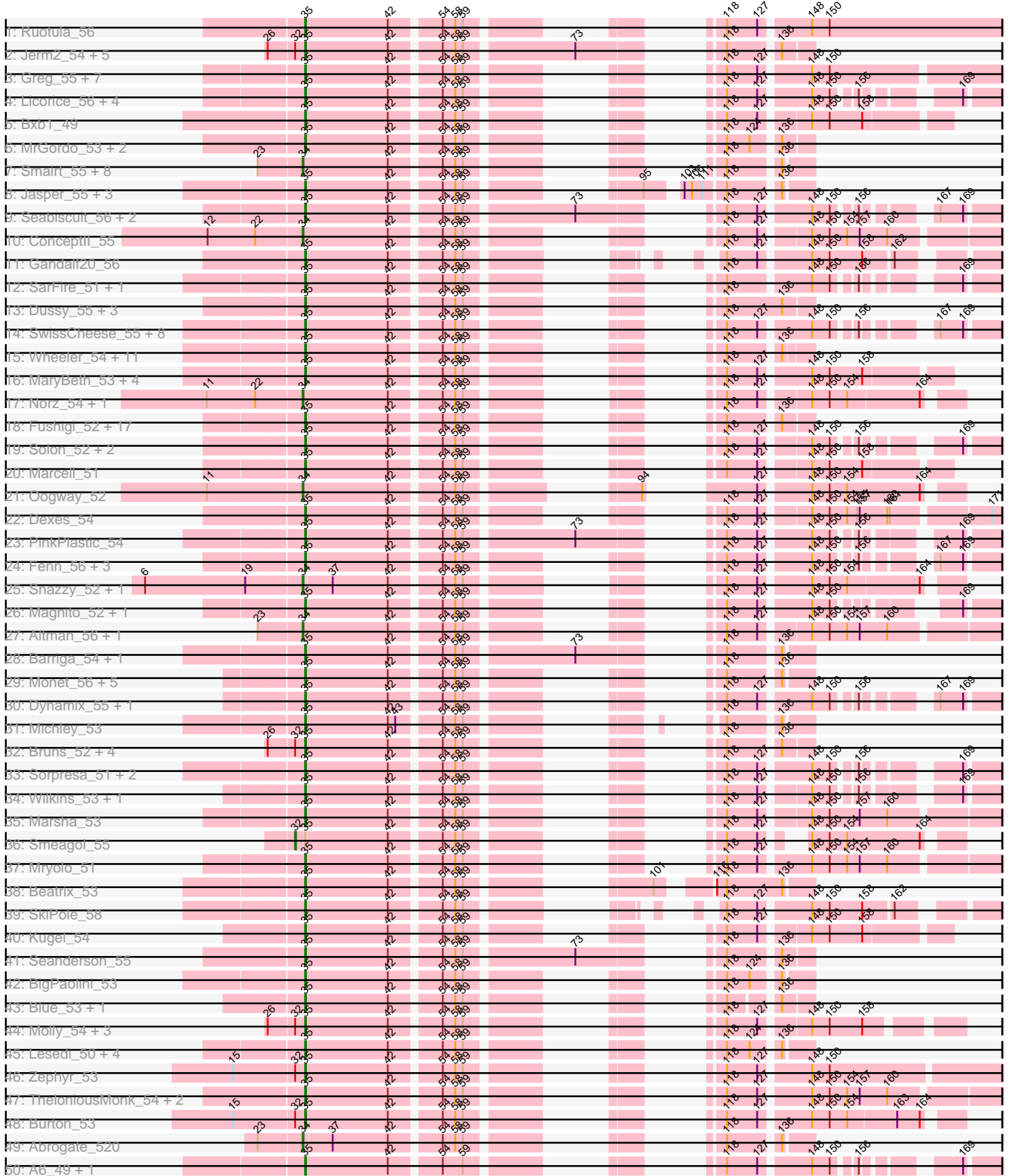
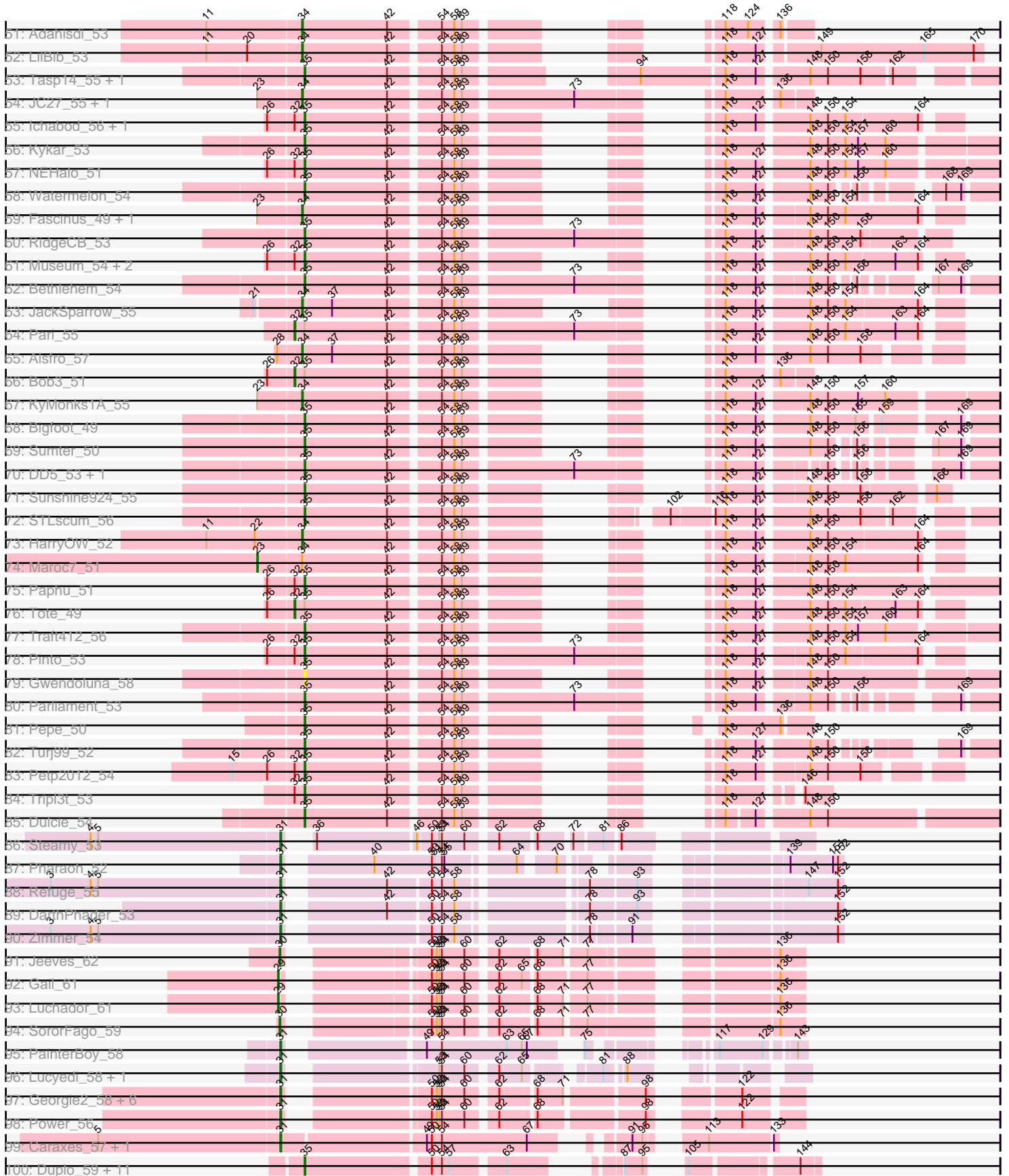


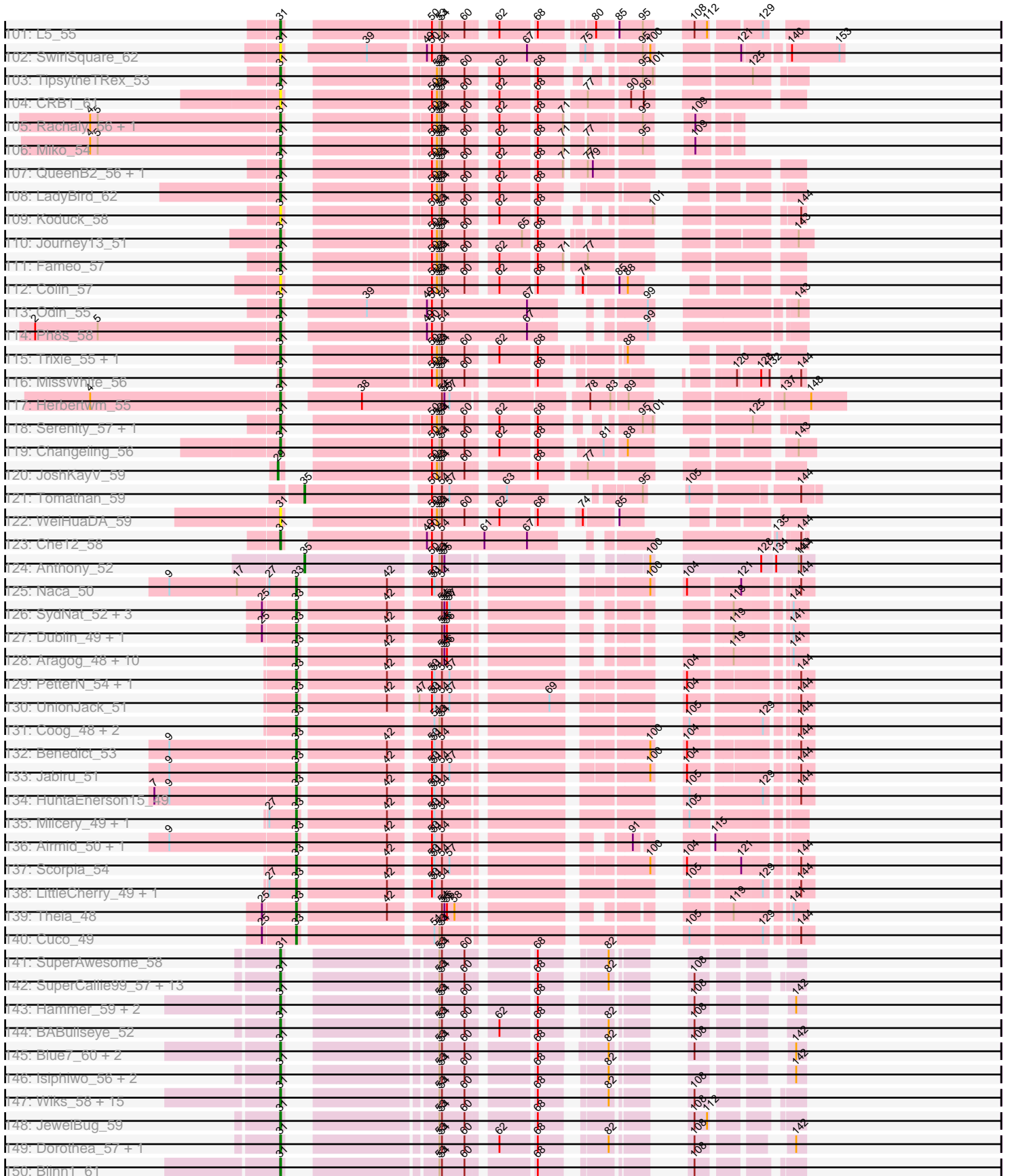
Pham 171131



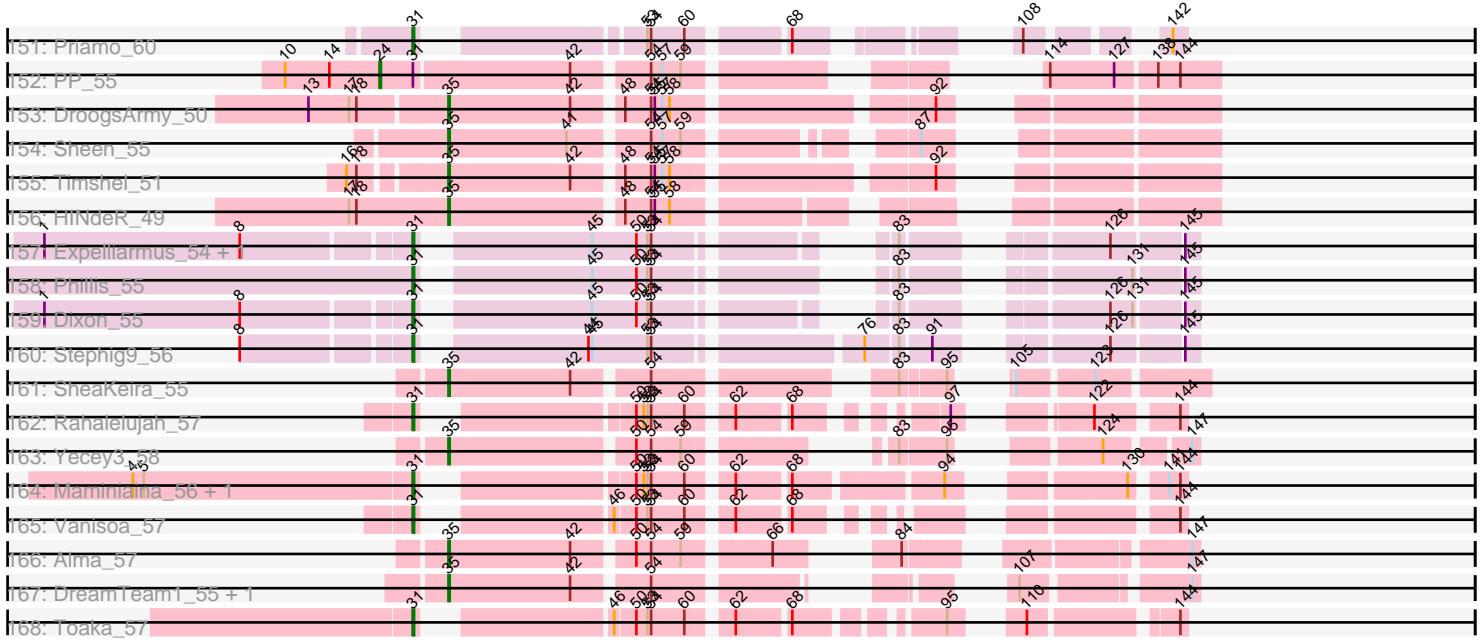
Pham 171131



Pham 171131



Pham 171131



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 171131 Report

This analysis was run 07/09/24 on database version 566.

Pham number 171131 has 365 members, 27 are drafts.

Phages represented in each track:

- Track 1 : Ruotula_56
- Track 2 : Jerm2_54, PSullivan_53, Rohr_54, Pita2_56, HermioneGrange_53, BigMau_54
- Track 3 : Greg_55, Buttons_52, Marge_53, Ciao_53, Pippin_55, Hermia_54, Fajezeel_55, Ohno789_55
- Track 4 : Licorice_56, StewieG_52, Homines_46, HanShotFirst_54, Sanya_51
- Track 5 : Bxb1_49
- Track 6 : MrGordo_53, Rutherferd_55, Big3_53
- Track 7 : Smairt_55, Makemake_53, Violet_51, Mule_50, Perseus_53, Aeneas_55, Pelly_53, PhrostyMug_52, Zeeculate_51
- Track 8 : Jasper_55, PherrisBueller_53, Dreamboat_55, Petruchio_53
- Track 9 : Seabiscuit_56, DreamCatcher_57, Briton15_57
- Track 10 : Conceptll_55
- Track 11 : Gandalf20_56
- Track 12 : SarFire_51, Thor_51
- Track 13 : Dussy_55, Abbyshoes_56, Kenmech_57, Espresso_53
- Track 14 : SwissCheese_55, Papez_56, Corvo_54, PascalRango_54, Moose_53, Killigrew_54, McGuire_55, Forsytheast_53, KSSJEB_53
- Track 15 : Wheeler_54, Marchy_47, Niza_56, Euphoria_51, Carlyle_52, Chanagan_50, Payneful_52, Zeuska_52, Rhynn_52, Teodoridan_52, Manatee_55, Anglerfish_55
- Track 16 : MaryBeth_53, Rajelicia_54, MetalQZJ_52, ILeeKay_57, Sagefire_56
- Track 17 : Norz_54, Atkinbua_56
- Track 18 : Fushigi_52, Francis47_52, Trouble_56, Gompeii16_52, Bircsak_52, Alvin_53, PacerPaul_53, MPlant7149_52, DrFeelGood_51, Froghopper_51, IgnatiusPatJac_54, Bones_54, Hami1_46, BluSpix_53, Ajay_55, Applejack_48, Agaliana_49, Acme_55
- Track 19 : Solon_52, Target_54, U2_53
- Track 20 : Marcell_51
- Track 21 : Oogway_52
- Track 22 : Dexes_54
- Track 23 : PinkPlastic_54
- Track 24 : Fenn_56, Switzer_55, Naira_56, Squee_54
- Track 25 : Snazzy_52, ShortQueendom_47
- Track 26 : Magnito_52, GrecoEtereo_54
- Track 27 : Altman_56, Kanely_55
- Track 28 : Barriga_54, Scowl_54

- Track 29 : Monet_56, Graduation_57, Edtherson_53, Treddle_54, Eyeball_55, Cueyllyss_55
- Track 30 : Dynamix_55, BeesKnees_56
- Track 31 : Michley_53
- Track 32 : Bruns_52, Rufus_54, Arlo_51, Sibs6_55, TwoPeat_54
- Track 33 : Sorpresa_51, Sandaddy_52, Ringer_54
- Track 34 : Wilkins_53, Topgun_53
- Track 35 : Marsha_53
- Track 36 : Smeagol_55
- Track 37 : Mryolo_51
- Track 38 : Beatrix_53
- Track 39 : SkiPole_58
- Track 40 : Kugel_54
- Track 41 : Seanderson_55
- Track 42 : BigPaolini_53
- Track 43 : Blue_53, Magnar_53
- Track 44 : Molly_54, Arcanine_54, BPBiabs31_54, Slagathor_55
- Track 45 : Lesedi_50, Crispicous1_51, GageAP_54, AFIS_51, SpikeBT_53
- Track 46 : Zephyr_53
- Track 47 : TheloniousMonk_54, Peterson_58, Paraselene_51
- Track 48 : Burton_53
- Track 49 : Abrogate_520
- Track 50 : A6_49, BK1_49
- Track 51 : Adahisdi_53
- Track 52 : LilBib_53
- Track 53 : Tasp14_55, Lamina13_54
- Track 54 : JC27_55, Ashballer_55
- Track 55 : Ichabod_56, Rubeus_53
- Track 56 : Kykar_53
- Track 57 : NEHalo_51
- Track 58 : Watermelon_54
- Track 59 : Fascinus_49, Gyzlar_49
- Track 60 : RidgeCB_53
- Track 61 : Museum_54, Swole_54, JuliaChild_54
- Track 62 : Bethlehem_54
- Track 63 : JackSparrow_55
- Track 64 : Pari_55
- Track 65 : Alsfro_57
- Track 66 : Bob3_51
- Track 67 : KyMonks1A_55
- Track 68 : Bigfoot_49
- Track 69 : Sumter_50
- Track 70 : DD5_53, Lockley_52
- Track 71 : Sunshine924_55
- Track 72 : STLscum_56
- Track 73 : HarryOW_52
- Track 74 : Maroc7_51
- Track 75 : Paphu_51
- Track 76 : Tote_49
- Track 77 : Traft412_56
- Track 78 : Pinto_53
- Track 79 : Gwendoluna_58
- Track 80 : Parliament_53

- Track 81 : Pepe_50
- Track 82 : Turj99_52
- Track 83 : Petp2012_54
- Track 84 : Tripl3t_53
- Track 85 : Dulcie_54
- Track 86 : Steamy_53
- Track 87 : Pharaoh_52
- Track 88 : Refuge_55
- Track 89 : DarthPhader_53
- Track 90 : Zimmer_54
- Track 91 : Jeeves_62
- Track 92 : Gail_61
- Track 93 : Luchador_61
- Track 94 : SororFago_59
- Track 95 : PainterBoy_58
- Track 96 : Lucyedi_58, EagleEye_59
- Track 97 : Georgie2_58, FiringLine_57, SemperFi_58, SweetiePie_57, Crucio_57, SnapTap_57, QueenBeesly_57
- Track 98 : Power_56
- Track 99 : Caraxes_57, Superchunk_55
- Track 100 : Duplo_59, StarStuff_59, Kerberos_59, DBQu4n_59, Pomar16_59, C3_55, D32_58, Naji_59, VC3_60, AN9_60, D29_55, ANI8_60
- Track 101 : L5_55
- Track 102 : SwirlSquare_62
- Track 103 : TipsytheTRex_53
- Track 104 : CRB1_61
- Track 105 : Rachaly_56, Lokk_54
- Track 106 : Miko_54
- Track 107 : QueenB2_56, Heffalump_56
- Track 108 : LadyBird_62
- Track 109 : Koduck_58
- Track 110 : Journey13_51
- Track 111 : Fameo_57
- Track 112 : Colin_57
- Track 113 : Odin_55
- Track 114 : Ph8s_58
- Track 115 : Trixie_55, Kalpine_55
- Track 116 : MissWhite_56
- Track 117 : Herbertwm_55
- Track 118 : Serenity_57, Jsquared_55
- Track 119 : Changeling_56
- Track 120 : JoshKayV_59
- Track 121 : Tomathan_59
- Track 122 : WeiHuaDA_59
- Track 123 : Che12_58
- Track 124 : Anthony_52
- Track 125 : Naca_50
- Track 126 : SydNat_52, Ghoulboy_52, Zolita_51, Bluefalcon_48
- Track 127 : Dublin_49, MarysWell_49
- Track 128 : Aragog_48, Conspiracy_49, Discoknowium_47, Tiger_48, AgentM_48, Jovo_49, Phlorence_47, PickleBack_49, Lev2_49, Archetta_48, ForGetIt_49
- Track 129 : PetterN_54, Chadwick_53
- Track 130 : UnionJack_51

- Track 131 : Coog_48, Midas2_48, Micasa_49
- Track 132 : Benedict_53
- Track 133 : Jabiru_51
- Track 134 : HuhtaEnerson15_49
- Track 135 : Milcery_49, George_47
- Track 136 : Airmid_50, ElTiger69_52
- Track 137 : Scorpia_54
- Track 138 : LittleCherry_49, Bonamassa_49
- Track 139 : Theia_48
- Track 140 : Cuco_49
- Track 141 : SuperAwesome_58
- Track 142 : SuperCallie99_57, McFly_58, Candra_58, VohminGhazi_58, Pmask_58, Cookiedough_58, Newrala_58, SmellyB_58, Kazan_59, EricB_58, Neeharika16_57, Hoot_53, GreedyLawyer_58, Kipper29_58
- Track 143 : Hammer_59, Rifter_59, Roksolana_60
- Track 144 : BABullseye_52
- Track 145 : Blue7_60, Gruunaga_59, Gladiator_56
- Track 146 : Isiphiwo_56, Chartreuse_57, DaVinci_57
- Track 147 : Wiks_58, Koko_60, Tucker_59, CloudWang3_59, Yokurt_59, ToneTone_56, Indra_62, Zulu_60, Lilbunny_57, Jeffabunny_59, Artemis2UCLA_59, Helmet_61, WunderPhul_59, Zaka_59, Garak_61, Hexamo_59
- Track 148 : JewelBug_59
- Track 149 : Dorothea_57, Jordennis_58
- Track 150 : Blinn1_61
- Track 151 : Priamo_60
- Track 152 : PP_55
- Track 153 : DroogsArmy_50
- Track 154 : Sheen_55
- Track 155 : Timshel_51
- Track 156 : HINdeR_49
- Track 157 : Expelliarmus_54, Smeadley_56
- Track 158 : Phillis_55
- Track 159 : Dixon_55
- Track 160 : Stephig9_56
- Track 161 : SheaKeira_55
- Track 162 : Rahalelujah_57
- Track 163 : Yecey3_58
- Track 164 : Maminiaina_56, BogosyJay_56
- Track 165 : Vanisoa_57
- Track 166 : Alma_57
- Track 167 : DreamTeam1_55, Charm_55
- Track 168 : Toaka_57

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

The start number called the most often in the published annotations is 35, it was called in 179 of the 338 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- A6_49, AFIS_51, AN9_60, ANI8_60, Abbysshoes_56, Acme_55, Agaliana_49, Ajay_55, Alma_57, Alvin_53, Anglerfish_55, Anthony_52, Applejack_48, Arcanine_54, Arlo_51, BK1_49, BPBiobs31_54, Barriga_54, Beatrix_53, BeesKnees_56, Bethlehem_54, Big3_53, BigMau_54, BigPaolini_53, Bigfoot_49, Bircsak_52, BluSpix_53, Blue_53, Bones_54, Briton15_57, Bruns_52, Burton_53, Buttons_52, Bxb1_49, C3_55, Carlyle_52, Chanagan_50, Charm_55, Ciao_53, Corvo_54, Crispicious1_51, Cueylyss_55, D29_55, D32_58, DBQu4n_59, DD5_53, Dexes_54, DrFeelGood_51, DreamCatcher_57, DreamTeam1_55, Dreamboat_55, DroogsArmy_50, Dulcie_54, Duplo_59, Dussy_55, Dynamix_55, Edtherson_53, Espresso_53, Euphoria_51, Eyeball_55, Fajezeel_55, Fenn_56, Forsytheast_53, Francis47_52, Froghopper_51, Fushigi_52, GageAP_54, Gandalf20_56, Gompeii16_52, Graduation_57, GrecoEtereo_54, Greg_55, Gwendoluna_58, HINdeR_49, Hami1_46, HanShotFirst_54, Hermia_54, HermioneGrange_53, Homines_46, ILeeKay_57, Ichabod_56, IgnatiusPatJac_54, Jasper_55, Jerm2_54, JuliaChild_54, KSSJEB_53, Kenmech_57, Kerberos_59, Killigrew_54, Kugel_54, Kykar_53, Lamina13_54, Lesedi_50, Licorice_56, Lockley_52, MPlant7149_52, Magnar_53, Magnito_52, Manatee_55, Marcell_51, Marchy_47, Marge_53, Marsha_53, MaryBeth_53, McGuire_55, MetalQZJ_52, Michley_53, Molly_54, Monet_56, Moose_53, MrGordo_53, Mryolo_51, Museum_54, NEHalo_51, Naira_56, Naji_59, Niza_56, Ohno789_55, PSullivan_53, PacerPaul_53, Papez_56, Paphu_51, Paraselene_51, Parliament_53, PascalRango_54, Payneful_52, Pepe_50, Peterson_58, Petp2012_54, Petruchio_53, PherrisBueller_53, PinkPlastic_54, Pinto_53, Pippin_55, Pita2_56, Pomar16_59, Rajelicia_54, Rhynn_52, RidgeCB_53, Ringer_54, Rohr_54, Rubeus_53, Rufus_54, Ruotula_56, Rutherferd_55, STLscum_56, Sagefire_56, Sandaddy_52, Sanya_51, SarFire_51, Scowl_54, Seabiscuit_56, Seanderson_55, SheaKeira_55, Sheen_55, Sibs6_55, SkiPole_58, Slagathor_55, Solon_52, Sorpresa_51, SpikeBT_53, Squee_54, StarStuff_59, StewieG_52, Sumter_50, Sunshine924_55, SwissCheese_55, Switzer_55, Swole_54, Target_54, Tasp14_55, Teodoridan_52, TheloniousMonk_54, Thor_51, Timshel_51, Tomathan_59, Topgun_53, Traft412_56, Treddle_54, Tripl3t_53, Trouble_56, Turj99_52, TwoPeat_54, U2_53, VC3_60, Watermelon_54, Wheeler_54, Wilkins_53, Yecey3_58, Zephyr_53, Zeuska_52,

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

- Bob3_51, Pari_55, Smeagol_55, Tote_49,

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

- Abrogate_520, Adahisdi_53, Aeneas_55, AgentM_48, Airmid_50, Alsfro_57, Altman_56, Aragog_48, Archetta_48, Artemis2UCLA_59, Ashballer_55, Atkinbua_56, BABullseye_52, Benedict_53, Blinn1_61, Blue7_60, Bluefalcon_48, BogosyJay_56, Bonamassa_49, CRB1_61, Candra_58, Caraxes_57, Chadwick_53, Changeling_56, Chartreuse_57, Che12_58, CloudWang3_59, Colin_57, Conceptll_55, Conspiracy_49, Coog_48, Cookiedough_58, Crucio_57, Cuco_49, DaVinci_57, DARTHPhader_53, Discoknowium_47, Dixon_55, Dorothea_57, Dublin_49, EagleEye_59, EITiger69_52, EricB_58, Expelliarmus_54, Fameo_57, Fascinus_49, FiringLine_57, ForGetIt_49, Gail_61, Garak_61, George_47, Georgie2_58, Ghoulyboy_52, Gladiator_56, GreedyLawyer_58, Gruunaga_59, Gyzlar_49, Hammer_59, HarryOW_52, Heffalump_56, Helmet_61, Herbertwm_55, Hexamo_59, Hoot_53, HuhtaEnerson15_49, Indra_62, Isiphiwo_56, JC27_55, Jabiru_51, JackSparrow_55, Jeeves_62, Jeffabunny_59, JewelBug_59, Jordennis_58, JoshKayV_59, Journey13_51, Jovo_49, Jsquared_55, Kalpine_55, Kanely_55, Kazan_59, Kipper29_58, Koduck_58, Koko_60, KyMonks1A_55, L5_55, LadyBird_62, Lev2_49, LilBib_53, Lilbunny_57, LittleCherry_49, Lokk_54,

Luchador_61, Lucyedi_58, Makemake_53, Maminaiaina_56, Maroc7_51, MarysWell_49, McFly_58, Micasa_49, Midas2_48, Miko_54, Milcery_49, MissWhite_56, Mule_50, Naca_50, Neeharika16_57, Newrala_58, Norz_54, Odin_55, Oogway_52, PP_55, PainterBoy_58, Pelly_53, Perseus_53, PetterN_54, Ph8s_58, Pharaoh_52, Phillis_55, Phlorence_47, PhrostyMug_52, PickleBack_49, Pmask_58, Power_56, Priamo_60, QueenB2_56, QueenBeesly_57, Rachaly_56, Rahalelujah_57, Refuge_55, Rifter_59, Roksolana_60, Scorpia_54, SemperFi_58, Serenity_57, ShortQueendom_47, Smairt_55, Smeadley_56, SmellyB_58, SnapTap_57, Snazzy_52, SororFago_59, Steamy_53, Stephig9_56, SuperAwesome_58, SuperCallie99_57, Superchunk_55, SweetiePie_57, SwirlSquare_62, SydNat_52, Theia_48, Tiger_48, TipsytheTRex_53, Toaka_57, ToneTone_56, Trixie_55, Tucker_59, UnionJack_51, Vanisoa_57, Violet_51, VohminGhazi_58, WeiHuaDA_59, Wiks_58, WunderPhul_59, Yokurt_59, Zaka_59, Zeeculate_51, Zimmer_54, Zolita_51, Zulu_60,

Summary by start number:

Start 23:

- Found in 18 of 365 (4.9%) of genes in pham
- Manual Annotations of this start: 1 of 338
- Called 5.6% of time when present
- Phage (with cluster) where this start called: Maroc7_51 (A1),

Start 24:

- Found in 1 of 365 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 338
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PP_55 (A7),

Start 29:

- Found in 3 of 365 (0.8%) of genes in pham
- Manual Annotations of this start: 3 of 338
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gail_61 (A14), JoshKayV_59 (A2), Luchador_61 (A14),

Start 30:

- Found in 2 of 365 (0.5%) of genes in pham
- Manual Annotations of this start: 2 of 338
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jeeves_62 (A14), SororFago_59 (A14),

Start 31:

- Found in 100 of 365 (27.4%) of genes in pham
- Manual Annotations of this start: 87 of 338
- Called 99.0% of time when present
- Phage (with cluster) where this start called: Artemis2UCLA_59 (A6), BABullseye_52 (A6), Blinn1_61 (A6), Blue7_60 (A6), BogosyJay_56 (A9), CRB1_61 (A2), Candra_58 (A6), Caraxes_57 (A2), Changeling_56 (A2), Chartreuse_57 (A6), Che12_58 (A2), CloudWang3_59 (A6), Colin_57 (A2), Cookiedough_58 (A6), Crucio_57 (A2), DaVinci_57 (A6), DarthPhader_53 (A12), Dixon_55 (A8), Dorothea_57 (A6), EagleEye_59 (A16), EricB_58 (A6), Expelliarmus_54 (A8), Fameo_57 (A2), FiringLine_57 (A2), Garak_61 (A6), Georgie2_58 (A2), Gladiator_56 (A6),

GreedyLawyer_58 (A6), Gruunaga_59 (A6), Hammer_59 (A6), Heffalump_56 (A2), Helmet_61 (A6), Herbertwm_55 (A2), Hexamo_59 (A6), Hoot_53 (A6), Indra_62 (A6), Isiphiwo_56 (A6), Jeffabunny_59 (A6), JewelBug_59 (A6), Jordennis_58 (A6), Journey13_51 (A2), Jsquared_55 (A2), Kalpine_55 (A2), Kazan_59 (A6), Kipper29_58 (A6), Koduck_58 (A2), Koko_60 (A6), L5_55 (A2), LadyBird_62 (A2), Lilbunny_57 (A6), Lokk_54 (A2), Lucyedi_58 (A16), Maminiaina_56 (A9), McFly_58 (A6), Miko_54 (A2), MissWhite_56 (A2), Neeharika16_57 (A6), Newrala_58 (A6), Odin_55 (A2), PainterBoy_58 (A16), Ph8s_58 (A2), Pharaoh_52 (A12), Phillis_55 (A8), Pmask_58 (A6), Power_56 (A2), Priamo_60 (A6), QueenB2_56 (A2), QueenBeesly_57 (A2), Rachaly_56 (A2), Rahalelujah_57 (A9), Refuge_55 (A12), Rifter_59 (A6), Roksolana_60 (A6), SemperFi_58 (A2), Serenity_57 (A2), Smeadley_56 (A8), SmellyB_58 (A6), SnapTap_57 (A2), Steamy_53 (A12), Stephig9_56 (A8), SuperAwesome_58 (A6), SuperCallie99_57 (A6), Superchunk_55 (A2), SweetiePie_57 (A2), SwirlSquare_62 (A2), TopsytheTRex_53 (A2), Toaka_57 (A9), ToneTone_56 (A6), Trixie_55 (A2), Tucker_59 (A6), Vanisoa_57 (A9), VohminGhazi_58 (A6), WeiHuaDA_59 (A2), Wiks_58 (A6), WunderPhul_59 (A6), Yokurt_59 (A6), Zaka_59 (A6), Zimmer_54 (A12), Zulu_60 (A6),

Start 32:

- Found in 31 of 365 (8.5%) of genes in pham
- Manual Annotations of this start: 4 of 338
- Called 12.9% of time when present
- Phage (with cluster) where this start called: Bob3_51 (A1), Pari_55 (A1), Smeagol_55 (A1), Tote_49 (A1),

Start 33:

- Found in 36 of 365 (9.9%) of genes in pham
- Manual Annotations of this start: 35 of 338
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AgentM_48 (A5), Airmid_50 (A5), Aragog_48 (A5), Archetta_48 (A5), Benedict_53 (A5), Bluefalcon_48 (A5), Bonamassa_49 (A5), Chadwick_53 (A5), Conspiracy_49 (A5), Coog_48 (A5), Cuco_49 (A5), Discoknowium_47 (A5), Dublin_49 (A5), EITiger69_52 (A5), ForGetIt_49 (A5), George_47 (A5), Ghoulyboy_52 (A5), HuhtaEnerson15_49 (A5), Jabiru_51 (A5), Jovo_49 (A5), Lev2_49 (A5), LittleCherry_49 (A5), MarysWell_49 (A5), Micasa_49 (A5), Midas2_48 (A5), Milcery_49 (A5), Naca_50 (A5), PetterN_54 (A5), Phlorence_47 (A5), PickleBack_49 (A5), Scorpio_54 (A5), SydNat_52 (A5), Theia_48 (A5), Tiger_48 (A5), UnionJack_51 (A5), Zolita_51 (A5),

Start 34:

- Found in 29 of 365 (7.9%) of genes in pham
- Manual Annotations of this start: 26 of 338
- Called 96.6% of time when present
- Phage (with cluster) where this start called: Abrogate_520 (A1), Adahisdi_53 (A1), Aeneas_55 (A1), Alsfro_57 (A1), Altman_56 (A1), Ashballer_55 (A1), Atkinbua_56 (A1), Conceptll_55 (A1), Fascinus_49 (A1), Gyzlar_49 (A1), HarryOW_52 (A1), JC27_55 (A1), JackSparrow_55 (A1), Kanely_55 (A1), KyMonks1A_55 (A1), LilBib_53 (A1), Makemake_53 (A1), Mule_50 (A1), Norz_54 (A1), Oogway_52 (A1), Pelly_53 (A1), Perseus_53 (A1), PhrostyMug_52 (A1), ShortQueendom_47 (A1), Smairt_55 (A1), Snazzy_52 (A1), Violet_51 (A1), Zeeculate_51 (A1),

Start 35:

- Found in 195 of 365 (53.4%) of genes in pham

- Manual Annotations of this start: 179 of 338
- Called 97.9% of time when present
- Phage (with cluster) where this start called: A6_49 (A1), AFIS_51 (A1), AN9_60 (A2), AN18_60 (A2), Abbysshoes_56 (A1), Acme_55 (A1), Agaliana_49 (A1), Ajay_55 (A1), Alma_57 (A9), Alvin_53 (A1), Anglerfish_55 (A1), Anthony_52 (A20), Applejack_48 (A1), Arcanine_54 (A1), Arlo_51 (A1), BK1_49 (A1), BPBiebs31_54 (A1), Barriga_54 (A1), Beatrix_53 (A1), BeesKnees_56 (A1), Bethlehem_54 (A1), Big3_53 (A1), BigMau_54 (A1), BigPaolini_53 (A1), Bigfoot_49 (A1), Bircsak_52 (A1), BluSpix_53 (A1), Blue_53 (A1), Bones_54 (A1), Briton15_57 (A1), Bruns_52 (A1), Burton_53 (A1), Buttons_52 (A1), Bxb1_49 (A1), C3_55 (A2), Carlyle_52 (A1), Chanagan_50 (A1), Charm_55 (A9), Ciao_53 (A1), Corvo_54 (A1), Crispicous1_51 (A1), Cueylyss_55 (A1), D29_55 (A2), D32_58 (A2), DBQu4n_59 (A2), DD5_53 (A1), Dexes_54 (A1), DrFeelGood_51 (A1), DreamCatcher_57 (A1), DreamTeam1_55 (A9), Dreamboat_55 (A1), DroogsArmy_50 (A7), Dulcie_54 (A1), Duplo_59 (A2), Dussy_55 (A1), Dynamix_55 (A1), Edtherson_53 (A1), Espresso_53 (A1), Euphoria_51 (A1), Eyeball_55 (A1), Fajezeel_55 (A1), Fenn_56 (A1), Forsytheast_53 (A1), Francis47_52 (A1), Froghopper_51 (A1), Fushigi_52 (A1), GageAP_54 (A1), Gandalf20_56 (A1), Gompeii16_52 (A1), Graduation_57 (A1), GrecoEtereo_54 (A1), Greg_55 (A1), Gwendoluna_58 (A1), HINder_49 (A7), Hami1_46 (A1), HanShotFirst_54 (A1), Hermia_54 (A1), HermioneGrange_53 (A1), Homines_46 (A1), ILeeKay_57 (A1), Ichabod_56 (A1), IgnatiusPatJac_54 (A1), Jasper_55 (A1), Jerm2_54 (A1), JuliaChild_54 (A1), KSSJEB_53 (A1), Kenmech_57 (A1), Kerberos_59 (A2), Killigrew_54 (A1), Kugel_54 (A1), Kykar_53 (A1), Lamina13_54 (A1), Lesedi_50 (A1), Licorice_56 (A1), Lockley_52 (A1), MPlant7149_52 (A1), Magnar_53 (A1), Magnito_52 (A1), Manatee_55 (A1), Marcell_51 (A1), Marchy_47 (A1), Marge_53 (A1), Marsha_53 (A1), MaryBeth_53 (A1), McGuire_55 (A1), MetalQZJ_52 (A1), Michley_53 (A1), Molly_54 (A1), Monet_56 (A1), Moose_53 (A1), MrGordo_53 (A1), Mryolo_51 (A1), Museum_54 (A1), NEHalo_51 (A1), Naira_56 (A1), Naji_59 (A2), Niza_56 (A1), Ohno789_55 (A1), PSullivan_53 (A1), PacerPaul_53 (A1), Papez_56 (A1), Paphu_51 (A1), Paraselene_51 (A1), Parliament_53 (A1), PascalRango_54 (A1), Payneful_52 (A1), Pepe_50 (A1), Peterson_58 (A1), Petp2012_54 (A1), Petruchio_53 (A1), PherrisBueller_53 (A1), PinkPlastic_54 (A1), Pinto_53 (A1), Pippin_55 (A1), Pita2_56 (A1), Pomar16_59 (A2), Rajelicia_54 (A1), Rhynn_52 (A1), RidgeCB_53 (A1), Ringer_54 (A1), Rohr_54 (A1), Rubeus_53 (A1), Rufus_54 (A1), Ruotula_56 (A1), Rutherford_55 (A1), STLscum_56 (A1), Sagefire_56 (A1), Sandaddy_52 (A1), Sanya_51 (A1), SarFire_51 (A1), Scowl_54 (A1), Seabiscuit_56 (A1), Seanderson_55 (A1), SheaKeira_55 (A9), Sheen_55 (A7), Sibs6_55 (A1), SkiPole_58 (A1), Slagathor_55 (A1), Solon_52 (A1), Sorpresa_51 (A1), SpikeBT_53 (A1), Squee_54 (A1), StarStuff_59 (A2), StewieG_52 (A1), Sumter_50 (A1), Sunshine924_55 (A1), SwissCheese_55 (A1), Switzer_55 (A1), Swole_54 (A1), Target_54 (A1), Tasp14_55 (A1), Teodoridan_52 (A1), TheloniousMonk_54 (A1), Thor_51 (A1), Timshel_51 (A7), Tomathan_59 (A2), Topgun_53 (A1), Traft412_56 (A1), Treddle_54 (A1), Tripl3t_53 (A1), Trouble_56 (A1), Turj99_52 (A1), TwoPeat_54 (A1), U2_53 (A1), VC3_60 (A2), Watermelon_54 (A1), Wheeler_54 (A1), Wilkins_53 (A1), Yecey3_58 (A9), Zephyr_53 (A1), Zeuska_52 (A1),

Summary by clusters:

There are 11 clusters represented in this pham: A20, A14, A16, A12, A1, A2, A5, A7, A6, A9, A8,

Info for manual annotations of cluster A1:

- Start number 23 was manually annotated 1 time for cluster A1.
- Start number 32 was manually annotated 4 times for cluster A1.
- Start number 34 was manually annotated 26 times for cluster A1.
- Start number 35 was manually annotated 156 times for cluster A1.

Info for manual annotations of cluster A12:

- Start number 31 was manually annotated 5 times for cluster A12.

Info for manual annotations of cluster A14:

- Start number 29 was manually annotated 2 times for cluster A14.
- Start number 30 was manually annotated 2 times for cluster A14.

Info for manual annotations of cluster A16:

- Start number 31 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A2:

- Start number 29 was manually annotated 1 time for cluster A2.
- Start number 31 was manually annotated 29 times for cluster A2.
- Start number 35 was manually annotated 13 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 35 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A5:

- Start number 33 was manually annotated 35 times for cluster A5.

Info for manual annotations of cluster A6:

- Start number 31 was manually annotated 40 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 24 was manually annotated 1 time for cluster A7.
- Start number 35 was manually annotated 4 times for cluster A7.

Info for manual annotations of cluster A8:

- Start number 31 was manually annotated 5 times for cluster A8.

Info for manual annotations of cluster A9:

- Start number 31 was manually annotated 5 times for cluster A9.
- Start number 35 was manually annotated 5 times for cluster A9.

Gene Information:

Gene: A6_49 Start: 36945, Stop: 36379, Start Num: 35

Candidate Starts for A6_49:

(Start: 35 @36945 has 179 MA's), (42, 36846), (54, 36792), (59, 36768), (118, 36633), (127, 36597), (148, 36543), (150, 36522), (156, 36501), (169, 36417),

Gene: AFIS_51 Start: 37581, Stop: 37183, Start Num: 35

Candidate Starts for AFIS_51:

(Start: 35 @37581 has 179 MA's), (42, 37482), (54, 37428), (58, 37413), (59, 37404), (118, 37269), (124, 37242), (136, 37215),

Gene: AN9_60 Start: 38397, Stop: 37942, Start Num: 35

Candidate Starts for AN9_60:

(Start: 35 @38397 has 179 MA's), (50, 38256), (54, 38244), (57, 38235), (63, 38181), (87, 38106), (95, 38085), (105, 38076), (144, 37962),

Gene: ANI8_60 Start: 38397, Stop: 37942, Start Num: 35

Candidate Starts for ANI8_60:

(Start: 35 @38397 has 179 MA's), (50, 38256), (54, 38244), (57, 38235), (63, 38181), (87, 38106), (95, 38085), (105, 38076), (144, 37962),

Gene: Abbysshoes_56 Start: 39189, Stop: 38779, Start Num: 35

Candidate Starts for Abbysshoes_56:

(Start: 35 @39189 has 179 MA's), (42, 39090), (54, 39036), (58, 39021), (59, 39012), (118, 38877), (136, 38811),

Gene: Abrogate_520 Start: 39189, Stop: 38791, Start Num: 34

Candidate Starts for Abrogate_520:

(Start: 23 @39240 has 1 MA's), (Start: 34 @39189 has 26 MA's), (37, 39156), (42, 39090), (54, 39036), (58, 39021), (59, 39012), (118, 38877), (136, 38823),

Gene: Acme_55 Start: 38115, Stop: 37717, Start Num: 35

Candidate Starts for Acme_55:

(Start: 35 @38115 has 179 MA's), (42, 38016), (54, 37962), (58, 37947), (59, 37938), (118, 37803), (136, 37749),

Gene: Adahisdi_53 Start: 38922, Stop: 38521, Start Num: 34

Candidate Starts for Adahisdi_53:

(11, 39033), (Start: 34 @38922 has 26 MA's), (42, 38820), (54, 38766), (58, 38751), (59, 38742), (118, 38607), (124, 38580), (136, 38553),

Gene: Aeneas_55 Start: 39139, Stop: 38738, Start Num: 34

Candidate Starts for Aeneas_55:

(Start: 23 @39190 has 1 MA's), (Start: 34 @39139 has 26 MA's), (42, 39037), (54, 38983), (58, 38968), (59, 38959), (118, 38824), (136, 38770),

Gene: Agaliana_49 Start: 35783, Stop: 35385, Start Num: 35

Candidate Starts for Agaliana_49:

(Start: 35 @35783 has 179 MA's), (42, 35684), (54, 35630), (58, 35615), (59, 35606), (118, 35471), (136, 35417),

Gene: AgentM_48 Start: 36508, Stop: 36041, Start Num: 33

Candidate Starts for AgentM_48:

(Start: 33 @36508 has 35 MA's), (42, 36409), (54, 36355), (55, 36352), (56, 36349), (119, 36112), (141, 36058),

Gene: Airmid_50 Start: 36667, Stop: 36200, Start Num: 33

Candidate Starts for Airmid_50:

(9, 36814), (Start: 33 @36667 has 35 MA's), (42, 36568), (50, 36526), (51, 36523), (54, 36514), (91, 36343), (115, 36292),

Gene: Ajay_55 Start: 39243, Stop: 38845, Start Num: 35

Candidate Starts for Ajay_55:

(Start: 35 @39243 has 179 MA's), (42, 39144), (54, 39090), (58, 39075), (59, 39066), (118, 38931), (136, 38877),

Gene: Alma_57 Start: 38259, Stop: 37786, Start Num: 35

Candidate Starts for Alma_57:

(Start: 35 @38259 has 179 MA's), (42, 38160), (50, 38118), (54, 38106), (59, 38082), (66, 38022), (84, 37971), (147, 37791),

Gene: Alsfro_57 Start: 38448, Stop: 37891, Start Num: 34

Candidate Starts for Alsfro_57:

(28, 38475), (Start: 34 @38448 has 26 MA's), (37, 38415), (42, 38349), (54, 38295), (58, 38280), (59, 38271), (118, 38136), (127, 38100), (148, 38046), (150, 38025), (158, 37986),

Gene: Altman_56 Start: 39112, Stop: 38498, Start Num: 34

Candidate Starts for Altman_56:

(Start: 23 @39163 has 1 MA's), (Start: 34 @39112 has 26 MA's), (42, 39010), (54, 38956), (58, 38941), (59, 38932), (118, 38797), (127, 38761), (148, 38710), (150, 38689), (154, 38668), (157, 38653), (160, 38620),

Gene: Alvin_53 Start: 38568, Stop: 38170, Start Num: 35

Candidate Starts for Alvin_53:

(Start: 35 @38568 has 179 MA's), (42, 38469), (54, 38415), (58, 38400), (59, 38391), (118, 38256), (136, 38202),

Gene: Anglerfish_55 Start: 39478, Stop: 38999, Start Num: 35

Candidate Starts for Anglerfish_55:

(Start: 35 @39478 has 179 MA's), (42, 39379), (54, 39325), (58, 39310), (59, 39301), (118, 39085), (136, 39031),

Gene: Anthony_52 Start: 35777, Stop: 35280, Start Num: 35

Candidate Starts for Anthony_52:

(Start: 35 @35777 has 179 MA's), (50, 35636), (53, 35627), (54, 35624), (55, 35621), (100, 35435), (128, 35339), (134, 35324), (143, 35297), (144, 35294),

Gene: Applejack_48 Start: 35405, Stop: 35007, Start Num: 35

Candidate Starts for Applejack_48:

(Start: 35 @35405 has 179 MA's), (42, 35306), (54, 35252), (58, 35237), (59, 35228), (118, 35093), (136, 35039),

Gene: Aragog_48 Start: 36528, Stop: 36061, Start Num: 33

Candidate Starts for Aragog_48:

(Start: 33 @36528 has 35 MA's), (42, 36429), (54, 36375), (55, 36372), (56, 36369), (119, 36132), (141, 36078),

Gene: Arcanine_54 Start: 38877, Stop: 38323, Start Num: 35

Candidate Starts for Arcanine_54:

(26, 38919), (Start: 32 @38889 has 4 MA's), (Start: 35 @38877 has 179 MA's), (42, 38778), (54, 38724), (58, 38709), (59, 38700), (118, 38565), (127, 38529), (148, 38478), (150, 38457), (158, 38418),

Gene: Archetta_48 Start: 36938, Stop: 36471, Start Num: 33

Candidate Starts for Archetta_48:

(Start: 33 @36938 has 35 MA's), (42, 36839), (54, 36785), (55, 36782), (56, 36779), (119, 36542), (141, 36488),

Gene: Arlo_51 Start: 37427, Stop: 37029, Start Num: 35

Candidate Starts for Arlo_51:

(26, 37469), (Start: 32 @37439 has 4 MA's), (Start: 35 @37427 has 179 MA's), (42, 37328), (54, 37274), (58, 37259), (59, 37250), (118, 37115), (136, 37061),

Gene: Artemis2UCLA_59 Start: 37105, Stop: 36662, Start Num: 31

Candidate Starts for Artemis2UCLA_59:

(Start: 31 @37105 has 87 MA's), (53, 36961), (54, 36958), (60, 36931), (68, 36865), (82, 36805), (108, 36760),

Gene: Ashballer_55 Start: 39002, Stop: 38520, Start Num: 34

Candidate Starts for Ashballer_55:

(Start: 23 @39053 has 1 MA's), (Start: 34 @39002 has 26 MA's), (42, 38900), (54, 38846), (58, 38831), (59, 38822), (73, 38702), (118, 38606), (136, 38552),

Gene: Atkinbua_56 Start: 38718, Stop: 38152, Start Num: 34

Candidate Starts for Atkinbua_56:

(11, 38829), (22, 38772), (Start: 34 @38718 has 26 MA's), (42, 38616), (54, 38562), (58, 38547), (59, 38538), (118, 38403), (127, 38367), (148, 38316), (150, 38295), (154, 38274), (164, 38190),

Gene: BABullseye_52 Start: 34678, Stop: 34244, Start Num: 31

Candidate Starts for BABullseye_52:

(Start: 31 @34678 has 87 MA's), (53, 34534), (54, 34531), (60, 34504), (62, 34477), (68, 34438), (82, 34378), (108, 34333),

Gene: BK1_49 Start: 36945, Stop: 36379, Start Num: 35

Candidate Starts for BK1_49:

(Start: 35 @36945 has 179 MA's), (42, 36846), (54, 36792), (59, 36768), (118, 36633), (127, 36597), (148, 36543), (150, 36522), (156, 36501), (169, 36417),

Gene: BPBiabs31_54 Start: 39309, Stop: 38695, Start Num: 35

Candidate Starts for BPBiabs31_54:

(26, 39351), (Start: 32 @39321 has 4 MA's), (Start: 35 @39309 has 179 MA's), (42, 39210), (54, 39156), (58, 39141), (59, 39132), (118, 38997), (127, 38961), (148, 38907), (150, 38886), (158, 38847),

Gene: Barriga_54 Start: 37755, Stop: 37276, Start Num: 35

Candidate Starts for Barriga_54:

(Start: 35 @37755 has 179 MA's), (42, 37656), (54, 37602), (58, 37587), (59, 37578), (73, 37458), (118, 37362), (136, 37308),

Gene: Beatrix_53 Start: 39461, Stop: 39000, Start Num: 35

Candidate Starts for Beatrix_53:

(Start: 35 @39461 has 179 MA's), (42, 39362), (54, 39308), (58, 39293), (59, 39284), (101, 39155), (116, 39110), (118, 39098), (136, 39032),

Gene: BeesKnees_56 Start: 38614, Stop: 38048, Start Num: 35

Candidate Starts for BeesKnees_56:

(Start: 35 @38614 has 179 MA's), (42, 38515), (54, 38461), (58, 38446), (59, 38437), (118, 38302), (127, 38266), (148, 38212), (150, 38191), (156, 38170), (167, 38113), (169, 38086),

Gene: Benedict_53 Start: 36915, Stop: 36427, Start Num: 33

Candidate Starts for Benedict_53:

(9, 37062), (Start: 33 @36915 has 35 MA's), (42, 36816), (50, 36774), (51, 36771), (54, 36762), (100, 36558), (104, 36549), (144, 36441),

Gene: Bethlehem_54 Start: 40112, Stop: 39468, Start Num: 35

Candidate Starts for Bethlehem_54:

(Start: 35 @40112 has 179 MA's), (42, 40013), (54, 39959), (58, 39944), (59, 39935), (73, 39815), (118, 39719), (127, 39683), (148, 39632), (150, 39611), (156, 39590), (167, 39533), (169, 39506),

Gene: Big3_53 Start: 39260, Stop: 38862, Start Num: 35

Candidate Starts for Big3_53:

(Start: 35 @39260 has 179 MA's), (42, 39161), (54, 39107), (58, 39092), (59, 39083), (118, 38948), (124, 38921), (136, 38894),

Gene: BigMau_54 Start: 37762, Stop: 37283, Start Num: 35

Candidate Starts for BigMau_54:

(26, 37804), (Start: 32 @37774 has 4 MA's), (Start: 35 @37762 has 179 MA's), (42, 37663), (54, 37609), (58, 37594), (59, 37585), (73, 37465), (118, 37369), (136, 37315),

Gene: BigPaolini_53 Start: 36840, Stop: 36442, Start Num: 35

Candidate Starts for BigPaolini_53:

(Start: 35 @36840 has 179 MA's), (42, 36741), (54, 36687), (58, 36672), (59, 36663), (118, 36528), (124, 36501), (136, 36474),

Gene: Bigfoot_49 Start: 37265, Stop: 36663, Start Num: 35

Candidate Starts for Bigfoot_49:

(Start: 35 @37265 has 179 MA's), (42, 37166), (54, 37112), (58, 37097), (59, 37088), (118, 36953), (127, 36917), (148, 36863), (150, 36842), (155, 36809), (159, 36785), (169, 36701),

Gene: Bircsak_52 Start: 39359, Stop: 38961, Start Num: 35

Candidate Starts for Bircsak_52:

(Start: 35 @39359 has 179 MA's), (42, 39260), (54, 39206), (58, 39191), (59, 39182), (118, 39047), (136, 38993),

Gene: Blinn1_61 Start: 37123, Stop: 36680, Start Num: 31

Candidate Starts for Blinn1_61:

(Start: 31 @37123 has 87 MA's), (53, 36979), (54, 36976), (60, 36949), (68, 36883), (108, 36778),

Gene: BluSpix_53 Start: 34621, Stop: 34223, Start Num: 35

Candidate Starts for BluSpix_53:

(Start: 35 @34621 has 179 MA's), (42, 34522), (54, 34468), (58, 34453), (59, 34444), (118, 34309), (136, 34255),

Gene: Blue_53 Start: 39272, Stop: 38880, Start Num: 35

Candidate Starts for Blue_53:

(Start: 35 @39272 has 179 MA's), (42, 39173), (54, 39119), (58, 39104), (59, 39095), (118, 38960), (136, 38912),

Gene: Blue7_60 Start: 37199, Stop: 36762, Start Num: 31

Candidate Starts for Blue7_60:

(Start: 31 @37199 has 87 MA's), (53, 37055), (54, 37052), (60, 37025), (68, 36959), (82, 36896), (108, 36851), (142, 36773),

Gene: Bluefalcon_48 Start: 37083, Stop: 36616, Start Num: 33

Candidate Starts for Bluefalcon_48:

(25, 37119), (Start: 33 @37083 has 35 MA's), (42, 36984), (54, 36930), (55, 36927), (56, 36924), (57, 36921), (119, 36687), (141, 36633),

Gene: Bob3_51 Start: 37043, Stop: 36633, Start Num: 32

Candidate Starts for Bob3_51:

(26, 37073), (Start: 32 @37043 has 4 MA's), (Start: 35 @37031 has 179 MA's), (42, 36932), (54, 36878), (58, 36863), (59, 36854), (118, 36719), (136, 36665),

Gene: BogosyJay_56 Start: 37976, Stop: 37491, Start Num: 31

Candidate Starts for BogosyJay_56:

(4, 38201), (5, 38192), (Start: 31 @37976 has 87 MA's), (50, 37838), (52, 37832), (53, 37829), (54, 37826), (60, 37799), (62, 37772), (68, 37733), (94, 37628), (130, 37526), (141, 37505), (144, 37496),

Gene: Bonamassa_49 Start: 36951, Stop: 36457, Start Num: 33

Candidate Starts for Bonamassa_49:

(27, 36981), (Start: 33 @36951 has 35 MA's), (42, 36852), (50, 36810), (51, 36807), (54, 36798), (105, 36579), (129, 36501), (144, 36471),

Gene: Bones_54 Start: 38722, Stop: 38324, Start Num: 35

Candidate Starts for Bones_54:

(Start: 35 @38722 has 179 MA's), (42, 38623), (54, 38569), (58, 38554), (59, 38545), (118, 38410), (136, 38356),

Gene: Briton15_57 Start: 38936, Stop: 38289, Start Num: 35

Candidate Starts for Briton15_57:

(Start: 35 @38936 has 179 MA's), (42, 38837), (54, 38783), (58, 38768), (59, 38759), (73, 38639), (118, 38543), (127, 38507), (148, 38453), (150, 38432), (156, 38411), (167, 38354), (169, 38327),

Gene: Bruns_52 Start: 37599, Stop: 37201, Start Num: 35

Candidate Starts for Bruns_52:

(26, 37641), (Start: 32 @37611 has 4 MA's), (Start: 35 @37599 has 179 MA's), (42, 37500), (54, 37446), (58, 37431), (59, 37422), (118, 37287), (136, 37233),

Gene: Burton_53 Start: 38704, Stop: 38138, Start Num: 35

Candidate Starts for Burton_53:

(15, 38788), (Start: 32 @38716 has 4 MA's), (Start: 35 @38704 has 179 MA's), (42, 38605), (54, 38551), (58, 38536), (59, 38527), (118, 38392), (127, 38356), (148, 38302), (150, 38281), (154, 38260), (163, 38203), (164, 38176),

Gene: Buttons_52 Start: 36766, Stop: 36149, Start Num: 35

Candidate Starts for Buttons_52:

(Start: 35 @36766 has 179 MA's), (42, 36667), (54, 36613), (58, 36598), (59, 36589), (118, 36454), (127, 36418), (148, 36364), (150, 36343),

Gene: Bxb1_49 Start: 37514, Stop: 36960, Start Num: 35

Candidate Starts for Bxb1_49:

(Start: 35 @37514 has 179 MA's), (42, 37415), (54, 37361), (58, 37346), (59, 37337), (118, 37202), (127, 37166), (148, 37115), (150, 37094), (158, 37055),

Gene: C3_55 Start: 38397, Stop: 37942, Start Num: 35

Candidate Starts for C3_55:

(Start: 35 @38397 has 179 MA's), (50, 38256), (54, 38244), (57, 38235), (63, 38181), (87, 38106), (95, 38085), (105, 38076), (144, 37962),

Gene: CRB1_61 Start: 39164, Stop: 38667, Start Num: 31

Candidate Starts for CRB1_61:

(Start: 31 @39164 has 87 MA's), (50, 39023), (52, 39017), (53, 39014), (54, 39011), (60, 38984), (62, 38957), (68, 38918), (77, 38867), (90, 38822), (96, 38807),

Gene: Candra_58 Start: 37045, Stop: 36602, Start Num: 31

Candidate Starts for Candra_58:

(Start: 31 @37045 has 87 MA's), (53, 36901), (54, 36898), (60, 36871), (68, 36805), (82, 36745), (108, 36700),

Gene: Caraxes_57 Start: 36675, Stop: 36196, Start Num: 31

Candidate Starts for Caraxes_57:

(5, 36891), (Start: 31 @36675 has 87 MA's), (49, 36513), (50, 36507), (54, 36495), (67, 36393), (91, 36324), (95, 36312), (113, 36270), (133, 36201),

Gene: Carlyle_52 Start: 36053, Stop: 35655, Start Num: 35

Candidate Starts for Carlyle_52:

(Start: 35 @36053 has 179 MA's), (42, 35954), (54, 35900), (58, 35885), (59, 35876), (118, 35741), (136, 35687),

Gene: Chadwick_53 Start: 36756, Stop: 36268, Start Num: 33

Candidate Starts for Chadwick_53:

(Start: 33 @36756 has 35 MA's), (42, 36657), (50, 36615), (51, 36612), (54, 36603), (57, 36594), (104, 36390), (144, 36282),

Gene: Chanagan_50 Start: 36851, Stop: 36453, Start Num: 35

Candidate Starts for Chanagan_50:

(Start: 35 @36851 has 179 MA's), (42, 36752), (54, 36698), (58, 36683), (59, 36674), (118, 36539), (136, 36485),

Gene: Changeling_56 Start: 38803, Stop: 38336, Start Num: 31

Candidate Starts for Changeling_56:

(Start: 31 @38803 has 87 MA's), (50, 38665), (53, 38656), (54, 38653), (60, 38626), (62, 38599), (68, 38560), (81, 38503), (88, 38482), (143, 38356),

Gene: Charm_55 Start: 37821, Stop: 37384, Start Num: 35

Candidate Starts for Charm_55:

(Start: 35 @37821 has 179 MA's), (42, 37722), (54, 37668), (107, 37500), (147, 37389),

Gene: Chartreuse_57 Start: 36396, Stop: 35962, Start Num: 31

Candidate Starts for Chartreuse_57:

(Start: 31 @36396 has 87 MA's), (53, 36252), (54, 36249), (60, 36222), (68, 36156), (82, 36096), (142, 35973),

Gene: Che12_58 Start: 37116, Stop: 36628, Start Num: 31

Candidate Starts for Che12_58:

(Start: 31 @37116 has 87 MA's), (49, 36975), (50, 36969), (54, 36957), (61, 36906), (67, 36855), (135, 36654), (144, 36633),

Gene: Ciao_53 Start: 38224, Stop: 37607, Start Num: 35

Candidate Starts for Ciao_53:

(Start: 35 @38224 has 179 MA's), (42, 38125), (54, 38071), (58, 38056), (59, 38047), (118, 37912), (127, 37876), (148, 37822), (150, 37801),

Gene: CloudWang3_59 Start: 37193, Stop: 36750, Start Num: 31

Candidate Starts for CloudWang3_59:

(Start: 31 @37193 has 87 MA's), (53, 37049), (54, 37046), (60, 37019), (68, 36953), (82, 36893), (108, 36848),

Gene: Colin_57 Start: 38509, Stop: 38060, Start Num: 31

Candidate Starts for Colin_57:

(Start: 31 @38509 has 87 MA's), (50, 38374), (52, 38368), (53, 38365), (54, 38362), (60, 38335), (62, 38308), (68, 38269), (74, 38230), (85, 38197), (88, 38188),

Gene: ConceptII_55 Start: 39890, Stop: 39276, Start Num: 34

Candidate Starts for ConceptII_55:

(12, 40001), (22, 39944), (Start: 34 @39890 has 26 MA's), (42, 39788), (54, 39734), (58, 39719), (59, 39710), (118, 39575), (127, 39539), (148, 39488), (150, 39467), (154, 39446), (157, 39431), (160, 39398),

Gene: Conspiracy_49 Start: 36750, Stop: 36283, Start Num: 33

Candidate Starts for Conspiracy_49:

(Start: 33 @36750 has 35 MA's), (42, 36651), (54, 36597), (55, 36594), (56, 36591), (119, 36354), (141, 36300),

Gene: Coog_48 Start: 36935, Stop: 36441, Start Num: 33

Candidate Starts for Coog_48:

(Start: 33 @36935 has 35 MA's), (51, 36791), (53, 36785), (54, 36782), (105, 36563), (129, 36485), (144, 36455),

Gene: Cookiedough_58 Start: 37024, Stop: 36581, Start Num: 31

Candidate Starts for Cookiedough_58:

(Start: 31 @37024 has 87 MA's), (53, 36880), (54, 36877), (60, 36850), (68, 36784), (82, 36724), (108, 36679),

Gene: Corvo_54 Start: 39669, Stop: 39103, Start Num: 35

Candidate Starts for Corvo_54:

(Start: 35 @39669 has 179 MA's), (42, 39570), (54, 39516), (58, 39501), (59, 39492), (118, 39357), (127, 39321), (148, 39267), (150, 39246), (156, 39225), (167, 39168), (169, 39141),

Gene: Crispicious1_51 Start: 37176, Stop: 36778, Start Num: 35

Candidate Starts for Crispicious1_51:

(Start: 35 @37176 has 179 MA's), (42, 37077), (54, 37023), (58, 37008), (59, 36999), (118, 36864), (124, 36837), (136, 36810),

Gene: Crucio_57 Start: 38174, Stop: 37680, Start Num: 31

Candidate Starts for Crucio_57:

(Start: 31 @38174 has 87 MA's), (50, 38036), (52, 38030), (53, 38027), (54, 38024), (60, 37997), (62, 37970), (68, 37931), (71, 37901), (98, 37817), (122, 37742),

Gene: Cuco_49 Start: 36807, Stop: 36313, Start Num: 33

Candidate Starts for Cuco_49:

(25, 36843), (Start: 33 @36807 has 35 MA's), (51, 36663), (53, 36657), (54, 36654), (105, 36435), (129, 36357), (144, 36327),

Gene: Cueyllyss_55 Start: 39855, Stop: 39457, Start Num: 35

Candidate Starts for Cueyllyss_55:

(Start: 35 @39855 has 179 MA's), (42, 39756), (54, 39702), (58, 39687), (59, 39678), (118, 39543), (136, 39489),

Gene: D29_55 Start: 38000, Stop: 37545, Start Num: 35

Candidate Starts for D29_55:

(Start: 35 @38000 has 179 MA's), (50, 37859), (54, 37847), (57, 37838), (63, 37784), (87, 37709), (95, 37688), (105, 37679), (144, 37565),

Gene: D32_58 Start: 38000, Stop: 37545, Start Num: 35

Candidate Starts for D32_58:

(Start: 35 @38000 has 179 MA's), (50, 37859), (54, 37847), (57, 37838), (63, 37784), (87, 37709), (95, 37688), (105, 37679), (144, 37565),

Gene: DBQu4n_59 Start: 37981, Stop: 37526, Start Num: 35

Candidate Starts for DBQu4n_59:

(Start: 35 @37981 has 179 MA's), (50, 37840), (54, 37828), (57, 37819), (63, 37765), (87, 37690), (95, 37669), (105, 37660), (144, 37546),

Gene: DD5_53 Start: 39005, Stop: 38370, Start Num: 35

Candidate Starts for DD5_53:

(Start: 35 @39005 has 179 MA's), (42, 38906), (54, 38852), (58, 38837), (59, 38828), (73, 38708), (118, 38612), (127, 38576), (150, 38513), (156, 38492), (169, 38408),

Gene: DaVinci_57 Start: 36450, Stop: 36016, Start Num: 31

Candidate Starts for DaVinci_57:

(Start: 31 @36450 has 87 MA's), (53, 36306), (54, 36303), (60, 36276), (68, 36210), (82, 36150), (142, 36027),

Gene: DarthPhader_53 Start: 38914, Stop: 38369, Start Num: 31

Candidate Starts for DarthPhader_53:

(Start: 31 @38914 has 87 MA's), (42, 38815), (50, 38767), (54, 38755), (58, 38740), (78, 38608), (93, 38557), (152, 38374),

Gene: Dexes_54 Start: 39125, Stop: 38514, Start Num: 35

Candidate Starts for Dexes_54:

(Start: 35 @39125 has 179 MA's), (42, 39026), (54, 38972), (58, 38957), (59, 38948), (118, 38813), (127, 38777), (148, 38726), (150, 38705), (154, 38684), (155, 38672), (157, 38669), (160, 38636), (161, 38633), (171, 38525),

Gene: Discoknowium_47 Start: 36417, Stop: 35950, Start Num: 33

Candidate Starts for Discoknowium_47:

(Start: 33 @36417 has 35 MA's), (42, 36318), (54, 36264), (55, 36261), (56, 36258), (119, 36021), (141, 35967),

Gene: Dixon_55 Start: 36492, Stop: 36022, Start Num: 31

Candidate Starts for Dixon_55:

(1, 36777), (8, 36618), (Start: 31 @36492 has 87 MA's), (45, 36375), (50, 36339), (53, 36330), (54, 36327), (83, 36201), (126, 36084), (131, 36066), (145, 36033),

Gene: Dorothea_57 Start: 37019, Stop: 36585, Start Num: 31

Candidate Starts for Dorothea_57:

(Start: 31 @37019 has 87 MA's), (53, 36875), (54, 36872), (60, 36845), (62, 36818), (68, 36779), (82, 36719), (108, 36674), (142, 36596),

Gene: DrFeelGood_51 Start: 38016, Stop: 37618, Start Num: 35

Candidate Starts for DrFeelGood_51:

(Start: 35 @38016 has 179 MA's), (42, 37917), (54, 37863), (58, 37848), (59, 37839), (118, 37704), (136, 37650),

Gene: DreamCatcher_57 Start: 39673, Stop: 39026, Start Num: 35

Candidate Starts for DreamCatcher_57:

(Start: 35 @39673 has 179 MA's), (42, 39574), (54, 39520), (58, 39505), (59, 39496), (73, 39376), (118, 39280), (127, 39244), (148, 39190), (150, 39169), (156, 39148), (167, 39091), (169, 39064),

Gene: DreamTeam1_55 Start: 37653, Stop: 37216, Start Num: 35

Candidate Starts for DreamTeam1_55:

(Start: 35 @37653 has 179 MA's), (42, 37554), (54, 37500), (107, 37332), (147, 37221),

Gene: Dreamboat_55 Start: 37826, Stop: 37371, Start Num: 35

Candidate Starts for Dreamboat_55:

(Start: 35 @37826 has 179 MA's), (42, 37727), (54, 37673), (58, 37658), (59, 37649), (95, 37532), (103, 37502), (106, 37493), (111, 37481), (118, 37457), (136, 37403),

Gene: DroogsArmy_50 Start: 38758, Stop: 38237, Start Num: 35

Candidate Starts for DroogsArmy_50:

(13, 38866), (17, 38833), (18, 38827), (Start: 35 @38758 has 179 MA's), (42, 38659), (48, 38626), (54, 38605), (55, 38602), (57, 38596), (58, 38590), (92, 38407),

Gene: Dublin_49 Start: 36919, Stop: 36452, Start Num: 33

Candidate Starts for Dublin_49:

(25, 36955), (Start: 33 @36919 has 35 MA's), (42, 36820), (54, 36766), (55, 36763), (56, 36760), (119, 36523), (141, 36469),

Gene: Dulcie_54 Start: 38438, Stop: 37827, Start Num: 35

Candidate Starts for Dulcie_54:

(Start: 35 @38438 has 179 MA's), (42, 38339), (54, 38285), (58, 38270), (59, 38261), (118, 38126), (127, 38096), (148, 38042), (150, 38021),

Gene: Duplo_59 Start: 38037, Stop: 37582, Start Num: 35

Candidate Starts for Duplo_59:

(Start: 35 @38037 has 179 MA's), (50, 37896), (54, 37884), (57, 37875), (63, 37821), (87, 37746), (95, 37725), (105, 37716), (144, 37602),

Gene: Dussy_55 Start: 39209, Stop: 38799, Start Num: 35

Candidate Starts for Dussy_55:

(Start: 35 @39209 has 179 MA's), (42, 39110), (54, 39056), (58, 39041), (59, 39032), (118, 38897), (136, 38831),

Gene: Dynamix_55 Start: 38412, Stop: 37846, Start Num: 35

Candidate Starts for Dynamix_55:

(Start: 35 @38412 has 179 MA's), (42, 38313), (54, 38259), (58, 38244), (59, 38235), (118, 38100), (127, 38064), (148, 38010), (150, 37989), (156, 37968), (167, 37911), (169, 37884),

Gene: EagleEye_59 Start: 37874, Stop: 37425, Start Num: 31

Candidate Starts for EagleEye_59:

(Start: 31 @37874 has 87 MA's), (53, 37730), (54, 37727), (60, 37700), (62, 37673), (65, 37646), (81, 37577), (88, 37559),

Gene: Edtherson_53 Start: 38507, Stop: 38109, Start Num: 35

Candidate Starts for Edtherson_53:

(Start: 35 @38507 has 179 MA's), (42, 38408), (54, 38354), (58, 38339), (59, 38330), (118, 38195), (136, 38141),

Gene: EITiger69_52 Start: 36876, Stop: 36409, Start Num: 33

Candidate Starts for EITiger69_52:

(9, 37023), (Start: 33 @36876 has 35 MA's), (42, 36777), (50, 36735), (51, 36732), (54, 36723), (91, 36552), (115, 36501),

Gene: EricB_58 Start: 37002, Stop: 36559, Start Num: 31

Candidate Starts for EricB_58:

(Start: 31 @37002 has 87 MA's), (53, 36858), (54, 36855), (60, 36828), (68, 36762), (82, 36702), (108, 36657),

Gene: Espresso_53 Start: 39063, Stop: 38665, Start Num: 35

Candidate Starts for Espresso_53:

(Start: 35 @39063 has 179 MA's), (42, 38964), (54, 38910), (58, 38895), (59, 38886), (118, 38751), (136, 38697),

Gene: Euphoria_51 Start: 38314, Stop: 37916, Start Num: 35

Candidate Starts for Euphoria_51:

(Start: 35 @38314 has 179 MA's), (42, 38215), (54, 38161), (58, 38146), (59, 38137), (118, 38002), (136, 37948),

Gene: Expelliarmus_54 Start: 36696, Stop: 36226, Start Num: 31

Candidate Starts for Expelliarmus_54:

(1, 36981), (8, 36822), (Start: 31 @36696 has 87 MA's), (45, 36579), (50, 36543), (53, 36534), (54, 36531), (83, 36405), (126, 36288), (145, 36237),

Gene: Eyeball_55 Start: 38602, Stop: 38204, Start Num: 35

Candidate Starts for Eyeball_55:

(Start: 35 @38602 has 179 MA's), (42, 38503), (54, 38449), (58, 38434), (59, 38425), (118, 38290), (136, 38236),

Gene: Fajezeel_55 Start: 38573, Stop: 37956, Start Num: 35

Candidate Starts for Fajezeel_55:

(Start: 35 @38573 has 179 MA's), (42, 38474), (54, 38420), (58, 38405), (59, 38396), (118, 38261), (127, 38225), (148, 38171), (150, 38150),

Gene: Fameo_57 Start: 38505, Stop: 38011, Start Num: 31

Candidate Starts for Fameo_57:

(Start: 31 @38505 has 87 MA's), (50, 38367), (52, 38361), (53, 38358), (54, 38355), (60, 38328), (62, 38301), (68, 38262), (71, 38232), (77, 38211),

Gene: Fascinus_49 Start: 37456, Stop: 36887, Start Num: 34

Candidate Starts for Fascinus_49:

(Start: 23 @37507 has 1 MA's), (Start: 34 @37456 has 26 MA's), (42, 37354), (54, 37300), (58, 37285), (59, 37276), (118, 37141), (127, 37105), (148, 37054), (150, 37033), (154, 37012), (164, 36925),

Gene: Fenn_56 Start: 40358, Stop: 39792, Start Num: 35

Candidate Starts for Fenn_56:

(Start: 35 @40358 has 179 MA's), (42, 40259), (54, 40205), (58, 40190), (59, 40181), (118, 40046), (127, 40010), (148, 39956), (150, 39935), (156, 39914), (167, 39857), (169, 39830),

Gene: FiringLine_57 Start: 38155, Stop: 37661, Start Num: 31

Candidate Starts for FiringLine_57:

(Start: 31 @38155 has 87 MA's), (50, 38017), (52, 38011), (53, 38008), (54, 38005), (60, 37978), (62, 37951), (68, 37912), (71, 37882), (98, 37798), (122, 37723),

Gene: ForGetIt_49 Start: 36775, Stop: 36308, Start Num: 33

Candidate Starts for ForGetIt_49:

(Start: 33 @36775 has 35 MA's), (42, 36676), (54, 36622), (55, 36619), (56, 36616), (119, 36379), (141, 36325),

Gene: Forsytheast_53 Start: 37985, Stop: 37419, Start Num: 35

Candidate Starts for Forsytheast_53:

(Start: 35 @37985 has 179 MA's), (42, 37886), (54, 37832), (58, 37817), (59, 37808), (118, 37673), (127, 37637), (148, 37583), (150, 37562), (156, 37541), (167, 37484), (169, 37457),

Gene: Francis47_52 Start: 39627, Stop: 39229, Start Num: 35

Candidate Starts for Francis47_52:

(Start: 35 @39627 has 179 MA's), (42, 39528), (54, 39474), (58, 39459), (59, 39450), (118, 39315), (136, 39261),

Gene: Froghopper_51 Start: 37352, Stop: 36957, Start Num: 35

Candidate Starts for Froghopper_51:

(Start: 35 @37352 has 179 MA's), (42, 37253), (54, 37199), (58, 37184), (59, 37175), (118, 37040), (136, 36986),

Gene: Fushigi_52 Start: 36313, Stop: 35915, Start Num: 35

Candidate Starts for Fushigi_52:

(Start: 35 @36313 has 179 MA's), (42, 36214), (54, 36160), (58, 36145), (59, 36136), (118, 36001), (136, 35947),

Gene: GageAP_54 Start: 39103, Stop: 38705, Start Num: 35

Candidate Starts for GageAP_54:

(Start: 35 @39103 has 179 MA's), (42, 39004), (54, 38950), (58, 38935), (59, 38926), (118, 38791), (124, 38764), (136, 38737),

Gene: Gail_61 Start: 39377, Stop: 38874, Start Num: 29

Candidate Starts for Gail_61:

(Start: 29 @39377 has 3 MA's), (50, 39242), (52, 39236), (53, 39233), (54, 39230), (60, 39203), (62, 39176), (65, 39149), (68, 39137), (77, 39083), (136, 38903),

Gene: Gandalf20_56 Start: 40348, Stop: 39758, Start Num: 35

Candidate Starts for Gandalf20_56:

(Start: 35 @40348 has 179 MA's), (42, 40249), (54, 40195), (58, 40180), (59, 40171), (118, 40036), (127, 40000), (148, 39946), (150, 39925), (158, 39886), (162, 39853),

Gene: Garak_61 Start: 37472, Stop: 37029, Start Num: 31

Candidate Starts for Garak_61:

(Start: 31 @37472 has 87 MA's), (53, 37328), (54, 37325), (60, 37298), (68, 37232), (82, 37172), (108, 37127),

Gene: George_47 Start: 36848, Stop: 36360, Start Num: 33

Candidate Starts for George_47:

(27, 36878), (Start: 33 @36848 has 35 MA's), (42, 36749), (50, 36707), (51, 36704), (54, 36695), (105, 36476),

Gene: Georgie2_58 Start: 38200, Stop: 37706, Start Num: 31

Candidate Starts for Georgie2_58:

(Start: 31 @38200 has 87 MA's), (50, 38062), (52, 38056), (53, 38053), (54, 38050), (60, 38023), (62, 37996), (68, 37957), (71, 37927), (98, 37843), (122, 37768),

Gene: Ghoulboy_52 Start: 37654, Stop: 37187, Start Num: 33

Candidate Starts for Ghoulboy_52:

(25, 37690), (Start: 33 @37654 has 35 MA's), (42, 37555), (54, 37501), (55, 37498), (56, 37495), (57, 37492), (119, 37258), (141, 37204),

Gene: Gladiator_56 Start: 36697, Stop: 36260, Start Num: 31

Candidate Starts for Gladiator_56:

(Start: 31 @36697 has 87 MA's), (53, 36553), (54, 36550), (60, 36523), (68, 36457), (82, 36394), (108, 36349), (142, 36271),

Gene: Gompeii16_52 Start: 39360, Stop: 38962, Start Num: 35

Candidate Starts for Gompeii16_52:

(Start: 35 @39360 has 179 MA's), (42, 39261), (54, 39207), (58, 39192), (59, 39183), (118, 39048), (136, 38994),

Gene: Graduation_57 Start: 39927, Stop: 39529, Start Num: 35

Candidate Starts for Graduation_57:

(Start: 35 @39927 has 179 MA's), (42, 39828), (54, 39774), (58, 39759), (59, 39750), (118, 39615), (136, 39561),

Gene: GrecoEtereo_54 Start: 38332, Stop: 37766, Start Num: 35

Candidate Starts for GrecoEtereo_54:

(Start: 35 @38332 has 179 MA's), (42, 38233), (54, 38179), (58, 38164), (59, 38155), (118, 38020), (127, 37984), (148, 37930), (150, 37909), (169, 37804),

Gene: GreedyLawyer_58 Start: 37009, Stop: 36566, Start Num: 31

Candidate Starts for GreedyLawyer_58:

(Start: 31 @37009 has 87 MA's), (53, 36865), (54, 36862), (60, 36835), (68, 36769), (82, 36709), (108, 36664),

Gene: Greg_55 Start: 38573, Stop: 37956, Start Num: 35

Candidate Starts for Greg_55:

(Start: 35 @38573 has 179 MA's), (42, 38474), (54, 38420), (58, 38405), (59, 38396), (118, 38261), (127, 38225), (148, 38171), (150, 38150),

Gene: Gruunaga_59 Start: 37396, Stop: 36959, Start Num: 31

Candidate Starts for Gruunaga_59:

(Start: 31 @37396 has 87 MA's), (53, 37252), (54, 37249), (60, 37222), (68, 37156), (82, 37093), (108, 37048), (142, 36970),

Gene: Gwendoluna_58 Start: 40576, Stop: 39968, Start Num: 35

Candidate Starts for Gwendoluna_58:

(Start: 35 @40576 has 179 MA's), (42, 40477), (54, 40423), (58, 40408), (59, 40399), (118, 40264), (127, 40228), (148, 40177), (150, 40156),

Gene: Gyzlar_49 Start: 36249, Stop: 35680, Start Num: 34

Candidate Starts for Gyzlar_49:

(Start: 23 @36300 has 1 MA's), (Start: 34 @36249 has 26 MA's), (42, 36147), (54, 36093), (58, 36078), (59, 36069), (118, 35934), (127, 35898), (148, 35844), (150, 35823), (154, 35802), (164, 35718),

Gene: HINdeR_49 Start: 38405, Stop: 37899, Start Num: 35

Candidate Starts for HINdeR_49:

(17, 38486), (18, 38480), (Start: 35 @38405 has 179 MA's), (48, 38273), (54, 38252), (55, 38249), (58, 38237),

Gene: Hami1_46 Start: 33410, Stop: 33012, Start Num: 35

Candidate Starts for Hami1_46:

(Start: 35 @33410 has 179 MA's), (42, 33311), (54, 33257), (58, 33242), (59, 33233), (118, 33098), (136, 33044),

Gene: Hammer_59 Start: 37003, Stop: 36566, Start Num: 31

Candidate Starts for Hammer_59:

(Start: 31 @37003 has 87 MA's), (53, 36859), (54, 36856), (60, 36829), (68, 36763), (108, 36655), (142, 36577),

Gene: HanShotFirst_54 Start: 38872, Stop: 38306, Start Num: 35

Candidate Starts for HanShotFirst_54:

(Start: 35 @38872 has 179 MA's), (42, 38773), (54, 38719), (58, 38704), (59, 38695), (118, 38560), (127, 38524), (148, 38470), (150, 38449), (156, 38428), (169, 38344),

Gene: HarryOW_52 Start: 37507, Stop: 36938, Start Num: 34

Candidate Starts for HarryOW_52:

(11, 37618), (22, 37561), (Start: 34 @37507 has 26 MA's), (42, 37405), (54, 37351), (58, 37336), (59, 37327), (118, 37192), (127, 37156), (148, 37102), (150, 37081), (164, 36976),

Gene: Heffalump_56 Start: 38973, Stop: 38479, Start Num: 31

Candidate Starts for Heffalump_56:

(Start: 31 @38973 has 87 MA's), (50, 38835), (52, 38829), (53, 38826), (54, 38823), (60, 38796), (62, 38769), (68, 38730), (71, 38700), (77, 38679), (79, 38673),

Gene: Helmet_61 Start: 37472, Stop: 37029, Start Num: 31

Candidate Starts for Helmet_61:

(Start: 31 @37472 has 87 MA's), (53, 37328), (54, 37325), (60, 37298), (68, 37232), (82, 37172), (108, 37127),

Gene: Herbertwm_55 Start: 37937, Stop: 37377, Start Num: 31

Candidate Starts for Herbertwm_55:

(4, 38162), (Start: 31 @37937 has 87 MA's), (38, 37868), (54, 37772), (55, 37769), (57, 37763), (78, 37625), (83, 37601), (89, 37583), (137, 37448), (148, 37418),

Gene: Hermia_54 Start: 39005, Stop: 38388, Start Num: 35

Candidate Starts for Hermia_54:

(Start: 35 @39005 has 179 MA's), (42, 38906), (54, 38852), (58, 38837), (59, 38828), (118, 38693), (127, 38657), (148, 38603), (150, 38582),

Gene: HermioneGrange_53 Start: 38256, Stop: 37777, Start Num: 35

Candidate Starts for HermioneGrange_53:

(26, 38298), (Start: 32 @38268 has 4 MA's), (Start: 35 @38256 has 179 MA's), (42, 38157), (54, 38103), (58, 38088), (59, 38079), (73, 37959), (118, 37863), (136, 37809),

Gene: Hexamo_59 Start: 37102, Stop: 36659, Start Num: 31

Candidate Starts for Hexamo_59:

(Start: 31 @37102 has 87 MA's), (53, 36958), (54, 36955), (60, 36928), (68, 36862), (82, 36802), (108, 36757),

Gene: Homines_46 Start: 34514, Stop: 33951, Start Num: 35

Candidate Starts for Homines_46:

(Start: 35 @34514 has 179 MA's), (42, 34415), (54, 34361), (58, 34346), (59, 34337), (118, 34202), (127, 34166), (148, 34115), (150, 34094), (156, 34073), (169, 33989),

Gene: Hoot_53 Start: 34860, Stop: 34417, Start Num: 31

Candidate Starts for Hoot_53:

(Start: 31 @34860 has 87 MA's), (53, 34716), (54, 34713), (60, 34686), (68, 34620), (82, 34560), (108, 34515),

Gene: HuhtaEnerson15_49 Start: 36845, Stop: 36351, Start Num: 33

Candidate Starts for HuhtaEnerson15_49:

(7, 37010), (9, 36992), (Start: 33 @36845 has 35 MA's), (42, 36746), (50, 36704), (51, 36701), (54, 36692), (105, 36473), (129, 36395), (144, 36365),

Gene: ILeeKay_57 Start: 39101, Stop: 38547, Start Num: 35

Candidate Starts for ILeeKay_57:

(Start: 35 @39101 has 179 MA's), (42, 39002), (54, 38948), (58, 38933), (59, 38924), (118, 38789), (127, 38753), (148, 38702), (150, 38681), (158, 38642),

Gene: Ichabod_56 Start: 39693, Stop: 39127, Start Num: 35

Candidate Starts for Ichabod_56:

(26, 39735), (Start: 32 @39705 has 4 MA's), (Start: 35 @39693 has 179 MA's), (42, 39594), (54, 39540), (58, 39525), (59, 39516), (118, 39381), (127, 39345), (148, 39291), (150, 39270), (154, 39249), (164, 39165),

Gene: IgnatiusPatJac_54 Start: 38566, Stop: 38168, Start Num: 35

Candidate Starts for IgnatiusPatJac_54:

(Start: 35 @38566 has 179 MA's), (42, 38467), (54, 38413), (58, 38398), (59, 38389), (118, 38254), (136, 38200),

Gene: Indra_62 Start: 37473, Stop: 37030, Start Num: 31

Candidate Starts for Indra_62:

(Start: 31 @37473 has 87 MA's), (53, 37329), (54, 37326), (60, 37299), (68, 37233), (82, 37173), (108, 37128),

Gene: Isiphiwo_56 Start: 36576, Stop: 36142, Start Num: 31

Candidate Starts for Isiphiwo_56:

(Start: 31 @36576 has 87 MA's), (53, 36432), (54, 36429), (60, 36402), (68, 36336), (82, 36276), (142, 36153),

Gene: JC27_55 Start: 38691, Stop: 38209, Start Num: 34

Candidate Starts for JC27_55:

(Start: 23 @38742 has 1 MA's), (Start: 34 @38691 has 26 MA's), (42, 38589), (54, 38535), (58, 38520), (59, 38511), (73, 38391), (118, 38295), (136, 38241),

Gene: Jabiru_51 Start: 36770, Stop: 36282, Start Num: 33

Candidate Starts for Jabiru_51:

(9, 36917), (Start: 33 @36770 has 35 MA's), (42, 36671), (50, 36629), (51, 36626), (54, 36617), (57, 36608), (100, 36413), (104, 36404), (144, 36296),

Gene: JackSparrow_55 Start: 38752, Stop: 38186, Start Num: 34

Candidate Starts for JackSparrow_55:

(21, 38803), (Start: 34 @38752 has 26 MA's), (37, 38719), (42, 38653), (54, 38599), (58, 38584), (59, 38575), (118, 38440), (127, 38404), (148, 38350), (150, 38329), (154, 38308), (164, 38224),

Gene: Jasper_55 Start: 37712, Stop: 37257, Start Num: 35

Candidate Starts for Jasper_55:

(Start: 35 @37712 has 179 MA's), (42, 37613), (54, 37559), (58, 37544), (59, 37535), (95, 37418), (103, 37388), (106, 37379), (111, 37367), (118, 37343), (136, 37289),

Gene: Jeeves_62 Start: 38354, Stop: 37857, Start Num: 30

Candidate Starts for Jeeves_62:

(Start: 30 @38354 has 2 MA's), (50, 38219), (52, 38213), (53, 38210), (54, 38207), (60, 38180), (62, 38153), (68, 38114), (71, 38084), (77, 38063), (136, 37886),

Gene: Jeffabunny_59 Start: 37099, Stop: 36656, Start Num: 31

Candidate Starts for Jeffabunny_59:

(Start: 31 @37099 has 87 MA's), (53, 36955), (54, 36952), (60, 36925), (68, 36859), (82, 36799), (108, 36754),

Gene: Jerm2_54 Start: 38511, Stop: 38032, Start Num: 35

Candidate Starts for Jerm2_54:

(26, 38553), (Start: 32 @38523 has 4 MA's), (Start: 35 @38511 has 179 MA's), (42, 38412), (54, 38358), (58, 38343), (59, 38334), (73, 38214), (118, 38118), (136, 38064),

Gene: JewelBug_59 Start: 37215, Stop: 36772, Start Num: 31

Candidate Starts for JewelBug_59:

(Start: 31 @37215 has 87 MA's), (53, 37071), (54, 37068), (60, 37041), (68, 36975), (108, 36870), (112, 36855),

Gene: Jordennis_58 Start: 36696, Stop: 36262, Start Num: 31

Candidate Starts for Jordennis_58:

(Start: 31 @36696 has 87 MA's), (53, 36552), (54, 36549), (60, 36522), (62, 36495), (68, 36456), (82, 36396), (108, 36351), (142, 36273),

Gene: JoshKayV_59 Start: 38828, Stop: 38325, Start Num: 29

Candidate Starts for JoshKayV_59:

(Start: 29 @38828 has 3 MA's), (50, 38687), (52, 38681), (53, 38678), (54, 38675), (60, 38648), (68, 38582), (77, 38531),

Gene: Journey13_51 Start: 36542, Stop: 36054, Start Num: 31

Candidate Starts for Journey13_51:

(Start: 31 @36542 has 87 MA's), (50, 36404), (52, 36398), (53, 36395), (54, 36392), (60, 36365), (65, 36311), (68, 36299), (143, 36071),

Gene: Jovo_49 Start: 37031, Stop: 36564, Start Num: 33

Candidate Starts for Jovo_49:

(Start: 33 @37031 has 35 MA's), (42, 36932), (54, 36878), (55, 36875), (56, 36872), (119, 36635), (141, 36581),

Gene: Jsquared_55 Start: 37136, Stop: 36672, Start Num: 31

Candidate Starts for Jsquared_55:

(Start: 31 @37136 has 87 MA's), (50, 36998), (52, 36992), (53, 36989), (54, 36986), (60, 36959), (62, 36932), (68, 36893), (95, 36812), (101, 36800), (125, 36722),

Gene: JuliaChild_54 Start: 38193, Stop: 37627, Start Num: 35

Candidate Starts for JuliaChild_54:

(26, 38235), (Start: 32 @38205 has 4 MA's), (Start: 35 @38193 has 179 MA's), (42, 38094), (54, 38040), (58, 38025), (59, 38016), (118, 37881), (127, 37845), (148, 37791), (150, 37770), (154, 37749), (163, 37692), (164, 37665),

Gene: KSSJEB_53 Start: 38192, Stop: 37626, Start Num: 35

Candidate Starts for KSSJEB_53:

(Start: 35 @38192 has 179 MA's), (42, 38093), (54, 38039), (58, 38024), (59, 38015), (118, 37880), (127, 37844), (148, 37790), (150, 37769), (156, 37748), (167, 37691), (169, 37664),

Gene: Kalpine_55 Start: 38383, Stop: 37931, Start Num: 31

Candidate Starts for Kalpine_55:

(Start: 31 @38383 has 87 MA's), (50, 38245), (52, 38239), (53, 38236), (54, 38233), (60, 38206), (62, 38179), (68, 38140), (88, 38059),

Gene: Kanely_55 Start: 38889, Stop: 38275, Start Num: 34

Candidate Starts for Kanely_55:

(Start: 23 @38940 has 1 MA's), (Start: 34 @38889 has 26 MA's), (42, 38787), (54, 38733), (58, 38718), (59, 38709), (118, 38574), (127, 38538), (148, 38487), (150, 38466), (154, 38445), (157, 38430), (160, 38397),

Gene: Kazan_59 Start: 37015, Stop: 36572, Start Num: 31

Candidate Starts for Kazan_59:

(Start: 31 @37015 has 87 MA's), (53, 36871), (54, 36868), (60, 36841), (68, 36775), (82, 36715), (108, 36670),

Gene: Kenmech_57 Start: 40335, Stop: 39925, Start Num: 35

Candidate Starts for Kenmech_57:

(Start: 35 @40335 has 179 MA's), (42, 40236), (54, 40182), (58, 40167), (59, 40158), (118, 40023), (136, 39957),

Gene: Kerberos_59 Start: 37999, Stop: 37544, Start Num: 35

Candidate Starts for Kerberos_59:

(Start: 35 @37999 has 179 MA's), (50, 37858), (54, 37846), (57, 37837), (63, 37783), (87, 37708), (95, 37687), (105, 37678), (144, 37564),

Gene: Killigrew_54 Start: 39392, Stop: 38826, Start Num: 35

Candidate Starts for Killigrew_54:

(Start: 35 @39392 has 179 MA's), (42, 39293), (54, 39239), (58, 39224), (59, 39215), (118, 39080), (127, 39044), (148, 38990), (150, 38969), (156, 38948), (167, 38891), (169, 38864),

Gene: Kipper29_58 Start: 37028, Stop: 36585, Start Num: 31

Candidate Starts for Kipper29_58:

(Start: 31 @37028 has 87 MA's), (53, 36884), (54, 36881), (60, 36854), (68, 36788), (82, 36728), (108, 36683),

Gene: Koduck_58 Start: 37415, Stop: 36957, Start Num: 31

Candidate Starts for Koduck_58:

(Start: 31 @37415 has 87 MA's), (50, 37277), (53, 37268), (54, 37265), (60, 37238), (62, 37211), (68, 37172), (101, 37082), (144, 36962),

Gene: Koko_60 Start: 37533, Stop: 37090, Start Num: 31

Candidate Starts for Koko_60:

(Start: 31 @37533 has 87 MA's), (53, 37389), (54, 37386), (60, 37359), (68, 37293), (82, 37233), (108, 37188),

Gene: Kugel_54 Start: 39457, Stop: 38903, Start Num: 35

Candidate Starts for Kugel_54:

(Start: 35 @39457 has 179 MA's), (42, 39358), (54, 39304), (58, 39289), (59, 39280), (118, 39145), (127, 39109), (148, 39058), (150, 39037), (158, 38998),

Gene: KyMonks1A_55 Start: 38450, Stop: 37833, Start Num: 34

Candidate Starts for KyMonks1A_55:

(Start: 23 @38501 has 1 MA's), (Start: 34 @38450 has 26 MA's), (42, 38348), (54, 38294), (58, 38279), (59, 38270), (118, 38135), (127, 38099), (148, 38045), (150, 38024), (157, 37988), (160, 37955),

Gene: Kykar_53 Start: 38219, Stop: 37605, Start Num: 35

Candidate Starts for Kykar_53:

(Start: 35 @38219 has 179 MA's), (42, 38120), (54, 38066), (58, 38051), (59, 38042), (118, 37907), (148, 37817), (150, 37796), (154, 37775), (157, 37760), (160, 37727),

Gene: L5_55 Start: 37502, Stop: 37032, Start Num: 31

Candidate Starts for L5_55:

(Start: 31 @37502 has 87 MA's), (50, 37364), (53, 37355), (54, 37352), (60, 37325), (62, 37298), (68, 37259), (80, 37205), (85, 37184), (95, 37157), (108, 37130), (112, 37115), (129, 37064),

Gene: LadyBird_62 Start: 39099, Stop: 38653, Start Num: 31

Candidate Starts for LadyBird_62:

(Start: 31 @39099 has 87 MA's), (50, 38958), (52, 38952), (53, 38949), (54, 38946), (60, 38919), (62, 38892), (68, 38853),

Gene: Lamina13_54 Start: 38247, Stop: 37576, Start Num: 35

Candidate Starts for Lamina13_54:

(Start: 35 @38247 has 179 MA's), (42, 38148), (54, 38094), (58, 38079), (59, 38070), (94, 37950), (118, 37854), (127, 37818), (148, 37764), (150, 37743), (158, 37704), (162, 37671),

Gene: Lesedi_50 Start: 37197, Stop: 36799, Start Num: 35

Candidate Starts for Lesedi_50:

(Start: 35 @37197 has 179 MA's), (42, 37098), (54, 37044), (58, 37029), (59, 37020), (118, 36885), (124, 36858), (136, 36831),

Gene: Lev2_49 Start: 36663, Stop: 36196, Start Num: 33

Candidate Starts for Lev2_49:

(Start: 33 @36663 has 35 MA's), (42, 36564), (54, 36510), (55, 36507), (56, 36504), (119, 36267), (141, 36213),

Gene: Licorice_56 Start: 40561, Stop: 39995, Start Num: 35

Candidate Starts for Licorice_56:

(Start: 35 @40561 has 179 MA's), (42, 40462), (54, 40408), (58, 40393), (59, 40384), (118, 40249), (127, 40213), (148, 40159), (150, 40138), (156, 40117), (169, 40033),

Gene: LilBib_53 Start: 39658, Stop: 39053, Start Num: 34

Candidate Starts for LilBib_53:

(11, 39769), (20, 39721), (Start: 34 @39658 has 26 MA's), (42, 39556), (54, 39502), (58, 39487), (59, 39478), (118, 39343), (127, 39307), (149, 39247), (165, 39124), (170, 39064),

Gene: Lilbunny_57 Start: 37103, Stop: 36660, Start Num: 31

Candidate Starts for Lilbunny_57:

(Start: 31 @37103 has 87 MA's), (53, 36959), (54, 36956), (60, 36929), (68, 36863), (82, 36803), (108, 36758),

Gene: LittleCherry_49 Start: 36865, Stop: 36371, Start Num: 33

Candidate Starts for LittleCherry_49:

(27, 36895), (Start: 33 @36865 has 35 MA's), (42, 36766), (50, 36724), (51, 36721), (54, 36712), (105, 36493), (129, 36415), (144, 36385),

Gene: Lockley_52 Start: 38167, Stop: 37532, Start Num: 35

Candidate Starts for Lockley_52:

(Start: 35 @38167 has 179 MA's), (42, 38068), (54, 38014), (58, 37999), (59, 37990), (73, 37870), (118, 37774), (127, 37738), (150, 37675), (156, 37654), (169, 37570),

Gene: Lokk_54 Start: 37531, Stop: 37127, Start Num: 31

Candidate Starts for Lokk_54:

(4, 37756), (5, 37747), (Start: 31 @37531 has 87 MA's), (50, 37396), (52, 37390), (53, 37387), (54, 37384), (60, 37357), (62, 37330), (68, 37291), (71, 37261), (95, 37192), (109, 37168),

Gene: Luchador_61 Start: 39939, Stop: 39442, Start Num: 29

Candidate Starts for Luchador_61:

(Start: 29 @39939 has 3 MA's), (50, 39804), (52, 39798), (53, 39795), (54, 39792), (60, 39765), (62, 39738), (68, 39699), (71, 39669), (77, 39648), (136, 39471),

Gene: Lucyedi_58 Start: 38070, Stop: 37621, Start Num: 31

Candidate Starts for Lucyedi_58:

(Start: 31 @38070 has 87 MA's), (53, 37926), (54, 37923), (60, 37896), (62, 37869), (65, 37842), (81, 37773), (88, 37755),

Gene: MPlant7149_52 Start: 37293, Stop: 36895, Start Num: 35
Candidate Starts for MPlant7149_52:
(Start: 35 @37293 has 179 MA's), (42, 37194), (54, 37140), (58, 37125), (59, 37116), (118, 36981),
(136, 36927),

Gene: Magnar_53 Start: 38738, Stop: 38340, Start Num: 35
Candidate Starts for Magnar_53:
(Start: 35 @38738 has 179 MA's), (42, 38639), (54, 38585), (58, 38570), (59, 38561), (118, 38426),
(136, 38372),

Gene: Magnito_52 Start: 38460, Stop: 37900, Start Num: 35
Candidate Starts for Magnito_52:
(Start: 35 @38460 has 179 MA's), (42, 38361), (54, 38307), (58, 38292), (59, 38283), (118, 38148),
(127, 38112), (148, 38058), (150, 38037), (169, 37938),

Gene: Makemake_53 Start: 38800, Stop: 38399, Start Num: 34
Candidate Starts for Makemake_53:
(Start: 23 @38851 has 1 MA's), (Start: 34 @38800 has 26 MA's), (42, 38698), (54, 38644), (58,
38629), (59, 38620), (118, 38485), (136, 38431),

Gene: Maminiaina_56 Start: 37958, Stop: 37473, Start Num: 31
Candidate Starts for Maminiaina_56:
(4, 38183), (5, 38174), (Start: 31 @37958 has 87 MA's), (50, 37820), (52, 37814), (53, 37811), (54,
37808), (60, 37781), (62, 37754), (68, 37715), (94, 37610), (130, 37508), (141, 37487), (144, 37478),

Gene: Manatee_55 Start: 38824, Stop: 38426, Start Num: 35
Candidate Starts for Manatee_55:
(Start: 35 @38824 has 179 MA's), (42, 38725), (54, 38671), (58, 38656), (59, 38647), (118, 38512),
(136, 38458),

Gene: Marcell_51 Start: 37819, Stop: 37265, Start Num: 35
Candidate Starts for Marcell_51:
(Start: 35 @37819 has 179 MA's), (42, 37720), (54, 37666), (58, 37651), (59, 37642), (118, 37507),
(127, 37471), (148, 37420), (150, 37399), (158, 37360),

Gene: Marchy_47 Start: 35728, Stop: 35330, Start Num: 35
Candidate Starts for Marchy_47:
(Start: 35 @35728 has 179 MA's), (42, 35629), (54, 35575), (58, 35560), (59, 35551), (118, 35416),
(136, 35362),

Gene: Marge_53 Start: 38708, Stop: 38079, Start Num: 35
Candidate Starts for Marge_53:
(Start: 35 @38708 has 179 MA's), (42, 38609), (54, 38555), (58, 38540), (59, 38531), (118, 38396),
(127, 38360), (148, 38306), (150, 38285),

Gene: Maroc7_51 Start: 37816, Stop: 37196, Start Num: 23
Candidate Starts for Maroc7_51:
(Start: 23 @37816 has 1 MA's), (Start: 34 @37765 has 26 MA's), (42, 37663), (54, 37609), (58,
37594), (59, 37585), (118, 37450), (127, 37414), (148, 37363), (150, 37342), (154, 37321), (164,
37234),

Gene: Marsha_53 Start: 39249, Stop: 38638, Start Num: 35
Candidate Starts for Marsha_53:

(Start: 35 @39249 has 179 MA's), (42, 39150), (54, 39096), (58, 39081), (59, 39072), (118, 38937), (127, 38901), (148, 38850), (150, 38829), (157, 38793), (160, 38760),

Gene: MaryBeth_53 Start: 39046, Stop: 38489, Start Num: 35

Candidate Starts for MaryBeth_53:

(Start: 35 @39046 has 179 MA's), (42, 38947), (54, 38893), (58, 38878), (59, 38869), (118, 38734), (127, 38698), (148, 38644), (150, 38623), (158, 38584),

Gene: MarysWell_49 Start: 37162, Stop: 36695, Start Num: 33

Candidate Starts for MarysWell_49:

(25, 37198), (Start: 33 @37162 has 35 MA's), (42, 37063), (54, 37009), (55, 37006), (56, 37003), (119, 36766), (141, 36712),

Gene: McFly_58 Start: 37009, Stop: 36566, Start Num: 31

Candidate Starts for McFly_58:

(Start: 31 @37009 has 87 MA's), (53, 36865), (54, 36862), (60, 36835), (68, 36769), (82, 36709), (108, 36664),

Gene: McGuire_55 Start: 38290, Stop: 37724, Start Num: 35

Candidate Starts for McGuire_55:

(Start: 35 @38290 has 179 MA's), (42, 38191), (54, 38137), (58, 38122), (59, 38113), (118, 37978), (127, 37942), (148, 37888), (150, 37867), (156, 37846), (167, 37789), (169, 37762),

Gene: MetalQZJ_52 Start: 39046, Stop: 38489, Start Num: 35

Candidate Starts for MetalQZJ_52:

(Start: 35 @39046 has 179 MA's), (42, 38947), (54, 38893), (58, 38878), (59, 38869), (118, 38734), (127, 38698), (148, 38644), (150, 38623), (158, 38584),

Gene: Micasa_49 Start: 37033, Stop: 36539, Start Num: 33

Candidate Starts for Micasa_49:

(Start: 33 @37033 has 35 MA's), (51, 36889), (53, 36883), (54, 36880), (105, 36661), (129, 36583), (144, 36553),

Gene: Michley_53 Start: 37767, Stop: 37369, Start Num: 35

Candidate Starts for Michley_53:

(Start: 35 @37767 has 179 MA's), (42, 37668), (43, 37659), (54, 37614), (58, 37599), (59, 37590), (118, 37455), (136, 37401),

Gene: Midas2_48 Start: 36935, Stop: 36441, Start Num: 33

Candidate Starts for Midas2_48:

(Start: 33 @36935 has 35 MA's), (51, 36791), (53, 36785), (54, 36782), (105, 36563), (129, 36485), (144, 36455),

Gene: Miko_54 Start: 38309, Stop: 37905, Start Num: 31

Candidate Starts for Miko_54:

(4, 38534), (5, 38525), (Start: 31 @38309 has 87 MA's), (50, 38174), (52, 38168), (53, 38165), (54, 38162), (60, 38135), (62, 38108), (68, 38069), (71, 38039), (77, 38024), (95, 37970), (109, 37946),

Gene: Milcery_49 Start: 36816, Stop: 36328, Start Num: 33

Candidate Starts for Milcery_49:

(27, 36846), (Start: 33 @36816 has 35 MA's), (42, 36717), (50, 36675), (51, 36672), (54, 36663), (105, 36444),

Gene: MissWhite_56 Start: 36656, Stop: 36198, Start Num: 31

Candidate Starts for MissWhite_56:

(Start: 31 @36656 has 87 MA's), (50, 36518), (52, 36512), (53, 36509), (54, 36506), (60, 36479), (68, 36413), (120, 36260), (128, 36236), (132, 36227), (144, 36203),

Gene: Molly_54 Start: 37493, Stop: 36939, Start Num: 35

Candidate Starts for Molly_54:

(26, 37535), (Start: 32 @37505 has 4 MA's), (Start: 35 @37493 has 179 MA's), (42, 37394), (54, 37340), (58, 37325), (59, 37316), (118, 37181), (127, 37145), (148, 37094), (150, 37073), (158, 37034),

Gene: Monet_56 Start: 39466, Stop: 39068, Start Num: 35

Candidate Starts for Monet_56:

(Start: 35 @39466 has 179 MA's), (42, 39367), (54, 39313), (58, 39298), (59, 39289), (118, 39154), (136, 39100),

Gene: Moose_53 Start: 37985, Stop: 37419, Start Num: 35

Candidate Starts for Moose_53:

(Start: 35 @37985 has 179 MA's), (42, 37886), (54, 37832), (58, 37817), (59, 37808), (118, 37673), (127, 37637), (148, 37583), (150, 37562), (156, 37541), (167, 37484), (169, 37457),

Gene: MrGordo_53 Start: 38500, Stop: 38102, Start Num: 35

Candidate Starts for MrGordo_53:

(Start: 35 @38500 has 179 MA's), (42, 38401), (54, 38347), (58, 38332), (59, 38323), (118, 38188), (124, 38161), (136, 38134),

Gene: Mryolo_51 Start: 38512, Stop: 37898, Start Num: 35

Candidate Starts for Mryolo_51:

(Start: 35 @38512 has 179 MA's), (42, 38413), (54, 38359), (58, 38344), (59, 38335), (118, 38200), (127, 38164), (148, 38110), (150, 38089), (154, 38068), (157, 38053), (160, 38020),

Gene: Mule_50 Start: 36434, Stop: 36033, Start Num: 34

Candidate Starts for Mule_50:

(Start: 23 @36485 has 1 MA's), (Start: 34 @36434 has 26 MA's), (42, 36332), (54, 36278), (58, 36263), (59, 36254), (118, 36119), (136, 36065),

Gene: Museum_54 Start: 38643, Stop: 38077, Start Num: 35

Candidate Starts for Museum_54:

(26, 38685), (Start: 32 @38655 has 4 MA's), (Start: 35 @38643 has 179 MA's), (42, 38544), (54, 38490), (58, 38475), (59, 38466), (118, 38331), (127, 38295), (148, 38241), (150, 38220), (154, 38199), (163, 38142), (164, 38115),

Gene: NEHalo_51 Start: 38428, Stop: 37814, Start Num: 35

Candidate Starts for NEHalo_51:

(26, 38470), (Start: 32 @38440 has 4 MA's), (Start: 35 @38428 has 179 MA's), (42, 38329), (54, 38275), (58, 38260), (59, 38251), (118, 38116), (127, 38080), (148, 38026), (150, 38005), (154, 37984), (157, 37969), (160, 37936),

Gene: Naca_50 Start: 37309, Stop: 36818, Start Num: 33

Candidate Starts for Naca_50:

(9, 37456), (17, 37375), (27, 37339), (Start: 33 @37309 has 35 MA's), (42, 37210), (50, 37168), (51, 37165), (54, 37156), (100, 36952), (104, 36943), (121, 36886), (144, 36832),

Gene: Naira_56 Start: 40405, Stop: 39839, Start Num: 35

Candidate Starts for Naira_56:

(Start: 35 @40405 has 179 MA's), (42, 40306), (54, 40252), (58, 40237), (59, 40228), (118, 40093), (127, 40057), (148, 40003), (150, 39982), (156, 39961), (167, 39904), (169, 39877),

Gene: Naji_59 Start: 38000, Stop: 37545, Start Num: 35

Candidate Starts for Naji_59:

(Start: 35 @38000 has 179 MA's), (50, 37859), (54, 37847), (57, 37838), (63, 37784), (87, 37709), (95, 37688), (105, 37679), (144, 37565),

Gene: Neeharika16_57 Start: 36469, Stop: 36026, Start Num: 31

Candidate Starts for Neeharika16_57:

(Start: 31 @36469 has 87 MA's), (53, 36325), (54, 36322), (60, 36295), (68, 36229), (82, 36169), (108, 36124),

Gene: Newrala_58 Start: 37011, Stop: 36568, Start Num: 31

Candidate Starts for Newrala_58:

(Start: 31 @37011 has 87 MA's), (53, 36867), (54, 36864), (60, 36837), (68, 36771), (82, 36711), (108, 36666),

Gene: Niza_56 Start: 40289, Stop: 39891, Start Num: 35

Candidate Starts for Niza_56:

(Start: 35 @40289 has 179 MA's), (42, 40190), (54, 40136), (58, 40121), (59, 40112), (118, 39977), (136, 39923),

Gene: Norz_54 Start: 39632, Stop: 39066, Start Num: 34

Candidate Starts for Norz_54:

(11, 39743), (22, 39686), (Start: 34 @39632 has 26 MA's), (42, 39530), (54, 39476), (58, 39461), (59, 39452), (118, 39317), (127, 39281), (148, 39230), (150, 39209), (154, 39188), (164, 39104),

Gene: Odin_55 Start: 37059, Stop: 36571, Start Num: 31

Candidate Starts for Odin_55:

(Start: 31 @37059 has 87 MA's), (39, 36984), (49, 36921), (50, 36915), (54, 36903), (67, 36801), (99, 36714), (143, 36582),

Gene: Ohno789_55 Start: 39227, Stop: 38613, Start Num: 35

Candidate Starts for Ohno789_55:

(Start: 35 @39227 has 179 MA's), (42, 39128), (54, 39074), (58, 39059), (59, 39050), (118, 38915), (127, 38879), (148, 38828), (150, 38807),

Gene: Oogway_52 Start: 38320, Stop: 37736, Start Num: 34

Candidate Starts for Oogway_52:

(11, 38431), (Start: 34 @38320 has 26 MA's), (42, 38218), (54, 38164), (58, 38149), (59, 38140), (94, 38020), (127, 37957), (148, 37903), (150, 37882), (154, 37861), (164, 37774),

Gene: PP_55 Start: 41225, Stop: 40698, Start Num: 24

Candidate Starts for PP_55:

(10, 41300), (14, 41264), (Start: 24 @41225 has 1 MA's), (Start: 31 @41198 has 87 MA's), (42, 41075), (54, 41021), (57, 41012), (59, 40997), (114, 40829), (127, 40778), (138, 40748), (144, 40730),

Gene: PSullivan_53 Start: 37380, Stop: 36901, Start Num: 35

Candidate Starts for PSullivan_53:

(26, 37422), (Start: 32 @37392 has 4 MA's), (Start: 35 @37380 has 179 MA's), (42, 37281), (54, 37227), (58, 37212), (59, 37203), (73, 37083), (118, 36987), (136, 36933),

Gene: PacerPaul_53 Start: 38994, Stop: 38596, Start Num: 35

Candidate Starts for PacerPaul_53:

(Start: 35 @38994 has 179 MA's), (42, 38895), (54, 38841), (58, 38826), (59, 38817), (118, 38682), (136, 38628),

Gene: PainterBoy_58 Start: 38029, Stop: 37562, Start Num: 31

Candidate Starts for PainterBoy_58:

(Start: 31 @38029 has 87 MA's), (49, 37891), (54, 37873), (63, 37795), (65, 37777), (67, 37771), (75, 37735), (117, 37648), (129, 37600), (143, 37573),

Gene: Papez_56 Start: 40588, Stop: 40022, Start Num: 35

Candidate Starts for Papez_56:

(Start: 35 @40588 has 179 MA's), (42, 40489), (54, 40435), (58, 40420), (59, 40411), (118, 40276), (127, 40240), (148, 40186), (150, 40165), (156, 40144), (167, 40087), (169, 40060),

Gene: Paphu_51 Start: 37777, Stop: 37160, Start Num: 35

Candidate Starts for Paphu_51:

(26, 37819), (Start: 32 @37789 has 4 MA's), (Start: 35 @37777 has 179 MA's), (42, 37678), (54, 37624), (58, 37609), (59, 37600), (118, 37465), (127, 37429), (148, 37375), (150, 37354),

Gene: Paraselene_51 Start: 39100, Stop: 38486, Start Num: 35

Candidate Starts for Paraselene_51:

(Start: 35 @39100 has 179 MA's), (42, 39001), (54, 38947), (58, 38932), (59, 38923), (118, 38788), (127, 38752), (148, 38698), (150, 38677), (154, 38656), (157, 38641), (160, 38608),

Gene: Pari_55 Start: 38216, Stop: 37557, Start Num: 32

Candidate Starts for Pari_55:

(Start: 32 @38216 has 4 MA's), (Start: 35 @38204 has 179 MA's), (42, 38105), (54, 38051), (58, 38036), (59, 38027), (73, 37907), (118, 37811), (127, 37775), (148, 37721), (150, 37700), (154, 37679), (163, 37622), (164, 37595),

Gene: Parliament_53 Start: 38723, Stop: 38079, Start Num: 35

Candidate Starts for Parliament_53:

(Start: 35 @38723 has 179 MA's), (42, 38624), (54, 38570), (58, 38555), (59, 38546), (73, 38426), (118, 38330), (127, 38294), (148, 38243), (150, 38222), (156, 38201), (169, 38117),

Gene: PascalRango_54 Start: 38941, Stop: 38375, Start Num: 35

Candidate Starts for PascalRango_54:

(Start: 35 @38941 has 179 MA's), (42, 38842), (54, 38788), (58, 38773), (59, 38764), (118, 38629), (127, 38593), (148, 38539), (150, 38518), (156, 38497), (167, 38440), (169, 38413),

Gene: Payneful_52 Start: 38445, Stop: 38047, Start Num: 35

Candidate Starts for Payneful_52:

(Start: 35 @38445 has 179 MA's), (42, 38346), (54, 38292), (58, 38277), (59, 38268), (118, 38133), (136, 38079),

Gene: Pelly_53 Start: 38399, Stop: 37998, Start Num: 34

Candidate Starts for Pelly_53:

(Start: 23 @38450 has 1 MA's), (Start: 34 @38399 has 26 MA's), (42, 38297), (54, 38243), (58, 38228), (59, 38219), (118, 38084), (136, 38030),

Gene: Pepe_50 Start: 37214, Stop: 36804, Start Num: 35
Candidate Starts for Pepe_50:
(Start: 35 @37214 has 179 MA's), (42, 37115), (54, 37061), (58, 37046), (59, 37037), (118, 36902),
(136, 36836),

Gene: Perseus_53 Start: 39320, Stop: 38919, Start Num: 34
Candidate Starts for Perseus_53:
(Start: 23 @39371 has 1 MA's), (Start: 34 @39320 has 26 MA's), (42, 39218), (54, 39164), (58,
39149), (59, 39140), (118, 39005), (136, 38951),

Gene: Peterson_58 Start: 40881, Stop: 40273, Start Num: 35
Candidate Starts for Peterson_58:
(Start: 35 @40881 has 179 MA's), (42, 40782), (54, 40728), (58, 40713), (59, 40704), (118, 40569),
(127, 40539), (148, 40485), (150, 40464), (154, 40443), (157, 40428), (160, 40395),

Gene: Petp2012_54 Start: 38452, Stop: 37898, Start Num: 35
Candidate Starts for Petp2012_54:
(15, 38536), (26, 38494), (Start: 32 @38464 has 4 MA's), (Start: 35 @38452 has 179 MA's), (42,
38353), (54, 38299), (58, 38284), (59, 38275), (118, 38140), (127, 38104), (148, 38053), (150, 38032),
(158, 37993),

Gene: Petruccio_53 Start: 38090, Stop: 37635, Start Num: 35
Candidate Starts for Petruccio_53:
(Start: 35 @38090 has 179 MA's), (42, 37991), (54, 37937), (58, 37922), (59, 37913), (95, 37796),
(103, 37766), (106, 37757), (111, 37745), (118, 37721), (136, 37667),

Gene: PetterN_54 Start: 36924, Stop: 36436, Start Num: 33
Candidate Starts for PetterN_54:
(Start: 33 @36924 has 35 MA's), (42, 36825), (50, 36783), (51, 36780), (54, 36771), (57, 36762), (104,
36558), (144, 36450),

Gene: Ph8s_58 Start: 37416, Stop: 36925, Start Num: 31
Candidate Starts for Ph8s_58:
(2, 37707), (5, 37632), (Start: 31 @37416 has 87 MA's), (49, 37275), (50, 37269), (54, 37257), (67,
37155), (99, 37068),

Gene: Pharaoh_52 Start: 38002, Stop: 37490, Start Num: 31
Candidate Starts for Pharaoh_52:
(Start: 31 @38002 has 87 MA's), (40, 37918), (50, 37849), (51, 37846), (54, 37837), (55, 37834), (64,
37765), (70, 37732), (139, 37549), (151, 37501), (152, 37495),

Gene: PherrisBueller_53 Start: 37363, Stop: 36890, Start Num: 35
Candidate Starts for PherrisBueller_53:
(Start: 35 @37363 has 179 MA's), (42, 37264), (54, 37210), (58, 37195), (59, 37186), (95, 37069),
(103, 37021), (106, 37012), (111, 37000), (118, 36976), (136, 36922),

Gene: Phillis_55 Start: 36641, Stop: 36165, Start Num: 31
Candidate Starts for Phillis_55:
(Start: 31 @36641 has 87 MA's), (45, 36524), (50, 36488), (53, 36479), (54, 36476), (83, 36344), (131,
36209), (145, 36176),

Gene: Phlorence_47 Start: 36408, Stop: 35941, Start Num: 33

Candidate Starts for Phlorence_47:

(Start: 33 @36408 has 35 MA's), (42, 36309), (54, 36255), (55, 36252), (56, 36249), (119, 36012), (141, 35958),

Gene: PhrostyMug_52 Start: 38599, Stop: 38198, Start Num: 34

Candidate Starts for PhrostyMug_52:

(Start: 23 @38650 has 1 MA's), (Start: 34 @38599 has 26 MA's), (42, 38497), (54, 38443), (58, 38428), (59, 38419), (118, 38284), (136, 38230),

Gene: PickleBack_49 Start: 36655, Stop: 36188, Start Num: 33

Candidate Starts for PickleBack_49:

(Start: 33 @36655 has 35 MA's), (42, 36556), (54, 36502), (55, 36499), (56, 36496), (119, 36259), (141, 36205),

Gene: PinkPlastic_54 Start: 38325, Stop: 37675, Start Num: 35

Candidate Starts for PinkPlastic_54:

(Start: 35 @38325 has 179 MA's), (42, 38226), (54, 38172), (58, 38157), (59, 38148), (73, 38028), (118, 37932), (127, 37896), (148, 37842), (150, 37821), (156, 37800), (169, 37713),

Gene: Pinto_53 Start: 38711, Stop: 38067, Start Num: 35

Candidate Starts for Pinto_53:

(26, 38753), (Start: 32 @38723 has 4 MA's), (Start: 35 @38711 has 179 MA's), (42, 38612), (54, 38558), (58, 38543), (59, 38534), (73, 38414), (118, 38318), (127, 38282), (148, 38231), (150, 38210), (154, 38189), (164, 38105),

Gene: Pippin_55 Start: 38617, Stop: 38000, Start Num: 35

Candidate Starts for Pippin_55:

(Start: 35 @38617 has 179 MA's), (42, 38518), (54, 38464), (58, 38449), (59, 38440), (118, 38305), (127, 38269), (148, 38215), (150, 38194),

Gene: Pita2_56 Start: 38877, Stop: 38398, Start Num: 35

Candidate Starts for Pita2_56:

(26, 38919), (Start: 32 @38889 has 4 MA's), (Start: 35 @38877 has 179 MA's), (42, 38778), (54, 38724), (58, 38709), (59, 38700), (73, 38580), (118, 38484), (136, 38430),

Gene: Pmask_58 Start: 37012, Stop: 36569, Start Num: 31

Candidate Starts for Pmask_58:

(Start: 31 @37012 has 87 MA's), (53, 36868), (54, 36865), (60, 36838), (68, 36772), (82, 36712), (108, 36667),

Gene: Pomar16_59 Start: 38040, Stop: 37585, Start Num: 35

Candidate Starts for Pomar16_59:

(Start: 35 @38040 has 179 MA's), (50, 37899), (54, 37887), (57, 37878), (63, 37824), (87, 37749), (95, 37728), (105, 37719), (144, 37605),

Gene: Power_56 Start: 38208, Stop: 37714, Start Num: 31

Candidate Starts for Power_56:

(Start: 31 @38208 has 87 MA's), (50, 38070), (52, 38064), (53, 38061), (54, 38058), (60, 38031), (62, 38004), (68, 37965), (98, 37851), (122, 37776),

Gene: Priamo_60 Start: 36762, Stop: 36328, Start Num: 31

Candidate Starts for Priamo_60:

(Start: 31 @36762 has 87 MA's), (53, 36618), (54, 36615), (60, 36588), (68, 36522), (108, 36417), (142, 36339),

Gene: QueenB2_56 Start: 38186, Stop: 37692, Start Num: 31

Candidate Starts for QueenB2_56:

(Start: 31 @38186 has 87 MA's), (50, 38048), (52, 38042), (53, 38039), (54, 38036), (60, 38009), (62, 37982), (68, 37943), (71, 37913), (77, 37892), (79, 37886),

Gene: QueenBeesly_57 Start: 38155, Stop: 37661, Start Num: 31

Candidate Starts for QueenBeesly_57:

(Start: 31 @38155 has 87 MA's), (50, 38017), (52, 38011), (53, 38008), (54, 38005), (60, 37978), (62, 37951), (68, 37912), (71, 37882), (98, 37798), (122, 37723),

Gene: Rachaly_56 Start: 38454, Stop: 38050, Start Num: 31

Candidate Starts for Rachaly_56:

(4, 38679), (5, 38670), (Start: 31 @38454 has 87 MA's), (50, 38319), (52, 38313), (53, 38310), (54, 38307), (60, 38280), (62, 38253), (68, 38214), (71, 38184), (95, 38115), (109, 38091),

Gene: Rahalelujah_57 Start: 37729, Stop: 37271, Start Num: 31

Candidate Starts for Rahalelujah_57:

(Start: 31 @37729 has 87 MA's), (50, 37591), (52, 37585), (53, 37582), (54, 37579), (60, 37552), (62, 37525), (68, 37486), (97, 37405), (122, 37333), (144, 37276),

Gene: Rajelicia_54 Start: 39566, Stop: 39009, Start Num: 35

Candidate Starts for Rajelicia_54:

(Start: 35 @39566 has 179 MA's), (42, 39467), (54, 39413), (58, 39398), (59, 39389), (118, 39254), (127, 39218), (148, 39164), (150, 39143), (158, 39104),

Gene: Refuge_55 Start: 39270, Stop: 38728, Start Num: 31

Candidate Starts for Refuge_55:

(3, 39543), (4, 39495), (5, 39486), (Start: 31 @39270 has 87 MA's), (42, 39171), (50, 39123), (54, 39111), (58, 39096), (78, 38964), (93, 38913), (147, 38766), (152, 38733),

Gene: Rhynn_52 Start: 37733, Stop: 37335, Start Num: 35

Candidate Starts for Rhynn_52:

(Start: 35 @37733 has 179 MA's), (42, 37634), (54, 37580), (58, 37565), (59, 37556), (118, 37421), (136, 37367),

Gene: RidgeCB_53 Start: 38830, Stop: 38195, Start Num: 35

Candidate Starts for RidgeCB_53:

(Start: 35 @38830 has 179 MA's), (42, 38731), (54, 38677), (58, 38662), (59, 38653), (73, 38533), (118, 38437), (127, 38401), (148, 38350), (150, 38329), (158, 38290),

Gene: Rifter_59 Start: 36599, Stop: 36162, Start Num: 31

Candidate Starts for Rifter_59:

(Start: 31 @36599 has 87 MA's), (53, 36455), (54, 36452), (60, 36425), (68, 36359), (108, 36251), (142, 36173),

Gene: Ringer_54 Start: 39883, Stop: 39317, Start Num: 35

Candidate Starts for Ringer_54:

(Start: 35 @39883 has 179 MA's), (42, 39784), (54, 39730), (58, 39715), (59, 39706), (118, 39571), (127, 39535), (148, 39481), (150, 39460), (156, 39439), (169, 39355),

Gene: Rohr_54 Start: 38557, Stop: 38078, Start Num: 35

Candidate Starts for Rohr_54:

(26, 38599), (Start: 32 @38569 has 4 MA's), (Start: 35 @38557 has 179 MA's), (42, 38458), (54, 38404), (58, 38389), (59, 38380), (73, 38260), (118, 38164), (136, 38110),

Gene: Roksolana_60 Start: 37433, Stop: 36996, Start Num: 31

Candidate Starts for Roksolana_60:

(Start: 31 @37433 has 87 MA's), (53, 37289), (54, 37286), (60, 37259), (68, 37193), (108, 37085), (142, 37007),

Gene: Rubeus_53 Start: 36498, Stop: 35935, Start Num: 35

Candidate Starts for Rubeus_53:

(26, 36540), (Start: 32 @36510 has 4 MA's), (Start: 35 @36498 has 179 MA's), (42, 36399), (54, 36345), (58, 36330), (59, 36321), (118, 36186), (127, 36150), (148, 36099), (150, 36078), (154, 36057), (164, 35973),

Gene: Rufus_54 Start: 38103, Stop: 37705, Start Num: 35

Candidate Starts for Rufus_54:

(26, 38145), (Start: 32 @38115 has 4 MA's), (Start: 35 @38103 has 179 MA's), (42, 38004), (54, 37950), (58, 37935), (59, 37926), (118, 37791), (136, 37737),

Gene: Ruotula_56 Start: 39803, Stop: 39174, Start Num: 35

Candidate Starts for Ruotula_56:

(Start: 35 @39803 has 179 MA's), (42, 39704), (54, 39650), (58, 39635), (59, 39626), (118, 39491), (127, 39455), (148, 39401), (150, 39380),

Gene: Rutherferd_55 Start: 38949, Stop: 38551, Start Num: 35

Candidate Starts for Rutherferd_55:

(Start: 35 @38949 has 179 MA's), (42, 38850), (54, 38796), (58, 38781), (59, 38772), (118, 38637), (124, 38610), (136, 38583),

Gene: STLscum_56 Start: 39588, Stop: 38947, Start Num: 35

Candidate Starts for STLscum_56:

(Start: 35 @39588 has 179 MA's), (42, 39489), (54, 39435), (58, 39420), (59, 39411), (102, 39282), (116, 39237), (118, 39225), (127, 39189), (148, 39135), (150, 39114), (158, 39075), (162, 39042),

Gene: Sagefire_56 Start: 39529, Stop: 38915, Start Num: 35

Candidate Starts for Sagefire_56:

(Start: 35 @39529 has 179 MA's), (42, 39430), (54, 39376), (58, 39361), (59, 39352), (118, 39217), (127, 39181), (148, 39127), (150, 39106), (158, 39067),

Gene: Sandaddy_52 Start: 38282, Stop: 37716, Start Num: 35

Candidate Starts for Sandaddy_52:

(Start: 35 @38282 has 179 MA's), (42, 38183), (54, 38129), (58, 38114), (59, 38105), (118, 37970), (127, 37934), (148, 37880), (150, 37859), (156, 37838), (169, 37754),

Gene: Sanya_51 Start: 38572, Stop: 38009, Start Num: 35

Candidate Starts for Sanya_51:

(Start: 35 @38572 has 179 MA's), (42, 38473), (54, 38419), (58, 38404), (59, 38395), (118, 38260), (127, 38224), (148, 38173), (150, 38152), (156, 38131), (169, 38047),

Gene: SarFire_51 Start: 37844, Stop: 37278, Start Num: 35

Candidate Starts for SarFire_51:

(Start: 35 @37844 has 179 MA's), (42, 37745), (54, 37691), (58, 37676), (59, 37667), (118, 37532), (148, 37442), (150, 37421), (156, 37400), (169, 37316),

Gene: Scorpia_54 Start: 36983, Stop: 36492, Start Num: 33

Candidate Starts for Scorpia_54:

(Start: 33 @36983 has 35 MA's), (42, 36884), (50, 36842), (51, 36839), (54, 36830), (57, 36821), (100, 36626), (104, 36617), (121, 36560), (144, 36506),

Gene: Scowl_54 Start: 38673, Stop: 38194, Start Num: 35

Candidate Starts for Scowl_54:

(Start: 35 @38673 has 179 MA's), (42, 38574), (54, 38520), (58, 38505), (59, 38496), (73, 38376), (118, 38280), (136, 38226),

Gene: Seabiscuit_56 Start: 38458, Stop: 37811, Start Num: 35

Candidate Starts for Seabiscuit_56:

(Start: 35 @38458 has 179 MA's), (42, 38359), (54, 38305), (58, 38290), (59, 38281), (73, 38161), (118, 38065), (127, 38029), (148, 37975), (150, 37954), (156, 37933), (167, 37876), (169, 37849),

Gene: Seanderson_55 Start: 40050, Stop: 39571, Start Num: 35

Candidate Starts for Seanderson_55:

(Start: 35 @40050 has 179 MA's), (42, 39951), (54, 39897), (58, 39882), (59, 39873), (73, 39753), (118, 39657), (136, 39603),

Gene: SemperFi_58 Start: 38423, Stop: 37929, Start Num: 31

Candidate Starts for SemperFi_58:

(Start: 31 @38423 has 87 MA's), (50, 38285), (52, 38279), (53, 38276), (54, 38273), (60, 38246), (62, 38219), (68, 38180), (71, 38150), (98, 38066), (122, 37991),

Gene: Serenity_57 Start: 37359, Stop: 36895, Start Num: 31

Candidate Starts for Serenity_57:

(Start: 31 @37359 has 87 MA's), (50, 37221), (52, 37215), (53, 37212), (54, 37209), (60, 37182), (62, 37155), (68, 37116), (95, 37035), (101, 37023), (125, 36945),

Gene: SheaKeira_55 Start: 37666, Stop: 37181, Start Num: 35

Candidate Starts for SheaKeira_55:

(Start: 35 @37666 has 179 MA's), (42, 37567), (54, 37513), (83, 37360), (95, 37327), (105, 37321), (123, 37264),

Gene: Sheen_55 Start: 40022, Stop: 39528, Start Num: 35

Candidate Starts for Sheen_55:

(Start: 35 @40022 has 179 MA's), (41, 39926), (54, 39869), (57, 39860), (59, 39845), (87, 39707),

Gene: ShortQueendom_47 Start: 35302, Stop: 34736, Start Num: 34

Candidate Starts for ShortQueendom_47:

(6, 35488), (19, 35368), (Start: 34 @35302 has 26 MA's), (37, 35269), (42, 35203), (54, 35149), (58, 35134), (59, 35125), (118, 34990), (127, 34954), (148, 34900), (150, 34879), (154, 34858), (164, 34774),

Gene: Sibs6_55 Start: 37137, Stop: 36739, Start Num: 35

Candidate Starts for Sibs6_55:

(26, 37179), (Start: 32 @37149 has 4 MA's), (Start: 35 @37137 has 179 MA's), (42, 37038), (54, 36984), (58, 36969), (59, 36960), (118, 36825), (136, 36771),

Gene: SkiPole_58 Start: 39258, Stop: 38668, Start Num: 35

Candidate Starts for SkiPole_58:

(Start: 35 @39258 has 179 MA's), (42, 39159), (54, 39105), (58, 39090), (59, 39081), (118, 38946), (127, 38910), (148, 38856), (150, 38835), (158, 38796), (162, 38763),

Gene: Slagathor_55 Start: 39464, Stop: 38910, Start Num: 35

Candidate Starts for Slagathor_55:

(26, 39506), (Start: 32 @39476 has 4 MA's), (Start: 35 @39464 has 179 MA's), (42, 39365), (54, 39311), (58, 39296), (59, 39287), (118, 39152), (127, 39116), (148, 39065), (150, 39044), (158, 39005),

Gene: Smairt_55 Start: 39592, Stop: 39191, Start Num: 34

Candidate Starts for Smairt_55:

(Start: 23 @39643 has 1 MA's), (Start: 34 @39592 has 26 MA's), (42, 39490), (54, 39436), (58, 39421), (59, 39412), (118, 39277), (136, 39223),

Gene: Smeadley_56 Start: 36818, Stop: 36348, Start Num: 31

Candidate Starts for Smeadley_56:

(1, 37103), (8, 36944), (Start: 31 @36818 has 87 MA's), (45, 36701), (50, 36665), (53, 36656), (54, 36653), (83, 36527), (126, 36410), (145, 36359),

Gene: Smeagol_55 Start: 39706, Stop: 39155, Start Num: 32

Candidate Starts for Smeagol_55:

(Start: 32 @39706 has 4 MA's), (Start: 35 @39694 has 179 MA's), (42, 39595), (54, 39541), (58, 39526), (59, 39517), (118, 39382), (127, 39346), (148, 39322), (150, 39301), (154, 39280), (164, 39193),

Gene: SmellyB_58 Start: 37009, Stop: 36566, Start Num: 31

Candidate Starts for SmellyB_58:

(Start: 31 @37009 has 87 MA's), (53, 36865), (54, 36862), (60, 36835), (68, 36769), (82, 36709), (108, 36664),

Gene: SnapTap_57 Start: 38234, Stop: 37740, Start Num: 31

Candidate Starts for SnapTap_57:

(Start: 31 @38234 has 87 MA's), (50, 38096), (52, 38090), (53, 38087), (54, 38084), (60, 38057), (62, 38030), (68, 37991), (71, 37961), (98, 37877), (122, 37802),

Gene: Snazzy_52 Start: 37911, Stop: 37345, Start Num: 34

Candidate Starts for Snazzy_52:

(6, 38097), (19, 37977), (Start: 34 @37911 has 26 MA's), (37, 37878), (42, 37812), (54, 37758), (58, 37743), (59, 37734), (118, 37599), (127, 37563), (148, 37509), (150, 37488), (154, 37467), (164, 37383),

Gene: Solon_52 Start: 38166, Stop: 37603, Start Num: 35

Candidate Starts for Solon_52:

(Start: 35 @38166 has 179 MA's), (42, 38067), (54, 38013), (58, 37998), (59, 37989), (118, 37854), (127, 37818), (148, 37767), (150, 37746), (156, 37725), (169, 37641),

Gene: SororFago_59 Start: 39270, Stop: 38767, Start Num: 30

Candidate Starts for SororFago_59:

(Start: 30 @39270 has 2 MA's), (50, 39135), (52, 39129), (53, 39126), (54, 39123), (60, 39096), (62, 39069), (68, 39030), (71, 39000), (77, 38979), (136, 38796),

Gene: Sorpresa_51 Start: 38284, Stop: 37718, Start Num: 35

Candidate Starts for Sorpresa_51:

(Start: 35 @38284 has 179 MA's), (42, 38185), (54, 38131), (58, 38116), (59, 38107), (118, 37972), (127, 37936), (148, 37882), (150, 37861), (156, 37840), (169, 37756),

Gene: SpikeBT_53 Start: 38361, Stop: 37963, Start Num: 35

Candidate Starts for SpikeBT_53:

(Start: 35 @38361 has 179 MA's), (42, 38262), (54, 38208), (58, 38193), (59, 38184), (118, 38049), (124, 38022), (136, 37995),

Gene: Squee_54 Start: 38872, Stop: 38306, Start Num: 35

Candidate Starts for Squee_54:

(Start: 35 @38872 has 179 MA's), (42, 38773), (54, 38719), (58, 38704), (59, 38695), (118, 38560), (127, 38524), (148, 38470), (150, 38449), (156, 38428), (167, 38371), (169, 38344),

Gene: StarStuff_59 Start: 38002, Stop: 37547, Start Num: 35

Candidate Starts for StarStuff_59:

(Start: 35 @38002 has 179 MA's), (50, 37861), (54, 37849), (57, 37840), (63, 37786), (87, 37711), (95, 37690), (105, 37681), (144, 37567),

Gene: Steamy_53 Start: 37734, Stop: 37234, Start Num: 31

Candidate Starts for Steamy_53:

(4, 37959), (5, 37950), (Start: 31 @37734 has 87 MA's), (36, 37725), (46, 37611), (50, 37596), (53, 37587), (54, 37584), (60, 37557), (62, 37530), (68, 37491), (72, 37458), (81, 37428), (86, 37413),

Gene: Stephig9_56 Start: 36929, Stop: 36414, Start Num: 31

Candidate Starts for Stephig9_56:

(8, 37055), (Start: 31 @36929 has 87 MA's), (44, 36815), (45, 36812), (53, 36767), (54, 36764), (76, 36617), (83, 36593), (91, 36572), (126, 36476), (145, 36425),

Gene: StewieG_52 Start: 35689, Stop: 35123, Start Num: 35

Candidate Starts for StewieG_52:

(Start: 35 @35689 has 179 MA's), (42, 35590), (54, 35536), (58, 35521), (59, 35512), (118, 35377), (127, 35341), (148, 35290), (150, 35269), (156, 35248), (169, 35161),

Gene: Sumter_50 Start: 38825, Stop: 38259, Start Num: 35

Candidate Starts for Sumter_50:

(Start: 35 @38825 has 179 MA's), (42, 38726), (54, 38672), (58, 38657), (59, 38648), (118, 38513), (127, 38477), (148, 38423), (150, 38402), (156, 38381), (167, 38324), (169, 38297),

Gene: Sunshine924_55 Start: 37963, Stop: 37409, Start Num: 35

Candidate Starts for Sunshine924_55:

(Start: 35 @37963 has 179 MA's), (42, 37864), (54, 37810), (58, 37795), (59, 37786), (118, 37651), (127, 37615), (148, 37564), (150, 37543), (158, 37504), (166, 37426),

Gene: SuperAwesome_58 Start: 37014, Stop: 36580, Start Num: 31

Candidate Starts for SuperAwesome_58:

(Start: 31 @37014 has 87 MA's), (53, 36870), (54, 36867), (60, 36840), (68, 36774), (82, 36714),

Gene: SuperCallie99_57 Start: 36896, Stop: 36453, Start Num: 31

Candidate Starts for SuperCallie99_57:

(Start: 31 @36896 has 87 MA's), (53, 36752), (54, 36749), (60, 36722), (68, 36656), (82, 36596), (108, 36551),

Gene: Superchunk_55 Start: 36675, Stop: 36196, Start Num: 31

Candidate Starts for Superchunk_55:

(5, 36891), (Start: 31 @36675 has 87 MA's), (49, 36513), (50, 36507), (54, 36495), (67, 36393), (91, 36324), (95, 36312), (113, 36270), (133, 36201),

Gene: SweetiePie_57 Start: 38366, Stop: 37872, Start Num: 31

Candidate Starts for SweetiePie_57:

(Start: 31 @38366 has 87 MA's), (50, 38228), (52, 38222), (53, 38219), (54, 38216), (60, 38189), (62, 38162), (68, 38123), (71, 38093), (98, 38009), (122, 37934),

Gene: SwirlSquare_62 Start: 37597, Stop: 37061, Start Num: 31

Candidate Starts for SwirlSquare_62:

(Start: 31 @37597 has 87 MA's), (39, 37522), (49, 37459), (50, 37453), (54, 37441), (67, 37339), (75, 37288), (95, 37240), (100, 37234), (121, 37168), (140, 37123), (153, 37066),

Gene: SwissCheese_55 Start: 38485, Stop: 37919, Start Num: 35

Candidate Starts for SwissCheese_55:

(Start: 35 @38485 has 179 MA's), (42, 38386), (54, 38332), (58, 38317), (59, 38308), (118, 38173), (127, 38137), (148, 38083), (150, 38062), (156, 38041), (167, 37984), (169, 37957),

Gene: Switzer_55 Start: 39397, Stop: 38831, Start Num: 35

Candidate Starts for Switzer_55:

(Start: 35 @39397 has 179 MA's), (42, 39298), (54, 39244), (58, 39229), (59, 39220), (118, 39085), (127, 39049), (148, 38995), (150, 38974), (156, 38953), (167, 38896), (169, 38869),

Gene: Swole_54 Start: 37668, Stop: 37102, Start Num: 35

Candidate Starts for Swole_54:

(26, 37710), (Start: 32 @37680 has 4 MA's), (Start: 35 @37668 has 179 MA's), (42, 37569), (54, 37515), (58, 37500), (59, 37491), (118, 37356), (127, 37320), (148, 37266), (150, 37245), (154, 37224), (163, 37167), (164, 37140),

Gene: SydNat_52 Start: 37663, Stop: 37196, Start Num: 33

Candidate Starts for SydNat_52:

(25, 37699), (Start: 33 @37663 has 35 MA's), (42, 37564), (54, 37510), (55, 37507), (56, 37504), (57, 37501), (119, 37267), (141, 37213),

Gene: Target_54 Start: 37073, Stop: 36507, Start Num: 35

Candidate Starts for Target_54:

(Start: 35 @37073 has 179 MA's), (42, 36974), (54, 36920), (58, 36905), (59, 36896), (118, 36761), (127, 36725), (148, 36671), (150, 36650), (156, 36629), (169, 36545),

Gene: Tasp14_55 Start: 38871, Stop: 38200, Start Num: 35

Candidate Starts for Tasp14_55:

(Start: 35 @38871 has 179 MA's), (42, 38772), (54, 38718), (58, 38703), (59, 38694), (94, 38574), (118, 38478), (127, 38442), (148, 38388), (150, 38367), (158, 38328), (162, 38295),

Gene: Teodoridan_52 Start: 37810, Stop: 37400, Start Num: 35

Candidate Starts for Teodoridan_52:

(Start: 35 @37810 has 179 MA's), (42, 37711), (54, 37657), (58, 37642), (59, 37633), (118, 37498), (136, 37432),

Gene: Theia_48 Start: 37140, Stop: 36673, Start Num: 33

Candidate Starts for Theia_48:

(25, 37176), (Start: 33 @37140 has 35 MA's), (42, 37041), (54, 36987), (55, 36984), (56, 36981), (58, 36972), (119, 36744), (141, 36690),

Gene: TheloniousMonk_54 Start: 40538, Stop: 39924, Start Num: 35

Candidate Starts for TheloniousMonk_54:

(Start: 35 @40538 has 179 MA's), (42, 40439), (54, 40385), (58, 40370), (59, 40361), (118, 40226), (127, 40190), (148, 40136), (150, 40115), (154, 40094), (157, 40079), (160, 40046),

Gene: Thor_51 Start: 37202, Stop: 36636, Start Num: 35

Candidate Starts for Thor_51:

(Start: 35 @37202 has 179 MA's), (42, 37103), (54, 37049), (58, 37034), (59, 37025), (118, 36890), (148, 36800), (150, 36779), (156, 36758), (169, 36674),

Gene: Tiger_48 Start: 36329, Stop: 35862, Start Num: 33

Candidate Starts for Tiger_48:

(Start: 33 @36329 has 35 MA's), (42, 36230), (54, 36176), (55, 36173), (56, 36170), (119, 35933), (141, 35879),

Gene: Timshel_51 Start: 38839, Stop: 38318, Start Num: 35

Candidate Starts for Timshel_51:

(16, 38905), (18, 38899), (Start: 35 @38839 has 179 MA's), (42, 38740), (48, 38707), (54, 38686), (55, 38683), (57, 38677), (58, 38671), (92, 38488),

Gene: TipsytheTRex_53 Start: 37429, Stop: 36965, Start Num: 31

Candidate Starts for TipsytheTRex_53:

(Start: 31 @37429 has 87 MA's), (52, 37285), (53, 37282), (54, 37279), (60, 37252), (62, 37225), (68, 37186), (95, 37105), (101, 37093), (125, 37015),

Gene: Toaka_57 Start: 37937, Stop: 37467, Start Num: 31

Candidate Starts for Toaka_57:

(Start: 31 @37937 has 87 MA's), (46, 37814), (50, 37799), (53, 37790), (54, 37787), (60, 37760), (62, 37733), (68, 37694), (95, 37604), (110, 37574), (144, 37472),

Gene: Tomathan_59 Start: 38049, Stop: 37594, Start Num: 35

Candidate Starts for Tomathan_59:

(Start: 35 @38049 has 179 MA's), (50, 37908), (54, 37896), (57, 37887), (63, 37833), (95, 37737), (105, 37728), (144, 37614),

Gene: ToneTone_56 Start: 37032, Stop: 36589, Start Num: 31

Candidate Starts for ToneTone_56:

(Start: 31 @37032 has 87 MA's), (53, 36888), (54, 36885), (60, 36858), (68, 36792), (82, 36732), (108, 36687),

Gene: Topgun_53 Start: 38055, Stop: 37489, Start Num: 35

Candidate Starts for Topgun_53:

(Start: 35 @38055 has 179 MA's), (42, 37956), (54, 37902), (58, 37887), (59, 37878), (118, 37743), (127, 37707), (148, 37656), (150, 37635), (156, 37614), (169, 37527),

Gene: Tote_49 Start: 34947, Stop: 34369, Start Num: 32

Candidate Starts for Tote_49:

(26, 34977), (Start: 32 @34947 has 4 MA's), (Start: 35 @34935 has 179 MA's), (42, 34836), (54, 34782), (58, 34767), (59, 34758), (118, 34623), (127, 34587), (148, 34533), (150, 34512), (154,

34491), (163, 34434), (164, 34407),

Gene: Traft412_56 Start: 39446, Stop: 38832, Start Num: 35

Candidate Starts for Traft412_56:

(Start: 35 @39446 has 179 MA's), (42, 39347), (54, 39293), (58, 39278), (59, 39269), (118, 39134), (127, 39098), (148, 39044), (150, 39023), (154, 39002), (157, 38987), (160, 38954),

Gene: Treddle_54 Start: 38978, Stop: 38580, Start Num: 35

Candidate Starts for Treddle_54:

(Start: 35 @38978 has 179 MA's), (42, 38879), (54, 38825), (58, 38810), (59, 38801), (118, 38666), (136, 38612),

Gene: Tripl3t_53 Start: 39615, Stop: 39205, Start Num: 35

Candidate Starts for Tripl3t_53:

(Start: 32 @39627 has 4 MA's), (Start: 35 @39615 has 179 MA's), (42, 39516), (54, 39462), (58, 39447), (59, 39438), (118, 39303), (146, 39237),

Gene: Trixie_55 Start: 38251, Stop: 37799, Start Num: 31

Candidate Starts for Trixie_55:

(Start: 31 @38251 has 87 MA's), (50, 38113), (52, 38107), (53, 38104), (54, 38101), (60, 38074), (62, 38047), (68, 38008), (88, 37927),

Gene: Trouble_56 Start: 39709, Stop: 39311, Start Num: 35

Candidate Starts for Trouble_56:

(Start: 35 @39709 has 179 MA's), (42, 39610), (54, 39556), (58, 39541), (59, 39532), (118, 39397), (136, 39343),

Gene: Tucker_59 Start: 37201, Stop: 36758, Start Num: 31

Candidate Starts for Tucker_59:

(Start: 31 @37201 has 87 MA's), (53, 37057), (54, 37054), (60, 37027), (68, 36961), (82, 36901), (108, 36856),

Gene: Turj99_52 Start: 38730, Stop: 38170, Start Num: 35

Candidate Starts for Turj99_52:

(Start: 35 @38730 has 179 MA's), (42, 38631), (54, 38577), (58, 38562), (59, 38553), (118, 38418), (127, 38382), (148, 38328), (150, 38307), (169, 38208),

Gene: TwoPeat_54 Start: 38091, Stop: 37693, Start Num: 35

Candidate Starts for TwoPeat_54:

(26, 38133), (Start: 32 @38103 has 4 MA's), (Start: 35 @38091 has 179 MA's), (42, 37992), (54, 37938), (58, 37923), (59, 37914), (118, 37779), (136, 37725),

Gene: U2_53 Start: 39377, Stop: 38811, Start Num: 35

Candidate Starts for U2_53:

(Start: 35 @39377 has 179 MA's), (42, 39278), (54, 39224), (58, 39209), (59, 39200), (118, 39065), (127, 39029), (148, 38975), (150, 38954), (156, 38933), (169, 38849),

Gene: UnionJack_51 Start: 36473, Stop: 35982, Start Num: 33

Candidate Starts for UnionJack_51:

(Start: 33 @36473 has 35 MA's), (42, 36374), (47, 36347), (50, 36332), (51, 36329), (54, 36320), (57, 36311), (69, 36209), (104, 36107), (144, 35996),

Gene: VC3_60 Start: 38397, Stop: 37942, Start Num: 35

Candidate Starts for VC3_60:

(Start: 35 @38397 has 179 MA's), (50, 38256), (54, 38244), (57, 38235), (63, 38181), (87, 38106), (95, 38085), (105, 38076), (144, 37962),

Gene: Vanisoa_57 Start: 39057, Stop: 38596, Start Num: 31

Candidate Starts for Vanisoa_57:

(Start: 31 @39057 has 87 MA's), (46, 38934), (50, 38919), (53, 38910), (54, 38907), (60, 38880), (62, 38853), (68, 38814), (144, 38601),

Gene: Violet_51 Start: 38989, Stop: 38588, Start Num: 34

Candidate Starts for Violet_51:

(Start: 23 @39040 has 1 MA's), (Start: 34 @38989 has 26 MA's), (42, 38887), (54, 38833), (58, 38818), (59, 38809), (118, 38674), (136, 38620),

Gene: VohminGhazi_58 Start: 37010, Stop: 36567, Start Num: 31

Candidate Starts for VohminGhazi_58:

(Start: 31 @37010 has 87 MA's), (53, 36866), (54, 36863), (60, 36836), (68, 36770), (82, 36710), (108, 36665),

Gene: Watermelon_54 Start: 38595, Stop: 38029, Start Num: 35

Candidate Starts for Watermelon_54:

(Start: 35 @38595 has 179 MA's), (42, 38496), (54, 38442), (58, 38427), (59, 38418), (118, 38283), (127, 38247), (148, 38193), (150, 38172), (156, 38151), (168, 38085), (169, 38067),

Gene: WeiHuaDA_59 Start: 39056, Stop: 38604, Start Num: 31

Candidate Starts for WeiHuaDA_59:

(Start: 31 @39056 has 87 MA's), (50, 38918), (52, 38912), (53, 38909), (54, 38906), (60, 38879), (62, 38852), (68, 38813), (74, 38774), (85, 38741),

Gene: Wheeler_54 Start: 38471, Stop: 38073, Start Num: 35

Candidate Starts for Wheeler_54:

(Start: 35 @38471 has 179 MA's), (42, 38372), (54, 38318), (58, 38303), (59, 38294), (118, 38159), (136, 38105),

Gene: Wiks_58 Start: 37103, Stop: 36660, Start Num: 31

Candidate Starts for Wiks_58:

(Start: 31 @37103 has 87 MA's), (53, 36959), (54, 36956), (60, 36929), (68, 36863), (82, 36803), (108, 36758),

Gene: Wilkins_53 Start: 37985, Stop: 37419, Start Num: 35

Candidate Starts for Wilkins_53:

(Start: 35 @37985 has 179 MA's), (42, 37886), (54, 37832), (58, 37817), (59, 37808), (118, 37673), (127, 37637), (148, 37586), (150, 37565), (156, 37544), (169, 37457),

Gene: WunderPhul_59 Start: 37101, Stop: 36658, Start Num: 31

Candidate Starts for WunderPhul_59:

(Start: 31 @37101 has 87 MA's), (53, 36957), (54, 36954), (60, 36927), (68, 36861), (82, 36801), (108, 36756),

Gene: Yecey3_58 Start: 37824, Stop: 37375, Start Num: 35

Candidate Starts for Yecey3_58:

(Start: 35 @37824 has 179 MA's), (50, 37683), (54, 37671), (59, 37647), (83, 37545), (95, 37509), (124, 37437), (147, 37380),

Gene: Yokurt_59 Start: 37103, Stop: 36660, Start Num: 31

Candidate Starts for Yokurt_59:

(Start: 31 @37103 has 87 MA's), (53, 36959), (54, 36956), (60, 36929), (68, 36863), (82, 36803), (108, 36758),

Gene: Zaka_59 Start: 37103, Stop: 36660, Start Num: 31

Candidate Starts for Zaka_59:

(Start: 31 @37103 has 87 MA's), (53, 36959), (54, 36956), (60, 36929), (68, 36863), (82, 36803), (108, 36758),

Gene: Zeeculate_51 Start: 39028, Stop: 38627, Start Num: 34

Candidate Starts for Zeeculate_51:

(Start: 23 @39079 has 1 MA's), (Start: 34 @39028 has 26 MA's), (42, 38926), (54, 38872), (58, 38857), (59, 38848), (118, 38713), (136, 38659),

Gene: Zephyr_53 Start: 38133, Stop: 37516, Start Num: 35

Candidate Starts for Zephyr_53:

(15, 38217), (Start: 32 @38145 has 4 MA's), (Start: 35 @38133 has 179 MA's), (42, 38034), (54, 37980), (58, 37965), (59, 37956), (118, 37821), (127, 37785), (148, 37731), (150, 37710),

Gene: Zeuska_52 Start: 38962, Stop: 38564, Start Num: 35

Candidate Starts for Zeuska_52:

(Start: 35 @38962 has 179 MA's), (42, 38863), (54, 38809), (58, 38794), (59, 38785), (118, 38650), (136, 38596),

Gene: Zimmer_54 Start: 38954, Stop: 38418, Start Num: 31

Candidate Starts for Zimmer_54:

(3, 39227), (4, 39179), (5, 39170), (Start: 31 @38954 has 87 MA's), (50, 38807), (54, 38795), (58, 38780), (78, 38648), (91, 38609), (152, 38423),

Gene: Zolita_51 Start: 37667, Stop: 37200, Start Num: 33

Candidate Starts for Zolita_51:

(25, 37703), (Start: 33 @37667 has 35 MA's), (42, 37568), (54, 37514), (55, 37511), (56, 37508), (57, 37505), (119, 37271), (141, 37217),

Gene: Zulu_60 Start: 37481, Stop: 37038, Start Num: 31

Candidate Starts for Zulu_60:

(Start: 31 @37481 has 87 MA's), (53, 37337), (54, 37334), (60, 37307), (68, 37241), (82, 37181), (108, 37136),