11420), (40, 11468), (42, 11471), (48, 11516), (84, 11639), (143, 11966), (146, 11978), (149, 11999), (162, 12083), (169, 12137), (172, 12146), (181, 12200), (188, 12233), (190, 12242), (195, 12284), (203, 12329), (204, 12341), (207, 12362), (212, 12386), (225, 12440), (239, 12494), (246, 12515), (250, 12527), (255, 12551), (257, 12560), (273, 12638), (312, 12695), (337, 12764), (366, 12974), (374, 13013), (376, 13025), (398, 13088), (404, 13130), (406, 13148), (428, 13235), (433, 13259), (437, 13286), (440, 13298), (458, 13406), (459, 13415), (483, 13508), (488, 13538), (490, 13559), (498, 13574), (540, 13685), (546, 13706), (562, 13781), (583, 13877), (591, 13934), (596, 13967), (598, 13982), (653, 14213), (670, 14408), (680, 14504), (683, 14522), (691, 14564), (693, 14570), (700, 14597), (717, 14699), (719, 14708), (727, 14747),

Gene: Fefferhead_20 Start: 12111, Stop: 16259, Start Num: 17

Candidate Starts for Fefferhead_20:

(Start: 17 @12111 has 171 MA's), (Start: 26 @12180 has 1 MA's), (44, 12342), (60, 12444), (62, 12450), (67, 12471), (96, 12624), (97, 12636), (111, 12711), (130, 12804), (134, 12825), (142, 12864), (157, 12942), (168, 13020), (174, 13044), (182, 13098), (184, 13110), (198, 13185), (212, 13278), (232, 13359), (242, 13422), (253, 13476), (258, 13497), (261, 13509), (267, 13545), (272, 13566), (277, 13584), (286, 13617), (291, 13638), (292, 13644), (294, 13659), (296, 13665), (304, 13704), (332, 13878), (356, 14034), (381, 14196), (382, 14202), (399, 14253), (404, 14292), (407, 14313), (431, 14424), (440, 14484), (445, 14517), (447, 14535), (451, 14553), (454, 14571), (456, 14583), (463, 14628), (474, 14679), (481, 14727), (496, 14805), (499, 14814), (520, 14892), (523, 14898), (526, 14907), (538, 14964), (539, 14967), (554, 15042), (571, 15108), (596, 15243), (611, 15303), (614, 15318), (617, 15324), (672, 15774), (679, 15846), (680, 15855), (696, 15942), (721, 16095), (739, 16194), (742, 16221), (743, 16233),

Gene: Feyre_19 Start: 12055, Stop: 16164, Start Num: 16

Candidate Starts for Feyre_19:

(Start: 16 @12055 has 33 MA's), (46, 12313), (62, 12397), (80, 12463), (85, 12490), (88, 12511), (96, 12571), (97, 12583), (103, 12604), (111, 12658), (117, 12688), (130, 12751), (134, 12772), (157, 12889), (163, 12931), (164, 12934), (168, 12967), (177, 13000), (212, 13225), (215, 13237), (216, 13246), (237, 13324), (251, 13387), (254, 13402), (255, 13405), (257, 13414), (258, 13420), (261, 13432), (262, 13435), (267, 13468), (271, 13486), (273, 13492), (296, 13588), (304, 13627), (332, 13780), (341, 13822), (346, 13846), (356, 13936), (358, 13969), (383, 14110), (386, 14119), (390, 14137), (400, 14164), (413, 14242), (431, 14326), (449, 14449), (460, 14515), (479, 14617), (496, 14710), (499, 14719), (504, 14740), (513, 14773), (529, 14824), (532, 14845), (536, 14860), (537, 14866), (555, 14950), (565, 14980), (568, 14998), (577, 15037), (586, 15097), (593, 15130), (596, 15151), (600, 15175), (610, 15208), (632, 15292), (647, 15364), (671, 15673), (675, 15727), (677, 15742), (679, 15754), (685, 15784), (718, 15970), (721, 15994), (724, 16006), (740, 16093), (742, 16117),

Gene: Findley_17 Start: 10116, Stop: 13787, Start Num: 16

Candidate Starts for Findley_17:

(Start: 16 @10116 has 33 MA's), (Start: 26 @10188 has 1 MA's), (65, 10422), (85, 10473), (97, 10566), (103, 10587), (111, 10641), (130, 10734), (134, 10755), (139, 10776), (140, 10782), (157, 10872), (163, 10914), (168, 10950), (177, 10983), (178, 10995), (181, 11019), (184, 11040), (191, 11064),

(192, 11070), (197, 11106), (198, 11115), (203, 11148), (204, 11160), (208, 11187), (251, 11370), (253, 11382), (255, 11388), (259, 11406), (263, 11427), (267, 11451), (273, 11475), (296, 11484), (299, 11499), (307, 11511), (321, 11544), (332, 11592), (352, 11733), (353, 11739), (357, 11775), (362, 11802), (366, 11820), (373, 11850), (400, 11946), (405, 11979), (416, 12015), (430, 12066), (436, 12099), (440, 12120), (445, 12144), (449, 12174), (453, 12195), (485, 12339), (503, 12417), (531, 12510), (551, 12588), (582, 12711), (604, 12816), (621, 12864), (671, 13284), (672, 13293), (674, 13323), (704, 13488), (721, 13617), (739, 13710),

Gene: Fionnbharth_22 Start: 13314, Stop: 17489, Start Num: 18

Candidate Starts for Fionnbharth_22:

(12, 13278), (Start: 18 @13314 has 63 MA's), (38, 13512), (87, 13752), (88, 13761), (103, 13854), (121, 13956), (130, 14001), (142, 14061), (157, 14139), (168, 14217), (183, 14304), (184, 14307), (192, 14337), (196, 14370), (200, 14394), (213, 14478), (219, 14508), (226, 14535), (248, 14643), (252, 14664), (254, 14676), (257, 14688), (267, 14742), (304, 14901), (309, 14922), (322, 15030), (344, 15150), (401, 15492), (404, 15510), (414, 15561), (416, 15570), (425, 15615), (429, 15636), (452, 15756), (469, 15855), (473, 15867), (475, 15876), (487, 15948), (496, 15999), (497, 16002), (504, 16029), (535, 16128), (539, 16146), (554, 16221), (595, 16410), (596, 16422), (614, 16497), (626, 16527), (648, 16683), (657, 16803), (665, 16911), (679, 17061), (700, 17190), (702, 17193), (716, 17292), (721, 17319), (739, 17415), (745, 17478),

Gene: FlagStaff_16 Start: 11630, Stop: 15664, Start Num: 18

Candidate Starts for FlagStaff_16:

(Start: 18 @11630 has 63 MA's), (28, 11723), (32, 11753), (46, 11900), (62, 11984), (74, 12032), (96, 12158), (97, 12170), (103, 12191), (130, 12338), (134, 12359), (139, 12380), (142, 12398), (148, 12422), (150, 12434), (161, 12506), (164, 12521), (168, 12554), (194, 12686), (197, 12710), (200, 12731), (203, 12752), (204, 12764), (208, 12791), (210, 12803), (216, 12833), (226, 12881), (254, 13022), (255, 13025), (263, 13064), (267, 13088), (279, 13133), (280, 13136), (304, 13247), (343, 13451), (353, 13547), (356, 13556), (363, 13616), (383, 13730), (388, 13751), (403, 13811), (410, 13844), (416, 13874), (431, 13946), (435, 13976), (438, 13997), (455, 14102), (456, 14105), (466, 14159), (484, 14258), (487, 14276), (502, 14342), (505, 14357), (511, 14381), (527, 14423), (529, 14432), (543, 14492), (562, 14582), (583, 14678), (590, 14735), (596, 14768), (615, 14828), (623, 14843), (654, 15038), (671, 15245), (677, 15314), (679, 15326), (684, 15356), (687, 15416), (713, 15512), (720, 15572), (722, 15590),

Gene: Frosty24_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Frosty24_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Ganymede_22 Start: 12096, Stop: 15929, Start Num: 17

Candidate Starts for Ganymede_22:

(Start: 17 @12096 has 171 MA's), (Start: 26 @12165 has 1 MA's), (34, 12252), (60, 12429), (67, 12456), (87, 12540), (88, 12549), (97, 12621), (111, 12696), (128, 12780), (130, 12789), (134, 12810), (142, 12849), (157, 12927), (168, 13005), (184, 13095), (198, 13170), (212, 13263), (216, 13284), (218, 13293), (267, 13530), (277, 13569), (286, 13602), (304, 13689), (310, 13713), (322, 13797), (340, 13881), (343, 13893), (347, 13914), (431, 14070), (442, 14151), (451, 14199), (454, 14217),

(457, 14238), (463, 14274), (474, 14325), (481, 14382), (496, 14460), (499, 14469), (520, 14547), (535, 14604), (549, 14658), (596, 14898), (614, 14973), (645, 15084), (659, 15303), (661, 15315), (679, 15498), (680, 15507), (694, 15579), (702, 15609), (706, 15630), (721, 15750), (734, 15822), (738, 15840), (739, 15846),

Gene: Gengar_19 Start: 12162, Stop: 16271, Start Num: 16

Candidate Starts for Gengar_19:

(Start: 16 @12162 has 33 MA's), (46, 12420), (62, 12504), (80, 12570), (88, 12618), (96, 12678), (97, 12690), (103, 12711), (111, 12765), (117, 12795), (130, 12858), (134, 12879), (147, 12936), (157, 12996), (168, 13074), (174, 13098), (180, 13140), (187, 13173), (212, 13332), (216, 13353), (237, 13431), (251, 13494), (254, 13509), (255, 13512), (257, 13521), (258, 13527), (261, 13539), (267, 13575), (271, 13593), (296, 13695), (304, 13734), (332, 13887), (341, 13929), (346, 13953), (356, 14043), (358, 14076), (369, 14142), (383, 14217), (386, 14226), (390, 14244), (400, 14271), (413, 14349), (431, 14433), (449, 14556), (460, 14622), (479, 14724), (496, 14817), (504, 14847), (510, 14874), (513, 14880), (529, 14931), (532, 14952), (536, 14967), (537, 14973), (555, 15057), (565, 15087), (568, 15105), (577, 15144), (586, 15204), (593, 15237), (596, 15258), (600, 15282), (610, 15315), (632, 15399), (647, 15471), (671, 15780), (675, 15834), (677, 15849), (679, 15861), (685, 15891), (718, 16077), (721, 16101), (724, 16113), (740, 16200), (742, 16224),

Gene: Geraldini_21 Start: 12092, Stop: 15925, Start Num: 17

Candidate Starts for Geraldini_21:

(Start: 17 @12092 has 171 MA's), (Start: 26 @12161 has 1 MA's), (Start: 27 @12182 has 1 MA's), (34, 12248), (60, 12425), (67, 12452), (85, 12524), (87, 12536), (88, 12545), (97, 12617), (111, 12692), (128, 12776), (130, 12785), (134, 12806), (142, 12845), (157, 12923), (168, 13001), (184, 13091), (198, 13166), (212, 13259), (214, 13268), (216, 13280), (218, 13289), (267, 13526), (277, 13565), (286, 13598), (304, 13685), (310, 13709), (322, 13793), (340, 13877), (343, 13889), (347, 13910), (431, 14066), (442, 14147), (451, 14195), (454, 14213), (457, 14234), (463, 14270), (474, 14321), (481, 14378), (496, 14456), (499, 14465), (520, 14543), (526, 14558), (535, 14600), (549, 14654), (596, 14894), (614, 14969), (645, 15080), (659, 15299), (661, 15311), (679, 15494), (680, 15503), (694, 15575), (702, 15605), (706, 15626), (721, 15746), (734, 15818), (738, 15836), (739, 15842),

Gene: Gideon_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Gideon_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: GodSpeed_17 Start: 11597, Stop: 15640, Start Num: 18

Candidate Starts for GodSpeed_17:

(Start: 18 @11597 has 63 MA's), (28, 11690), (32, 11720), (46, 11867), (62, 11951), (67, 11972), (74, 11999), (82, 12023), (85, 12044), (97, 12137), (103, 12158), (130, 12305), (139, 12347), (142, 12365), (148, 12389), (150, 12401), (160, 12461), (161, 12473), (164, 12488), (168, 12521), (182, 12599), (194, 12653), (197, 12677), (200, 12698), (203, 12719), (204, 12731), (208, 12758), (216, 12800), (226, 12848), (261, 13019), (263, 13031), (275, 13088), (280, 13103), (292, 13154), (294, 13169), (304, 13214), (318, 13292), (346, 13433), (353, 13514), (356, 13523), (363, 13583), (365, 13598), (383, 13697), (388, 13718), (400, 13751), (403, 13778), (410, 13811), (414, 13832), (425, 13886), (426, 13889), (435, 13943), (438, 13964), (456, 14072), (466, 14126), (484, 14234), (486, 14249),

(495, 14297), (502, 14318), (505, 14333), (526, 14396), (529, 14408), (533, 14432), (534, 14435), (538, 14450), (552, 14501), (554, 14528), (580, 14633), (596, 14729), (614, 14804), (647, 14927), (648, 14948), (652, 15011), (654, 15020), (662, 15149), (673, 15230), (674, 15257), (677, 15287), (679, 15299), (684, 15329), (709, 15467), (720, 15548), (722, 15566),

Gene: GoldenAsh_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for GoldenAsh_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Gomashi_16 Start: 11465, Stop: 15478, Start Num: 17

Candidate Starts for Gomashi_16:

(Start: 17 @11465 has 171 MA's), (38, 11666), (57, 11780), (67, 11822), (75, 11852), (97, 11987), (100, 11999), (103, 12008), (139, 12197), (142, 12215), (144, 12218), (148, 12239), (150, 12251), (161, 12323), (168, 12371), (194, 12503), (197, 12527), (208, 12608), (235, 12731), (251, 12815), (259, 12851), (267, 12896), (268, 12902), (294, 13010), (300, 13034), (304, 13055), (346, 13274), (363, 13424), (378, 13511), (403, 13619), (431, 13754), (447, 13865), (451, 13883), (456, 13913), (494, 14135), (502, 14159), (505, 14174), (509, 14195), (520, 14222), (529, 14249), (543, 14309), (562, 14399), (567, 14432), (583, 14495), (590, 14552), (596, 14585), (597, 14594), (673, 15098), (674, 15125), (677, 15155), (679, 15167), (680, 15176), (694, 15245), (713, 15326), (720, 15386), (722, 15404), (725, 15413),

Gene: Grizzly_16 Start: 11464, Stop: 15480, Start Num: 17

Candidate Starts for Grizzly_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (64, 11812), (67, 11821), (75, 11851), (97, 11986), (103, 12007), (130, 12154), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (257, 12841), (259, 12850), (268, 12901), (274, 12925), (282, 12952), (304, 13054), (344, 13261), (346, 13273), (361, 13420), (363, 13423), (403, 13618), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (511, 14197), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (570, 14446), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15100), (674, 15127), (677, 15157), (679, 15169), (680, 15178), (694, 15247), (713, 15328), (720, 15388), (722, 15406), (725, 15415),

Gene: Guanica15_21 Start: 11016, Stop: 15143, Start Num: 18

Candidate Starts for Guanica15_21:

(10, 10968), (Start: 18 @11016 has 63 MA's), (29, 11109), (44, 11241), (46, 11265), (53, 11295), (56, 11316), (57, 11328), (73, 11388), (90, 11475), (96, 11508), (98, 11526), (99, 11529), (114, 11601), (145, 11745), (151, 11787), (154, 11802), (160, 11838), (169, 11910), (190, 12012), (221, 12195), (227, 12222), (232, 12240), (233, 12246), (238, 12288), (255, 12360), (256, 12366), (260, 12381), (264, 12402), (266, 12420), (270, 12435), (284, 12483), (292, 12516), (296, 12531), (304, 12570), (309, 12591), (315, 12621), (345, 12789), (348, 12840), (373, 13005), (377, 13029), (390, 13086), (402, 13137), (409, 13170), (411, 13179), (426, 13251), (438, 13326), (441, 13344), (447, 13386), (451, 13404), (455, 13431), (457, 13443), (477, 13572), (482, 13590), (496, 13671), (497, 13674), (520, 13758), (534, 13812), (535, 13815), (554, 13908), (571, 13974), (596, 14109), (631, 14235), (671, 14631), (672, 14640), (679, 14712), (694, 14796), (721, 14964), (734, 15036), (739, 15060),

(743, 15099),

Gene: Guillsminger_19 Start: 12137, Stop: 16246, Start Num: 16

Candidate Starts for Guillsminger_19:

(Start: 16 @12137 has 33 MA's), (46, 12395), (62, 12479), (80, 12545), (88, 12593), (96, 12653), (97, 12665), (103, 12686), (111, 12740), (117, 12770), (130, 12833), (134, 12854), (147, 12911), (157, 12971), (168, 13049), (174, 13073), (180, 13115), (187, 13148), (212, 13307), (216, 13328), (237, 13406), (251, 13469), (254, 13484), (255, 13487), (257, 13496), (258, 13502), (261, 13514), (267, 13550), (271, 13568), (296, 13670), (304, 13709), (332, 13862), (341, 13904), (346, 13928), (356, 14018), (358, 14051), (369, 14117), (383, 14192), (386, 14201), (390, 14219), (400, 14246), (413, 14324), (431, 14408), (449, 14531), (460, 14597), (479, 14699), (496, 14792), (504, 14822), (510, 14849), (513, 14855), (529, 14906), (532, 14927), (536, 14942), (537, 14948), (555, 15032), (565, 15062), (568, 15080), (577, 15119), (586, 15179), (593, 15212), (596, 15233), (600, 15257), (610, 15290), (632, 15374), (647, 15446), (671, 15755), (675, 15809), (677, 15824), (679, 15836), (685, 15866), (718, 16052), (721, 16076), (724, 16088), (740, 16175), (742, 16199),

Gene: Halo_16 Start: 11459, Stop: 15472, Start Num: 17

Candidate Starts for Halo_16:

(Start: 17 @11459 has 171 MA's), (38, 11660), (57, 11774), (67, 11816), (75, 11846), (97, 11981), (100, 11993), (103, 12002), (139, 12191), (142, 12209), (144, 12212), (148, 12233), (150, 12245), (161, 12317), (168, 12365), (194, 12497), (197, 12521), (208, 12602), (235, 12725), (251, 12809), (259, 12845), (267, 12890), (268, 12896), (294, 13004), (300, 13028), (304, 13049), (346, 13268), (363, 13418), (378, 13505), (403, 13613), (431, 13748), (447, 13859), (451, 13877), (456, 13907), (494, 14129), (502, 14153), (505, 14168), (509, 14189), (520, 14216), (529, 14243), (543, 14303), (562, 14393), (567, 14426), (583, 14489), (590, 14546), (596, 14579), (597, 14588), (673, 15092), (674, 15119), (677, 15149), (679, 15161), (680, 15170), (694, 15239), (713, 15320), (720, 15380), (722, 15398), (725, 15407),

Gene: Hammy_20 Start: 12190, Stop: 16329, Start Num: 17

Candidate Starts for Hammy_20:

(10, 12145), (Start: 17 @12190 has 171 MA's), (Start: 26 @12259 has 1 MA's), (34, 12346), (44, 12421), (60, 12523), (62, 12529), (67, 12550), (76, 12583), (80, 12595), (87, 12634), (88, 12643), (96, 12703), (97, 12715), (103, 12736), (111, 12790), (117, 12820), (130, 12883), (134, 12904), (142, 12943), (157, 13021), (168, 13099), (174, 13123), (203, 13297), (208, 13336), (209, 13345), (210, 13348), (216, 13378), (241, 13501), (245, 13516), (253, 13555), (263, 13600), (267, 13624), (293, 13726), (294, 13738), (296, 13744), (304, 13783), (326, 13909), (328, 13924), (333, 13960), (336, 13972), (345, 14017), (356, 14113), (399, 14332), (404, 14371), (407, 14392), (426, 14479), (431, 14503), (434, 14530), (435, 14533), (440, 14563), (447, 14614), (454, 14650), (474, 14758), (496, 14893), (497, 14896), (516, 14962), (518, 14968), (529, 15007), (547, 15079), (550, 15085), (553, 15106), (574, 15190), (579, 15220), (584, 15241), (585, 15253), (596, 15334), (603, 15367), (606, 15376), (608, 15382), (620, 15424), (627, 15442), (633, 15475), (636, 15481), (646, 15526), (659, 15736), (671, 15835), (672, 15844), (673, 15847), (679, 15916), (706, 16051), (714, 16120), (721, 16168), (739, 16264), (743, 16303),

Gene: HedwigODU_21 Start: 12079, Stop: 15918, Start Num: 17

Candidate Starts for HedwigODU_21:

(Start: 17 @12079 has 171 MA's), (Start: 26 @12148 has 1 MA's), (34, 12235), (60, 12412), (67, 12439), (85, 12511), (87, 12523), (88, 12532), (97, 12604), (111, 12679), (128, 12763), (130, 12772), (134, 12793), (142, 12832), (157, 12910), (168, 12988), (184, 13078), (198, 13153), (212, 13246), (214, 13255), (216, 13267), (218, 13276), (273, 13537), (277, 13552), (286, 13585), (304, 13672), (310, 13696), (322, 13780), (340, 13864), (343, 13876), (347, 13897), (431, 14053), (442, 14134), (451, 14182), (454, 14200), (457, 14221), (463, 14257), (474, 14308), (481, 14365), (496, 14443), (499, 14452), (520, 14530), (535, 14587), (549, 14641), (596, 14881), (614, 14956), (645, 15067),

(659, 15286), (661, 15298), (679, 15487), (680, 15496), (694, 15568), (702, 15598), (706, 15619), (721, 15739), (734, 15811), (738, 15829), (739, 15835),

Gene: Heftyboy_19 Start: 12264, Stop: 16394, Start Num: 16

Candidate Starts for Heftyboy_19:

(Start: 16 @12264 has 33 MA's), (Start: 27 @12357 has 1 MA's), (35, 12435), (36, 12459), (46, 12519), (62, 12603), (64, 12615), (88, 12717), (96, 12777), (97, 12789), (103, 12810), (111, 12864), (121, 12912), (130, 12957), (134, 12978), (157, 13095), (168, 13173), (174, 13197), (184, 13263), (198, 13338), (212, 13431), (218, 13461), (255, 13635), (257, 13644), (263, 13674), (267, 13698), (272, 13719), (289, 13779), (304, 13857), (306, 13866), (319, 13944), (332, 14010), (341, 14052), (343, 14061), (350, 14145), (356, 14166), (358, 14199), (383, 14340), (386, 14349), (390, 14367), (400, 14394), (413, 14472), (431, 14556), (449, 14679), (460, 14745), (496, 14940), (504, 14970), (510, 14997), (513, 15003), (521, 15030), (532, 15075), (536, 15090), (537, 15096), (555, 15180), (568, 15228), (577, 15267), (586, 15327), (593, 15360), (596, 15381), (600, 15405), (610, 15438), (632, 15522), (647, 15594), (671, 15903), (675, 15957), (677, 15972), (679, 15984), (685, 16014), (718, 16200), (721, 16224), (724, 16236), (740, 16323), (742, 16347),

Gene: Homura_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Homura_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (642, 15089), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: Hope_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Hope_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Hotshotbaby7_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Hotshotbaby7_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Hurricane_20 Start: 12208, Stop: 16356, Start Num: 17

Candidate Starts for Hurricane_20:

(Start: 17 @12208 has 171 MA's), (Start: 26 @12277 has 1 MA's), (Start: 27 @12298 has 1 MA's), (29, 12304), (34, 12364), (55, 12502), (62, 12547), (67, 12568), (72, 12589), (85, 12640), (96, 12721), (97, 12733), (103, 12754), (111, 12808), (120, 12850), (130, 12901), (134, 12922), (137, 12940), (144, 12964), (153, 13015), (157, 13039), (164, 13084), (168, 13117), (174, 13141), (203, 13315), (212, 13375), (216, 13396), (218, 13405), (253, 13573), (258, 13594), (263, 13618), (267, 13642), (272, 13663), (278, 13681), (283, 13702), (286, 13714), (294, 13756), (295, 13759), (304, 13801), (307, 13816), (318, 13879), (336, 13990), (342, 14020), (349, 14098), (368, 14218), (373, 14251), (397, 14341), (400, 14359), (404, 14389), (409, 14416), (447, 14632), (454, 14668), (467, 14743), (474, 14776), (475, 14788), (482, 14836), (496, 14917), (497, 14920), (535, 15037), (554, 15130), (575, 15208), (592, 15307), (596, 15331), (614, 15406), (671, 15865), (672, 15874), (673, 15877), (679, 15946), (680, 15955), (705, 16087), (715, 16147), (717, 16165), (724, 16201), (727, 16210), (738, 16276), (739, 16282), (741, 16297), (742, 16309),

Gene: Hyperbowlee_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Hyperbowlee_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: Illumine_21 Start: 12077, Stop: 15931, Start Num: 17

Candidate Starts for Illumine_21:

(Start: 17 @12077 has 171 MA's), (Start: 26 @12146 has 1 MA's), (34, 12233), (60, 12413), (67, 12440), (87, 12524), (88, 12533), (96, 12593), (97, 12605), (111, 12680), (120, 12722), (128, 12764), (130, 12773), (134, 12794), (142, 12833), (157, 12911), (163, 12953), (168, 12989), (198, 13154), (212, 13247), (216, 13268), (218, 13277), (273, 13559), (277, 13574), (286, 13607), (304, 13694), (322, 13802), (340, 13886), (343, 13898), (347, 13919), (431, 14075), (442, 14156), (451, 14204), (454, 14222), (457, 14243), (463, 14279), (474, 14330), (481, 14387), (496, 14465), (499, 14474), (520, 14552), (526, 14567), (535, 14609), (549, 14663), (575, 14780), (596, 14903), (614, 14978), (648, 15131), (659, 15308), (671, 15422), (679, 15503), (680, 15512), (694, 15584), (702, 15614), (706, 15635), (721, 15752), (734, 15824), (739, 15848),

Gene: Inky_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Inky_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: InvictusManeo_19 Start: 12240, Stop: 16346, Start Num: 16

Candidate Starts for InvictusManeo_19:

(Start: 16 @12240 has 33 MA's), (Start: 27 @12333 has 1 MA's), (35, 12411), (36, 12435), (46, 12495), (62, 12579), (64, 12591), (88, 12693), (96, 12753), (97, 12765), (103, 12786), (111, 12840), (121, 12888), (130, 12933), (134, 12954), (157, 13071), (168, 13149), (174, 13173), (184, 13239), (198, 13314), (212, 13407), (218, 13437), (255, 13611), (257, 13620), (263, 13650), (267, 13674), (272, 13695), (289, 13755), (304, 13833), (306, 13842), (319, 13920), (332, 13986), (341, 14028), (343, 14037), (350, 14121), (356, 14142), (358, 14175), (369, 14241), (373, 14262), (383, 14316), (386, 14325), (390, 14343), (399, 14361), (400, 14370), (404, 14400), (411, 14436), (421, 14490), (429, 14526), (431, 14532), (432, 14550), (449, 14655), (460, 14721), (496, 14916), (504, 14946), (513, 14979), (529, 15030), (532, 15051), (536, 15066), (537, 15072), (555, 15156), (568, 15204), (577, 15243), (586, 15303), (593, 15336), (596, 15357), (600, 15381), (610, 15411), (632, 15477), (647, 15549), (671, 15864), (672, 15873), (673, 15876), (675, 15918), (679, 15945), (685, 15975), (694, 16026), (698, 16044), (713, 16110), (718, 16158), (721, 16182), (724, 16194), (740, 16275), (742, 16299), (747, 16338),

Gene: JAWS_21 Start: 12070, Stop: 15903, Start Num: 17

Candidate Starts for JAWS_21:

(Start: 17 @12070 has 171 MA's), (Start: 26 @12139 has 1 MA's), (34, 12226), (44, 12301), (60, 12403), (67, 12430), (85, 12502), (87, 12514), (88, 12523), (97, 12595), (111, 12670), (128, 12754), (130, 12763), (134, 12784), (142, 12823), (150, 12859), (157, 12901), (168, 12979), (184, 13069), (198, 13144), (212, 13237), (214, 13246), (216, 13258), (218, 13267), (267, 13504), (277, 13543), (286, 13576), (304, 13663), (310, 13687), (322, 13771), (340, 13855), (343, 13867), (347, 13888), (431, 14044), (442, 14125), (451, 14173), (454, 14191), (457, 14212), (463, 14248), (474, 14299), (481, 14356), (496, 14434), (499, 14443), (520, 14521), (526, 14536), (535, 14578), (549, 14632), (596, 14872), (614, 14947), (645, 15058), (659, 15277), (661, 15289), (679, 15472), (680, 15481), (694, 15553), (702, 15583), (706, 15604), (721, 15724), (734, 15796), (738, 15814), (739, 15820),

Gene: JF1_22 Start: 13313, Stop: 17488, Start Num: 18

Candidate Starts for JF1_22:

(12, 13277), (Start: 18 @13313 has 63 MA's), (38, 13511), (87, 13751), (88, 13760), (103, 13853), (121, 13955), (130, 14000), (142, 14060), (157, 14138), (168, 14216), (183, 14303), (184, 14306), (192, 14336), (196, 14369), (200, 14393), (213, 14477), (219, 14507), (226, 14534), (248, 14642), (252, 14663), (254, 14675), (257, 14687), (267, 14741), (304, 14900), (309, 14921), (322, 15029), (344, 15149), (401, 15491), (404, 15509), (414, 15560), (416, 15569), (425, 15614), (429, 15635), (452, 15755), (469, 15854), (473, 15866), (475, 15875), (487, 15947), (496, 15998), (497, 16001), (504, 16028), (535, 16127), (539, 16145), (554, 16220), (595, 16409), (596, 16421), (614, 16496), (626, 16526), (648, 16682), (657, 16802), (665, 16910), (679, 17060), (698, 17180), (700, 17189), (702, 17192), (716, 17291), (721, 17318), (739, 17414), (745, 17477),

Gene: Jane_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Jane_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Jarvi_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Jarvi_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: Jayhawk_21 Start: 12080, Stop: 15916, Start Num: 17

Candidate Starts for Jayhawk_21:

(Start: 17 @12080 has 171 MA's), (Start: 26 @12149 has 1 MA's), (34, 12236), (60, 12413), (67, 12440), (85, 12512), (87, 12524), (88, 12533), (97, 12605), (111, 12680), (128, 12764), (130, 12773), (134, 12794), (142, 12833), (157, 12911), (168, 12989), (184, 13079), (198, 13154), (212, 13247), (214, 13256), (216, 13268), (218, 13277), (273, 13538), (277, 13553), (286, 13586), (304, 13673), (310, 13697), (322, 13781), (340, 13865), (343, 13877), (347, 13898), (431, 14054), (442, 14135), (451, 14183), (454, 14201), (457, 14222), (463, 14258), (474, 14309), (481, 14366), (496, 14444), (499, 14453), (520, 14531), (535, 14588), (549, 14642), (596, 14882), (614, 14957), (645, 15068), (659, 15287), (661, 15299), (679, 15485), (680, 15494), (694, 15566), (702, 15596), (706, 15617), (721, 15737), (734, 15809), (738, 15827), (739, 15833),

Gene: Jeckyll_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Jeckyll_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: Jeilious_16 Start: 11463, Stop: 15476, Start Num: 17

Candidate Starts for Jeilious_16:

(Start: 17 @11463 has 171 MA's), (38, 11664), (57, 11778), (67, 11820), (75, 11850), (97, 11985), (100, 11997), (103, 12006), (139, 12195), (142, 12213), (144, 12216), (148, 12237), (150, 12249), (161, 12321), (168, 12369), (194, 12501), (197, 12525), (208, 12606), (235, 12729), (251, 12813), (259, 12849), (267, 12894), (268, 12900), (294, 13008), (300, 13032), (304, 13053), (346, 13272), (363, 13422), (378, 13509), (403, 13617), (431, 13752), (447, 13863), (451, 13881), (456, 13911), (494, 14133), (502, 14157), (505, 14172), (509, 14193), (520, 14220), (529, 14247), (543, 14307), (562, 14397), (567, 14430), (583, 14493), (590, 14550), (596, 14583), (597, 14592), (673, 15096), (674, 15123), (677, 15153), (679, 15165), (680, 15174), (694, 15243), (713, 15324), (720, 15384), (722, 15402), (725, 15411),

Gene: Jolene_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Jolene_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912),

(494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Jolie2_16 Start: 10765, Stop: 14787, Start Num: 18

Candidate Starts for Jolie2_16:

(Start: 18 @10765 has 63 MA's), (Start: 26 @10834 has 1 MA's), (29, 10861), (39, 10975), (63, 11098), (68, 11122), (70, 11125), (78, 11158), (79, 11161), (87, 11203), (88, 11212), (110, 11344), (114, 11368), (119, 11386), (128, 11431), (133, 11455), (135, 11467), (145, 11509), (151, 11551), (159, 11596), (160, 11602), (168, 11665), (169, 11674), (173, 11686), (176, 11695), (180, 11728), (190, 11776), (221, 11953), (229, 11986), (230, 11989), (233, 12004), (256, 12124), (260, 12139), (263, 12157), (264, 12160), (270, 12193), (279, 12220), (290, 12265), (296, 12289), (300, 12307), (304, 12328), (320, 12424), (335, 12496), (363, 12703), (371, 12754), (390, 12844), (397, 12853), (400, 12871), (402, 12895), (404, 12901), (416, 12961), (425, 13006), (426, 13009), (427, 13015), (440, 13093), (445, 13126), (457, 13201), (494, 13414), (501, 13435), (502, 13438), (505, 13453), (515, 13486), (543, 13588), (562, 13678), (583, 13771), (588, 13825), (590, 13828), (596, 13861), (598, 13876), (612, 13915), (628, 13942), (648, 14080), (657, 14200), (663, 14287), (677, 14443), (679, 14455), (690, 14539), (700, 14578), (722, 14713),

Gene: Jonghyun_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Jonghyun_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: JorRay_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for JorRay_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Joy99_21 Start: 12045, Stop: 15878, Start Num: 17

Candidate Starts for Joy99_21:

(Start: 17 @12045 has 171 MA's), (Start: 26 @12114 has 1 MA's), (Start: 27 @12135 has 1 MA's), (34, 12201), (60, 12378), (67, 12405), (85, 12477), (87, 12489), (88, 12498), (97, 12570), (111, 12645), (128, 12729), (130, 12738), (134, 12759), (142, 12798), (157, 12876), (168, 12954), (184, 13044), (198, 13119), (212, 13212), (214, 13221), (216, 13233), (218, 13242), (267, 13479), (277, 13518), (286, 13551), (304, 13638), (310, 13662), (322, 13746), (340, 13830), (343, 13842), (347, 13863), (431, 14019), (442, 14100), (451, 14148), (454, 14166), (457, 14187), (463, 14223), (474, 14274), (481, 14331), (496, 14409), (499, 14418), (520, 14496), (526, 14511), (535, 14553), (549, 14607),

(596, 14847), (614, 14922), (645, 15033), (659, 15252), (661, 15264), (679, 15447), (680, 15456), (694, 15528), (702, 15558), (706, 15579), (721, 15699), (734, 15771), (738, 15789), (739, 15795),

Gene: Juliette_22 Start: 13193, Stop: 17389, Start Num: 18

Candidate Starts for Juliette_22:

(Start: 18 @13193 has 63 MA's), (38, 13391), (83, 13604), (87, 13631), (88, 13640), (97, 13712), (103, 13733), (128, 13871), (130, 13880), (134, 13901), (142, 13940), (155, 14009), (157, 14018), (168, 14096), (171, 14108), (184, 14186), (192, 14216), (196, 14249), (197, 14252), (200, 14273), (226, 14414), (229, 14423), (254, 14555), (257, 14567), (267, 14621), (278, 14660), (286, 14693), (304, 14780), (309, 14801), (333, 14978), (344, 15029), (361, 15188), (404, 15389), (414, 15440), (416, 15449), (425, 15494), (429, 15515), (431, 15521), (452, 15635), (469, 15734), (473, 15746), (475, 15755), (487, 15827), (492, 15860), (496, 15878), (497, 15881), (504, 15908), (535, 16007), (539, 16025), (554, 16100), (595, 16289), (596, 16301), (614, 16376), (634, 16445), (648, 16577), (655, 16691), (679, 16958), (682, 16976), (700, 17087), (702, 17090), (716, 17189), (721, 17216), (722, 17219), (739, 17315), (745, 17378),

Gene: Kareem_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Kareem_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Kasen3_16 Start: 11465, Stop: 15478, Start Num: 17

Candidate Starts for Kasen3_16:

(Start: 17 @11465 has 171 MA's), (38, 11666), (57, 11780), (67, 11822), (75, 11852), (97, 11987), (100, 11999), (103, 12008), (139, 12197), (142, 12215), (144, 12218), (148, 12239), (150, 12251), (161, 12323), (168, 12371), (194, 12503), (197, 12527), (208, 12608), (235, 12731), (251, 12815), (259, 12851), (267, 12896), (268, 12902), (294, 13010), (300, 13034), (304, 13055), (346, 13274), (363, 13424), (378, 13511), (403, 13619), (431, 13754), (447, 13865), (451, 13883), (456, 13913), (494, 14135), (502, 14159), (505, 14174), (509, 14195), (520, 14222), (529, 14249), (543, 14309), (562, 14399), (567, 14432), (583, 14495), (590, 14552), (596, 14585), (597, 14594), (673, 15098), (674, 15125), (677, 15155), (679, 15167), (680, 15176), (694, 15245), (713, 15326), (720, 15386), (722, 15404), (725, 15413),

Gene: Keshu_20 Start: 12188, Stop: 16348, Start Num: 17

Candidate Starts for Keshu_20:

(Start: 17 @12188 has 171 MA's), (Start: 26 @12257 has 1 MA's), (Start: 27 @12278 has 1 MA's), (29, 12284), (34, 12344), (55, 12482), (57, 12506), (62, 12527), (67, 12548), (72, 12569), (96, 12701), (97, 12713), (103, 12734), (111, 12788), (117, 12818), (122, 12839), (128, 12872), (130, 12881), (134, 12902), (142, 12941), (157, 13019), (163, 13061), (168, 13097), (174, 13121), (203, 13295), (208, 13334), (212, 13355), (216, 13376), (218, 13385), (258, 13574), (263, 13598), (267, 13622), (272, 13643), (278, 13661), (286, 13694), (289, 13703), (294, 13736), (295, 13739), (296, 13742), (304, 13781), (306, 13790), (318, 13859), (336, 13970), (342, 14000), (349, 14078), (368, 14198), (373, 14231), (397, 14321), (400, 14339), (404, 14369), (409, 14396), (431, 14501), (435, 14531), (454, 14648), (463, 14705), (467, 14723), (470, 14744), (474, 14756), (482, 14816), (496, 14897), (497, 14900), (523, 14990), (535, 15020), (554, 15113), (575, 15191), (596, 15314), (614, 15389), (671, 15854), (673, 15866), (679, 15935), (680, 15944), (685, 15965), (715, 16139), (717, 16157), (724,

16193), (727, 16202), (738, 16268), (739, 16274), (741, 16289), (742, 16301),

Gene: KiSi_20 Start: 11011, Stop: 15084, Start Num: 18

Candidate Starts for KiSi_20:

(Start: 18 @11011 has 63 MA's), (29, 11104), (47, 11263), (49, 11272), (51, 11281), (71, 11374), (87, 11443), (88, 11452), (89, 11464), (90, 11470), (96, 11503), (104, 11539), (113, 11596), (115, 11608), (126, 11662), (132, 11692), (151, 11779), (154, 11794), (160, 11830), (190, 12004), (221, 12187), (223, 12196), (233, 12238), (238, 12280), (252, 12340), (255, 12352), (256, 12358), (260, 12373), (263, 12391), (264, 12394), (270, 12427), (302, 12550), (304, 12562), (305, 12568), (309, 12583), (311, 12589), (341, 12673), (349, 12754), (373, 12907), (398, 13003), (400, 13015), (404, 13045), (414, 13096), (418, 13117), (424, 13147), (426, 13153), (431, 13177), (440, 13237), (447, 13288), (455, 13333), (467, 13399), (474, 13432), (481, 13489), (496, 13567), (497, 13570), (520, 13654), (529, 13681), (535, 13711), (548, 13765), (554, 13804), (596, 14005), (614, 14080), (657, 14365), (659, 14422), (679, 14623), (696, 14737), (721, 14914), (734, 14998), (739, 15019),

Gene: Kratio_18 Start: 11868, Stop: 15977, Start Num: 16

Candidate Starts for Kratio_18:

(Start: 16 @11868 has 33 MA's), (Start: 27 @11961 has 1 MA's), (35, 12039), (36, 12063), (46, 12123), (62, 12207), (80, 12273), (88, 12321), (96, 12381), (97, 12393), (103, 12414), (111, 12468), (121, 12516), (130, 12561), (134, 12582), (157, 12699), (168, 12777), (174, 12801), (184, 12867), (198, 12942), (212, 13035), (218, 13065), (255, 13239), (257, 13248), (263, 13278), (267, 13302), (272, 13323), (289, 13383), (304, 13461), (306, 13470), (319, 13548), (332, 13614), (341, 13656), (350, 13749), (356, 13770), (358, 13803), (369, 13869), (373, 13890), (383, 13944), (386, 13953), (390, 13971), (399, 13989), (400, 13998), (404, 14028), (411, 14064), (429, 14154), (431, 14160), (432, 14178), (449, 14283), (460, 14349), (496, 14544), (504, 14574), (513, 14607), (529, 14658), (532, 14679), (536, 14694), (537, 14700), (555, 14784), (568, 14832), (577, 14871), (586, 14931), (593, 14964), (596, 14985), (600, 15009), (632, 15105), (647, 15177), (671, 15492), (672, 15501), (673, 15504), (675, 15546), (677, 15561), (679, 15573), (685, 15603), (694, 15654), (698, 15672), (718, 15789), (721, 15813), (724, 15825), (740, 15906), (742, 15930), (747, 15969),

Gene: Kraw_22 Start: 13237, Stop: 17412, Start Num: 18

Candidate Starts for Kraw_22:

(12, 13201), (Start: 18 @13237 has 63 MA's), (38, 13435), (87, 13675), (88, 13684), (103, 13777), (121, 13879), (130, 13924), (142, 13984), (157, 14062), (168, 14140), (183, 14227), (184, 14230), (192, 14260), (196, 14293), (200, 14317), (213, 14401), (219, 14431), (226, 14458), (248, 14566), (252, 14587), (254, 14599), (257, 14611), (267, 14665), (304, 14824), (309, 14845), (322, 14953), (344, 15073), (401, 15415), (404, 15433), (414, 15484), (416, 15493), (425, 15538), (429, 15559), (452, 15679), (469, 15778), (473, 15790), (475, 15799), (487, 15871), (496, 15922), (497, 15925), (504, 15952), (535, 16051), (539, 16069), (554, 16144), (595, 16333), (596, 16345), (614, 16420), (626, 16450), (648, 16606), (657, 16726), (665, 16834), (679, 16984), (700, 17113), (702, 17116), (716, 17215), (721, 17242), (739, 17338), (745, 17401),

Gene: Krueger_20 Start: 11051, Stop: 15055, Start Num: 18

Candidate Starts for Krueger_20:

(Start: 18 @11051 has 63 MA's), (29, 11144), (38, 11249), (47, 11303), (51, 11321), (55, 11339), (59, 11369), (66, 11396), (68, 11402), (81, 11447), (96, 11543), (98, 11561), (99, 11564), (124, 11678), (126, 11693), (151, 11810), (154, 11825), (165, 11906), (178, 11966), (179, 11975), (190, 12035), (221, 12218), (222, 12224), (234, 12281), (252, 12371), (255, 12383), (256, 12389), (260, 12404), (264, 12425), (266, 12443), (288, 12518), (295, 12551), (302, 12581), (304, 12593), (309, 12614), (316, 12653), (339, 12698), (343, 12713), (361, 12875), (373, 12938), (378, 12965), (399, 13037), (404, 13076), (414, 13127), (418, 13148), (424, 13178), (426, 13184), (431, 13208), (438, 13259), (446, 13313), (454, 13355), (457, 13376), (463, 13412), (474, 13463), (496, 13604), (497, 13607), (520, 13691), (529, 13718), (548, 13802), (596, 14042), (614, 14117), (671, 14555), (672, 14564),

(679, 14636), (680, 14645), (694, 14720), (702, 14750), (709, 14771), (721, 14888), (734, 14963), (741, 15002), (742, 15014),

Gene: Larva_19 Start: 11980, Stop: 16092, Start Num: 16

Candidate Starts for Larva_19:

(Start: 16 @11980 has 33 MA's), (Start: 27 @12073 has 1 MA's), (35, 12151), (36, 12175), (46, 12235), (62, 12319), (88, 12433), (96, 12493), (97, 12505), (103, 12526), (111, 12580), (121, 12628), (130, 12673), (134, 12694), (157, 12811), (168, 12889), (174, 12913), (184, 12979), (198, 13054), (212, 13147), (218, 13177), (255, 13351), (263, 13390), (267, 13414), (272, 13435), (289, 13495), (304, 13573), (319, 13660), (332, 13726), (341, 13768), (343, 13777), (350, 13861), (356, 13882), (358, 13915), (369, 13981), (373, 14002), (383, 14056), (386, 14065), (390, 14083), (400, 14110), (404, 14140), (411, 14176), (429, 14266), (431, 14272), (432, 14290), (449, 14395), (460, 14461), (496, 14656), (504, 14686), (513, 14719), (529, 14770), (532, 14791), (536, 14806), (537, 14812), (555, 14896), (568, 14944), (577, 14983), (586, 15043), (593, 15076), (596, 15097), (600, 15121), (610, 15151), (632, 15217), (647, 15289), (671, 15604), (672, 15613), (673, 15616), (674, 15643), (675, 15658), (677, 15673), (679, 15685), (685, 15715), (694, 15769), (698, 15787), (713, 15856), (718, 15904), (721, 15928), (724, 15940), (727, 15949), (740, 16021), (742, 16045), (747, 16084),

Gene: LastHope_21 Start: 11090, Stop: 15217, Start Num: 18

Candidate Starts for LastHope_21:

(10, 11042), (Start: 18 @11090 has 63 MA's), (29, 11183), (44, 11315), (46, 11339), (53, 11369), (56, 11390), (57, 11402), (59, 11408), (66, 11435), (73, 11462), (90, 11549), (96, 11582), (98, 11600), (99, 11603), (108, 11645), (119, 11693), (145, 11819), (151, 11861), (154, 11876), (160, 11912), (169, 11984), (190, 12086), (212, 12224), (221, 12269), (231, 12311), (232, 12314), (233, 12320), (234, 12332), (238, 12362), (252, 12422), (256, 12440), (260, 12455), (263, 12473), (264, 12476), (270, 12509), (292, 12590), (296, 12605), (304, 12644), (309, 12665), (340, 12842), (343, 12854), (348, 12914), (355, 12956), (373, 13079), (377, 13103), (390, 13160), (398, 13175), (399, 13178), (409, 13244), (411, 13253), (416, 13277), (426, 13325), (438, 13400), (441, 13418), (451, 13478), (455, 13505), (457, 13517), (463, 13553), (467, 13571), (475, 13616), (477, 13646), (482, 13664), (496, 13745), (497, 13748), (520, 13832), (526, 13847), (534, 13886), (535, 13889), (554, 13982), (571, 14048), (596, 14183), (657, 14534), (671, 14705), (679, 14786), (685, 14816), (694, 14870), (721, 15038), (734, 15110), (738, 15128), (739, 15134),

Gene: LaterM_21 Start: 12043, Stop: 15876, Start Num: 17

Candidate Starts for LaterM_21:

(Start: 17 @12043 has 171 MA's), (Start: 26 @12112 has 1 MA's), (34, 12199), (60, 12379), (67, 12406), (87, 12490), (88, 12499), (96, 12559), (97, 12571), (111, 12646), (120, 12688), (128, 12730), (130, 12739), (134, 12760), (142, 12799), (157, 12877), (168, 12955), (198, 13120), (212, 13213), (216, 13234), (218, 13243), (267, 13480), (273, 13504), (277, 13519), (286, 13552), (304, 13639), (322, 13747), (340, 13831), (343, 13843), (347, 13864), (355, 13945), (431, 14020), (442, 14101), (444, 14110), (451, 14149), (454, 14167), (457, 14188), (463, 14224), (474, 14275), (481, 14332), (496, 14410), (499, 14419), (520, 14497), (526, 14512), (535, 14554), (549, 14608), (596, 14848), (614, 14923), (645, 15034), (659, 15253), (671, 15367), (679, 15448), (680, 15457), (694, 15529), (702, 15559), (706, 15580), (721, 15697), (734, 15769), (739, 15793),

Gene: Lavahound_19 Start: 11863, Stop: 16011, Start Num: 17

Candidate Starts for Lavahound_19:

(Start: 17 @11863 has 171 MA's), (Start: 26 @11932 has 1 MA's), (44, 12094), (60, 12196), (62, 12202), (67, 12223), (96, 12376), (97, 12388), (111, 12463), (130, 12556), (134, 12577), (142, 12616), (157, 12694), (168, 12772), (174, 12796), (182, 12850), (184, 12862), (198, 12937), (212, 13030), (232, 13111), (242, 13174), (253, 13228), (258, 13249), (261, 13261), (267, 13297), (272, 13318), (280, 13345), (286, 13369), (291, 13390), (294, 13411), (304, 13456), (326, 13582), (332, 13630), (345, 13690), (346, 13696), (356, 13786), (369, 13885), (371, 13897), (381, 13948), (382, 13954),

(399, 14005), (404, 14044), (407, 14065), (431, 14176), (440, 14236), (445, 14269), (447, 14287), (451, 14305), (454, 14323), (456, 14335), (463, 14380), (474, 14431), (481, 14479), (496, 14557), (520, 14644), (523, 14650), (526, 14659), (538, 14716), (539, 14719), (554, 14794), (571, 14860), (596, 14995), (611, 15055), (614, 15070), (617, 15076), (672, 15526), (679, 15598), (680, 15607), (696, 15694), (721, 15847), (739, 15946), (742, 15973), (743, 15985),

Gene: LeMond_20 Start: 11082, Stop: 15155, Start Num: 18

Candidate Starts for LeMond_20:

(Start: 18 @11082 has 63 MA's), (29, 11175), (44, 11307), (71, 11445), (88, 11523), (89, 11535), (90, 11541), (96, 11574), (104, 11610), (113, 11667), (115, 11679), (126, 11733), (132, 11763), (151, 11850), (154, 11865), (160, 11901), (177, 11994), (190, 12075), (221, 12258), (223, 12267), (233, 12309), (238, 12351), (252, 12411), (255, 12423), (256, 12429), (260, 12444), (264, 12465), (270, 12498), (302, 12621), (304, 12633), (305, 12639), (309, 12654), (311, 12660), (341, 12744), (349, 12825), (373, 12978), (398, 13074), (404, 13116), (414, 13167), (418, 13188), (424, 13218), (426, 13224), (431, 13248), (440, 13308), (447, 13359), (455, 13404), (457, 13416), (467, 13470), (474, 13503), (481, 13560), (496, 13638), (497, 13641), (520, 13725), (535, 13782), (548, 13836), (554, 13875), (580, 13980), (596, 14076), (614, 14151), (645, 14274), (659, 14493), (679, 14694), (696, 14808), (721, 14985), (734, 15069), (739, 15090),

Gene: Lea83_20 Start: 12197, Stop: 16345, Start Num: 17

Candidate Starts for Lea83_20:

(Start: 17 @12197 has 171 MA's), (Start: 26 @12266 has 1 MA's), (Start: 27 @12287 has 1 MA's), (29, 12293), (34, 12353), (55, 12491), (62, 12536), (67, 12557), (80, 12602), (96, 12710), (97, 12722), (103, 12743), (111, 12797), (117, 12827), (122, 12848), (128, 12881), (130, 12890), (134, 12911), (142, 12950), (157, 13028), (163, 13070), (168, 13106), (174, 13130), (203, 13304), (212, 13364), (216, 13385), (218, 13394), (253, 13562), (258, 13583), (263, 13607), (267, 13631), (272, 13652), (278, 13670), (286, 13703), (294, 13745), (295, 13748), (296, 13751), (304, 13790), (306, 13799), (318, 13868), (336, 13979), (342, 14009), (368, 14207), (373, 14240), (397, 14330), (400, 14348), (404, 14378), (409, 14405), (447, 14621), (454, 14657), (463, 14714), (467, 14732), (474, 14765), (475, 14777), (482, 14825), (496, 14906), (497, 14909), (535, 15026), (554, 15119), (575, 15197), (592, 15296), (596, 15320), (614, 15395), (671, 15854), (673, 15866), (679, 15935), (680, 15944), (715, 16136), (717, 16154), (724, 16190), (727, 16199), (738, 16265), (739, 16271), (741, 16286), (742, 16298),

Gene: Lebo14_22 Start: 13327, Stop: 17505, Start Num: 18

Candidate Starts for Lebo14_22:

(12, 13291), (Start: 18 @13327 has 63 MA's), (38, 13525), (87, 13765), (88, 13774), (103, 13867), (130, 14014), (134, 14035), (142, 14074), (144, 14077), (157, 14152), (168, 14230), (183, 14317), (184, 14320), (192, 14350), (196, 14383), (200, 14407), (213, 14491), (219, 14521), (226, 14548), (248, 14656), (252, 14677), (254, 14689), (257, 14701), (267, 14755), (304, 14914), (309, 14935), (322, 15043), (344, 15163), (404, 15523), (414, 15574), (416, 15583), (425, 15628), (429, 15649), (469, 15868), (473, 15880), (475, 15889), (487, 15961), (496, 16012), (497, 16015), (504, 16042), (514, 16078), (535, 16141), (539, 16159), (554, 16234), (595, 16423), (596, 16435), (614, 16510), (648, 16696), (657, 16816), (665, 16924), (679, 17077), (698, 17197), (700, 17206), (702, 17209), (716, 17308), (721, 17335), (739, 17431), (745, 17494),

Gene: Lemuria_16 Start: 10811, Stop: 14821, Start Num: 18

Candidate Starts for Lemuria_16:

(Start: 18 @10811 has 63 MA's), (29, 10907), (37, 11012), (39, 11021), (63, 11144), (68, 11168), (70, 11171), (78, 11204), (79, 11207), (88, 11258), (93, 11285), (98, 11327), (107, 11372), (115, 11408), (117, 11417), (118, 11420), (119, 11423), (132, 11489), (145, 11546), (151, 11588), (160, 11639), (167, 11699), (169, 11711), (173, 11723), (176, 11732), (190, 11813), (211, 11942), (221, 11990), (228, 12020), (231, 12032), (233, 12041), (238, 12083), (252, 12143), (256, 12161), (260, 12176),

(264, 12197), (270, 12230), (279, 12257), (282, 12269), (290, 12302), (296, 12326), (300, 12344), (304, 12365), (320, 12461), (335, 12533), (371, 12791), (377, 12824), (400, 12908), (403, 12935), (410, 12968), (416, 12998), (424, 13040), (426, 13046), (440, 13130), (448, 13184), (467, 13292), (494, 13451), (502, 13475), (505, 13490), (511, 13514), (543, 13625), (561, 13712), (562, 13715), (580, 13802), (583, 13811), (590, 13868), (596, 13901), (612, 13955), (628, 13982), (647, 14096), (663, 14324), (668, 14390), (673, 14426), (677, 14483), (679, 14495), (690, 14573), (700, 14612), (707, 14639), (722, 14747),

Gene: Leston_19 Start: 12267, Stop: 16376, Start Num: 16

Candidate Starts for Leston_19:

(Start: 16 @12267 has 33 MA's), (46, 12525), (62, 12609), (80, 12675), (88, 12723), (96, 12783), (97, 12795), (103, 12816), (111, 12870), (117, 12900), (130, 12963), (134, 12984), (147, 13041), (157, 13101), (168, 13179), (174, 13203), (180, 13245), (187, 13278), (212, 13437), (216, 13458), (237, 13536), (251, 13599), (254, 13614), (255, 13617), (257, 13626), (258, 13632), (261, 13644), (267, 13680), (271, 13698), (296, 13800), (304, 13839), (332, 13992), (341, 14034), (346, 14058), (356, 14148), (358, 14181), (369, 14247), (383, 14322), (386, 14331), (390, 14349), (400, 14376), (413, 14454), (431, 14538), (449, 14661), (460, 14727), (479, 14829), (496, 14922), (504, 14952), (510, 14979), (513, 14985), (529, 15036), (532, 15057), (536, 15072), (537, 15078), (555, 15162), (565, 15192), (568, 15210), (577, 15249), (586, 15309), (593, 15342), (596, 15363), (600, 15387), (610, 15420), (632, 15504), (647, 15576), (671, 15885), (675, 15939), (677, 15954), (679, 15966), (685, 15996), (718, 16182), (721, 16206), (724, 16218), (740, 16305), (742, 16329),

Gene: Liefie_16 Start: 11463, Stop: 15476, Start Num: 17

Candidate Starts for Liefie_16:

(Start: 17 @11463 has 171 MA's), (38, 11664), (56, 11766), (57, 11778), (67, 11820), (72, 11841), (75, 11850), (97, 11985), (100, 11997), (103, 12006), (139, 12195), (142, 12213), (144, 12216), (148, 12237), (150, 12249), (161, 12321), (168, 12369), (194, 12501), (197, 12525), (208, 12606), (235, 12729), (251, 12813), (259, 12849), (267, 12894), (268, 12900), (294, 13008), (300, 13032), (304, 13053), (346, 13272), (363, 13422), (378, 13509), (403, 13617), (431, 13752), (446, 13857), (447, 13863), (451, 13881), (456, 13911), (494, 14133), (502, 14157), (505, 14172), (509, 14193), (529, 14247), (543, 14307), (562, 14397), (567, 14430), (583, 14493), (590, 14550), (596, 14583), (597, 14592), (673, 15096), (674, 15123), (677, 15153), (679, 15165), (680, 15174), (694, 15243), (713, 15324), (720, 15384), (722, 15402), (725, 15411),

Gene: LilDirt_18 Start: 11997, Stop: 16103, Start Num: 16

Candidate Starts for LilDirt_18:

(Start: 16 @11997 has 33 MA's), (Start: 27 @12090 has 1 MA's), (35, 12168), (36, 12192), (46, 12252), (62, 12336), (64, 12348), (88, 12450), (96, 12510), (97, 12522), (103, 12543), (111, 12597), (121, 12645), (130, 12690), (134, 12711), (157, 12828), (168, 12906), (174, 12930), (184, 12996), (198, 13071), (212, 13164), (218, 13194), (255, 13368), (257, 13377), (263, 13407), (267, 13431), (272, 13452), (289, 13512), (304, 13590), (306, 13599), (319, 13677), (332, 13743), (341, 13785), (343, 13794), (350, 13878), (356, 13899), (358, 13932), (369, 13998), (373, 14019), (383, 14073), (386, 14082), (390, 14100), (399, 14118), (400, 14127), (404, 14157), (411, 14193), (421, 14247), (429, 14283), (431, 14289), (432, 14307), (449, 14412), (460, 14478), (496, 14673), (504, 14703), (513, 14736), (529, 14787), (532, 14808), (536, 14823), (537, 14829), (555, 14913), (568, 14961), (577, 15000), (586, 15060), (593, 15093), (596, 15114), (600, 15138), (610, 15168), (632, 15234), (647, 15306), (671, 15621), (672, 15630), (673, 15633), (675, 15675), (679, 15702), (685, 15732), (694, 15783), (698, 15801), (713, 15867), (718, 15915), (721, 15939), (724, 15951), (740, 16032), (742, 16056), (747, 16095),

Gene: LilPharaoh_17 Start: 11327, Stop: 15460, Start Num: 17

Candidate Starts for LilPharaoh_17:

(9, 11288), (Start: 17 @11327 has 171 MA's), (Start: 26 @11396 has 1 MA's), (34, 11483), (44, 11561), (62, 11669), (67, 11690), (76, 11723), (97, 11855), (101, 11870), (103, 11876), (111, 11930), (117, 11960), (130, 12023), (134, 12044), (142, 12083), (157, 12161), (168, 12239), (174, 12263), (212, 12497), (232, 12578), (240, 12638), (253, 12695), (262, 12731), (267, 12764), (273, 12788), (290, 12854), (292, 12863), (304, 12923), (322, 13031), (332, 13076), (356, 13232), (371, 13343), (373, 13352), (375, 13364), (386, 13415), (390, 13433), (400, 13460), (404, 13490), (422, 13583), (431, 13622), (457, 13790), (467, 13844), (474, 13877), (480, 13922), (496, 14003), (497, 14006), (520, 14090), (523, 14096), (526, 14105), (535, 14147), (545, 14183), (549, 14201), (554, 14240), (569, 14300), (596, 14441), (611, 14501), (614, 14516), (661, 14858), (679, 15047), (680, 15056), (691, 15119), (739, 15395),

Gene: LindNT_21 Start: 12047, Stop: 15883, Start Num: 17

Candidate Starts for LindNT_21:

(Start: 17 @12047 has 171 MA's), (Start: 26 @12116 has 1 MA's), (34, 12203), (60, 12383), (67, 12410), (88, 12503), (96, 12563), (97, 12575), (111, 12650), (122, 12701), (130, 12743), (134, 12764), (142, 12803), (157, 12881), (168, 12959), (174, 12983), (198, 13124), (212, 13217), (214, 13226), (216, 13238), (218, 13247), (267, 13484), (273, 13508), (277, 13523), (286, 13556), (304, 13643), (310, 13667), (322, 13751), (340, 13835), (343, 13847), (347, 13868), (355, 13949), (431, 14024), (442, 14105), (451, 14153), (454, 14171), (456, 14183), (457, 14192), (463, 14228), (474, 14279), (481, 14336), (496, 14414), (499, 14423), (520, 14501), (526, 14516), (535, 14558), (549, 14612), (596, 14852), (614, 14927), (645, 15038), (659, 15257), (661, 15269), (671, 15371), (679, 15452), (680, 15461), (694, 15533), (702, 15563), (706, 15584), (721, 15704), (734, 15776), (738, 15794), (739, 15800),

Gene: Llorens_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Llorens_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: LongHai_20 Start: 11740, Stop: 15189, Start Num: 31

Candidate Starts for LongHai_20:

(Start: 31 @11740 has 2 MA's), (33, 11755), (40, 11803), (42, 11806), (48, 11851), (84, 11974), (86, 11995), (143, 12301), (146, 12313), (149, 12334), (162, 12418), (169, 12472), (172, 12481), (188, 12568), (190, 12577), (195, 12619), (203, 12664), (204, 12676), (207, 12697), (212, 12721), (225, 12775), (246, 12850), (250, 12862), (255, 12886), (273, 12973), (312, 13030), (337, 13099), (347, 13153), (366, 13309), (374, 13348), (376, 13360), (398, 13423), (404, 13465), (406, 13483), (428, 13570), (433, 13594), (437, 13621), (440, 13633), (450, 13699), (458, 13741), (459, 13750), (483, 13843), (488, 13873), (498, 13909), (506, 13939), (512, 13957), (522, 13984), (524, 13987), (540, 14038), (541, 14041), (542, 14044), (562, 14134), (572, 14182), (576, 14197), (578, 14215), (583, 14230), (591, 14290), (596, 14323), (597, 14332), (599, 14341), (612, 14377), (616, 14392), (653, 14587), (670, 14782), (680, 14878), (683, 14896), (691, 14938), (693, 14944), (700, 14971), (717, 15073), (719, 15082), (727, 15121),

Gene: LouisV14_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for LouisV14_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Lunahalos_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Lunahalos_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: MOOREtheMARYer_16 Start: 11710, Stop: 15720, Start Num: 18

Candidate Starts for MOOREtheMARYer_16:

(Start: 18 @11710 has 63 MA's), (29, 11806), (51, 11986), (56, 12016), (61, 12040), (66, 12061), (71, 12079), (90, 12175), (92, 12181), (94, 12196), (96, 12208), (98, 12226), (106, 12268), (107, 12271), (115, 12307), (118, 12319), (125, 12349), (127, 12361), (129, 12370), (145, 12445), (151, 12487), (154, 12502), (160, 12538), (161, 12553), (168, 12601), (169, 12610), (190, 12712), (203, 12796), (213, 12853), (221, 12895), (229, 12928), (230, 12931), (231, 12937), (233, 12946), (238, 12988), (255, 13060), (256, 13066), (260, 13081), (263, 13099), (264, 13102), (279, 13162), (290, 13207), (296, 13231), (300, 13249), (304, 13270), (310, 13294), (312, 13306), (313, 13309), (320, 13366), (335, 13438), (343, 13480), (363, 13645), (378, 13732), (383, 13759), (388, 13780), (404, 13843), (414, 13894), (426, 13951), (431, 13975), (438, 14026), (445, 14068), (467, 14197), (484, 14287), (486, 14302), (487, 14305), (502, 14371), (505, 14386), (527, 14452), (538, 14506), (543, 14521), (558, 14602), (562, 14611), (583, 14704), (590, 14761), (596, 14794), (612, 14848), (618, 14869), (673, 15325), (674, 15352), (676, 15379), (679, 15394), (680, 15403), (694, 15490), (720, 15628), (722, 15646), (727, 15661),

Gene: MZKinsey_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for MZKinsey_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: MacKat_21 Start: 12093, Stop: 15926, Start Num: 17

Candidate Starts for MacKat_21:

(Start: 17 @12093 has 171 MA's), (Start: 26 @12162 has 1 MA's), (34, 12249), (60, 12426), (67, 12453), (87, 12537), (88, 12546), (97, 12618), (111, 12693), (128, 12777), (130, 12786), (134, 12807), (142, 12846), (157, 12924), (168, 13002), (184, 13092), (198, 13167), (212, 13260), (214, 13269), (216, 13281), (218, 13290), (267, 13527), (277, 13566), (286, 13599), (304, 13686), (310, 13710), (322, 13794), (340, 13878), (343, 13890), (347, 13911), (431, 14067), (442, 14148), (446, 14172), (451, 14196), (454, 14214), (457, 14235), (463, 14271), (474, 14322), (481, 14379), (496, 14457), (499, 14466), (520, 14544), (526, 14559), (535, 14601), (549, 14655), (596, 14895), (614, 14970), (645, 15081), (659, 15300), (661, 15312), (679, 15495), (680, 15504), (694, 15576), (702, 15606), (706, 15627), (721, 15747), (734, 15819), (738, 15837), (739, 15843),

Gene: MacnCheese_21 Start: 12433, Stop: 16590, Start Num: 17

Candidate Starts for MacnCheese_21:

(4, 12283), (Start: 17 @12433 has 171 MA's), (Start: 27 @12523 has 1 MA's), (29, 12529), (34, 12589), (57, 12751), (76, 12826), (87, 12877), (88, 12886), (96, 12946), (97, 12958), (103, 12979), (111, 13033), (130, 13126), (134, 13147), (142, 13186), (148, 13210), (157, 13264), (164, 13309), (168, 13342), (174, 13366), (203, 13540), (216, 13621), (253, 13798), (263, 13843), (267, 13867), (272, 13888), (285, 13936), (294, 13981), (300, 14005), (304, 14026), (318, 14104), (329, 14182), (341, 14242), (342, 14245), (345, 14260), (373, 14476), (382, 14524), (397, 14566), (400, 14584), (404, 14614), (407, 14635), (410, 14644), (416, 14674), (431, 14746), (435, 14776), (454, 14893), (457, 14914), (463, 14950), (467, 14968), (474, 15001), (478, 15046), (482, 15061), (496, 15142), (497, 15145), (517, 15214), (520, 15229), (523, 15235), (526, 15244), (549, 15340), (554, 15379), (592, 15556), (596, 15580), (614, 15655), (667, 16069), (671, 16099), (672, 16108), (673, 16111), (680, 16189), (683, 16207), (685, 16210), (715, 16384), (717, 16402), (727, 16447), (732, 16480), (739, 16516), (741, 16531), (742, 16543),

Gene: Maco6_17 Start: 10697, Stop: 14146, Start Num: 31

Candidate Starts for Maco6_17:

(Start: 31 @10697 has 2 MA's), (33, 10712), (40, 10760), (42, 10763), (48, 10808), (84, 10931), (143, 11258), (146, 11270), (149, 11291), (162, 11375), (169, 11429), (172, 11438), (181, 11492), (182, 11501), (188, 11525), (190, 11534), (195, 11576), (203, 11621), (204, 11633), (207, 11654), (212, 11678), (217, 11708), (225, 11732), (246, 11807), (250, 11819), (255, 11843), (257, 11852), (273, 11930), (312, 11987), (337, 12056), (367, 12272), (376, 12317), (406, 12440), (423, 12518), (433, 12551), (437, 12578), (440, 12590), (458, 12698), (459, 12707), (483, 12800), (488, 12830), (498, 12866), (506, 12896), (512, 12914), (522, 12941), (524, 12944), (541, 12998), (542, 13001), (562, 13091), (572, 13139), (576, 13154), (578, 13172), (583, 13187), (591, 13247), (596, 13280), (597, 13289), (599, 13298), (612, 13334), (616, 13349), (643, 13421), (653, 13544), (670, 13739), (680, 13835), (683, 13853), (691, 13895), (693, 13901), (700, 13928), (717, 14030), (719, 14039), (727, 14078),

Gene: Maliketh_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Maliketh_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Malthus_22 Start: 13237, Stop: 17412, Start Num: 18

Candidate Starts for Malthus_22:

(12, 13201), (Start: 18 @13237 has 63 MA's), (38, 13435), (87, 13675), (88, 13684), (103, 13777), (121, 13879), (130, 13924), (142, 13984), (157, 14062), (168, 14140), (183, 14227), (184, 14230), (192, 14260), (196, 14293), (200, 14317), (213, 14401), (219, 14431), (226, 14458), (248, 14566), (252, 14587), (254, 14599), (257, 14611), (267, 14665), (304, 14824), (309, 14845), (322, 14953), (344, 15073), (401, 15415), (404, 15433), (414, 15484), (416, 15493), (425, 15538), (429, 15559), (452, 15679), (469, 15778), (473, 15790), (475, 15799), (487, 15871), (496, 15922), (497, 15925), (504, 15952), (535, 16051), (539, 16069), (554, 16144), (595, 16333), (596, 16345), (614, 16420), (626, 16450), (648, 16606), (657, 16726), (665, 16834), (679, 16984), (700, 17113), (702, 17116), (716, 17215), (721, 17242), (739, 17338), (745, 17401),

Gene: Marcoliusprime_17 Start: 10116, Stop: 13784, Start Num: 16

Candidate Starts for Marcoliusprime_17:

(Start: 16 @10116 has 33 MA's), (Start: 26 @10188 has 1 MA's), (65, 10422), (85, 10473), (97, 10566), (103, 10587), (111, 10641), (130, 10734), (134, 10755), (139, 10776), (140, 10782), (157, 10872), (163, 10914), (168, 10950), (177, 10983), (178, 10995), (181, 11019), (184, 11040), (191, 11064), (192, 11070), (197, 11106), (198, 11115), (203, 11148), (204, 11160), (208, 11187), (251, 11370), (253, 11382), (255, 11388), (259, 11406), (263, 11427), (267, 11451), (273, 11475), (296, 11484), (299, 11499), (307, 11511), (321, 11544), (332, 11592), (352, 11733), (353, 11739), (357, 11775), (362, 11802), (366, 11820), (400, 11946), (415, 12012), (430, 12066), (436, 12099), (440, 12120), (445, 12144), (449, 12174), (453, 12195), (503, 12417), (531, 12510), (551, 12588), (582, 12711), (604, 12816), (621, 12864), (666, 13251), (671, 13281), (672, 13290), (674, 13320), (704, 13485), (721, 13614), (739, 13707),

Gene: MarkPhew_21 Start: 10973, Stop: 15046, Start Num: 18

Candidate Starts for MarkPhew_21:

(3, 10757), (10, 10937), (Start: 18 @10973 has 63 MA's), (29, 11066), (44, 11198), (47, 11225), (49, 11234), (61, 11297), (71, 11336), (75, 11351), (88, 11414), (89, 11426), (96, 11465), (113, 11558), (115, 11570), (126, 11624), (151, 11741), (154, 11756), (160, 11792), (167, 11852), (168, 11855), (178, 11897), (190, 11966), (221, 12149), (233, 12200), (234, 12212), (252, 12302), (255, 12314), (256, 12320), (260, 12335), (266, 12374), (302, 12512), (304, 12524), (305, 12530), (309, 12545), (311, 12551), (373, 12869), (382, 12917), (386, 12932), (400, 12977), (404, 13007), (414, 13058), (418, 13079), (426, 13115), (431, 13139), (457, 13307), (463, 13343), (467, 13361), (474, 13394), (481, 13451), (496, 13529), (497, 13532), (520, 13616), (548, 13727), (554, 13766), (580, 13871), (596, 13967), (614, 14042), (659, 14390), (679, 14588), (721, 14876), (724, 14888), (734, 14960), (739, 14981),

Gene: Marmie_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Marmie_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Marshawn_22 Start: 11657, Stop: 15661, Start Num: 18

Candidate Starts for Marshawn_22:

(1, 11312), (3, 11444), (10, 11621), (Start: 18 @11657 has 63 MA's), (22, 11681), (29, 11750), (47, 11909), (49, 11918), (59, 11975), (87, 12089), (88, 12098), (89, 12110), (94, 12137), (96, 12149), (99, 12170), (114, 12251), (126, 12308), (132, 12338), (151, 12425), (154, 12440), (155, 12449), (160,

12476), (168, 12539), (169, 12548), (190, 12650), (202, 12725), (221, 12833), (229, 12866), (236, 12908), (238, 12926), (252, 12986), (255, 12998), (256, 13004), (260, 13019), (263, 13037), (264, 13040), (266, 13058), (270, 13073), (281, 13109), (292, 13154), (294, 13163), (297, 13178), (302, 13196), (304, 13208), (305, 13214), (309, 13229), (311, 13235), (342, 13322), (355, 13430), (373, 13553), (386, 13616), (400, 13661), (404, 13691), (414, 13742), (426, 13799), (431, 13823), (442, 13904), (451, 13952), (457, 13991), (463, 14027), (474, 14078), (496, 14219), (497, 14222), (520, 14306), (526, 14321), (535, 14363), (554, 14456), (596, 14657), (614, 14732), (638, 14810), (657, 15026), (659, 15083), (673, 15212), (674, 15239), (679, 15281), (694, 15371), (696, 15383), (711, 15422), (730, 15548), (733, 15572), (734, 15575), (739, 15596),

Gene: McMater_21 Start: 11128, Stop: 15282, Start Num: 18

Candidate Starts for McMater_21:

(10, 11086), (Start: 18 @11128 has 63 MA's), (29, 11221), (47, 11380), (53, 11407), (72, 11497), (73, 11500), (90, 11587), (109, 11695), (124, 11764), (127, 11782), (145, 11866), (151, 11908), (154, 11923), (155, 11932), (160, 11959), (168, 12022), (178, 12064), (190, 12133), (200, 12196), (201, 12205), (221, 12319), (222, 12325), (231, 12361), (233, 12370), (234, 12382), (236, 12394), (238, 12412), (252, 12472), (255, 12484), (256, 12490), (260, 12505), (263, 12523), (264, 12526), (266, 12544), (270, 12559), (282, 12598), (296, 12655), (297, 12664), (304, 12694), (309, 12715), (315, 12745), (319, 12778), (334, 12862), (340, 12892), (343, 12904), (355, 13006), (365, 13084), (373, 13129), (377, 13153), (389, 13207), (390, 13210), (398, 13225), (404, 13267), (409, 13294), (411, 13303), (414, 13318), (415, 13324), (416, 13327), (441, 13468), (446, 13504), (447, 13510), (451, 13528), (455, 13555), (457, 13567), (467, 13621), (474, 13654), (482, 13714), (496, 13795), (497, 13798), (520, 13882), (526, 13897), (554, 14032), (571, 14098), (596, 14233), (657, 14584), (679, 14839), (680, 14848), (688, 14914), (721, 15109), (727, 15130), (734, 15181), (738, 15199), (739, 15205), (743, 15244),

Gene: Mdavu_17 Start: 11315, Stop: 15448, Start Num: 17

Candidate Starts for Mdavu_17:

(9, 11276), (Start: 17 @11315 has 171 MA's), (Start: 26 @11384 has 1 MA's), (34, 11471), (44, 11549), (62, 11657), (67, 11678), (76, 11711), (97, 11843), (101, 11858), (103, 11864), (111, 11918), (117, 11948), (130, 12011), (134, 12032), (142, 12071), (157, 12149), (168, 12227), (174, 12251), (212, 12485), (232, 12566), (240, 12626), (253, 12683), (262, 12719), (267, 12752), (273, 12776), (290, 12842), (292, 12851), (304, 12911), (322, 13019), (332, 13064), (356, 13220), (371, 13331), (373, 13340), (375, 13352), (386, 13403), (390, 13421), (400, 13448), (404, 13478), (422, 13571), (431, 13610), (457, 13778), (467, 13832), (474, 13865), (480, 13910), (496, 13991), (497, 13994), (520, 14078), (523, 14084), (526, 14093), (535, 14135), (545, 14171), (549, 14189), (554, 14228), (569, 14288), (596, 14429), (611, 14489), (614, 14504), (661, 14846), (679, 15035), (680, 15044), (691, 15107), (739, 15383),

Gene: MeaningOfLife_21 Start: 12052, Stop: 15885, Start Num: 17

Candidate Starts for MeaningOfLife_21:

(Start: 17 @12052 has 171 MA's), (Start: 26 @12121 has 1 MA's), (Start: 27 @12142 has 1 MA's), (34, 12208), (60, 12385), (67, 12412), (85, 12484), (87, 12496), (88, 12505), (97, 12577), (111, 12652), (128, 12736), (130, 12745), (134, 12766), (142, 12805), (157, 12883), (168, 12961), (184, 13051), (198, 13126), (212, 13219), (214, 13228), (216, 13240), (218, 13249), (267, 13486), (277, 13525), (286, 13558), (304, 13645), (310, 13669), (322, 13753), (340, 13837), (343, 13849), (347, 13870), (431, 14026), (442, 14107), (451, 14155), (454, 14173), (457, 14194), (463, 14230), (474, 14281), (481, 14338), (496, 14416), (499, 14425), (520, 14503), (526, 14518), (535, 14560), (549, 14614), (596, 14854), (614, 14929), (645, 15040), (659, 15259), (661, 15271), (679, 15454), (680, 15463), (694, 15535), (702, 15565), (706, 15586), (721, 15706), (734, 15778), (738, 15796), (739, 15802),

Gene: Megsy_21 Start: 12050, Stop: 15886, Start Num: 17

Candidate Starts for Megsy_21:

(Start: 17 @12050 has 171 MA's), (Start: 26 @12119 has 1 MA's), (34, 12206), (60, 12386), (67, 12413), (88, 12506), (96, 12566), (97, 12578), (111, 12653), (122, 12704), (130, 12746), (134, 12767), (142, 12806), (157, 12884), (168, 12962), (174, 12986), (198, 13127), (212, 13220), (214, 13229), (216, 13241), (218, 13250), (267, 13487), (273, 13511), (277, 13526), (286, 13559), (304, 13646), (310, 13670), (322, 13754), (340, 13838), (343, 13850), (347, 13871), (355, 13952), (431, 14027), (442, 14108), (451, 14156), (454, 14174), (456, 14186), (457, 14195), (463, 14231), (474, 14282), (481, 14339), (496, 14417), (499, 14426), (520, 14504), (526, 14519), (549, 14615), (596, 14855), (614, 14930), (645, 15041), (659, 15260), (661, 15272), (671, 15374), (679, 15455), (680, 15464), (694, 15536), (702, 15566), (706, 15587), (721, 15707), (734, 15779), (738, 15797), (739, 15803),

Gene: Mercurio_17 Start: 11458, Stop: 15474, Start Num: 18

Candidate Starts for Mercurio_17:

(Start: 18 @11458 has 63 MA's), (49, 11725), (63, 11791), (68, 11815), (70, 11818), (75, 11842), (78, 11851), (79, 11854), (88, 11905), (93, 11932), (98, 11974), (107, 12019), (111, 12037), (112, 12040), (118, 12067), (128, 12115), (132, 12136), (145, 12193), (151, 12235), (159, 12280), (160, 12286), (168, 12349), (169, 12358), (173, 12370), (176, 12379), (190, 12460), (221, 12637), (228, 12667), (229, 12670), (233, 12688), (234, 12700), (238, 12730), (244, 12757), (252, 12790), (256, 12808), (260, 12823), (264, 12844), (270, 12877), (279, 12904), (290, 12949), (296, 12973), (300, 12991), (304, 13012), (320, 13108), (330, 13153), (335, 13180), (351, 13309), (371, 13438), (400, 13555), (403, 13582), (410, 13615), (425, 13690), (426, 13693), (440, 13777), (445, 13810), (455, 13873), (494, 14098), (502, 14122), (505, 14137), (511, 14161), (543, 14272), (558, 14353), (562, 14362), (583, 14455), (590, 14512), (596, 14545), (598, 14560), (677, 15139), (679, 15151), (681, 15166), (694, 15238), (707, 15289), (722, 15397),

Gene: Milly_17 Start: 10116, Stop: 13784, Start Num: 16

Candidate Starts for Milly_17:

(Start: 16 @10116 has 33 MA's), (Start: 26 @10188 has 1 MA's), (65, 10422), (85, 10473), (97, 10566), (103, 10587), (111, 10641), (130, 10734), (134, 10755), (139, 10776), (140, 10782), (157, 10872), (163, 10914), (168, 10950), (177, 10983), (178, 10995), (181, 11019), (184, 11040), (191, 11064), (192, 11070), (197, 11106), (198, 11115), (203, 11148), (204, 11160), (208, 11187), (251, 11370), (253, 11382), (255, 11388), (259, 11406), (263, 11427), (267, 11451), (273, 11475), (296, 11484), (299, 11499), (307, 11511), (321, 11544), (332, 11592), (352, 11733), (353, 11739), (357, 11775), (362, 11802), (366, 11820), (373, 11850), (400, 11946), (405, 11979), (415, 12012), (430, 12066), (436, 12099), (440, 12120), (445, 12144), (449, 12174), (453, 12195), (503, 12417), (531, 12510), (551, 12588), (582, 12711), (604, 12816), (621, 12864), (671, 13281), (672, 13290), (674, 13320), (704, 13485), (721, 13614), (739, 13707),

Gene: Miryou_19 Start: 12115, Stop: 16230, Start Num: 16

Candidate Starts for Miryou_19:

(Start: 16 @12115 has 33 MA's), (46, 12373), (62, 12457), (80, 12523), (88, 12571), (96, 12631), (97, 12643), (103, 12664), (111, 12718), (117, 12748), (130, 12811), (134, 12832), (147, 12889), (157, 12949), (163, 12991), (168, 13027), (174, 13051), (180, 13093), (187, 13126), (212, 13285), (216, 13306), (237, 13384), (251, 13447), (254, 13462), (255, 13465), (257, 13474), (258, 13480), (261, 13492), (267, 13528), (271, 13546), (296, 13648), (304, 13687), (332, 13840), (341, 13882), (346, 13906), (356, 13996), (358, 14029), (369, 14095), (383, 14170), (386, 14179), (390, 14197), (400, 14224), (413, 14302), (431, 14386), (449, 14509), (460, 14575), (479, 14677), (496, 14770), (504, 14800), (510, 14827), (513, 14833), (529, 14884), (532, 14905), (536, 14920), (537, 14926), (555, 15010), (565, 15040), (568, 15058), (577, 15097), (586, 15157), (593, 15190), (596, 15211), (600, 15235), (610, 15268), (632, 15352), (647, 15424), (671, 15739), (675, 15793), (677, 15808), (679, 15820), (685, 15850), (718, 16036), (724, 16072), (740, 16159), (742, 16183),

Gene: MissDaisy_22 Start: 13088, Stop: 17254, Start Num: 18

Candidate Starts for MissDaisy_22:

(12, 13052), (Start: 18 @13088 has 63 MA's), (38, 13286), (85, 13514), (87, 13526), (88, 13535), (91, 13565), (103, 13628), (130, 13775), (134, 13796), (142, 13835), (144, 13838), (157, 13913), (168, 13991), (183, 14078), (184, 14081), (192, 14111), (196, 14144), (200, 14168), (213, 14252), (219, 14282), (226, 14309), (248, 14417), (252, 14438), (254, 14450), (257, 14462), (267, 14516), (304, 14675), (309, 14696), (322, 14804), (344, 14924), (378, 15173), (404, 15284), (414, 15335), (416, 15344), (425, 15389), (429, 15410), (448, 15509), (451, 15524), (452, 15530), (464, 15599), (468, 15620), (469, 15629), (473, 15641), (475, 15650), (487, 15722), (496, 15773), (497, 15776), (504, 15803), (535, 15902), (539, 15920), (554, 15995), (595, 16184), (596, 16196), (614, 16271), (648, 16451), (657, 16571), (665, 16679), (670, 16739), (679, 16826), (685, 16856), (698, 16946), (700, 16955), (702, 16958), (716, 17057), (721, 17084), (739, 17180), (745, 17243),

Gene: Mitti_22 Start: 13237, Stop: 17412, Start Num: 18

Candidate Starts for Mitti_22:

(12, 13201), (Start: 18 @13237 has 63 MA's), (38, 13435), (87, 13675), (88, 13684), (103, 13777), (130, 13924), (134, 13945), (142, 13984), (144, 13987), (157, 14062), (168, 14140), (183, 14227), (184, 14230), (192, 14260), (196, 14293), (200, 14317), (213, 14401), (219, 14431), (226, 14458), (248, 14566), (252, 14587), (254, 14599), (257, 14611), (267, 14665), (304, 14824), (309, 14845), (322, 14953), (344, 15073), (404, 15433), (414, 15484), (416, 15493), (425, 15538), (429, 15559), (469, 15778), (473, 15790), (475, 15799), (487, 15871), (496, 15922), (497, 15925), (504, 15952), (535, 16051), (539, 16069), (554, 16144), (595, 16333), (596, 16345), (614, 16420), (648, 16606), (657, 16726), (665, 16834), (679, 16984), (698, 17104), (700, 17113), (702, 17116), (716, 17215), (721, 17242), (739, 17338), (745, 17401),

Gene: Mowgli_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Mowgli_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Muddy_19 Start: 11647, Stop: 15096, Start Num: 31

Candidate Starts for Muddy_19:

(Start: 31 @11647 has 2 MA's), (33, 11662), (40, 11710), (42, 11713), (48, 11758), (84, 11881), (138, 12187), (143, 12208), (146, 12220), (149, 12241), (162, 12325), (169, 12379), (172, 12388), (188, 12475), (190, 12484), (195, 12526), (203, 12571), (204, 12583), (207, 12604), (212, 12628), (225, 12682), (239, 12736), (246, 12757), (250, 12769), (255, 12793), (257, 12802), (273, 12880), (297, 12898), (312, 12937), (337, 13006), (347, 13060), (359, 13180), (366, 13216), (367, 13222), (374, 13255), (376, 13267), (406, 13390), (433, 13501), (437, 13528), (440, 13540), (458, 13648), (459, 13657), (483, 13750), (488, 13780), (498, 13816), (506, 13846), (512, 13864), (522, 13891), (524, 13894), (541, 13948), (542, 13951), (562, 14041), (572, 14089), (576, 14104), (578, 14122), (583, 14137), (591, 14197), (596, 14230), (597, 14239), (599, 14248), (612, 14284), (616, 14299), (653, 14494), (670, 14689), (680, 14785), (683, 14803), (691, 14845), (693, 14851), (700, 14878), (717, 14980), (719, 14989), (727, 15028),

Gene: Mufasa_17 Start: 10138, Stop: 13812, Start Num: 16

Candidate Starts for Mufasa_17:

(Start: 16 @10138 has 33 MA's), (Start: 26 @10210 has 1 MA's), (35, 10309), (65, 10444), (85, 10495), (97, 10588), (111, 10663), (130, 10756), (134, 10777), (139, 10798), (140, 10804), (157, 10894), (163,

10936), (168, 10972), (177, 11005), (178, 11017), (181, 11041), (184, 11062), (191, 11086), (192, 11092), (197, 11128), (198, 11137), (203, 11170), (204, 11182), (208, 11209), (251, 11392), (253, 11404), (255, 11410), (263, 11449), (267, 11473), (296, 11506), (300, 11524), (307, 11533), (321, 11566), (352, 11755), (353, 11761), (357, 11797), (362, 11824), (366, 11842), (370, 11860), (373, 11872), (400, 11968), (405, 12001), (415, 12034), (430, 12088), (436, 12121), (440, 12142), (445, 12166), (449, 12196), (453, 12217), (489, 12385), (491, 12403), (503, 12439), (531, 12532), (551, 12610), (582, 12733), (621, 12886), (666, 13273), (671, 13303), (672, 13312), (674, 13342), (682, 13402), (704, 13510), (721, 13642), (739, 13735),

Gene: Murucutumbu_21 Start: 12036, Stop: 15869, Start Num: 17

Candidate Starts for Murucutumbu_21:

(Start: 17 @12036 has 171 MA's), (Start: 26 @12105 has 1 MA's), (34, 12192), (60, 12372), (67, 12399), (87, 12483), (88, 12492), (96, 12552), (97, 12564), (111, 12639), (120, 12681), (128, 12723), (130, 12732), (134, 12753), (142, 12792), (157, 12870), (168, 12948), (198, 13113), (212, 13206), (216, 13227), (218, 13236), (267, 13473), (273, 13497), (277, 13512), (286, 13545), (304, 13632), (322, 13740), (340, 13824), (343, 13836), (347, 13857), (355, 13938), (431, 14013), (442, 14094), (444, 14103), (451, 14142), (454, 14160), (457, 14181), (463, 14217), (474, 14268), (481, 14325), (496, 14403), (499, 14412), (520, 14490), (526, 14505), (535, 14547), (549, 14601), (596, 14841), (614, 14916), (645, 15027), (659, 15246), (671, 15360), (679, 15441), (680, 15450), (694, 15522), (702, 15552), (706, 15573), (721, 15690), (734, 15762), (739, 15786),

Gene: Mynx_21 Start: 12099, Stop: 15932, Start Num: 17

Candidate Starts for Mynx_21:

(Start: 17 @12099 has 171 MA's), (Start: 26 @12168 has 1 MA's), (34, 12255), (60, 12432), (67, 12459), (85, 12531), (87, 12543), (88, 12552), (97, 12624), (111, 12699), (128, 12783), (130, 12792), (134, 12813), (142, 12852), (157, 12930), (168, 13008), (184, 13098), (198, 13173), (212, 13266), (214, 13275), (216, 13287), (218, 13296), (267, 13533), (277, 13572), (286, 13605), (304, 13692), (310, 13716), (322, 13800), (340, 13884), (343, 13896), (347, 13917), (431, 14073), (442, 14154), (451, 14202), (454, 14220), (457, 14241), (463, 14277), (474, 14328), (481, 14385), (496, 14463), (499, 14472), (520, 14550), (526, 14565), (535, 14607), (549, 14661), (596, 14901), (614, 14976), (645, 15087), (659, 15306), (661, 15318), (679, 15501), (680, 15510), (694, 15582), (702, 15612), (706, 15633), (721, 15753), (734, 15825), (738, 15843), (739, 15849),

Gene: Neighly_19 Start: 11979, Stop: 16091, Start Num: 16

Candidate Starts for Neighly_19:

(Start: 16 @11979 has 33 MA's), (Start: 27 @12072 has 1 MA's), (35, 12150), (36, 12174), (46, 12234), (62, 12318), (88, 12432), (96, 12492), (97, 12504), (103, 12525), (111, 12579), (121, 12627), (130, 12672), (134, 12693), (157, 12810), (168, 12888), (174, 12912), (184, 12978), (198, 13053), (212, 13146), (218, 13176), (255, 13350), (263, 13389), (267, 13413), (272, 13434), (289, 13494), (304, 13572), (319, 13659), (332, 13725), (341, 13767), (343, 13776), (350, 13860), (356, 13881), (358, 13914), (369, 13980), (373, 14001), (383, 14055), (386, 14064), (390, 14082), (400, 14109), (404, 14139), (411, 14175), (429, 14265), (431, 14271), (432, 14289), (449, 14394), (460, 14460), (496, 14655), (504, 14685), (513, 14718), (529, 14769), (532, 14790), (536, 14805), (537, 14811), (555, 14895), (568, 14943), (577, 14982), (586, 15042), (593, 15075), (596, 15096), (600, 15120), (610, 15150), (632, 15216), (647, 15288), (671, 15603), (672, 15612), (673, 15615), (674, 15642), (675, 15657), (677, 15672), (679, 15684), (685, 15714), (694, 15768), (698, 15786), (713, 15855), (718, 15903), (721, 15927), (724, 15939), (727, 15948), (740, 16020), (742, 16044), (747, 16083),

Gene: Neoh_16 Start: 11456, Stop: 15469, Start Num: 17

Candidate Starts for Neoh_16:

(Start: 17 @11456 has 171 MA's), (38, 11657), (57, 11771), (67, 11813), (75, 11843), (97, 11978), (100, 11990), (103, 11999), (139, 12188), (142, 12206), (144, 12209), (148, 12230), (150, 12242), (161, 12314), (168, 12362), (194, 12494), (197, 12518), (208, 12599), (235, 12722), (251, 12806),

(259, 12842), (267, 12887), (268, 12893), (294, 13001), (300, 13025), (304, 13046), (346, 13265), (363, 13415), (378, 13502), (403, 13610), (431, 13745), (447, 13856), (451, 13874), (456, 13904), (494, 14126), (502, 14150), (505, 14165), (509, 14186), (520, 14213), (529, 14240), (543, 14300), (562, 14390), (567, 14423), (583, 14486), (590, 14543), (596, 14576), (597, 14585), (673, 15089), (674, 15116), (677, 15146), (679, 15158), (680, 15167), (694, 15236), (713, 15317), (720, 15377), (722, 15395), (725, 15404),

Gene: Nibb_20 Start: 11122, Stop: 15189, Start Num: 18

Candidate Starts for Nibb_20:

(10, 11086), (Start: 18 @11122 has 63 MA's), (44, 11347), (47, 11374), (49, 11383), (71, 11485), (96, 11614), (113, 11707), (115, 11719), (126, 11773), (132, 11803), (151, 11890), (154, 11905), (167, 12001), (168, 12004), (178, 12046), (190, 12115), (221, 12298), (233, 12349), (234, 12361), (238, 12391), (252, 12451), (255, 12463), (256, 12469), (260, 12484), (263, 12502), (264, 12505), (300, 12652), (302, 12661), (304, 12673), (305, 12679), (309, 12694), (311, 12700), (341, 12784), (348, 12853), (373, 13018), (382, 13066), (400, 13126), (404, 13156), (414, 13207), (418, 13228), (426, 13264), (435, 13318), (457, 13456), (467, 13510), (474, 13543), (476, 13561), (481, 13600), (496, 13678), (497, 13681), (520, 13765), (535, 13822), (545, 13858), (548, 13876), (554, 13915), (596, 14116), (607, 14158), (614, 14191), (659, 14533), (679, 14731), (721, 15019), (724, 15031), (734, 15103), (739, 15124),

Gene: Nikao_17 Start: 11327, Stop: 15460, Start Num: 17

Candidate Starts for Nikao_17:

(9, 11288), (Start: 17 @11327 has 171 MA's), (Start: 26 @11396 has 1 MA's), (34, 11483), (44, 11561), (62, 11669), (67, 11690), (76, 11723), (97, 11855), (101, 11870), (103, 11876), (111, 11930), (117, 11960), (130, 12023), (134, 12044), (142, 12083), (157, 12161), (168, 12239), (174, 12263), (212, 12497), (232, 12578), (240, 12638), (253, 12695), (262, 12731), (267, 12764), (273, 12788), (290, 12854), (292, 12863), (304, 12923), (322, 13031), (332, 13076), (356, 13232), (371, 13343), (373, 13352), (375, 13364), (386, 13415), (390, 13433), (400, 13460), (404, 13490), (422, 13583), (431, 13622), (434, 13649), (457, 13790), (467, 13844), (474, 13877), (480, 13922), (496, 14003), (497, 14006), (520, 14090), (523, 14096), (526, 14105), (535, 14147), (545, 14183), (549, 14201), (554, 14240), (569, 14300), (596, 14441), (611, 14501), (614, 14516), (661, 14858), (679, 15047), (680, 15056), (691, 15119), (739, 15395),

Gene: Niklas_21 Start: 11128, Stop: 15282, Start Num: 18

Candidate Starts for Niklas_21:

(10, 11086), (Start: 18 @11128 has 63 MA's), (29, 11221), (47, 11380), (53, 11407), (72, 11497), (73, 11500), (90, 11587), (109, 11695), (124, 11764), (127, 11782), (145, 11866), (151, 11908), (154, 11923), (155, 11932), (160, 11959), (168, 12022), (178, 12064), (190, 12133), (200, 12196), (201, 12205), (221, 12319), (222, 12325), (231, 12361), (233, 12370), (234, 12382), (236, 12394), (238, 12412), (252, 12472), (255, 12484), (256, 12490), (260, 12505), (263, 12523), (264, 12526), (266, 12544), (270, 12559), (282, 12598), (296, 12655), (297, 12664), (304, 12694), (309, 12715), (315, 12745), (319, 12778), (334, 12862), (340, 12892), (343, 12904), (355, 13006), (365, 13084), (373, 13129), (377, 13153), (389, 13207), (390, 13210), (398, 13225), (404, 13267), (409, 13294), (411, 13303), (414, 13318), (415, 13324), (416, 13327), (441, 13468), (446, 13504), (447, 13510), (451, 13528), (455, 13555), (457, 13567), (467, 13621), (474, 13654), (482, 13714), (496, 13795), (497, 13798), (520, 13882), (526, 13897), (554, 14032), (571, 14098), (596, 14233), (657, 14584), (679, 14839), (680, 14848), (688, 14914), (721, 15109), (727, 15130), (734, 15181), (738, 15199), (739, 15205), (743, 15244),

Gene: NoShow_16 Start: 10206, Stop: 14354, Start Num: 5

Candidate Starts for NoShow_16:

(Start: 5 @10206 has 1 MA's), (6, 10218), (15, 10323), (20, 10344), (45, 10602), (52, 10635), (53, 10638), (57, 10671), (72, 10728), (77, 10743), (78, 10746), (88, 10800), (91, 10821), (94, 10839), (96,

10851), (99, 10872), (102, 10881), (107, 10911), (129, 11013), (131, 11022), (136, 11055), (152, 11121), (154, 11133), (155, 11142), (162, 11187), (166, 11220), (168, 11232), (175, 11259), (190, 11343), (202, 11418), (206, 11457), (216, 11502), (221, 11526), (231, 11568), (232, 11571), (233, 11577), (234, 11589), (242, 11634), (255, 11691), (256, 11697), (260, 11712), (263, 11730), (270, 11766), (274, 11784), (281, 11802), (289, 11829), (290, 11838), (300, 11880), (301, 11886), (309, 11922), (311, 11928), (331, 11961), (336, 11985), (340, 12009), (368, 12213), (373, 12246), (375, 12258), (382, 12294), (394, 12378), (395, 12384), (412, 12477), (419, 12519), (422, 12531), (424, 12540), (429, 12564), (434, 12597), (443, 12675), (448, 12705), (450, 12717), (452, 12726), (455, 12747), (465, 12801), (472, 12846), (484, 12921), (500, 12996), (507, 13032), (519, 13059), (520, 13068), (525, 13080), (534, 13116), (564, 13257), (566, 13266), (576, 13311), (583, 13344), (590, 13398), (596, 13431), (609, 13470), (613, 13491), (624, 13518), (644, 13599), (650, 13680), (651, 13692), (670, 13938), (674, 13983), (679, 14025), (683, 14052), (692, 14106), (697, 14127), (702, 14142), (703, 14148), (710, 14202), (711, 14208), (715, 14244), (723, 14301), (726, 14310),

Gene: November_19 Start: 12038, Stop: 16228, Start Num: 17

Candidate Starts for November_19:

(Start: 17 @12038 has 171 MA's), (Start: 26 @12107 has 1 MA's), (Start: 27 @12128 has 1 MA's), (34, 12194), (57, 12356), (76, 12431), (87, 12482), (88, 12491), (96, 12551), (97, 12563), (103, 12584), (111, 12638), (117, 12668), (130, 12731), (134, 12752), (142, 12791), (157, 12869), (168, 12947), (174, 12971), (182, 13025), (184, 13037), (197, 13103), (203, 13145), (208, 13184), (210, 13196), (216, 13226), (218, 13235), (241, 13349), (245, 13364), (257, 13418), (263, 13448), (267, 13472), (272, 13493), (285, 13541), (294, 13586), (295, 13589), (304, 13631), (309, 13652), (317, 13700), (326, 13757), (328, 13772), (329, 13787), (333, 13808), (336, 13820), (345, 13865), (356, 13961), (404, 14219), (407, 14240), (426, 14327), (431, 14351), (434, 14378), (435, 14381), (440, 14411), (447, 14462), (454, 14498), (474, 14606), (496, 14741), (497, 14744), (516, 14810), (518, 14816), (529, 14855), (547, 14927), (550, 14933), (553, 14954), (574, 15038), (579, 15068), (584, 15089), (585, 15101), (596, 15182), (603, 15215), (606, 15224), (608, 15230), (620, 15272), (627, 15290), (633, 15323), (636, 15329), (659, 15617), (671, 15731), (672, 15740), (673, 15743), (679, 15812), (706, 15947), (721, 16067), (739, 16163), (743, 16202),

Gene: Nutello_17 Start: 11327, Stop: 15460, Start Num: 17

Candidate Starts for Nutello_17:

(9, 11288), (Start: 17 @11327 has 171 MA's), (Start: 26 @11396 has 1 MA's), (34, 11483), (44, 11561), (62, 11669), (67, 11690), (76, 11723), (97, 11855), (101, 11870), (103, 11876), (111, 11930), (117, 11960), (130, 12023), (134, 12044), (142, 12083), (157, 12161), (168, 12239), (174, 12263), (212, 12497), (232, 12578), (240, 12638), (253, 12695), (262, 12731), (267, 12764), (273, 12788), (290, 12854), (292, 12863), (304, 12923), (322, 13031), (332, 13076), (356, 13232), (371, 13343), (373, 13352), (375, 13364), (386, 13415), (390, 13433), (400, 13460), (404, 13490), (422, 13583), (431, 13622), (457, 13790), (467, 13844), (474, 13877), (480, 13922), (496, 14003), (497, 14006), (520, 14090), (523, 14096), (526, 14105), (535, 14147), (545, 14183), (549, 14201), (554, 14240), (569, 14300), (596, 14441), (611, 14501), (614, 14516), (661, 14858), (679, 15047), (680, 15056), (691, 15119), (739, 15395),

Gene: OctaviousRex_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for OctaviousRex_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385),

(722, 15403), (725, 15412),

Gene: OkiRoe_19 Start: 12137, Stop: 16246, Start Num: 16

Candidate Starts for OkiRoe_19:

(Start: 16 @12137 has 33 MA's), (46, 12395), (62, 12479), (80, 12545), (88, 12593), (96, 12653), (97, 12665), (103, 12686), (111, 12740), (117, 12770), (130, 12833), (134, 12854), (147, 12911), (157, 12971), (168, 13049), (174, 13073), (180, 13115), (187, 13148), (212, 13307), (216, 13328), (237, 13406), (251, 13469), (254, 13484), (255, 13487), (257, 13496), (258, 13502), (261, 13514), (271, 13568), (296, 13670), (304, 13709), (332, 13862), (341, 13904), (346, 13928), (356, 14018), (358, 14051), (383, 14192), (386, 14201), (390, 14219), (400, 14246), (413, 14324), (431, 14408), (449, 14531), (460, 14597), (479, 14699), (496, 14792), (504, 14822), (510, 14849), (513, 14855), (529, 14906), (532, 14927), (536, 14942), (537, 14948), (555, 15032), (568, 15080), (577, 15119), (586, 15179), (593, 15212), (596, 15233), (600, 15257), (610, 15290), (632, 15374), (647, 15446), (671, 15755), (675, 15809), (677, 15824), (679, 15836), (685, 15866), (718, 16052), (724, 16088), (740, 16175), (742, 16199),

Gene: Olga_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Olga_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: OmniCritical_22 Start: 13225, Stop: 17397, Start Num: 18

Candidate Starts for OmniCritical_22:

(12, 13189), (Start: 18 @13225 has 63 MA's), (38, 13423), (87, 13663), (88, 13672), (103, 13765), (130, 13912), (134, 13933), (142, 13972), (144, 13975), (157, 14050), (168, 14128), (183, 14215), (184, 14218), (192, 14248), (196, 14281), (200, 14305), (213, 14389), (219, 14419), (226, 14446), (248, 14554), (252, 14575), (254, 14587), (257, 14599), (267, 14653), (304, 14812), (309, 14833), (322, 14941), (344, 15061), (404, 15421), (414, 15472), (416, 15481), (425, 15526), (429, 15547), (469, 15766), (473, 15778), (475, 15787), (487, 15859), (496, 15910), (497, 15913), (504, 15940), (535, 16039), (539, 16057), (554, 16132), (595, 16321), (596, 16333), (614, 16408), (648, 16594), (657, 16714), (665, 16822), (679, 16969), (698, 17089), (700, 17098), (702, 17101), (716, 17200), (721, 17227), (739, 17323), (745, 17386),

Gene: Omnicron_19 Start: 11169, Stop: 15011, Start Num: 16

Candidate Starts for Omnicron_19:

(Start: 16 @11169 has 33 MA's), (43, 11355), (44, 11367), (56, 11433), (57, 11445), (61, 11457), (65, 11475), (67, 11478), (97, 11631), (103, 11652), (111, 11706), (117, 11736), (121, 11754), (127, 11784), (128, 11790), (130, 11799), (134, 11820), (140, 11847), (157, 11937), (168, 12015), (177, 12048), (178, 12060), (182, 12093), (193, 12138), (197, 12171), (203, 12213), (204, 12225), (205, 12228), (234, 12348), (237, 12372), (252, 12438), (255, 12453), (257, 12462), (258, 12468), (267, 12516), (325, 12627), (327, 12636), (338, 12687), (339, 12693), (343, 12708), (346, 12723), (356, 12813), (358, 12846), (381, 12975), (383, 12987), (386, 12996), (390, 13014), (398, 13029), (400, 13041), (404, 13071), (412, 13110), (416, 13131), (417, 13140), (424, 13173), (427, 13185), (429, 13197), (431, 13203), (440, 13263), (441, 13272), (449, 13326), (452, 13338), (482, 13488), (496, 13569), (497, 13572), (510, 13626), (528, 13674), (530, 13683), (534, 13707), (561, 13827), (562, 13830), (580, 13917), (583, 13926), (591, 13986), (596, 14019), (598, 14034), (602, 14040), (614,

14085), (623, 14106), (635, 14133), (651, 14268), (656, 14343), (664, 14451), (671, 14520), (672, 14529), (673, 14532), (674, 14559), (679, 14601), (685, 14631), (694, 14688), (700, 14715), (713, 14775), (721, 14847), (727, 14868), (740, 14940), (742, 14964), (747, 15003),

Gene: Oscar_20 Start: 11083, Stop: 15156, Start Num: 18

Candidate Starts for Oscar_20:

(Start: 18 @11083 has 63 MA's), (29, 11176), (44, 11308), (71, 11446), (88, 11524), (89, 11536), (90, 11542), (96, 11575), (104, 11611), (113, 11668), (115, 11680), (126, 11734), (132, 11764), (151, 11851), (154, 11866), (160, 11902), (177, 11995), (190, 12076), (221, 12259), (223, 12268), (233, 12310), (238, 12352), (252, 12412), (255, 12424), (256, 12430), (260, 12445), (264, 12466), (270, 12499), (302, 12622), (304, 12634), (305, 12640), (309, 12655), (311, 12661), (341, 12745), (349, 12826), (373, 12979), (398, 13075), (400, 13087), (404, 13117), (414, 13168), (418, 13189), (424, 13219), (426, 13225), (431, 13249), (440, 13309), (447, 13360), (455, 13405), (457, 13417), (467, 13471), (474, 13504), (481, 13561), (496, 13639), (497, 13642), (520, 13726), (529, 13753), (535, 13783), (548, 13837), (554, 13876), (596, 14077), (607, 14119), (614, 14152), (617, 14158), (657, 14437), (659, 14494), (679, 14695), (696, 14809), (721, 14986), (734, 15070), (739, 15091),

Gene: Pace1224_16 Start: 11630, Stop: 15664, Start Num: 18

Candidate Starts for Pace1224_16:

(Start: 18 @11630 has 63 MA's), (28, 11723), (32, 11753), (46, 11900), (62, 11984), (74, 12032), (96, 12158), (97, 12170), (103, 12191), (130, 12338), (134, 12359), (139, 12380), (142, 12398), (148, 12422), (150, 12434), (161, 12506), (164, 12521), (168, 12554), (194, 12686), (197, 12710), (200, 12731), (203, 12752), (204, 12764), (208, 12791), (210, 12803), (216, 12833), (226, 12881), (254, 13022), (263, 13064), (267, 13088), (279, 13133), (280, 13136), (304, 13247), (343, 13451), (346, 13466), (353, 13547), (356, 13556), (363, 13616), (383, 13730), (388, 13751), (403, 13811), (410, 13844), (416, 13874), (431, 13946), (435, 13976), (438, 13997), (455, 14102), (456, 14105), (466, 14159), (484, 14258), (487, 14276), (502, 14342), (505, 14357), (511, 14381), (527, 14423), (529, 14432), (543, 14492), (562, 14582), (583, 14678), (590, 14735), (596, 14768), (615, 14828), (623, 14843), (654, 15038), (671, 15245), (677, 15314), (679, 15326), (684, 15356), (687, 15416), (713, 15512), (720, 15572), (722, 15590),

Gene: Padfoot_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Padfoot_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: Padpat_21 Start: 12076, Stop: 15909, Start Num: 17

Candidate Starts for Padpat_21:

(Start: 17 @12076 has 171 MA's), (Start: 26 @12145 has 1 MA's), (34, 12232), (44, 12307), (60, 12409), (67, 12436), (85, 12508), (87, 12520), (88, 12529), (97, 12601), (111, 12676), (128, 12760), (130, 12769), (134, 12790), (142, 12829), (157, 12907), (168, 12985), (184, 13075), (198, 13150), (212, 13243), (214, 13252), (216, 13264), (218, 13273), (267, 13510), (277, 13549), (286, 13582), (304, 13669), (310, 13693), (322, 13777), (340, 13861), (343, 13873), (347, 13894), (431, 14050), (442, 14131), (451, 14179), (454, 14197), (457, 14218), (463, 14254), (474, 14305), (481, 14362), (496, 14440), (499, 14449), (520, 14527), (526, 14542), (535, 14584), (549, 14638), (596, 14878), (614, 14953), (645, 15064), (659, 15283), (661, 15295), (679, 15478), (680, 15487), (694, 15559),

(702, 15589), (706, 15610), (721, 15730), (734, 15802), (738, 15820), (739, 15826),

Gene: Paito_16 Start: 11582, Stop: 15610, Start Num: 17

Candidate Starts for Paito_16:

(Start: 17 @11582 has 171 MA's), (38, 11783), (56, 11885), (57, 11897), (62, 11918), (71, 11954), (75, 11969), (85, 12011), (97, 12104), (103, 12125), (128, 12263), (130, 12272), (139, 12314), (142, 12332), (144, 12335), (148, 12356), (150, 12368), (161, 12440), (168, 12488), (197, 12644), (235, 12848), (237, 12869), (249, 12920), (261, 12977), (267, 13013), (286, 13085), (291, 13106), (298, 13145), (304, 13172), (314, 13220), (317, 13241), (322, 13280), (343, 13376), (346, 13391), (361, 13538), (363, 13541), (382, 13649), (441, 13940), (447, 13982), (451, 14000), (456, 14030), (457, 14039), (493, 14246), (494, 14252), (502, 14276), (505, 14291), (509, 14312), (511, 14315), (529, 14366), (543, 14426), (558, 14507), (562, 14516), (567, 14549), (570, 14564), (583, 14612), (590, 14669), (596, 14702), (598, 14717), (622, 14780), (673, 15224), (674, 15251), (679, 15293), (680, 15302), (700, 15401), (713, 15458), (720, 15518), (722, 15536), (725, 15545),

Gene: Paola_19 Start: 12137, Stop: 16246, Start Num: 16

Candidate Starts for Paola_19:

(Start: 16 @12137 has 33 MA's), (46, 12395), (62, 12479), (80, 12545), (88, 12593), (96, 12653), (97, 12665), (103, 12686), (111, 12740), (117, 12770), (130, 12833), (134, 12854), (147, 12911), (157, 12971), (168, 13049), (174, 13073), (180, 13115), (187, 13148), (212, 13307), (216, 13328), (237, 13406), (251, 13469), (254, 13484), (255, 13487), (257, 13496), (258, 13502), (261, 13514), (267, 13550), (271, 13568), (296, 13670), (304, 13709), (332, 13862), (341, 13904), (346, 13928), (356, 14018), (358, 14051), (369, 14117), (383, 14192), (386, 14201), (390, 14219), (400, 14246), (413, 14324), (431, 14408), (449, 14531), (460, 14597), (479, 14699), (496, 14792), (504, 14822), (510, 14849), (513, 14855), (529, 14906), (532, 14927), (536, 14942), (537, 14948), (555, 15032), (565, 15062), (568, 15080), (577, 15119), (586, 15179), (593, 15212), (596, 15233), (600, 15257), (610, 15290), (632, 15374), (647, 15446), (671, 15755), (675, 15809), (677, 15824), (679, 15836), (685, 15866), (718, 16052), (721, 16076), (724, 16088), (740, 16175), (742, 16199),

Gene: Patt_22 Start: 13064, Stop: 17230, Start Num: 18

Candidate Starts for Patt_22:

(12, 13028), (Start: 18 @13064 has 63 MA's), (38, 13262), (85, 13490), (87, 13502), (88, 13511), (91, 13541), (103, 13604), (130, 13751), (134, 13772), (142, 13811), (144, 13814), (157, 13889), (168, 13967), (183, 14054), (184, 14057), (192, 14087), (196, 14120), (200, 14144), (213, 14228), (219, 14258), (226, 14285), (248, 14393), (252, 14414), (254, 14426), (257, 14438), (267, 14492), (304, 14651), (309, 14672), (322, 14780), (344, 14900), (378, 15149), (404, 15260), (414, 15311), (416, 15320), (425, 15365), (429, 15386), (448, 15485), (451, 15500), (452, 15506), (464, 15575), (468, 15596), (469, 15605), (473, 15617), (475, 15626), (487, 15698), (496, 15749), (497, 15752), (504, 15779), (535, 15878), (539, 15896), (554, 15971), (595, 16160), (596, 16172), (614, 16247), (648, 16427), (657, 16547), (665, 16655), (670, 16715), (679, 16802), (685, 16832), (698, 16922), (700, 16931), (702, 16934), (716, 17033), (721, 17060), (739, 17156), (745, 17219),

Gene: Peanam_21 Start: 11128, Stop: 15282, Start Num: 18

Candidate Starts for Peanam_21:

(10, 11086), (Start: 18 @11128 has 63 MA's), (29, 11221), (47, 11380), (53, 11407), (72, 11497), (73, 11500), (90, 11587), (109, 11695), (124, 11764), (127, 11782), (145, 11866), (151, 11908), (154, 11923), (155, 11932), (160, 11959), (168, 12022), (178, 12064), (190, 12133), (200, 12196), (201, 12205), (221, 12319), (222, 12325), (231, 12361), (233, 12370), (234, 12382), (236, 12394), (238, 12412), (252, 12472), (255, 12484), (256, 12490), (260, 12505), (263, 12523), (264, 12526), (266, 12544), (270, 12559), (282, 12598), (296, 12655), (297, 12664), (304, 12694), (309, 12715), (315, 12745), (319, 12778), (334, 12862), (340, 12892), (343, 12904), (355, 13006), (365, 13084), (373, 13129), (377, 13153), (389, 13207), (390, 13210), (398, 13225), (404, 13267), (409, 13294), (411, 13303), (414, 13318), (415, 13324), (416, 13327), (441, 13468), (446, 13504), (447, 13510), (451,

13528), (455, 13555), (457, 13567), (467, 13621), (474, 13654), (482, 13714), (496, 13795), (497, 13798), (520, 13882), (526, 13897), (554, 14032), (571, 14098), (596, 14233), (657, 14584), (679, 14839), (680, 14848), (688, 14914), (721, 15109), (727, 15130), (734, 15181), (738, 15199), (739, 15205), (743, 15244),

Gene: Peeb_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Peeb_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Peel_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Peel_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: Periodt_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Periodt_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Pharb_20 Start: 12014, Stop: 16198, Start Num: 17

Candidate Starts for Pharb_20:

(8, 11966), (Start: 17 @12014 has 171 MA's), (Start: 26 @12083 has 1 MA's), (Start: 27 @12104 has 1 MA's), (29, 12110), (34, 12170), (62, 12353), (64, 12365), (67, 12374), (87, 12458), (96, 12527), (97, 12539), (103, 12560), (111, 12614), (117, 12644), (130, 12707), (134, 12728), (142, 12767), (157, 12845), (168, 12923), (174, 12947), (203, 13121), (209, 13169), (212, 13181), (216, 13202), (218, 13211), (243, 13331), (258, 13400), (262, 13415), (267, 13448), (272, 13469), (274, 13478), (283, 13508), (286, 13520), (294, 13562), (295, 13565), (296, 13568), (304, 13607), (318, 13685), (329, 13763), (336, 13796), (342, 13826), (349, 13904), (361, 13994), (368, 14024), (373, 14057), (397, 14147), (404, 14195), (431, 14327), (435, 14357), (447, 14438), (454, 14474), (463, 14531), (467, 14549), (474, 14582), (482, 14642), (496, 14723), (506, 14762), (517, 14795), (520, 14810), (523, 14816), (526, 14825), (535, 14867), (549, 14921), (554, 14960), (575, 15038), (596, 15161), (614,

15236), (649, 15425), (667, 15665), (671, 15695), (673, 15707), (680, 15785), (704, 15914), (717, 16001), (718, 16004), (724, 16037), (732, 16082), (739, 16118), (741, 16133), (742, 16145), (745, 16181),

Gene: PhelpsODU_20 Start: 11123, Stop: 15124, Start Num: 18

Candidate Starts for PhelpsODU_20:

(Start: 18 @11123 has 63 MA's), (29, 11216), (38, 11321), (47, 11375), (51, 11393), (55, 11411), (57, 11435), (59, 11441), (66, 11468), (68, 11474), (71, 11486), (81, 11519), (96, 11615), (98, 11633), (99, 11636), (124, 11750), (126, 11765), (151, 11882), (165, 11978), (173, 12017), (178, 12038), (179, 12047), (190, 12107), (221, 12290), (222, 12296), (223, 12299), (234, 12353), (238, 12383), (252, 12443), (255, 12455), (256, 12461), (260, 12476), (264, 12497), (266, 12515), (302, 12653), (304, 12665), (309, 12686), (316, 12725), (342, 12779), (343, 12785), (355, 12887), (361, 12947), (373, 13010), (390, 13091), (398, 13106), (399, 13109), (404, 13148), (411, 13184), (414, 13199), (415, 13205), (420, 13232), (426, 13256), (438, 13331), (447, 13391), (457, 13448), (463, 13484), (474, 13535), (496, 13676), (497, 13679), (520, 13763), (529, 13790), (548, 13874), (554, 13913), (596, 14114), (614, 14189), (654, 14408), (660, 14522), (671, 14624), (672, 14633), (679, 14705), (694, 14789), (702, 14819), (709, 14840), (721, 14957), (734, 15032), (741, 15071), (742, 15083),

Gene: Phish_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Phish_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Phloodle_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Phloodle_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Phrank_20 Start: 11071, Stop: 15072, Start Num: 18

Candidate Starts for Phrank_20:

(Start: 18 @11071 has 63 MA's), (29, 11164), (38, 11269), (44, 11296), (47, 11323), (51, 11341), (55, 11359), (57, 11383), (59, 11389), (66, 11416), (68, 11422), (78, 11458), (81, 11467), (85, 11491), (96, 11563), (98, 11581), (99, 11584), (126, 11713), (151, 11830), (165, 11926), (173, 11965), (179, 11995), (190, 12055), (221, 12238), (222, 12244), (223, 12247), (234, 12301), (238, 12331), (252, 12391), (255, 12403), (256, 12409), (260, 12424), (264, 12445), (266, 12463), (302, 12601), (304, 12613), (309, 12634), (316, 12673), (342, 12727), (343, 12733), (361, 12895), (373, 12958), (390, 13039), (398, 13054), (404, 13096), (414, 13147), (418, 13168), (424, 13198), (426, 13204), (431, 13228), (438, 13279), (447, 13339), (457, 13396), (463, 13432), (467, 13450), (474, 13483), (496, 13624), (497, 13627), (520, 13711), (529, 13738), (548, 13822), (596, 14062), (614, 14137), (660,

14470), (671, 14572), (672, 14581), (679, 14653), (694, 14737), (702, 14767), (709, 14788), (721, 14905), (734, 14980), (741, 15019), (742, 15031),

Gene: Phreak_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Phreak_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Piatt_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Piatt_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: PinkYoshi_16 Start: 11455, Stop: 15468, Start Num: 17

Candidate Starts for PinkYoshi_16:

(Start: 17 @11455 has 171 MA's), (38, 11656), (57, 11770), (67, 11812), (75, 11842), (97, 11977), (100, 11989), (103, 11998), (139, 12187), (142, 12205), (144, 12208), (148, 12229), (150, 12241), (161, 12313), (168, 12361), (194, 12493), (197, 12517), (208, 12598), (235, 12721), (251, 12805), (259, 12841), (267, 12886), (268, 12892), (294, 13000), (300, 13024), (304, 13045), (346, 13264), (363, 13414), (378, 13501), (403, 13609), (431, 13744), (447, 13855), (451, 13873), (456, 13903), (494, 14125), (502, 14149), (505, 14164), (509, 14185), (520, 14212), (529, 14239), (543, 14299), (562, 14389), (567, 14422), (583, 14485), (590, 14542), (596, 14575), (597, 14584), (673, 15088), (674, 15115), (677, 15145), (679, 15157), (680, 15166), (694, 15235), (713, 15316), (720, 15376), (722, 15394), (725, 15403),

Gene: Pinnie_17 Start: 12158, Stop: 16180, Start Num: 18

Candidate Starts for Pinnie_17:

(Start: 18 @12158 has 63 MA's), (24, 12203), (37, 12359), (38, 12362), (51, 12434), (55, 12452), (56, 12464), (66, 12509), (71, 12527), (90, 12623), (92, 12629), (94, 12644), (96, 12656), (98, 12674), (106, 12716), (107, 12719), (115, 12755), (118, 12767), (124, 12791), (125, 12797), (129, 12818), (145, 12893), (151, 12935), (154, 12950), (160, 12986), (161, 13001), (168, 13049), (169, 13058), (190, 13160), (213, 13301), (221, 13343), (228, 13373), (230, 13379), (231, 13385), (238, 13436), (255, 13508), (256, 13514), (260, 13529), (263, 13547), (264, 13550), (279, 13610), (290, 13655), (300, 13697), (304, 13718), (310, 13742), (312, 13754), (313, 13757), (320, 13814), (335, 13886), (343, 13928), (355, 14030), (363, 14093), (383, 14207), (388, 14228), (403, 14288), (414, 14342), (415, 14348), (426, 14399), (438, 14474), (445, 14516), (455, 14579), (484, 14744), (502, 14828), (505, 14843), (508, 14861), (511, 14867), (527, 14909), (529, 14918), (538, 14963), (543, 14978), (558, 15059), (562, 15068), (583, 15161), (590, 15218), (596, 15251), (612, 15305), (618, 15326), (673, 15785), (674, 15812), (676, 15839), (679, 15854), (680, 15863), (694, 15950), (720, 16088), (722,

16106), (729, 16145),

Gene: Pisa1_20 Start: 11833, Stop: 15987, Start Num: 17

Candidate Starts for Pisa1_20:

(Start: 17 @11833 has 171 MA's), (Start: 26 @11902 has 1 MA's), (34, 11989), (60, 12169), (62, 12175), (67, 12196), (76, 12229), (87, 12280), (88, 12289), (96, 12349), (97, 12361), (111, 12436), (122, 12487), (130, 12529), (134, 12550), (142, 12589), (157, 12667), (168, 12745), (182, 12823), (187, 12844), (189, 12850), (198, 12910), (212, 13003), (216, 13024), (218, 13033), (232, 13084), (241, 13147), (262, 13237), (267, 13270), (288, 13348), (290, 13360), (292, 13369), (294, 13384), (295, 13387), (304, 13429), (319, 13516), (322, 13537), (340, 13621), (343, 13633), (355, 13735), (356, 13738), (373, 13858), (382, 13906), (384, 13915), (390, 13939), (399, 13957), (400, 13966), (404, 13996), (407, 14017), (415, 14053), (431, 14128), (441, 14197), (457, 14296), (463, 14332), (467, 14350), (474, 14383), (496, 14518), (499, 14527), (520, 14605), (526, 14620), (535, 14662), (549, 14716), (596, 14956), (614, 15031), (645, 15142), (648, 15184), (671, 15475), (679, 15556), (680, 15565), (694, 15637), (696, 15649), (702, 15667), (706, 15688), (721, 15808), (734, 15880), (738, 15898), (739, 15904),

Gene: Pisa4_20 Start: 11833, Stop: 15987, Start Num: 17

Candidate Starts for Pisa4_20:

(Start: 17 @11833 has 171 MA's), (Start: 26 @11902 has 1 MA's), (34, 11989), (60, 12169), (62, 12175), (67, 12196), (76, 12229), (87, 12280), (88, 12289), (96, 12349), (97, 12361), (111, 12436), (122, 12487), (130, 12529), (134, 12550), (142, 12589), (157, 12667), (168, 12745), (182, 12823), (187, 12844), (189, 12850), (198, 12910), (212, 13003), (216, 13024), (218, 13033), (232, 13084), (241, 13147), (262, 13237), (267, 13270), (288, 13348), (290, 13360), (292, 13369), (294, 13384), (295, 13387), (304, 13429), (319, 13516), (322, 13537), (340, 13621), (343, 13633), (355, 13735), (356, 13738), (373, 13858), (382, 13906), (384, 13915), (390, 13939), (399, 13957), (400, 13966), (404, 13996), (407, 14017), (415, 14053), (431, 14128), (441, 14197), (457, 14296), (463, 14332), (467, 14350), (474, 14383), (496, 14518), (499, 14527), (520, 14605), (526, 14620), (535, 14662), (549, 14716), (596, 14956), (614, 15031), (645, 15142), (648, 15184), (671, 15475), (679, 15556), (680, 15565), (694, 15637), (696, 15649), (702, 15667), (706, 15688), (721, 15808), (734, 15880), (738, 15898), (739, 15904),

Gene: Pixie_20 Start: 11949, Stop: 16127, Start Num: 17

Candidate Starts for Pixie_20:

(Start: 17 @11949 has 171 MA's), (Start: 26 @12018 has 1 MA's), (Start: 27 @12039 has 1 MA's), (29, 12045), (34, 12105), (55, 12243), (62, 12288), (67, 12309), (96, 12462), (97, 12474), (103, 12495), (111, 12549), (117, 12579), (122, 12600), (128, 12633), (130, 12642), (134, 12663), (142, 12702), (157, 12780), (163, 12822), (168, 12858), (174, 12882), (203, 13056), (208, 13095), (212, 13116), (216, 13137), (218, 13146), (253, 13314), (258, 13335), (263, 13359), (267, 13383), (272, 13404), (278, 13422), (286, 13455), (294, 13497), (295, 13500), (296, 13503), (304, 13542), (306, 13551), (318, 13620), (336, 13731), (342, 13761), (368, 13959), (373, 13992), (397, 14082), (400, 14100), (404, 14130), (409, 14157), (435, 14292), (447, 14373), (454, 14409), (463, 14466), (467, 14484), (470, 14505), (474, 14517), (482, 14577), (496, 14658), (506, 14697), (517, 14730), (520, 14745), (523, 14751), (526, 14760), (535, 14802), (554, 14895), (575, 14973), (596, 15096), (614, 15171), (671, 15636), (673, 15648), (679, 15717), (680, 15726), (715, 15918), (717, 15936), (724, 15972), (727, 15981), (738, 16047), (739, 16053), (741, 16068), (742, 16080),

Gene: Plagueis_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Plagueis_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273),

(363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Pokerus_20 Start: 12033, Stop: 15866, Start Num: 17

Candidate Starts for Pokerus_20:

(Start: 17 @12033 has 171 MA's), (Start: 26 @12102 has 1 MA's), (34, 12189), (60, 12366), (67, 12393), (85, 12465), (87, 12477), (88, 12486), (97, 12558), (111, 12633), (128, 12717), (130, 12726), (134, 12747), (142, 12786), (157, 12864), (168, 12942), (184, 13032), (198, 13107), (212, 13200), (214, 13209), (216, 13221), (218, 13230), (267, 13467), (277, 13506), (286, 13539), (304, 13626), (310, 13650), (322, 13734), (340, 13818), (343, 13830), (347, 13851), (431, 14007), (442, 14088), (451, 14136), (454, 14154), (457, 14175), (463, 14211), (474, 14262), (481, 14319), (496, 14397), (499, 14406), (520, 14484), (526, 14499), (535, 14541), (549, 14595), (596, 14835), (614, 14910), (645, 15021), (659, 15240), (661, 15252), (679, 15435), (680, 15444), (694, 15516), (702, 15546), (706, 15567), (721, 15687), (734, 15759), (738, 15777), (739, 15783),

Gene: Prithvi_21 Start: 12047, Stop: 15883, Start Num: 17

Candidate Starts for Prithvi_21:

(Start: 17 @12047 has 171 MA's), (Start: 26 @12116 has 1 MA's), (34, 12203), (60, 12383), (67, 12410), (88, 12503), (96, 12563), (97, 12575), (111, 12650), (122, 12701), (130, 12743), (134, 12764), (142, 12803), (157, 12881), (168, 12959), (174, 12983), (198, 13124), (212, 13217), (214, 13226), (216, 13238), (218, 13247), (267, 13484), (273, 13508), (277, 13523), (286, 13556), (304, 13643), (310, 13667), (322, 13751), (340, 13835), (343, 13847), (347, 13868), (355, 13949), (431, 14024), (442, 14105), (451, 14153), (454, 14171), (456, 14183), (457, 14192), (463, 14228), (474, 14279), (481, 14336), (496, 14414), (499, 14423), (520, 14501), (526, 14516), (535, 14558), (549, 14612), (596, 14852), (614, 14927), (645, 15038), (659, 15257), (661, 15269), (671, 15371), (679, 15452), (680, 15461), (694, 15533), (702, 15563), (706, 15584), (721, 15704), (734, 15776), (738, 15794), (739, 15800),

Gene: Psycho_19 Start: 12089, Stop: 16222, Start Num: 13

Candidate Starts for Psycho_19:

(Start: 13 @12089 has 1 MA's), (Start: 16 @12110 has 33 MA's), (Start: 27 @12203 has 1 MA's), (35, 12281), (36, 12305), (46, 12365), (62, 12449), (88, 12563), (96, 12623), (97, 12635), (103, 12656), (111, 12710), (121, 12758), (130, 12803), (134, 12824), (157, 12941), (168, 13019), (174, 13043), (180, 13085), (184, 13109), (198, 13184), (212, 13277), (218, 13307), (255, 13481), (263, 13520), (267, 13544), (272, 13565), (289, 13625), (304, 13703), (306, 13712), (319, 13790), (332, 13856), (341, 13898), (343, 13907), (350, 13991), (356, 14012), (358, 14045), (369, 14111), (373, 14132), (383, 14186), (386, 14195), (390, 14213), (400, 14240), (404, 14270), (411, 14306), (429, 14396), (431, 14402), (432, 14420), (449, 14525), (460, 14591), (496, 14786), (504, 14816), (513, 14849), (529, 14900), (532, 14921), (536, 14936), (537, 14942), (555, 15026), (568, 15074), (577, 15113), (586, 15173), (593, 15206), (596, 15227), (600, 15251), (610, 15281), (632, 15347), (647, 15419), (671, 15734), (672, 15743), (673, 15746), (674, 15773), (675, 15788), (677, 15803), (679, 15815), (685, 15845), (694, 15899), (698, 15917), (713, 15986), (718, 16034), (721, 16058), (724, 16070), (727, 16079), (740, 16151), (742, 16175), (747, 16214),

Gene: Qhanda_22 Start: 13333, Stop: 17508, Start Num: 18

Candidate Starts for Qhanda_22:

(12, 13297), (Start: 18 @13333 has 63 MA's), (30, 13432), (38, 13531), (87, 13771), (88, 13780), (103, 13873), (130, 14020), (134, 14041), (142, 14080), (144, 14083), (157, 14158), (168, 14236), (183, 14323), (184, 14326), (192, 14356), (196, 14389), (200, 14413), (213, 14497), (219, 14527), (226, 14554), (248, 14662), (252, 14683), (254, 14695), (257, 14707), (267, 14761), (304, 14920), (309,

14941), (322, 15049), (344, 15169), (404, 15529), (414, 15580), (416, 15589), (425, 15634), (429, 15655), (469, 15874), (473, 15886), (475, 15895), (487, 15967), (496, 16018), (497, 16021), (504, 16048), (535, 16147), (539, 16165), (554, 16240), (595, 16429), (596, 16441), (614, 16516), (648, 16702), (657, 16822), (665, 16930), (679, 17080), (698, 17200), (700, 17209), (702, 17212), (716, 17311), (721, 17338), (739, 17434), (745, 17497),

Gene: QuincyRose_20 Start: 12096, Stop: 15929, Start Num: 17

Candidate Starts for QuincyRose_20:

(Start: 17 @12096 has 171 MA's), (Start: 26 @12165 has 1 MA's), (34, 12252), (60, 12429), (67, 12456), (87, 12540), (88, 12549), (97, 12621), (111, 12696), (128, 12780), (130, 12789), (134, 12810), (142, 12849), (157, 12927), (168, 13005), (184, 13095), (198, 13170), (212, 13263), (216, 13284), (218, 13293), (249, 13437), (267, 13530), (277, 13569), (286, 13602), (304, 13689), (310, 13713), (322, 13797), (340, 13881), (343, 13893), (347, 13914), (431, 14070), (442, 14151), (451, 14199), (454, 14217), (457, 14238), (463, 14274), (474, 14325), (481, 14382), (496, 14460), (499, 14469), (520, 14547), (535, 14604), (549, 14658), (596, 14898), (614, 14973), (645, 15084), (659, 15303), (661, 15315), (679, 15498), (680, 15507), (694, 15579), (702, 15609), (706, 15630), (721, 15750), (734, 15822), (738, 15840), (739, 15846),

Gene: Rabbs_16 Start: 11454, Stop: 15479, Start Num: 17

Candidate Starts for Rabbs_16:

(Start: 17 @11454 has 171 MA's), (22, 11478), (38, 11655), (57, 11769), (67, 11811), (72, 11832), (75, 11841), (97, 11976), (103, 11997), (130, 12144), (139, 12186), (142, 12204), (144, 12207), (148, 12228), (150, 12240), (168, 12360), (180, 12426), (194, 12492), (197, 12516), (208, 12597), (235, 12720), (237, 12741), (257, 12831), (259, 12840), (268, 12891), (278, 12924), (282, 12942), (294, 12999), (304, 13044), (319, 13131), (322, 13152), (343, 13248), (346, 13263), (356, 13353), (361, 13410), (363, 13413), (399, 13572), (400, 13581), (403, 13608), (431, 13743), (451, 13872), (456, 13902), (494, 14124), (502, 14148), (505, 14163), (509, 14184), (529, 14238), (543, 14298), (562, 14388), (567, 14421), (570, 14436), (583, 14484), (590, 14541), (596, 14574), (663, 15006), (673, 15096), (674, 15123), (679, 15165), (680, 15174), (694, 15243), (700, 15270), (713, 15327), (720, 15387), (722, 15405), (725, 15414),

Gene: Ramen_21 Start: 12079, Stop: 15915, Start Num: 17

Candidate Starts for Ramen_21:

(Start: 17 @12079 has 171 MA's), (Start: 26 @12148 has 1 MA's), (34, 12235), (60, 12412), (67, 12439), (85, 12511), (87, 12523), (88, 12532), (97, 12604), (111, 12679), (128, 12763), (130, 12772), (134, 12793), (142, 12832), (157, 12910), (168, 12988), (184, 13078), (198, 13153), (212, 13246), (214, 13255), (216, 13267), (218, 13276), (273, 13537), (277, 13552), (286, 13585), (304, 13672), (310, 13696), (322, 13780), (340, 13864), (343, 13876), (347, 13897), (431, 14053), (442, 14134), (451, 14182), (454, 14200), (457, 14221), (463, 14257), (474, 14308), (481, 14365), (496, 14443), (499, 14452), (520, 14530), (535, 14587), (549, 14641), (596, 14881), (614, 14956), (645, 15067), (659, 15286), (661, 15298), (679, 15484), (680, 15493), (694, 15565), (702, 15595), (706, 15616), (721, 15736), (734, 15808), (738, 15826), (739, 15832),

Gene: Rando14_19 Start: 11071, Stop: 14910, Start Num: 16

Candidate Starts for Rando14_19:

(Start: 16 @11071 has 33 MA's), (29, 11170), (43, 11257), (44, 11269), (56, 11335), (57, 11347), (61, 11359), (65, 11377), (97, 11533), (103, 11554), (117, 11638), (121, 11656), (127, 11686), (128, 11692), (130, 11701), (134, 11722), (140, 11749), (141, 11755), (147, 11779), (157, 11839), (168, 11917), (177, 11950), (178, 11962), (182, 11995), (197, 12073), (199, 12091), (203, 12115), (204, 12127), (205, 12130), (234, 12250), (237, 12274), (251, 12337), (252, 12340), (255, 12355), (267, 12418), (299, 12466), (332, 12559), (336, 12574), (356, 12715), (358, 12748), (381, 12877), (383, 12889), (386, 12898), (389, 12913), (398, 12931), (400, 12943), (404, 12973), (412, 13012), (415, 13030), (416, 13033), (429, 13099), (431, 13105), (435, 13135), (440, 13165), (446, 13210), (449,

13228), (452, 13240), (478, 13375), (482, 13390), (496, 13471), (497, 13474), (510, 13528), (528, 13576), (530, 13585), (534, 13609), (538, 13630), (561, 13729), (562, 13732), (576, 13795), (583, 13828), (591, 13888), (596, 13921), (598, 13936), (602, 13942), (614, 13987), (623, 14008), (635, 14035), (651, 14170), (656, 14245), (663, 14335), (671, 14422), (672, 14431), (673, 14434), (674, 14461), (677, 14491), (679, 14503), (685, 14533), (694, 14587), (698, 14605), (713, 14674), (721, 14746), (727, 14767), (740, 14839), (742, 14863), (747, 14902),

Gene: Rapunzel97_21 Start: 12080, Stop: 15916, Start Num: 17

Candidate Starts for Rapunzel97_21:

(Start: 17 @12080 has 171 MA's), (Start: 26 @12149 has 1 MA's), (34, 12236), (60, 12413), (67, 12440), (85, 12512), (87, 12524), (88, 12533), (97, 12605), (111, 12680), (128, 12764), (130, 12773), (134, 12794), (142, 12833), (157, 12911), (168, 12989), (184, 13079), (198, 13154), (212, 13247), (214, 13256), (216, 13268), (218, 13277), (273, 13538), (277, 13553), (286, 13586), (304, 13673), (310, 13697), (322, 13781), (340, 13865), (343, 13877), (347, 13898), (431, 14054), (442, 14135), (451, 14183), (454, 14201), (457, 14222), (463, 14258), (474, 14309), (481, 14366), (496, 14444), (499, 14453), (520, 14531), (535, 14588), (549, 14642), (596, 14882), (614, 14957), (645, 15068), (659, 15287), (661, 15299), (679, 15485), (680, 15494), (694, 15566), (702, 15596), (706, 15617), (721, 15737), (734, 15809), (738, 15827), (739, 15833),

Gene: Rattrick_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Rattrick_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Remy19_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Remy19_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Renaissance_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Renaissance_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385),

(722, 15403), (725, 15412),

Gene: Reptar3000_22 Start: 13066, Stop: 17232, Start Num: 18

Candidate Starts for Reptar3000_22:

(12, 13030), (Start: 18 @13066 has 63 MA's), (38, 13264), (85, 13492), (87, 13504), (88, 13513), (91, 13543), (103, 13606), (130, 13753), (134, 13774), (142, 13813), (144, 13816), (157, 13891), (168, 13969), (183, 14056), (184, 14059), (192, 14089), (196, 14122), (200, 14146), (213, 14230), (219, 14260), (226, 14287), (248, 14395), (252, 14416), (254, 14428), (257, 14440), (267, 14494), (304, 14653), (309, 14674), (322, 14782), (344, 14902), (378, 15151), (404, 15262), (414, 15313), (416, 15322), (425, 15367), (429, 15388), (448, 15487), (451, 15502), (452, 15508), (464, 15577), (468, 15598), (469, 15607), (473, 15619), (475, 15628), (487, 15700), (496, 15751), (497, 15754), (504, 15781), (535, 15880), (539, 15898), (554, 15973), (595, 16162), (596, 16174), (614, 16249), (648, 16429), (657, 16549), (665, 16657), (670, 16717), (679, 16804), (685, 16834), (698, 16924), (700, 16933), (702, 16936), (716, 17035), (721, 17062), (739, 17158), (745, 17221),

Gene: Richarlison_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Richarlison_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Richo_21 Start: 11128, Stop: 15282, Start Num: 18

Candidate Starts for Richo_21:

(10, 11086), (Start: 18 @11128 has 63 MA's), (29, 11221), (47, 11380), (53, 11407), (72, 11497), (73, 11500), (90, 11587), (109, 11695), (124, 11764), (127, 11782), (145, 11866), (151, 11908), (154, 11923), (155, 11932), (160, 11959), (168, 12022), (178, 12064), (190, 12133), (200, 12196), (201, 12205), (221, 12319), (222, 12325), (231, 12361), (233, 12370), (234, 12382), (236, 12394), (238, 12412), (252, 12472), (255, 12484), (256, 12490), (260, 12505), (263, 12523), (264, 12526), (266, 12544), (270, 12559), (282, 12598), (296, 12655), (297, 12664), (304, 12694), (309, 12715), (315, 12745), (319, 12778), (334, 12862), (340, 12892), (343, 12904), (355, 13006), (365, 13084), (373, 13129), (377, 13153), (389, 13207), (390, 13210), (398, 13225), (404, 13267), (409, 13294), (411, 13303), (414, 13318), (415, 13324), (416, 13327), (441, 13468), (446, 13504), (447, 13510), (451, 13528), (455, 13555), (457, 13567), (467, 13621), (474, 13654), (482, 13714), (496, 13795), (497, 13798), (520, 13882), (526, 13897), (554, 14032), (571, 14098), (596, 14233), (657, 14584), (679, 14839), (680, 14848), (688, 14914), (721, 15109), (727, 15130), (734, 15181), (738, 15199), (739, 15205), (743, 15244),

Gene: Rosmarinus_21 Start: 12104, Stop: 15937, Start Num: 17

Candidate Starts for Rosmarinus_21:

(Start: 17 @12104 has 171 MA's), (Start: 26 @12173 has 1 MA's), (34, 12260), (44, 12335), (60, 12437), (67, 12464), (85, 12536), (87, 12548), (88, 12557), (97, 12629), (111, 12704), (128, 12788), (130, 12797), (134, 12818), (142, 12857), (150, 12893), (157, 12935), (168, 13013), (184, 13103), (198, 13178), (212, 13271), (214, 13280), (216, 13292), (218, 13301), (267, 13538), (277, 13577), (286, 13610), (304, 13697), (310, 13721), (322, 13805), (340, 13889), (343, 13901), (347, 13922), (431, 14078), (442, 14159), (451, 14207), (454, 14225), (457, 14246), (463, 14282), (474, 14333), (481, 14390), (496, 14468), (499, 14477), (520, 14555), (526, 14570), (535, 14612), (549, 14666), (596, 14906), (614, 14981), (645, 15092), (659, 15311), (661, 15323), (679, 15506), (680, 15515),

(694, 15587), (702, 15617), (706, 15638), (721, 15758), (734, 15830), (738, 15848), (739, 15854),

Gene: Ruriko_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Ruriko_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Ruthiejr_21 Start: 12924, Stop: 17120, Start Num: 18

Candidate Starts for Ruthiejr_21:

(Start: 18 @12924 has 63 MA's), (38, 13122), (83, 13335), (87, 13362), (88, 13371), (97, 13443), (103, 13464), (128, 13602), (130, 13611), (134, 13632), (142, 13671), (155, 13740), (157, 13749), (168, 13827), (171, 13839), (184, 13917), (192, 13947), (196, 13980), (197, 13983), (200, 14004), (226, 14145), (229, 14154), (254, 14286), (257, 14298), (267, 14352), (278, 14391), (286, 14424), (304, 14511), (309, 14532), (333, 14709), (344, 14760), (361, 14919), (404, 15120), (414, 15171), (416, 15180), (425, 15225), (429, 15246), (431, 15252), (452, 15366), (469, 15465), (473, 15477), (475, 15486), (487, 15558), (492, 15591), (496, 15609), (497, 15612), (504, 15639), (535, 15738), (539, 15756), (554, 15831), (595, 16020), (596, 16032), (614, 16107), (634, 16176), (648, 16308), (655, 16422), (679, 16689), (682, 16707), (700, 16818), (702, 16821), (716, 16920), (721, 16947), (722, 16950), (739, 17046), (745, 17109),

Gene: Salvus_20 Start: 11740, Stop: 15189, Start Num: 31

Candidate Starts for Salvus_20:

(Start: 31 @11740 has 2 MA's), (33, 11755), (40, 11803), (42, 11806), (48, 11851), (84, 11974), (86, 11995), (143, 12301), (146, 12313), (149, 12334), (162, 12418), (169, 12472), (172, 12481), (188, 12568), (190, 12577), (195, 12619), (203, 12664), (204, 12676), (207, 12697), (212, 12721), (225, 12775), (246, 12850), (250, 12862), (255, 12886), (273, 12973), (312, 13030), (337, 13099), (347, 13153), (366, 13309), (374, 13348), (376, 13360), (398, 13423), (404, 13465), (406, 13483), (428, 13570), (433, 13594), (437, 13621), (440, 13633), (450, 13699), (458, 13741), (459, 13750), (483, 13843), (488, 13873), (498, 13909), (506, 13939), (512, 13957), (522, 13984), (524, 13987), (540, 14038), (541, 14041), (542, 14044), (562, 14134), (572, 14182), (576, 14197), (578, 14215), (583, 14230), (591, 14290), (596, 14323), (597, 14332), (599, 14341), (612, 14377), (616, 14392), (653, 14587), (670, 14782), (680, 14878), (683, 14896), (691, 14938), (693, 14944), (700, 14971), (717, 15073), (719, 15082), (727, 15121),

Gene: SamScheppers_20 Start: 12840, Stop: 17027, Start Num: 18

Candidate Starts for SamScheppers_20:

(12, 12804), (Start: 18 @12840 has 63 MA's), (38, 13038), (87, 13278), (88, 13287), (103, 13380), (130, 13527), (134, 13548), (142, 13587), (144, 13590), (157, 13665), (168, 13743), (183, 13830), (184, 13833), (192, 13863), (196, 13896), (200, 13920), (213, 14004), (219, 14034), (226, 14061), (248, 14169), (252, 14190), (254, 14202), (257, 14214), (267, 14268), (304, 14427), (309, 14448), (322, 14556), (344, 14676), (404, 15036), (414, 15087), (416, 15096), (425, 15141), (429, 15162), (469, 15381), (473, 15393), (475, 15402), (487, 15474), (496, 15525), (497, 15528), (504, 15555), (535, 15654), (539, 15672), (554, 15747), (595, 15936), (596, 15948), (614, 16023), (648, 16224), (657, 16344), (665, 16452), (679, 16599), (698, 16719), (700, 16728), (702, 16731), (716, 16830), (721, 16857), (739, 16953), (745, 17016),

Gene: SamuelLPlaqson_21 Start: 12024, Stop: 15863, Start Num: 17

Candidate Starts for SamuelLPlaqson_21:

(Start: 17 @12024 has 171 MA's), (Start: 26 @12093 has 1 MA's), (34, 12180), (60, 12360), (67, 12387), (87, 12471), (88, 12480), (96, 12540), (97, 12552), (111, 12627), (122, 12678), (130, 12720), (134, 12741), (142, 12780), (157, 12858), (168, 12936), (174, 12960), (198, 13101), (212, 13194), (216, 13215), (218, 13224), (267, 13461), (273, 13485), (277, 13500), (286, 13533), (304, 13620), (319, 13707), (322, 13728), (340, 13812), (343, 13824), (347, 13845), (431, 14001), (442, 14082), (454, 14148), (457, 14169), (463, 14205), (474, 14256), (476, 14274), (481, 14313), (496, 14391), (520, 14478), (526, 14493), (535, 14535), (549, 14589), (596, 14829), (614, 14904), (645, 15015), (647, 15036), (648, 15057), (657, 15177), (671, 15351), (679, 15432), (680, 15441), (694, 15513), (702, 15543), (706, 15564), (721, 15684), (734, 15756), (738, 15774), (739, 15780),

Gene: Scarlett_20 Start: 11082, Stop: 15158, Start Num: 18

Candidate Starts for Scarlett_20:

(Start: 18 @11082 has 63 MA's), (29, 11175), (44, 11307), (71, 11445), (88, 11523), (89, 11535), (90, 11541), (96, 11574), (104, 11610), (113, 11667), (115, 11679), (126, 11733), (132, 11763), (151, 11850), (154, 11865), (160, 11901), (177, 11994), (190, 12075), (221, 12258), (223, 12267), (233, 12309), (238, 12351), (252, 12411), (255, 12423), (256, 12429), (260, 12444), (264, 12465), (270, 12498), (302, 12621), (304, 12633), (305, 12639), (309, 12654), (311, 12660), (341, 12744), (349, 12825), (373, 12978), (398, 13074), (400, 13086), (404, 13116), (414, 13167), (418, 13188), (424, 13218), (426, 13224), (431, 13248), (440, 13308), (447, 13359), (455, 13404), (457, 13416), (467, 13470), (474, 13503), (481, 13560), (496, 13638), (497, 13641), (520, 13725), (529, 13752), (535, 13782), (548, 13836), (554, 13875), (596, 14076), (607, 14118), (614, 14151), (657, 14439), (659, 14496), (679, 14697), (696, 14811), (721, 14988), (734, 15072), (739, 15093),

Gene: Schiebel_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Schiebel_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: SgtBeansprout_17 Start: 11327, Stop: 15460, Start Num: 17

Candidate Starts for SgtBeansprout_17:

(9, 11288), (Start: 17 @11327 has 171 MA's), (Start: 26 @11396 has 1 MA's), (34, 11483), (44, 11561), (62, 11669), (67, 11690), (76, 11723), (97, 11855), (101, 11870), (103, 11876), (111, 11930), (117, 11960), (130, 12023), (134, 12044), (142, 12083), (157, 12161), (168, 12239), (174, 12263), (212, 12497), (232, 12578), (240, 12638), (253, 12695), (262, 12731), (267, 12764), (273, 12788), (290, 12854), (292, 12863), (304, 12923), (322, 13031), (332, 13076), (356, 13232), (371, 13343), (373, 13352), (375, 13364), (386, 13415), (390, 13433), (400, 13460), (404, 13490), (422, 13583), (431, 13622), (457, 13790), (467, 13844), (474, 13877), (480, 13922), (496, 14003), (497, 14006), (520, 14090), (523, 14096), (526, 14105), (535, 14147), (545, 14183), (549, 14201), (554, 14240), (569, 14300), (596, 14441), (611, 14501), (614, 14516), (661, 14858), (679, 15047), (680, 15056), (691, 15119), (739, 15395),

Gene: ShaboiShabazz_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for ShaboiShabazz_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Shadow1_19 Start: 10962, Stop: 14963, Start Num: 18

Candidate Starts for Shadow1_19:

(Start: 18 @10962 has 63 MA's), (29, 11055), (38, 11160), (47, 11214), (51, 11232), (55, 11250), (59, 11280), (66, 11307), (68, 11313), (96, 11454), (98, 11472), (99, 11475), (124, 11589), (126, 11604), (151, 11721), (154, 11736), (165, 11817), (179, 11886), (190, 11946), (221, 12129), (222, 12135), (234, 12192), (252, 12282), (255, 12294), (256, 12300), (260, 12315), (264, 12336), (266, 12354), (288, 12429), (302, 12492), (304, 12504), (309, 12525), (316, 12564), (339, 12609), (343, 12624), (361, 12786), (378, 12876), (399, 12948), (404, 12987), (414, 13038), (418, 13059), (424, 13089), (426, 13095), (431, 13119), (438, 13170), (454, 13266), (457, 13287), (463, 13323), (474, 13374), (496, 13515), (520, 13602), (529, 13629), (548, 13713), (596, 13953), (614, 14028), (660, 14361), (671, 14463), (672, 14472), (679, 14544), (680, 14553), (694, 14628), (702, 14658), (709, 14679), (721, 14796), (731, 14847), (734, 14871), (741, 14910), (742, 14922),

Gene: Shaobing_21 Start: 11128, Stop: 15282, Start Num: 18

Candidate Starts for Shaobing_21:

(10, 11086), (Start: 18 @11128 has 63 MA's), (29, 11221), (47, 11380), (53, 11407), (72, 11497), (73, 11500), (90, 11587), (109, 11695), (124, 11764), (127, 11782), (145, 11866), (151, 11908), (154, 11923), (155, 11932), (160, 11959), (168, 12022), (178, 12064), (190, 12133), (200, 12196), (201, 12205), (221, 12319), (222, 12325), (231, 12361), (233, 12370), (234, 12382), (236, 12394), (238, 12412), (252, 12472), (255, 12484), (256, 12490), (260, 12505), (263, 12523), (264, 12526), (266, 12544), (270, 12559), (282, 12598), (296, 12655), (297, 12664), (303, 12688), (304, 12694), (309, 12715), (315, 12745), (319, 12778), (334, 12862), (340, 12892), (343, 12904), (355, 13006), (365, 13084), (373, 13129), (377, 13153), (389, 13207), (390, 13210), (398, 13225), (404, 13267), (409, 13294), (411, 13303), (414, 13318), (415, 13324), (416, 13327), (441, 13468), (446, 13504), (447, 13510), (451, 13528), (455, 13555), (457, 13567), (467, 13621), (474, 13654), (482, 13714), (496, 13795), (497, 13798), (520, 13882), (526, 13897), (554, 14032), (571, 14098), (596, 14233), (657, 14584), (679, 14839), (680, 14848), (688, 14914), (721, 15109), (727, 15130), (734, 15181), (738, 15199), (739, 15205), (743, 15244),

Gene: ShedlockHolmes_20 Start: 12197, Stop: 16345, Start Num: 17

Candidate Starts for ShedlockHolmes_20:

(Start: 17 @12197 has 171 MA's), (Start: 26 @12266 has 1 MA's), (Start: 27 @12287 has 1 MA's), (29, 12293), (34, 12353), (55, 12491), (62, 12536), (67, 12557), (80, 12602), (96, 12710), (97, 12722), (103, 12743), (111, 12797), (117, 12827), (122, 12848), (128, 12881), (130, 12890), (134, 12911), (142, 12950), (157, 13028), (163, 13070), (168, 13106), (174, 13130), (203, 13304), (212, 13364), (216, 13385), (218, 13394), (253, 13562), (258, 13583), (263, 13607), (267, 13631), (272, 13652), (278, 13670), (286, 13703), (294, 13745), (295, 13748), (296, 13751), (304, 13790), (306, 13799), (318, 13868), (336, 13979), (342, 14009), (368, 14207), (373, 14240), (397, 14330), (400, 14348), (404, 14378), (409, 14405), (447, 14621), (454, 14657), (463, 14714), (467, 14732), (474, 14765), (475, 14777), (482, 14825), (496, 14906), (497, 14909), (535, 15026), (554, 15119), (575, 15197), (592, 15296), (596, 15320), (614, 15395), (671, 15854), (673, 15866), (679, 15935), (680, 15944), (715, 16136), (717, 16154), (724, 16190), (727, 16199), (738, 16265), (739, 16271), (741, 16286), (742, 16298),

Gene: ShiaSurprise_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for ShiaSurprise_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: SirPhilip_20 Start: 10854, Stop: 14759, Start Num: 18

Candidate Starts for SirPhilip_20:

(Start: 18 @10854 has 63 MA's), (29, 10947), (38, 11052), (46, 11103), (47, 11106), (68, 11205), (87, 11286), (88, 11295), (94, 11334), (96, 11346), (98, 11364), (99, 11367), (102, 11376), (110, 11424), (113, 11439), (119, 11457), (120, 11463), (123, 11475), (151, 11613), (154, 11628), (164, 11694), (165, 11709), (221, 12021), (232, 12066), (233, 12072), (234, 12084), (238, 12114), (252, 12174), (255, 12186), (256, 12192), (260, 12207), (264, 12228), (266, 12246), (267, 12249), (295, 12354), (304, 12396), (309, 12417), (316, 12456), (342, 12510), (343, 12516), (373, 12675), (380, 12708), (402, 12753), (403, 12756), (404, 12759), (409, 12786), (410, 12789), (411, 12795), (416, 12819), (422, 12852), (429, 12885), (441, 12960), (449, 13014), (451, 13020), (454, 13038), (457, 13059), (462, 13092), (482, 13206), (496, 13287), (497, 13290), (520, 13374), (548, 13485), (554, 13524), (569, 13584), (596, 13725), (614, 13800), (672, 14253), (679, 14325), (686, 14379), (696, 14430), (715, 14556), (721, 14598), (734, 14673), (739, 14694),

Gene: Sizemore_16 Start: 11465, Stop: 15478, Start Num: 17

Candidate Starts for Sizemore_16:

(Start: 17 @11465 has 171 MA's), (38, 11666), (57, 11780), (67, 11822), (75, 11852), (97, 11987), (100, 11999), (103, 12008), (139, 12197), (142, 12215), (144, 12218), (148, 12239), (150, 12251), (161, 12323), (168, 12371), (194, 12503), (197, 12527), (208, 12608), (235, 12731), (251, 12815), (259, 12851), (267, 12896), (268, 12902), (294, 13010), (300, 13034), (304, 13055), (346, 13274), (363, 13424), (378, 13511), (403, 13619), (431, 13754), (447, 13865), (451, 13883), (456, 13913), (494, 14135), (502, 14159), (505, 14174), (509, 14195), (520, 14222), (529, 14249), (543, 14309), (562, 14399), (567, 14432), (583, 14495), (590, 14552), (596, 14585), (597, 14594), (673, 15098), (674, 15125), (677, 15155), (679, 15167), (680, 15176), (694, 15245), (713, 15326), (720, 15386), (722, 15404), (725, 15413),

Gene: Slarp_22 Start: 13324, Stop: 17499, Start Num: 18

Candidate Starts for Slarp_22:

(12, 13288), (Start: 18 @13324 has 63 MA's), (30, 13423), (38, 13522), (87, 13762), (88, 13771), (103, 13864), (130, 14011), (134, 14032), (142, 14071), (144, 14074), (157, 14149), (168, 14227), (183, 14314), (184, 14317), (192, 14347), (196, 14380), (200, 14404), (213, 14488), (219, 14518), (226, 14545), (248, 14653), (252, 14674), (254, 14686), (257, 14698), (267, 14752), (304, 14911), (309, 14932), (322, 15040), (344, 15160), (404, 15520), (414, 15571), (416, 15580), (425, 15625), (429, 15646), (469, 15865), (473, 15877), (475, 15886), (487, 15958), (496, 16009), (497, 16012), (504, 16039), (535, 16138), (539, 16156), (554, 16231), (595, 16420), (596, 16432), (614, 16507), (648, 16693), (657, 16813), (665, 16921), (679, 17071), (698, 17191), (700, 17200), (702, 17203), (716, 17302), (721, 17329), (739, 17425), (745, 17488),

Gene: Slimphazie_21 Start: 12080, Stop: 15916, Start Num: 17

Candidate Starts for Slimphazie_21:

(Start: 17 @12080 has 171 MA's), (Start: 26 @12149 has 1 MA's), (34, 12236), (60, 12413), (67, 12440), (85, 12512), (87, 12524), (88, 12533), (97, 12605), (111, 12680), (128, 12764), (130, 12773), (134, 12794), (142, 12833), (157, 12911), (168, 12989), (184, 13079), (198, 13154), (212, 13247), (214, 13256), (216, 13268), (218, 13277), (273, 13538), (277, 13553), (286, 13586), (304, 13673), (310, 13697), (322, 13781), (340, 13865), (343, 13877), (347, 13898), (431, 14054), (442, 14135), (451, 14183), (454, 14201), (457, 14222), (463, 14258), (474, 14309), (481, 14366), (496, 14444), (499, 14453), (520, 14531), (535, 14588), (549, 14642), (596, 14882), (614, 14957), (645, 15068), (659, 15287), (661, 15299), (679, 15485), (680, 15494), (694, 15566), (702, 15596), (706, 15617), (721, 15737), (734, 15809), (738, 15827), (739, 15833),

Gene: Sneeze_16 Start: 11453, Stop: 15478, Start Num: 17

Candidate Starts for Sneeze_16:

(Start: 17 @11453 has 171 MA's), (22, 11477), (38, 11654), (57, 11768), (67, 11810), (72, 11831), (75, 11840), (97, 11975), (103, 11996), (130, 12143), (139, 12185), (142, 12203), (144, 12206), (148, 12227), (150, 12239), (168, 12359), (180, 12425), (194, 12491), (197, 12515), (208, 12596), (235, 12719), (237, 12740), (257, 12830), (259, 12839), (268, 12890), (278, 12923), (282, 12941), (294, 12998), (304, 13043), (319, 13130), (322, 13151), (343, 13247), (346, 13262), (356, 13352), (361, 13409), (363, 13412), (399, 13571), (400, 13580), (403, 13607), (431, 13742), (451, 13871), (456, 13901), (494, 14123), (502, 14147), (505, 14162), (509, 14183), (529, 14237), (543, 14297), (562, 14387), (567, 14420), (570, 14435), (583, 14483), (590, 14540), (596, 14573), (663, 15005), (673, 15095), (674, 15122), (679, 15164), (680, 15173), (694, 15242), (700, 15269), (713, 15326), (720, 15386), (722, 15404), (725, 15413),

Gene: SoSeph_19 Start: 12264, Stop: 16394, Start Num: 16

Candidate Starts for SoSeph_19:

(Start: 16 @12264 has 33 MA's), (Start: 27 @12357 has 1 MA's), (35, 12435), (36, 12459), (46, 12519), (62, 12603), (64, 12615), (88, 12717), (96, 12777), (97, 12789), (103, 12810), (111, 12864), (121, 12912), (130, 12957), (134, 12978), (157, 13095), (168, 13173), (174, 13197), (184, 13263), (198, 13338), (212, 13431), (218, 13461), (255, 13635), (257, 13644), (263, 13674), (267, 13698), (272, 13719), (289, 13779), (304, 13857), (306, 13866), (319, 13944), (332, 14010), (341, 14052), (343, 14061), (350, 14145), (356, 14166), (358, 14199), (383, 14340), (386, 14349), (390, 14367), (400, 14394), (413, 14472), (431, 14556), (449, 14679), (460, 14745), (496, 14940), (504, 14970), (510, 14997), (513, 15003), (521, 15030), (532, 15075), (536, 15090), (537, 15096), (555, 15180), (568, 15228), (577, 15267), (586, 15327), (593, 15360), (596, 15381), (600, 15405), (610, 15438), (632, 15522), (647, 15594), (671, 15903), (675, 15957), (677, 15972), (679, 15984), (685, 16014), (718, 16200), (721, 16224), (724, 16236), (740, 16323), (742, 16347),

Gene: Spock_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Spock_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: Stargaze_16 Start: 11766, Stop: 15800, Start Num: 18

Candidate Starts for Stargaze_16:

(Start: 18 @11766 has 63 MA's), (29, 11862), (37, 11967), (51, 12042), (55, 12060), (56, 12072), (59, 12090), (66, 12117), (68, 12123), (90, 12231), (92, 12237), (94, 12252), (96, 12264), (98, 12282), (107,

12327), (115, 12363), (119, 12378), (123, 12393), (124, 12399), (145, 12501), (151, 12543), (154, 12558), (160, 12594), (168, 12657), (173, 12678), (176, 12687), (186, 12750), (190, 12768), (213, 12909), (221, 12951), (228, 12981), (229, 12984), (231, 12993), (233, 13002), (238, 13044), (254, 13113), (255, 13116), (256, 13122), (260, 13137), (264, 13158), (265, 13167), (290, 13263), (300, 13305), (304, 13326), (310, 13350), (312, 13362), (313, 13365), (320, 13422), (327, 13455), (335, 13494), (343, 13536), (344, 13539), (356, 13641), (363, 13701), (365, 13716), (371, 13752), (383, 13815), (388, 13836), (403, 13896), (426, 14007), (431, 14031), (438, 14082), (439, 14088), (460, 14220), (484, 14352), (502, 14436), (505, 14451), (527, 14517), (543, 14586), (558, 14667), (562, 14676), (583, 14769), (590, 14826), (596, 14859), (613, 14919), (618, 14934), (657, 15213), (673, 15402), (674, 15429), (679, 15471), (720, 15708), (722, 15726), (727, 15741), (728, 15753),

Gene: Stinson_21 Start: 12048, Stop: 15881, Start Num: 17

Candidate Starts for Stinson_21:

(Start: 17 @12048 has 171 MA's), (Start: 26 @12117 has 1 MA's), (34, 12204), (60, 12384), (67, 12411), (87, 12495), (88, 12504), (96, 12564), (97, 12576), (111, 12651), (120, 12693), (128, 12735), (130, 12744), (134, 12765), (142, 12804), (157, 12882), (168, 12960), (198, 13125), (212, 13218), (216, 13239), (218, 13248), (267, 13485), (273, 13509), (277, 13524), (286, 13557), (304, 13644), (322, 13752), (340, 13836), (343, 13848), (347, 13869), (355, 13950), (431, 14025), (442, 14106), (444, 14115), (451, 14154), (454, 14172), (457, 14193), (463, 14229), (474, 14280), (481, 14337), (496, 14415), (499, 14424), (520, 14502), (526, 14517), (535, 14559), (549, 14613), (596, 14853), (614, 14928), (645, 15039), (659, 15258), (671, 15372), (679, 15453), (680, 15462), (694, 15534), (702, 15564), (706, 15585), (721, 15702), (734, 15774), (739, 15798),

Gene: Strobilo_17 Start: 10116, Stop: 13787, Start Num: 16

Candidate Starts for Strobilo_17:

(Start: 16 @10116 has 33 MA's), (Start: 26 @10188 has 1 MA's), (65, 10422), (85, 10473), (97, 10566), (103, 10587), (111, 10641), (130, 10734), (134, 10755), (139, 10776), (140, 10782), (157, 10872), (163, 10914), (168, 10950), (177, 10983), (178, 10995), (181, 11019), (184, 11040), (191, 11064), (192, 11070), (197, 11106), (198, 11115), (203, 11148), (204, 11160), (208, 11187), (251, 11370), (253, 11382), (255, 11388), (259, 11406), (263, 11427), (267, 11451), (273, 11475), (296, 11484), (299, 11499), (307, 11511), (321, 11544), (332, 11592), (352, 11733), (353, 11739), (357, 11775), (362, 11802), (366, 11820), (373, 11850), (400, 11946), (405, 11979), (416, 12015), (430, 12066), (436, 12099), (440, 12120), (445, 12144), (449, 12174), (453, 12195), (503, 12417), (531, 12510), (551, 12588), (582, 12711), (604, 12816), (621, 12864), (671, 13284), (672, 13293), (674, 13323), (704, 13488), (721, 13617), (739, 13710),

Gene: Sulley_21 Start: 12049, Stop: 15882, Start Num: 17

Candidate Starts for Sulley_21:

(Start: 17 @12049 has 171 MA's), (Start: 26 @12118 has 1 MA's), (34, 12205), (60, 12382), (67, 12409), (87, 12493), (88, 12502), (97, 12574), (111, 12649), (128, 12733), (130, 12742), (134, 12763), (142, 12802), (157, 12880), (168, 12958), (184, 13048), (198, 13123), (212, 13216), (216, 13237), (218, 13246), (267, 13483), (277, 13522), (286, 13555), (304, 13642), (310, 13666), (322, 13750), (340, 13834), (343, 13846), (347, 13867), (431, 14023), (442, 14104), (451, 14152), (454, 14170), (457, 14191), (463, 14227), (474, 14278), (481, 14335), (496, 14413), (499, 14422), (520, 14500), (526, 14515), (535, 14557), (549, 14611), (596, 14851), (614, 14926), (645, 15037), (659, 15256), (661, 15268), (679, 15451), (680, 15460), (702, 15562), (706, 15583), (721, 15703), (734, 15775), (738, 15793), (739, 15799),

Gene: Sunflower1121_19 Start: 10973, Stop: 14974, Start Num: 18

Candidate Starts for Sunflower1121_19:

(7, 10925), (Start: 18 @10973 has 63 MA's), (29, 11066), (38, 11171), (47, 11225), (51, 11243), (55, 11261), (59, 11291), (66, 11318), (68, 11324), (81, 11369), (96, 11465), (98, 11483), (99, 11486), (124, 11600), (126, 11615), (151, 11732), (154, 11747), (165, 11828), (178, 11888), (179, 11897), (190,

11957), (221, 12140), (222, 12146), (234, 12203), (252, 12293), (255, 12305), (256, 12311), (260, 12326), (264, 12347), (266, 12365), (288, 12440), (302, 12503), (304, 12515), (309, 12536), (316, 12575), (339, 12620), (343, 12635), (361, 12797), (373, 12860), (378, 12887), (399, 12959), (404, 12998), (414, 13049), (418, 13070), (424, 13100), (426, 13106), (431, 13130), (438, 13181), (457, 13298), (463, 13334), (474, 13385), (496, 13526), (520, 13613), (529, 13640), (548, 13724), (596, 13964), (614, 14039), (660, 14372), (671, 14474), (672, 14483), (679, 14555), (680, 14564), (694, 14639), (702, 14669), (709, 14690), (721, 14807), (731, 14858), (734, 14882), (741, 14921), (742, 14933),

Gene: Sweets_16 Start: 11459, Stop: 15472, Start Num: 17

Candidate Starts for Sweets_16:

(Start: 17 @11459 has 171 MA's), (38, 11660), (57, 11774), (67, 11816), (75, 11846), (97, 11981), (100, 11993), (103, 12002), (139, 12191), (142, 12209), (144, 12212), (148, 12233), (150, 12245), (161, 12317), (168, 12365), (194, 12497), (197, 12521), (208, 12602), (235, 12725), (251, 12809), (259, 12845), (267, 12890), (268, 12896), (294, 13004), (300, 13028), (304, 13049), (346, 13268), (363, 13418), (378, 13505), (403, 13613), (431, 13748), (447, 13859), (451, 13877), (456, 13907), (494, 14129), (502, 14153), (505, 14168), (509, 14189), (520, 14216), (529, 14243), (543, 14303), (562, 14393), (567, 14426), (583, 14489), (590, 14546), (596, 14579), (597, 14588), (673, 15092), (674, 15119), (677, 15149), (679, 15161), (680, 15170), (694, 15239), (713, 15320), (720, 15380), (722, 15398), (725, 15407),

Gene: Syra333_20 Start: 11068, Stop: 15069, Start Num: 18

Candidate Starts for Syra333_20:

(Start: 18 @11068 has 63 MA's), (29, 11161), (38, 11266), (47, 11320), (51, 11338), (55, 11356), (59, 11386), (66, 11413), (68, 11419), (81, 11464), (96, 11560), (98, 11578), (99, 11581), (124, 11695), (126, 11710), (151, 11827), (154, 11842), (165, 11923), (178, 11983), (179, 11992), (190, 12052), (221, 12235), (222, 12241), (234, 12298), (252, 12388), (255, 12400), (256, 12406), (260, 12421), (264, 12442), (266, 12460), (288, 12535), (295, 12568), (302, 12598), (304, 12610), (309, 12631), (316, 12670), (339, 12715), (343, 12730), (361, 12892), (373, 12955), (378, 12982), (399, 13054), (404, 13093), (414, 13144), (418, 13165), (424, 13195), (426, 13201), (431, 13225), (438, 13276), (454, 13372), (457, 13393), (463, 13429), (474, 13480), (496, 13621), (497, 13624), (520, 13708), (529, 13735), (548, 13819), (552, 13831), (596, 14059), (614, 14134), (679, 14650), (680, 14659), (694, 14734), (702, 14764), (709, 14785), (721, 14902), (734, 14977), (741, 15016), (742, 15028),

Gene: TBond007_20 Start: 11948, Stop: 16126, Start Num: 17

Candidate Starts for TBond007_20:

(Start: 17 @11948 has 171 MA's), (Start: 26 @12017 has 1 MA's), (Start: 27 @12038 has 1 MA's), (29, 12044), (34, 12104), (55, 12242), (62, 12287), (67, 12308), (96, 12461), (97, 12473), (103, 12494), (111, 12548), (117, 12578), (122, 12599), (128, 12632), (130, 12641), (134, 12662), (142, 12701), (157, 12779), (163, 12821), (168, 12857), (174, 12881), (203, 13055), (208, 13094), (212, 13115), (216, 13136), (218, 13145), (253, 13313), (258, 13334), (263, 13358), (267, 13382), (272, 13403), (278, 13421), (286, 13454), (294, 13496), (295, 13499), (296, 13502), (304, 13541), (306, 13550), (318, 13619), (336, 13730), (342, 13760), (368, 13958), (373, 13991), (397, 14081), (400, 14099), (404, 14129), (409, 14156), (447, 14372), (454, 14408), (463, 14465), (467, 14483), (470, 14504), (474, 14516), (482, 14576), (496, 14657), (506, 14696), (517, 14729), (520, 14744), (523, 14750), (526, 14759), (535, 14801), (554, 14894), (575, 14972), (596, 15095), (614, 15170), (671, 15635), (673, 15647), (679, 15716), (680, 15725), (715, 15917), (724, 15971), (727, 15980), (738, 16046), (739, 16052), (741, 16067), (742, 16079),

Gene: TClif_20 Start: 11063, Stop: 15118, Start Num: 18

Candidate Starts for TClif_20:

(7, 11015), (Start: 18 @11063 has 63 MA's), (21, 11081), (29, 11156), (47, 11315), (66, 11408), (70, 11417), (73, 11435), (78, 11450), (88, 11504), (94, 11543), (96, 11555), (99, 11576), (108, 11618),

(113, 11648), (120, 11672), (143, 11783), (151, 11822), (154, 11837), (155, 11846), (160, 11873), (168, 11936), (190, 12047), (198, 12098), (221, 12230), (232, 12275), (233, 12281), (238, 12323), (252, 12383), (255, 12395), (256, 12401), (260, 12416), (264, 12437), (266, 12455), (270, 12470), (281, 12506), (295, 12563), (302, 12593), (304, 12605), (308, 12623), (336, 12689), (342, 12719), (343, 12725), (354, 12824), (356, 12830), (373, 12950), (382, 12998), (386, 13013), (398, 13046), (400, 13058), (404, 13088), (411, 13124), (414, 13139), (415, 13145), (420, 13172), (426, 13196), (431, 13220), (435, 13250), (438, 13271), (451, 13349), (457, 13388), (463, 13424), (474, 13475), (483, 13538), (496, 13616), (497, 13619), (503, 13643), (520, 13703), (554, 13853), (596, 14054), (614, 14129), (636, 14198), (679, 14678), (680, 14687), (685, 14708), (694, 14783), (696, 14795), (702, 14813), (709, 14834), (721, 14951), (734, 15026), (738, 15044), (739, 15050), (741, 15065), (742, 15077), (743, 15089), (744, 15092), (745, 15113),

Gene: TM4_17 Start: 10184, Stop: 13873, Start Num: 16

Candidate Starts for TM4_17:

(Start: 16 @10184 has 33 MA's), (Start: 26 @10256 has 1 MA's), (65, 10490), (85, 10541), (97, 10634), (103, 10655), (111, 10709), (130, 10802), (134, 10823), (139, 10844), (140, 10850), (157, 10940), (163, 10982), (168, 11018), (174, 11042), (177, 11051), (178, 11063), (181, 11087), (184, 11108), (191, 11132), (192, 11138), (197, 11174), (198, 11183), (199, 11192), (203, 11216), (204, 11228), (208, 11255), (251, 11438), (253, 11450), (255, 11456), (263, 11495), (267, 11519), (299, 11567), (307, 11579), (321, 11612), (323, 11618), (353, 11807), (355, 11813), (357, 11843), (362, 11870), (366, 11888), (367, 11894), (373, 11918), (390, 11987), (400, 12014), (405, 12047), (415, 12080), (416, 12083), (430, 12134), (436, 12167), (440, 12188), (445, 12212), (449, 12242), (453, 12263), (523, 12545), (549, 12638), (559, 12686), (560, 12689), (563, 12701), (581, 12782), (587, 12815), (589, 12824), (591, 12830), (596, 12863), (605, 12890), (611, 12908), (617, 12926), (619, 12932), (655, 13178), (671, 13358), (672, 13367), (680, 13448), (721, 13703), (739, 13796),

Gene: Tachez_21 Start: 12042, Stop: 15878, Start Num: 17

Candidate Starts for Tachez_21:

(Start: 17 @12042 has 171 MA's), (Start: 26 @12111 has 1 MA's), (34, 12198), (60, 12375), (67, 12402), (85, 12474), (87, 12486), (88, 12495), (97, 12567), (111, 12642), (128, 12726), (130, 12735), (134, 12756), (142, 12795), (157, 12873), (168, 12951), (184, 13041), (198, 13116), (212, 13209), (214, 13218), (216, 13230), (218, 13239), (273, 13500), (277, 13515), (286, 13548), (304, 13635), (310, 13659), (322, 13743), (340, 13827), (343, 13839), (347, 13860), (431, 14016), (442, 14097), (451, 14145), (454, 14163), (457, 14184), (463, 14220), (474, 14271), (481, 14328), (496, 14406), (499, 14415), (520, 14493), (535, 14550), (549, 14604), (596, 14844), (614, 14919), (645, 15030), (659, 15249), (661, 15261), (679, 15447), (680, 15456), (694, 15528), (702, 15558), (706, 15579), (721, 15699), (734, 15771), (738, 15789), (739, 15795),

Gene: Taheera_16 Start: 11466, Stop: 15491, Start Num: 17

Candidate Starts for Taheera_16:

(Start: 17 @11466 has 171 MA's), (22, 11490), (38, 11667), (57, 11781), (67, 11823), (72, 11844), (75, 11853), (97, 11988), (103, 12009), (130, 12156), (139, 12198), (142, 12216), (144, 12219), (147, 12234), (148, 12240), (150, 12252), (168, 12372), (180, 12438), (194, 12504), (197, 12528), (208, 12609), (235, 12732), (237, 12753), (251, 12816), (257, 12843), (259, 12852), (268, 12903), (282, 12954), (294, 13011), (304, 13056), (319, 13143), (343, 13260), (346, 13275), (356, 13365), (361, 13422), (363, 13425), (397, 13575), (400, 13593), (451, 13884), (456, 13914), (494, 14136), (502, 14160), (505, 14175), (509, 14196), (529, 14250), (543, 14310), (562, 14400), (567, 14433), (570, 14448), (583, 14496), (590, 14553), (596, 14586), (663, 15018), (673, 15108), (674, 15135), (679, 15177), (680, 15186), (694, 15255), (700, 15282), (713, 15339), (720, 15399), (722, 15417), (725, 15426),

Gene: TaiwanKao_22 Start: 12053, Stop: 15889, Start Num: 17

Candidate Starts for TaiwanKao_22:

(Start: 17 @12053 has 171 MA's), (Start: 26 @12122 has 1 MA's), (34, 12209), (60, 12389), (67, 12416), (87, 12500), (88, 12509), (96, 12569), (97, 12581), (111, 12656), (120, 12698), (128, 12740), (130, 12749), (134, 12770), (142, 12809), (157, 12887), (168, 12965), (198, 13130), (212, 13223), (214, 13232), (216, 13244), (218, 13253), (267, 13490), (273, 13514), (277, 13529), (286, 13562), (304, 13649), (310, 13673), (322, 13757), (340, 13841), (343, 13853), (355, 13955), (431, 14030), (442, 14111), (451, 14159), (454, 14177), (456, 14189), (457, 14198), (463, 14234), (474, 14285), (481, 14342), (496, 14420), (499, 14429), (520, 14507), (526, 14522), (535, 14564), (549, 14618), (596, 14858), (614, 14933), (645, 15044), (659, 15263), (661, 15275), (671, 15377), (679, 15458), (680, 15467), (694, 15539), (702, 15569), (706, 15590), (721, 15710), (734, 15782), (738, 15800), (739, 15806),

Gene: Taquito_20 Start: 12915, Stop: 17108, Start Num: 18

Candidate Starts for Taquito_20:

(Start: 18 @12915 has 63 MA's), (38, 13113), (87, 13353), (88, 13362), (97, 13434), (103, 13455), (128, 13593), (130, 13602), (134, 13623), (142, 13662), (155, 13731), (157, 13740), (168, 13818), (171, 13830), (184, 13908), (192, 13938), (196, 13971), (197, 13974), (200, 13995), (226, 14136), (229, 14145), (254, 14277), (257, 14289), (267, 14343), (278, 14382), (286, 14415), (304, 14502), (309, 14523), (333, 14700), (344, 14751), (361, 14910), (404, 15111), (414, 15162), (416, 15171), (425, 15216), (429, 15237), (469, 15456), (473, 15468), (475, 15477), (483, 15522), (487, 15549), (492, 15582), (496, 15600), (497, 15603), (504, 15630), (535, 15729), (539, 15747), (554, 15822), (573, 15894), (595, 16011), (596, 16023), (614, 16098), (634, 16167), (648, 16296), (655, 16410), (679, 16677), (682, 16695), (700, 16806), (702, 16809), (716, 16908), (721, 16935), (722, 16938), (739, 17034), (745, 17097),

Gene: Teejan_17 Start: 11327, Stop: 15460, Start Num: 17

Candidate Starts for Teejan_17:

(9, 11288), (Start: 17 @11327 has 171 MA's), (Start: 26 @11396 has 1 MA's), (34, 11483), (44, 11561), (62, 11669), (67, 11690), (76, 11723), (97, 11855), (101, 11870), (103, 11876), (111, 11930), (117, 11960), (130, 12023), (134, 12044), (142, 12083), (157, 12161), (168, 12239), (174, 12263), (212, 12497), (232, 12578), (240, 12638), (253, 12695), (262, 12731), (267, 12764), (273, 12788), (290, 12854), (292, 12863), (304, 12923), (322, 13031), (332, 13076), (356, 13232), (371, 13343), (373, 13352), (375, 13364), (386, 13415), (390, 13433), (400, 13460), (404, 13490), (422, 13583), (431, 13622), (457, 13790), (467, 13844), (474, 13877), (480, 13922), (496, 14003), (497, 14006), (520, 14090), (523, 14096), (526, 14105), (535, 14147), (545, 14183), (549, 14201), (554, 14240), (569, 14300), (596, 14441), (611, 14501), (614, 14516), (661, 14858), (679, 15047), (680, 15056), (691, 15119), (739, 15395),

Gene: Terror_16 Start: 11466, Stop: 15491, Start Num: 17

Candidate Starts for Terror_16:

(Start: 17 @11466 has 171 MA's), (22, 11490), (38, 11667), (57, 11781), (67, 11823), (72, 11844), (75, 11853), (97, 11988), (103, 12009), (130, 12156), (139, 12198), (142, 12216), (144, 12219), (147, 12234), (148, 12240), (150, 12252), (168, 12372), (180, 12438), (194, 12504), (197, 12528), (208, 12609), (235, 12732), (237, 12753), (251, 12816), (257, 12843), (259, 12852), (268, 12903), (282, 12954), (294, 13011), (304, 13056), (319, 13143), (343, 13260), (346, 13275), (356, 13365), (361, 13422), (363, 13425), (397, 13575), (400, 13593), (451, 13884), (456, 13914), (494, 14136), (502, 14160), (505, 14175), (509, 14196), (529, 14250), (543, 14310), (562, 14400), (567, 14433), (570, 14448), (583, 14496), (590, 14553), (596, 14586), (663, 15018), (673, 15108), (674, 15135), (679, 15177), (680, 15186), (694, 15255), (700, 15282), (713, 15339), (720, 15399), (722, 15417), (725, 15426),

Gene: Thyatira_19 Start: 12136, Stop: 16245, Start Num: 16

Candidate Starts for Thyatira_19:

(Start: 16 @12136 has 33 MA's), (46, 12394), (62, 12478), (80, 12544), (88, 12592), (96, 12652), (97, 12664), (103, 12685), (111, 12739), (117, 12769), (130, 12832), (134, 12853), (147, 12910), (157, 12970), (168, 13048), (174, 13072), (180, 13114), (187, 13147), (212, 13306), (216, 13327), (237, 13405), (251, 13468), (254, 13483), (255, 13486), (257, 13495), (258, 13501), (261, 13513), (271, 13567), (296, 13669), (304, 13708), (332, 13861), (341, 13903), (346, 13927), (356, 14017), (358, 14050), (383, 14191), (386, 14200), (390, 14218), (400, 14245), (413, 14323), (431, 14407), (449, 14530), (460, 14596), (479, 14698), (496, 14791), (499, 14800), (504, 14821), (513, 14854), (529, 14905), (532, 14926), (536, 14941), (537, 14947), (555, 15031), (565, 15061), (568, 15079), (577, 15118), (586, 15178), (593, 15211), (596, 15232), (600, 15256), (610, 15289), (632, 15373), (647, 15445), (671, 15754), (675, 15808), (677, 15823), (679, 15835), (685, 15865), (718, 16051), (721, 16075), (724, 16087), (740, 16174), (742, 16198),

Gene: Tierra_20 Start: 11792, Stop: 15793, Start Num: 18

Candidate Starts for Tierra_20:

(Start: 18 @11792 has 63 MA's), (29, 11885), (38, 11990), (44, 12017), (47, 12044), (51, 12062), (55, 12080), (57, 12104), (59, 12110), (66, 12137), (68, 12143), (78, 12179), (81, 12188), (85, 12212), (96, 12284), (98, 12302), (99, 12305), (126, 12434), (151, 12551), (165, 12647), (173, 12686), (179, 12716), (190, 12776), (221, 12959), (222, 12965), (223, 12968), (234, 13022), (238, 13052), (252, 13112), (255, 13124), (256, 13130), (260, 13145), (264, 13166), (266, 13184), (302, 13322), (304, 13334), (309, 13355), (316, 13394), (342, 13448), (343, 13454), (361, 13616), (373, 13679), (390, 13760), (398, 13775), (404, 13817), (414, 13868), (418, 13889), (424, 13919), (426, 13925), (431, 13949), (438, 14000), (447, 14060), (457, 14117), (463, 14153), (467, 14171), (474, 14204), (496, 14345), (497, 14348), (520, 14432), (529, 14459), (548, 14543), (596, 14783), (614, 14858), (660, 15191), (671, 15293), (672, 15302), (679, 15374), (694, 15458), (702, 15488), (709, 15509), (721, 15626), (734, 15701), (741, 15740), (742, 15752),

Gene: Tigress9_20 Start: 11051, Stop: 15055, Start Num: 18

Candidate Starts for Tigress9_20:

(Start: 18 @11051 has 63 MA's), (29, 11144), (38, 11249), (47, 11303), (51, 11321), (55, 11339), (59, 11369), (66, 11396), (68, 11402), (81, 11447), (96, 11543), (98, 11561), (99, 11564), (124, 11678), (126, 11693), (151, 11810), (154, 11825), (165, 11906), (178, 11966), (179, 11975), (190, 12035), (221, 12218), (222, 12224), (234, 12281), (252, 12371), (255, 12383), (256, 12389), (260, 12404), (264, 12425), (266, 12443), (288, 12518), (295, 12551), (302, 12581), (304, 12593), (309, 12614), (316, 12653), (339, 12698), (343, 12713), (361, 12875), (373, 12938), (378, 12965), (399, 13037), (404, 13076), (414, 13127), (418, 13148), (424, 13178), (426, 13184), (431, 13208), (438, 13259), (454, 13355), (457, 13376), (463, 13412), (474, 13463), (496, 13604), (497, 13607), (520, 13691), (529, 13718), (548, 13802), (596, 14042), (614, 14117), (671, 14555), (672, 14564), (679, 14636), (680, 14645), (694, 14720), (702, 14750), (709, 14771), (721, 14888), (734, 14963), (741, 15002), (742, 15014),

Gene: TinaBug_16 Start: 11459, Stop: 15472, Start Num: 17

Candidate Starts for TinaBug_16:

(Start: 17 @11459 has 171 MA's), (38, 11660), (57, 11774), (67, 11816), (75, 11846), (97, 11981), (100, 11993), (103, 12002), (139, 12191), (142, 12209), (144, 12212), (148, 12233), (150, 12245), (161, 12317), (168, 12365), (194, 12497), (197, 12521), (208, 12602), (235, 12725), (251, 12809), (259, 12845), (267, 12890), (268, 12896), (294, 13004), (300, 13028), (304, 13049), (346, 13268), (363, 13418), (378, 13505), (403, 13613), (431, 13748), (447, 13859), (451, 13877), (456, 13907), (494, 14129), (502, 14153), (505, 14168), (509, 14189), (520, 14216), (529, 14243), (543, 14303), (562, 14393), (567, 14426), (583, 14489), (590, 14546), (596, 14579), (597, 14588), (673, 15092), (674, 15119), (677, 15149), (679, 15161), (680, 15170), (694, 15239), (713, 15320), (720, 15380), (722, 15398), (725, 15407),

Gene: TingHuaYa_21 Start: 11093, Stop: 15220, Start Num: 18

Candidate Starts for TingHuaYa_21:

(10, 11045), (Start: 18 @11093 has 63 MA's), (29, 11186), (44, 11318), (46, 11342), (53, 11372), (56, 11393), (57, 11405), (66, 11438), (73, 11465), (90, 11552), (96, 11585), (98, 11603), (99, 11606), (108, 11648), (119, 11696), (145, 11822), (151, 11864), (154, 11879), (160, 11915), (169, 11987), (190, 12089), (221, 12272), (231, 12314), (232, 12317), (233, 12323), (234, 12335), (238, 12365), (252, 12425), (256, 12443), (260, 12458), (263, 12476), (264, 12479), (270, 12512), (292, 12593), (296, 12608), (304, 12647), (309, 12668), (340, 12845), (343, 12857), (345, 12866), (348, 12917), (355, 12959), (373, 13082), (377, 13106), (390, 13163), (398, 13178), (399, 13181), (409, 13247), (411, 13256), (416, 13280), (426, 13328), (438, 13403), (441, 13421), (451, 13481), (455, 13508), (457, 13520), (463, 13556), (467, 13574), (475, 13619), (477, 13649), (482, 13667), (496, 13748), (497, 13751), (520, 13835), (526, 13850), (534, 13889), (535, 13892), (554, 13985), (571, 14051), (596, 14186), (657, 14537), (671, 14708), (679, 14789), (694, 14873), (721, 15041), (734, 15113), (738, 15131), (739, 15137),

Gene: TiniBug_21 Start: 12024, Stop: 15860, Start Num: 17

Candidate Starts for TiniBug_21:

(Start: 17 @12024 has 171 MA's), (Start: 26 @12093 has 1 MA's), (34, 12180), (60, 12360), (67, 12387), (87, 12471), (88, 12480), (96, 12540), (97, 12552), (111, 12627), (120, 12669), (128, 12711), (130, 12720), (134, 12741), (142, 12780), (157, 12858), (168, 12936), (198, 13101), (212, 13194), (216, 13215), (218, 13224), (267, 13461), (273, 13485), (277, 13500), (286, 13533), (304, 13620), (319, 13707), (322, 13728), (340, 13812), (343, 13824), (347, 13845), (431, 14001), (442, 14082), (454, 14148), (457, 14169), (463, 14205), (474, 14256), (476, 14274), (481, 14313), (496, 14391), (520, 14478), (526, 14493), (535, 14535), (549, 14589), (596, 14829), (614, 14904), (645, 15015), (647, 15036), (648, 15057), (657, 15177), (671, 15348), (679, 15429), (680, 15438), (694, 15510), (702, 15540), (706, 15561), (721, 15681), (734, 15753), (738, 15771), (739, 15777),

Gene: Tiri_21 Start: 12088, Stop: 15921, Start Num: 17

Candidate Starts for Tiri_21:

(2, 11869), (9, 12049), (Start: 17 @12088 has 171 MA's), (Start: 26 @12157 has 1 MA's), (34, 12244), (60, 12421), (67, 12448), (87, 12532), (88, 12541), (97, 12613), (111, 12688), (128, 12772), (130, 12781), (134, 12802), (142, 12841), (157, 12919), (168, 12997), (184, 13087), (198, 13162), (212, 13255), (214, 13264), (216, 13276), (218, 13285), (257, 13468), (267, 13522), (277, 13561), (286, 13594), (304, 13681), (310, 13705), (322, 13789), (340, 13873), (343, 13885), (347, 13906), (431, 14062), (442, 14143), (451, 14191), (454, 14209), (457, 14230), (463, 14266), (474, 14317), (481, 14374), (496, 14452), (499, 14461), (520, 14539), (535, 14596), (549, 14650), (596, 14890), (614, 14965), (645, 15076), (659, 15295), (661, 15307), (671, 15409), (679, 15490), (680, 15499), (702, 15601), (706, 15622), (721, 15742), (734, 15814), (738, 15832), (739, 15838),

Gene: TomBrady_16 Start: 11465, Stop: 15478, Start Num: 17

Candidate Starts for TomBrady_16:

(Start: 17 @11465 has 171 MA's), (38, 11666), (57, 11780), (67, 11822), (75, 11852), (97, 11987), (100, 11999), (103, 12008), (139, 12197), (142, 12215), (144, 12218), (148, 12239), (150, 12251), (161, 12323), (168, 12371), (194, 12503), (197, 12527), (208, 12608), (235, 12731), (251, 12815), (259, 12851), (267, 12896), (268, 12902), (294, 13010), (300, 13034), (304, 13055), (346, 13274), (363, 13424), (378, 13511), (403, 13619), (431, 13754), (447, 13865), (451, 13883), (456, 13913), (494, 14135), (502, 14159), (505, 14174), (509, 14195), (520, 14222), (529, 14249), (543, 14309), (562, 14399), (567, 14432), (583, 14495), (590, 14552), (596, 14585), (597, 14594), (673, 15098), (674, 15125), (677, 15155), (679, 15167), (680, 15176), (694, 15245), (713, 15326), (720, 15386), (722, 15404), (725, 15413),

Gene: Topper_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Topper_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: Torres_17 Start: 11327, Stop: 15460, Start Num: 17

Candidate Starts for Torres_17:

(9, 11288), (Start: 17 @11327 has 171 MA's), (Start: 26 @11396 has 1 MA's), (34, 11483), (44, 11561), (62, 11669), (67, 11690), (76, 11723), (97, 11855), (101, 11870), (103, 11876), (111, 11930), (117, 11960), (130, 12023), (134, 12044), (142, 12083), (157, 12161), (168, 12239), (174, 12263), (212, 12497), (232, 12578), (240, 12638), (253, 12695), (262, 12731), (267, 12764), (273, 12788), (290, 12854), (292, 12863), (304, 12923), (322, 13031), (332, 13076), (356, 13232), (371, 13343), (373, 13352), (375, 13364), (386, 13415), (390, 13433), (400, 13460), (404, 13490), (422, 13583), (431, 13622), (457, 13790), (467, 13844), (474, 13877), (480, 13922), (496, 14003), (497, 14006), (520, 14090), (523, 14096), (526, 14105), (535, 14147), (545, 14183), (549, 14201), (554, 14240), (569, 14300), (596, 14441), (611, 14501), (614, 14516), (661, 14858), (679, 15047), (680, 15056), (691, 15119), (739, 15395),

Gene: TreyKay_21 Start: 12047, Stop: 15883, Start Num: 17

Candidate Starts for TreyKay_21:

(Start: 17 @12047 has 171 MA's), (Start: 26 @12116 has 1 MA's), (34, 12203), (60, 12383), (67, 12410), (88, 12503), (96, 12563), (97, 12575), (111, 12650), (122, 12701), (130, 12743), (134, 12764), (142, 12803), (157, 12881), (168, 12959), (174, 12983), (198, 13124), (212, 13217), (214, 13226), (216, 13238), (218, 13247), (267, 13484), (273, 13508), (277, 13523), (286, 13556), (304, 13643), (310, 13667), (322, 13751), (340, 13835), (343, 13847), (347, 13868), (355, 13949), (431, 14024), (442, 14105), (451, 14153), (454, 14171), (456, 14183), (457, 14192), (463, 14228), (474, 14279), (481, 14336), (496, 14414), (499, 14423), (520, 14501), (526, 14516), (535, 14558), (549, 14612), (596, 14852), (614, 14927), (645, 15038), (659, 15257), (661, 15269), (671, 15371), (679, 15452), (680, 15461), (694, 15533), (702, 15563), (706, 15584), (721, 15704), (734, 15776), (738, 15794), (739, 15800),

Gene: TribelTrouble_19 Start: 12006, Stop: 16166, Start Num: 17

Candidate Starts for TribelTrouble_19:

(Start: 17 @12006 has 171 MA's), (Start: 26 @12075 has 1 MA's), (Start: 27 @12096 has 1 MA's), (29, 12102), (34, 12162), (58, 12327), (62, 12345), (67, 12366), (72, 12387), (80, 12411), (87, 12450), (95, 12513), (96, 12519), (97, 12531), (111, 12606), (130, 12699), (134, 12720), (142, 12759), (157, 12837), (164, 12882), (168, 12915), (174, 12939), (180, 12981), (203, 13113), (212, 13173), (216, 13194), (218, 13203), (237, 13296), (253, 13371), (263, 13416), (267, 13440), (272, 13461), (279, 13485), (285, 13509), (295, 13557), (304, 13599), (329, 13755), (340, 13812), (361, 13986), (368, 14016), (373, 14049), (404, 14187), (409, 14214), (416, 14247), (427, 14301), (431, 14319), (435, 14349), (447, 14430), (454, 14466), (467, 14541), (474, 14574), (478, 14619), (482, 14634), (496, 14715), (497, 14718), (517, 14787), (520, 14802), (523, 14808), (526, 14817), (549, 14913), (554, 14952), (575, 15030), (592, 15129), (596, 15153), (614, 15228), (667, 15654), (671, 15684), (672, 15693), (673, 15696), (680, 15774), (705, 15900), (715, 15960), (717, 15978), (732, 16056), (739, 16092), (741, 16107), (742, 16119), (747, 16158),

Gene: Trice_17 Start: 11327, Stop: 15460, Start Num: 17

Candidate Starts for Trice_17:

(9, 11288), (Start: 17 @11327 has 171 MA's), (Start: 26 @11396 has 1 MA's), (34, 11483), (44, 11561), (62, 11669), (67, 11690), (76, 11723), (97, 11855), (101, 11870), (103, 11876), (111, 11930), (117, 11960), (130, 12023), (134, 12044), (142, 12083), (157, 12161), (168, 12239), (174, 12263), (212, 12497), (232, 12578), (240, 12638), (253, 12695), (262, 12731), (267, 12764), (273, 12788), (290, 12854), (292, 12863), (304, 12923), (322, 13031), (332, 13076), (356, 13232), (371, 13343), (373, 13352), (375, 13364), (386, 13415), (390, 13433), (400, 13460), (404, 13490), (422, 13583), (431, 13622), (457, 13790), (467, 13844), (474, 13877), (480, 13922), (496, 14003), (497, 14006), (520, 14090), (523, 14096), (526, 14105), (535, 14147), (545, 14183), (549, 14201), (554, 14240), (569, 14300), (596, 14441), (611, 14501), (614, 14516), (661, 14858), (679, 15047), (680, 15056), (691, 15119), (739, 15395),

Gene: TruffulaTree_21 Start: 12076, Stop: 15912, Start Num: 17

Candidate Starts for TruffulaTree_21:

(Start: 17 @12076 has 171 MA's), (Start: 26 @12145 has 1 MA's), (34, 12232), (60, 12409), (67, 12436), (85, 12508), (87, 12520), (88, 12529), (97, 12601), (111, 12676), (128, 12760), (130, 12769), (134, 12790), (142, 12829), (157, 12907), (168, 12985), (184, 13075), (198, 13150), (212, 13243), (214, 13252), (216, 13264), (218, 13273), (273, 13534), (277, 13549), (286, 13582), (304, 13669), (310, 13693), (322, 13777), (340, 13861), (343, 13873), (347, 13894), (431, 14050), (442, 14131), (451, 14179), (454, 14197), (457, 14218), (463, 14254), (474, 14305), (481, 14362), (496, 14440), (499, 14449), (520, 14527), (535, 14584), (549, 14638), (596, 14878), (614, 14953), (645, 15064), (659, 15283), (661, 15295), (679, 15481), (680, 15490), (694, 15562), (702, 15592), (706, 15613), (721, 15733), (734, 15805), (738, 15823), (739, 15829),

Gene: Twitch_21 Start: 12116, Stop: 15949, Start Num: 17

Candidate Starts for Twitch_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (34, 12272), (44, 12347), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (150, 12905), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (526, 14582), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15518), (680, 15527), (694, 15599), (702, 15629), (706, 15650), (721, 15770), (734, 15842), (738, 15860), (739, 15866),

Gene: Unicorn_20 Start: 11123, Stop: 15124, Start Num: 18

Candidate Starts for Unicorn_20:

(Start: 18 @11123 has 63 MA's), (29, 11216), (38, 11321), (47, 11375), (51, 11393), (55, 11411), (57, 11435), (59, 11441), (66, 11468), (68, 11474), (71, 11486), (81, 11519), (96, 11615), (98, 11633), (99, 11636), (124, 11750), (126, 11765), (151, 11882), (165, 11978), (173, 12017), (178, 12038), (179, 12047), (190, 12107), (221, 12290), (222, 12296), (223, 12299), (234, 12353), (238, 12383), (252, 12443), (255, 12455), (256, 12461), (260, 12476), (264, 12497), (266, 12515), (302, 12653), (304, 12665), (309, 12686), (316, 12725), (342, 12779), (343, 12785), (355, 12887), (361, 12947), (373, 13010), (390, 13091), (398, 13106), (399, 13109), (404, 13148), (411, 13184), (414, 13199), (415, 13205), (420, 13232), (426, 13256), (438, 13331), (447, 13391), (457, 13448), (463, 13484), (474, 13535), (496, 13676), (497, 13679), (520, 13763), (529, 13790), (548, 13874), (554, 13913), (596, 14114), (614, 14189), (654, 14408), (660, 14522), (671, 14624), (672, 14633), (679, 14705), (694, 14789), (702, 14819), (709, 14840), (721, 14957), (734, 15032), (741, 15071), (742, 15083),

Gene: Urkel_21 Start: 12024, Stop: 15863, Start Num: 17

Candidate Starts for Urkel_21:

(Start: 17 @12024 has 171 MA's), (Start: 26 @12093 has 1 MA's), (34, 12180), (60, 12360), (67, 12387), (87, 12471), (88, 12480), (96, 12540), (97, 12552), (111, 12627), (122, 12678), (130, 12720),

(134, 12741), (142, 12780), (157, 12858), (168, 12936), (174, 12960), (198, 13101), (212, 13194), (216, 13215), (218, 13224), (267, 13461), (273, 13485), (277, 13500), (286, 13533), (304, 13620), (319, 13707), (322, 13728), (340, 13812), (343, 13824), (347, 13845), (431, 14001), (442, 14082), (454, 14148), (457, 14169), (463, 14205), (474, 14256), (476, 14274), (481, 14313), (496, 14391), (520, 14478), (526, 14493), (535, 14535), (549, 14589), (596, 14829), (614, 14904), (645, 15015), (647, 15036), (648, 15057), (657, 15177), (671, 15351), (679, 15432), (680, 15441), (694, 15513), (702, 15543), (706, 15564), (721, 15684), (734, 15756), (738, 15774), (739, 15780),

Gene: Validus_21 Start: 11056, Stop: 15213, Start Num: 18

Candidate Starts for Validus_21:

(10, 11008), (Start: 18 @11056 has 63 MA's), (29, 11149), (Start: 31 @11161 has 2 MA's), (46, 11305), (47, 11308), (73, 11428), (90, 11515), (96, 11548), (109, 11623), (110, 11626), (124, 11692), (145, 11794), (151, 11836), (154, 11851), (155, 11860), (160, 11887), (164, 11917), (168, 11950), (178, 11992), (190, 12061), (221, 12247), (222, 12253), (231, 12289), (234, 12310), (236, 12322), (238, 12340), (252, 12400), (255, 12412), (256, 12418), (260, 12433), (263, 12451), (264, 12454), (270, 12487), (296, 12583), (304, 12622), (309, 12643), (315, 12673), (319, 12706), (334, 12790), (340, 12820), (343, 12832), (355, 12934), (365, 13012), (373, 13057), (377, 13081), (389, 13135), (390, 13138), (398, 13153), (399, 13156), (404, 13195), (409, 13222), (414, 13246), (415, 13252), (420, 13279), (431, 13327), (438, 13378), (441, 13396), (446, 13432), (447, 13438), (451, 13456), (455, 13483), (457, 13495), (467, 13549), (474, 13582), (482, 13642), (496, 13723), (497, 13726), (520, 13810), (526, 13825), (535, 13867), (554, 13960), (571, 14026), (596, 14161), (656, 14509), (672, 14701), (679, 14773), (680, 14782), (685, 14803), (688, 14845), (721, 15040), (724, 15052), (734, 15112), (739, 15136), (743, 15175),

Gene: Veliki_21 Start: 12116, Stop: 15952, Start Num: 17

Candidate Starts for Veliki_21:

(Start: 17 @12116 has 171 MA's), (Start: 26 @12185 has 1 MA's), (Start: 27 @12206 has 1 MA's), (34, 12272), (60, 12449), (67, 12476), (85, 12548), (87, 12560), (88, 12569), (97, 12641), (111, 12716), (128, 12800), (130, 12809), (134, 12830), (142, 12869), (157, 12947), (168, 13025), (184, 13115), (198, 13190), (212, 13283), (214, 13292), (216, 13304), (218, 13313), (267, 13550), (277, 13589), (286, 13622), (304, 13709), (310, 13733), (322, 13817), (340, 13901), (343, 13913), (347, 13934), (431, 14090), (442, 14171), (451, 14219), (454, 14237), (457, 14258), (463, 14294), (474, 14345), (481, 14402), (496, 14480), (499, 14489), (520, 14567), (535, 14624), (549, 14678), (596, 14918), (614, 14993), (645, 15104), (659, 15323), (661, 15335), (679, 15521), (680, 15530), (694, 15602), (702, 15632), (706, 15653), (721, 15773), (734, 15845), (738, 15863), (739, 15869),

Gene: ViviJ_18 Start: 11997, Stop: 16103, Start Num: 16

Candidate Starts for ViviJ_18:

(Start: 16 @11997 has 33 MA's), (Start: 27 @12090 has 1 MA's), (35, 12168), (36, 12192), (46, 12252), (62, 12336), (64, 12348), (88, 12450), (96, 12510), (97, 12522), (103, 12543), (111, 12597), (121, 12645), (130, 12690), (134, 12711), (157, 12828), (168, 12906), (174, 12930), (184, 12996), (198, 13071), (212, 13164), (218, 13194), (255, 13368), (257, 13377), (263, 13407), (267, 13431), (272, 13452), (289, 13512), (304, 13590), (306, 13599), (319, 13677), (332, 13743), (341, 13785), (343, 13794), (350, 13878), (356, 13899), (358, 13932), (369, 13998), (373, 14019), (383, 14073), (386, 14082), (390, 14100), (399, 14118), (400, 14127), (404, 14157), (411, 14193), (421, 14247), (429, 14283), (431, 14289), (432, 14307), (449, 14412), (460, 14478), (496, 14673), (504, 14703), (513, 14736), (529, 14787), (532, 14808), (536, 14823), (537, 14829), (555, 14913), (568, 14961), (577, 15000), (586, 15060), (593, 15093), (596, 15114), (600, 15138), (610, 15168), (632, 15234), (647, 15306), (671, 15621), (672, 15630), (673, 15633), (675, 15675), (679, 15702), (685, 15732), (694, 15783), (698, 15801), (713, 15867), (718, 15915), (721, 15939), (724, 15951), (740, 16032), (742, 16056), (747, 16095),

Gene: Waterfoul_19 Start: 12158, Stop: 16267, Start Num: 16

Candidate Starts for Waterfoul_19:

(Start: 16 @12158 has 33 MA's), (46, 12416), (62, 12500), (80, 12566), (88, 12614), (96, 12674), (97, 12686), (103, 12707), (111, 12761), (117, 12791), (130, 12854), (134, 12875), (147, 12932), (157, 12992), (168, 13070), (174, 13094), (180, 13136), (187, 13169), (212, 13328), (216, 13349), (237, 13427), (251, 13490), (254, 13505), (255, 13508), (257, 13517), (258, 13523), (261, 13535), (271, 13589), (296, 13691), (304, 13730), (332, 13883), (341, 13925), (346, 13949), (356, 14039), (358, 14072), (383, 14213), (386, 14222), (390, 14240), (400, 14267), (413, 14345), (431, 14429), (449, 14552), (460, 14618), (479, 14720), (496, 14813), (499, 14822), (504, 14843), (513, 14876), (529, 14927), (532, 14948), (536, 14963), (537, 14969), (555, 15053), (565, 15083), (568, 15101), (577, 15140), (586, 15200), (593, 15233), (596, 15254), (600, 15278), (610, 15311), (632, 15395), (647, 15467), (671, 15776), (675, 15830), (677, 15845), (679, 15857), (685, 15887), (718, 16073), (721, 16097), (724, 16109), (740, 16196), (742, 16220),

Gene: Wendigo_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Wendigo_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: Wintermute_22 Start: 13313, Stop: 17488, Start Num: 18

Candidate Starts for Wintermute_22:

(12, 13277), (Start: 18 @13313 has 63 MA's), (38, 13511), (87, 13751), (88, 13760), (103, 13853), (121, 13955), (130, 14000), (142, 14060), (157, 14138), (168, 14216), (183, 14303), (184, 14306), (192, 14336), (196, 14369), (200, 14393), (213, 14477), (219, 14507), (226, 14534), (248, 14642), (252, 14663), (254, 14675), (257, 14687), (267, 14741), (304, 14900), (309, 14921), (322, 15029), (344, 15149), (401, 15491), (404, 15509), (414, 15560), (416, 15569), (425, 15614), (429, 15635), (452, 15755), (469, 15854), (473, 15866), (475, 15875), (487, 15947), (496, 15998), (497, 16001), (504, 16028), (535, 16127), (539, 16145), (554, 16220), (595, 16409), (596, 16421), (614, 16496), (626, 16526), (648, 16682), (657, 16802), (665, 16910), (679, 17060), (700, 17189), (702, 17192), (716, 17291), (721, 17318), (739, 17414), (745, 17477),

Gene: Ximenita_21 Start: 11247, Stop: 15251, Start Num: 18

Candidate Starts for Ximenita_21:

(Start: 18 @11247 has 63 MA's), (29, 11340), (38, 11445), (47, 11499), (51, 11517), (57, 11559), (66, 11592), (68, 11598), (87, 11679), (96, 11739), (98, 11757), (99, 11760), (124, 11874), (126, 11889), (151, 12006), (156, 12033), (165, 12102), (178, 12162), (179, 12171), (180, 12183), (190, 12231), (221, 12414), (222, 12420), (223, 12423), (252, 12567), (255, 12579), (256, 12585), (260, 12600), (264, 12621), (266, 12639), (302, 12777), (304, 12789), (309, 12810), (316, 12849), (342, 12903), (343, 12909), (355, 13011), (361, 13071), (373, 13134), (389, 13212), (390, 13215), (398, 13230), (404, 13272), (409, 13299), (411, 13308), (414, 13323), (415, 13329), (420, 13356), (426, 13380), (427, 13386), (435, 13434), (438, 13455), (451, 13533), (454, 13551), (457, 13572), (463, 13608), (474, 13659), (496, 13800), (499, 13809), (520, 13887), (548, 13998), (552, 14010), (596, 14238), (614, 14313), (672, 14757), (679, 14829), (680, 14838), (694, 14913), (702, 14943), (709, 14964), (721, 15081), (734, 15156), (741, 15195), (742, 15207), (747, 15246),

Gene: Y10_22 Start: 13313, Stop: 17488, Start Num: 18

Candidate Starts for Y10_22:

(12, 13277), (Start: 18 @13313 has 63 MA's), (38, 13511), (87, 13751), (88, 13760), (103, 13853), (121, 13955), (130, 14000), (142, 14060), (157, 14138), (168, 14216), (183, 14303), (184, 14306), (192, 14336), (196, 14369), (200, 14393), (213, 14477), (219, 14507), (226, 14534), (248, 14642), (252, 14663), (254, 14675), (257, 14687), (267, 14741), (304, 14900), (309, 14921), (322, 15029), (344, 15149), (401, 15491), (404, 15509), (414, 15560), (416, 15569), (425, 15614), (429, 15635), (452, 15755), (469, 15854), (473, 15866), (475, 15875), (487, 15947), (496, 15998), (497, 16001), (504, 16028), (535, 16127), (539, 16145), (554, 16220), (595, 16409), (596, 16421), (614, 16496), (626, 16526), (648, 16682), (657, 16802), (665, 16910), (679, 17060), (698, 17180), (700, 17189), (702, 17192), (716, 17291), (721, 17318), (739, 17414), (745, 17477),

Gene: Y2_22 Start: 13313, Stop: 17488, Start Num: 18

Candidate Starts for Y2_22:

(12, 13277), (Start: 18 @13313 has 63 MA's), (38, 13511), (87, 13751), (88, 13760), (103, 13853), (121, 13955), (130, 14000), (142, 14060), (157, 14138), (168, 14216), (183, 14303), (184, 14306), (192, 14336), (196, 14369), (200, 14393), (213, 14477), (219, 14507), (226, 14534), (248, 14642), (252, 14663), (254, 14675), (257, 14687), (267, 14741), (304, 14900), (309, 14921), (322, 15029), (344, 15149), (401, 15491), (404, 15509), (414, 15560), (416, 15569), (425, 15614), (429, 15635), (452, 15755), (469, 15854), (473, 15866), (475, 15875), (487, 15947), (496, 15998), (497, 16001), (504, 16028), (535, 16127), (539, 16145), (554, 16220), (595, 16409), (596, 16421), (614, 16496), (626, 16526), (648, 16682), (657, 16802), (665, 16910), (679, 17060), (698, 17180), (700, 17189), (702, 17192), (716, 17291), (721, 17318), (739, 17414), (745, 17477),

Gene: YangYin_16 Start: 11787, Stop: 15824, Start Num: 18

Candidate Starts for YangYin_16:

(Start: 18 @11787 has 63 MA's), (28, 11880), (51, 12063), (53, 12072), (68, 12144), (78, 12180), (90, 12252), (92, 12258), (94, 12273), (96, 12285), (98, 12303), (107, 12348), (115, 12384), (119, 12399), (123, 12414), (124, 12420), (145, 12522), (151, 12564), (154, 12579), (160, 12615), (168, 12678), (173, 12699), (186, 12771), (190, 12789), (213, 12930), (221, 12972), (228, 13002), (229, 13005), (231, 13014), (233, 13023), (238, 13065), (254, 13134), (255, 13137), (256, 13143), (260, 13158), (264, 13179), (265, 13188), (290, 13284), (304, 13347), (310, 13371), (312, 13383), (313, 13386), (320, 13443), (327, 13476), (335, 13515), (343, 13557), (353, 13653), (356, 13662), (363, 13722), (365, 13737), (371, 13773), (388, 13857), (401, 13902), (403, 13917), (408, 13944), (426, 14028), (431, 14052), (438, 14103), (439, 14109), (460, 14241), (484, 14373), (502, 14457), (505, 14472), (527, 14538), (543, 14607), (558, 14688), (562, 14697), (583, 14790), (590, 14847), (596, 14880), (657, 15237), (673, 15426), (674, 15453), (679, 15495), (689, 15573), (720, 15732), (722, 15750), (727, 15765),

Gene: YasnayaPolyana_22 Start: 13314, Stop: 17489, Start Num: 18

Candidate Starts for YasnayaPolyana_22:

(12, 13278), (Start: 18 @13314 has 63 MA's), (38, 13512), (87, 13752), (88, 13761), (103, 13854), (121, 13956), (130, 14001), (134, 14022), (142, 14061), (144, 14064), (157, 14139), (168, 14217), (183, 14304), (184, 14307), (192, 14337), (196, 14370), (200, 14394), (213, 14478), (219, 14508), (226, 14535), (248, 14643), (252, 14664), (254, 14676), (257, 14688), (267, 14742), (304, 14901), (309, 14922), (322, 15030), (344, 15150), (401, 15492), (404, 15510), (414, 15561), (416, 15570), (425, 15615), (429, 15636), (452, 15756), (469, 15855), (473, 15867), (475, 15876), (487, 15948), (496, 15999), (497, 16002), (504, 16029), (535, 16128), (539, 16146), (554, 16221), (595, 16410), (596, 16422), (614, 16497), (626, 16527), (648, 16683), (657, 16803), (665, 16911), (679, 17061), (700, 17190), (702, 17193), (716, 17292), (721, 17319), (739, 17415), (745, 17478),

Gene: YoureAdopted_20 Start: 12049, Stop: 15885, Start Num: 17

Candidate Starts for YoureAdopted_20:

(Start: 17 @12049 has 171 MA's), (Start: 26 @12118 has 1 MA's), (Start: 27 @12139 has 1 MA's), (34, 12205), (60, 12382), (67, 12409), (85, 12481), (87, 12493), (88, 12502), (97, 12574), (111, 12649),

(128, 12733), (130, 12742), (134, 12763), (142, 12802), (157, 12880), (168, 12958), (184, 13048), (198, 13123), (212, 13216), (214, 13225), (216, 13237), (218, 13246), (267, 13483), (277, 13522), (286, 13555), (304, 13642), (310, 13666), (322, 13750), (340, 13834), (343, 13846), (347, 13867), (431, 14023), (442, 14104), (451, 14152), (454, 14170), (457, 14191), (463, 14227), (474, 14278), (481, 14335), (496, 14413), (499, 14422), (520, 14500), (526, 14515), (535, 14557), (549, 14611), (596, 14851), (614, 14926), (645, 15037), (659, 15256), (661, 15268), (679, 15454), (680, 15463), (702, 15565), (706, 15586), (721, 15706), (734, 15778), (738, 15796), (739, 15802),

Gene: Yuna_21 Start: 11197, Stop: 15186, Start Num: 18

Candidate Starts for Yuna_21:

(Start: 18 @11197 has 63 MA's), (29, 11290), (49, 11458), (54, 11479), (59, 11515), (68, 11548), (70, 11551), (71, 11560), (78, 11584), (94, 11677), (96, 11689), (99, 11710), (143, 11926), (151, 11965), (154, 11980), (160, 12016), (167, 12076), (168, 12079), (178, 12121), (190, 12190), (221, 12376), (222, 12382), (223, 12385), (224, 12391), (231, 12418), (233, 12427), (234, 12439), (238, 12469), (252, 12529), (255, 12541), (256, 12547), (260, 12562), (263, 12580), (264, 12583), (266, 12601), (288, 12676), (302, 12739), (304, 12751), (309, 12772), (316, 12811), (339, 12856), (343, 12871), (361, 13033), (373, 13096), (378, 13123), (399, 13195), (404, 13234), (414, 13285), (416, 13294), (418, 13306), (424, 13336), (426, 13342), (431, 13366), (447, 13477), (451, 13495), (457, 13534), (474, 13621), (475, 13633), (496, 13762), (497, 13765), (520, 13849), (552, 13972), (596, 14200), (611, 14260), (614, 14275), (658, 14590), (672, 14722), (674, 14752), (678, 14791), (679, 14794), (682, 14812), (694, 14866), (702, 14896), (709, 14917), (721, 15028), (739, 15121),

Gene: Yunkel11_21 Start: 11016, Stop: 15143, Start Num: 18

Candidate Starts for Yunkel11_21:

(10, 10968), (Start: 18 @11016 has 63 MA's), (29, 11109), (44, 11241), (46, 11265), (53, 11295), (56, 11316), (57, 11328), (73, 11388), (90, 11475), (96, 11508), (98, 11526), (99, 11529), (114, 11601), (145, 11745), (151, 11787), (154, 11802), (160, 11838), (169, 11910), (190, 12012), (221, 12195), (227, 12222), (232, 12240), (233, 12246), (238, 12288), (255, 12360), (256, 12366), (260, 12381), (264, 12402), (266, 12420), (270, 12435), (284, 12483), (292, 12516), (296, 12531), (304, 12570), (309, 12591), (315, 12621), (345, 12789), (348, 12840), (373, 13005), (377, 13029), (390, 13086), (402, 13137), (409, 13170), (411, 13179), (426, 13251), (438, 13326), (441, 13344), (447, 13386), (451, 13404), (455, 13431), (457, 13443), (477, 13572), (482, 13590), (496, 13671), (497, 13674), (520, 13758), (534, 13812), (535, 13815), (554, 13908), (571, 13974), (596, 14109), (631, 14235), (671, 14631), (672, 14640), (679, 14712), (694, 14796), (721, 14964), (734, 15036), (739, 15060), (743, 15099),

Gene: Zabiza_21 Start: 12077, Stop: 15916, Start Num: 17

Candidate Starts for Zabiza_21:

(Start: 17 @12077 has 171 MA's), (Start: 26 @12146 has 1 MA's), (34, 12233), (60, 12410), (67, 12437), (85, 12509), (87, 12521), (88, 12530), (97, 12602), (111, 12677), (128, 12761), (130, 12770), (134, 12791), (142, 12830), (157, 12908), (168, 12986), (184, 13076), (198, 13151), (212, 13244), (214, 13253), (216, 13265), (218, 13274), (273, 13535), (277, 13550), (286, 13583), (304, 13670), (310, 13694), (322, 13778), (340, 13862), (343, 13874), (347, 13895), (431, 14051), (442, 14132), (451, 14180), (454, 14198), (457, 14219), (463, 14255), (474, 14306), (481, 14363), (496, 14441), (499, 14450), (520, 14528), (535, 14585), (549, 14639), (596, 14879), (614, 14954), (645, 15065), (659, 15284), (661, 15296), (679, 15485), (680, 15494), (694, 15566), (702, 15596), (706, 15617), (721, 15737), (734, 15809), (738, 15827), (739, 15833),

Gene: Zavala_21 Start: 12057, Stop: 15890, Start Num: 17

Candidate Starts for Zavala_21:

(Start: 17 @12057 has 171 MA's), (Start: 26 @12126 has 1 MA's), (34, 12213), (60, 12390), (67, 12417), (85, 12489), (87, 12501), (88, 12510), (97, 12582), (111, 12657), (128, 12741), (130, 12750), (134, 12771), (142, 12810), (157, 12888), (168, 12966), (184, 13056), (198, 13131), (212, 13224),

(214, 13233), (216, 13245), (218, 13254), (267, 13491), (277, 13530), (286, 13563), (304, 13650), (310, 13674), (322, 13758), (340, 13842), (343, 13854), (347, 13875), (431, 14031), (451, 14160), (454, 14178), (457, 14199), (463, 14235), (474, 14286), (481, 14343), (496, 14421), (499, 14430), (520, 14508), (526, 14523), (535, 14565), (549, 14619), (596, 14859), (614, 14934), (645, 15045), (659, 15264), (661, 15276), (679, 15459), (680, 15468), (694, 15540), (702, 15570), (706, 15591), (721, 15711), (734, 15783), (738, 15801), (739, 15807),

Gene: ZoMa_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for ZoMa_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),

Gene: ZoeJ_17 Start: 10077, Stop: 13724, Start Num: 16

Candidate Starts for ZoeJ_17:

(Start: 16 @10077 has 33 MA's), (Start: 26 @10149 has 1 MA's), (65, 10383), (72, 10398), (96, 10515), (97, 10527), (111, 10602), (130, 10695), (157, 10833), (158, 10836), (163, 10875), (168, 10911), (174, 10935), (177, 10944), (178, 10956), (181, 10980), (184, 11001), (191, 11025), (192, 11031), (197, 11067), (198, 11076), (203, 11109), (204, 11121), (208, 11148), (251, 11331), (253, 11343), (255, 11349), (263, 11388), (267, 11412), (299, 11460), (307, 11472), (321, 11505), (357, 11736), (366, 11781), (373, 11811), (390, 11880), (400, 11907), (405, 11940), (430, 12027), (436, 12060), (440, 12081), (445, 12105), (449, 12135), (503, 12378), (531, 12471), (551, 12549), (582, 12672), (604, 12777), (666, 13188), (671, 13218), (672, 13227), (674, 13257), (721, 13554), (724, 13566), (739, 13647),

Gene: Zombie_16 Start: 11464, Stop: 15477, Start Num: 17

Candidate Starts for Zombie_16:

(Start: 17 @11464 has 171 MA's), (38, 11665), (57, 11779), (67, 11821), (75, 11851), (97, 11986), (100, 11998), (103, 12007), (139, 12196), (142, 12214), (144, 12217), (148, 12238), (150, 12250), (161, 12322), (168, 12370), (194, 12502), (197, 12526), (208, 12607), (235, 12730), (251, 12814), (259, 12850), (267, 12895), (268, 12901), (294, 13009), (300, 13033), (304, 13054), (346, 13273), (363, 13423), (378, 13510), (403, 13618), (431, 13753), (447, 13864), (451, 13882), (456, 13912), (494, 14134), (502, 14158), (505, 14173), (509, 14194), (520, 14221), (529, 14248), (543, 14308), (562, 14398), (567, 14431), (583, 14494), (590, 14551), (596, 14584), (597, 14593), (673, 15097), (674, 15124), (677, 15154), (679, 15166), (680, 15175), (694, 15244), (713, 15325), (720, 15385), (722, 15403), (725, 15412),