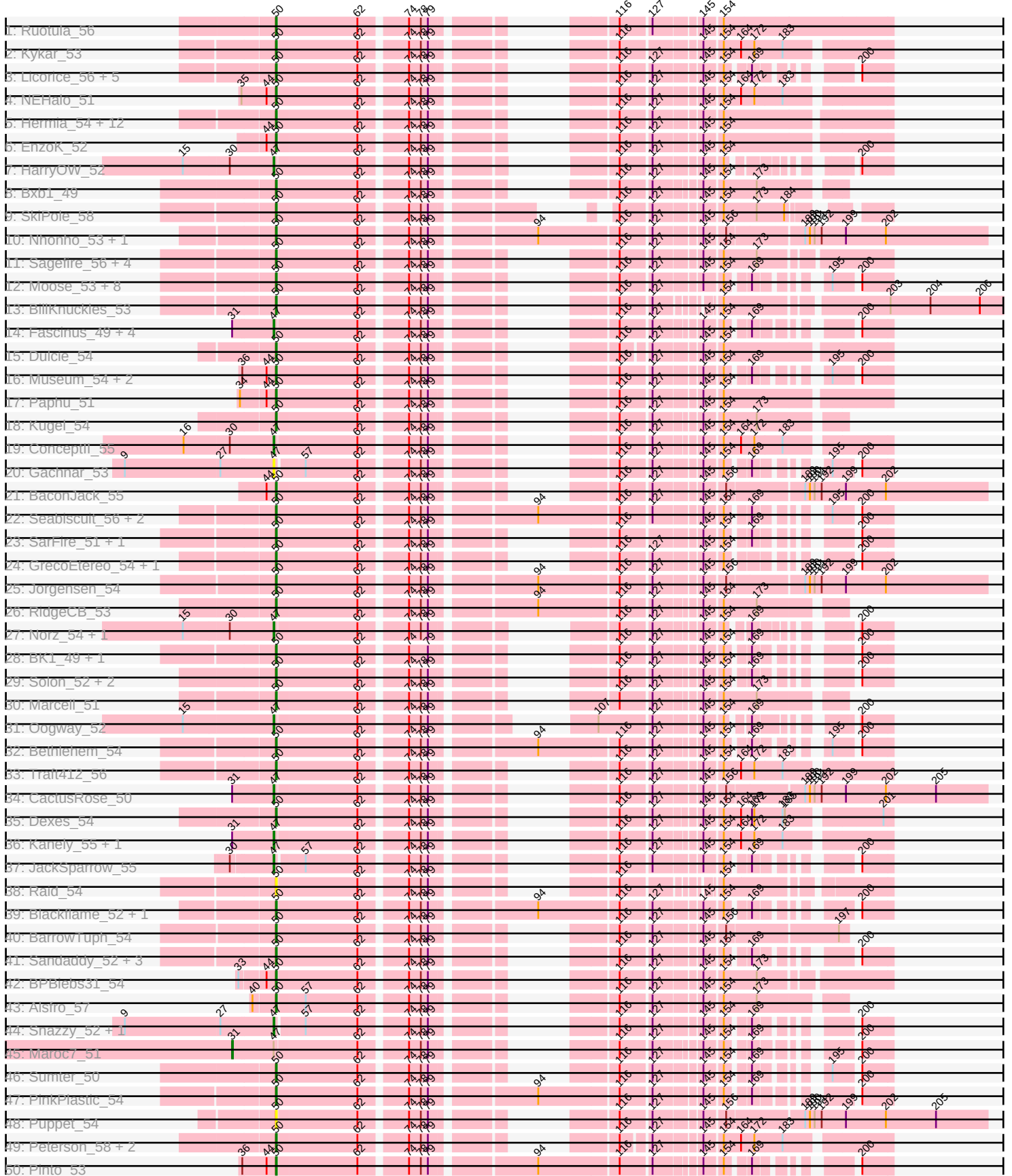
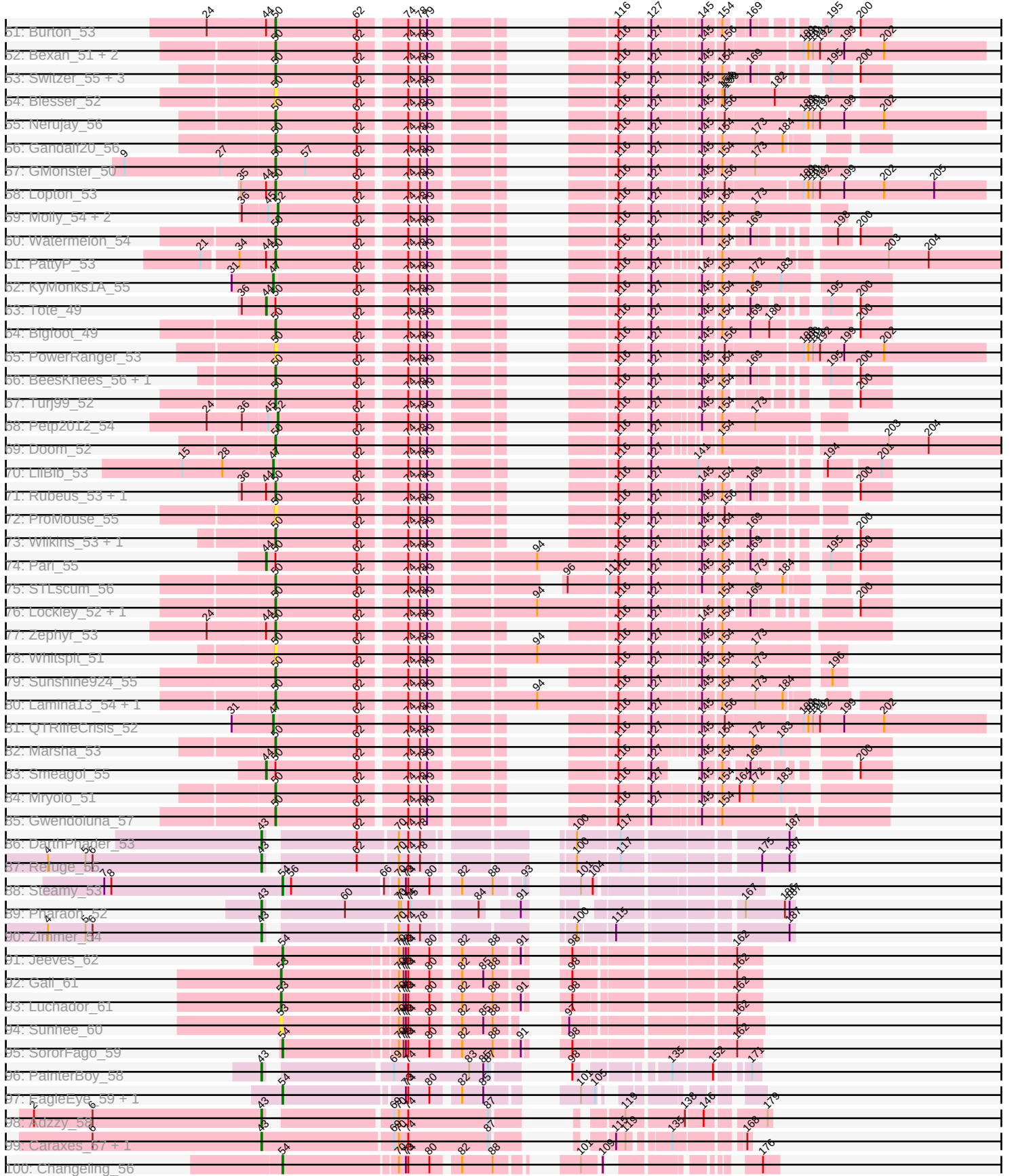


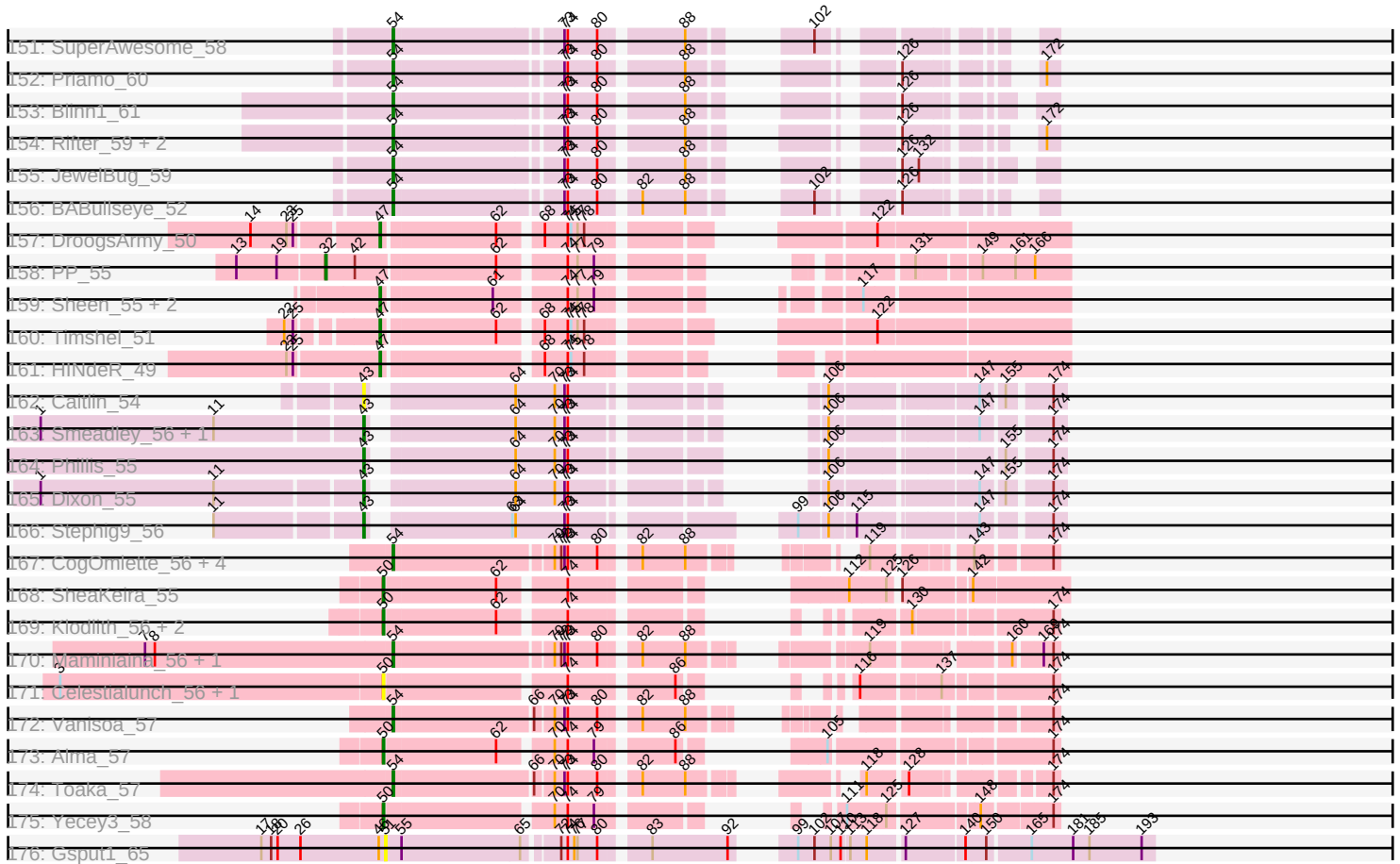
Pham 280010



Pham 280010



Pham 280010



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 280010 Report

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

Pham number 280010 has 336 members, 49 are drafts.

Phages represented in each track:

- Track 1 : Ruotula_56
- Track 2 : Kykar_53
- Track 3 : Licorice_56, McSinger_54, Homines_46, StewieG_52, HanShotFirst_54, Sanya_51
- Track 4 : NEHalo_51
- Track 5 : Hermia_54, Ciao_53, Buttons_52, Fajezeel_55, Aldrich_53, Marge_53, Ohno789_55, KikiBouba_54, Pippin_55, GroundGoblin_54, Noxious_53, Greg_55, CatBus_53
- Track 6 : EnzoK_52
- Track 7 : HarryOW_52
- Track 8 : Bxb1_49
- Track 9 : SkiPole_58
- Track 10 : Nhonho_53, Hope4ever_55
- Track 11 : Sagefire_56, ILeeKay_57, Rajelicia_54, MetalQZJ_52, MaryBeth_53
- Track 12 : Moose_53, Corvo_54, SwissCheese_55, PascalRango_54, KSSJEB_53, McGuire_55, Papez_56, Killigrew_54, Forsytheast_53
- Track 13 : BillKnuckles_53
- Track 14 : Fascinus_49, Bigchungji_53, Gyzlar_49, Phlippers_52, CartmannCramer_52
- Track 15 : Dulcie_54
- Track 16 : Museum_54, JuliaChild_54, Swole_54
- Track 17 : Paphu_51
- Track 18 : Kugel_54
- Track 19 : ConceptII_55
- Track 20 : Gachnar_53
- Track 21 : BaconJack_55
- Track 22 : Seabiscuit_56, DreamCatcher_57, Briton15_57
- Track 23 : SarFire_51, Thor_51
- Track 24 : GrecoEtereo_54, Magnito_52
- Track 25 : Jorgensen_54
- Track 26 : RidgeCB_53
- Track 27 : Norz_54, Atkinbua_56
- Track 28 : BK1_49, A6_49
- Track 29 : Solon_52, U2_53, Target_54
- Track 30 : Marcell_51
- Track 31 : Oogway_52
- Track 32 : Bethlehem_54

- Track 33 : Traft412_56
- Track 34 : CactusRose_50
- Track 35 : Dexes_54
- Track 36 : Kanely_55, Altman_56
- Track 37 : JackSparrow_55
- Track 38 : Raid_54
- Track 39 : Blackflame_52, Parliament_53
- Track 40 : BarrowTuph_54
- Track 41 : Sandaddy_52, MilleFeuille_50, Ringer_54, Sorpresa_52
- Track 42 : BPBiebs31_54
- Track 43 : Alsfro_57
- Track 44 : Snazzy_52, ShortQueendom_47
- Track 45 : Maroc7_51
- Track 46 : Sumter_50
- Track 47 : PinkPlastic_54
- Track 48 : Puppet_54
- Track 49 : Peterson_58, TheloniousMonk_54, Paraselene_51
- Track 50 : Pinto_53
- Track 51 : Burton_53
- Track 52 : Bexan_51, KBG_54, StrongArm_52
- Track 53 : Switzer_55, Squee_54, Fenn_56, Naira_56
- Track 54 : Blessor_52
- Track 55 : Nerujay_56
- Track 56 : Gandalf20_56
- Track 57 : GMonster_50
- Track 58 : Lopton_53
- Track 59 : Molly_54, Arcanine_54, Slagathor_55
- Track 60 : Watermelon_54
- Track 61 : PattyP_53
- Track 62 : KyMonks1A_55
- Track 63 : Tote_49
- Track 64 : Bigfoot_49
- Track 65 : PowerRanger_53
- Track 66 : BeesKnees_56, Dynamix_55
- Track 67 : Turj99_52
- Track 68 : Petp2012_54
- Track 69 : Doom_52
- Track 70 : LilBib_53
- Track 71 : Rubeus_53, Ichabod_56
- Track 72 : ProMouse_55
- Track 73 : Wilkins_53, Topgun_53
- Track 74 : Pari_55
- Track 75 : STLscum_56
- Track 76 : Lockley_52, DD5_53
- Track 77 : Zephyr_53
- Track 78 : Whitspit_51
- Track 79 : Sunshine924_55
- Track 80 : Lamina13_54, Tasp14_55
- Track 81 : QTRlifeCrisis_52
- Track 82 : Marsha_53
- Track 83 : Smeago1_55
- Track 84 : Mryolo_51
- Track 85 : Gwendoluna_57

- Track 86 : DARTHPhader_53
- Track 87 : Refuge_55
- Track 88 : Steamy_53
- Track 89 : Pharaoh_52
- Track 90 : Zimmer_54
- Track 91 : Jeeves_62
- Track 92 : Gail_61
- Track 93 : Luchador_61
- Track 94 : Sunhee_60
- Track 95 : SororFago_59
- Track 96 : PainterBoy_58
- Track 97 : EagleEye_59, Lucyedi_58
- Track 98 : Adzzy_58
- Track 99 : Caraxes_57, Superchunk_55
- Track 100 : Changeling_56
- Track 101 : Crucio_57, Georgie2_58, FiringLine_57, SnapTap_57, QueenBeesly_57, SemperFi_58, SweetiePie_57
- Track 102 : SwirlSquare_62
- Track 103 : Pomar16_59, C3_55, AN9_60, D29_55, Kerberos_59, DBQu4n_59, Travvers_59, D32_58, Naji_59, Duplo_59, ANI8_60, VC3_60, StarStuff_59
- Track 104 : JoshKayV_59
- Track 105 : Kalpine_55, Trixie_55
- Track 106 : Colin_57
- Track 107 : Jsquared_55, Serenity_57
- Track 108 : TopsytheTRex_53
- Track 109 : LadyBird_62
- Track 110 : Bradman_56, MajorMajor_56, Quokka_55
- Track 111 : Odin_55
- Track 112 : Heffalump_56, QueenB2_56
- Track 113 : CRB1_61
- Track 114 : Power_56
- Track 115 : Herbertwm_55
- Track 116 : Che12_58
- Track 117 : MissWhite_56
- Track 118 : Trooper_58
- Track 119 : Koduck_58
- Track 120 : Ph8s_58
- Track 121 : Tomathan_59
- Track 122 : Fameo_57
- Track 123 : Journey13_51
- Track 124 : L5_55
- Track 125 : WeiHuaDA_59
- Track 126 : FatCactus_48
- Track 127 : Anthony_52
- Track 128 : Bluefalcon_48, Ghoulyboy_52, SydNat_52, Zolita_51
- Track 129 : Micasa_50, Coog_48, Midas2_48
- Track 130 : Jovo_49, Aragog_48, Phlorence_47, Conspiracy_49, AgentM_48, PickleBack_49, Lev2_49, Archetta_48, Tiger_48, ForGetIt_49, Discoknowium_47
- Track 131 : Chadwick_53, PetterN_54
- Track 132 : George_47, Milcery_49
- Track 133 : ElTiger69_52, Airmid_50
- Track 134 : Jabiru_51
- Track 135 : Dublin_49, MarysWell_49

- Track 136 : LittleCherry_49, Bonamassa_49, Florence1_47
- Track 137 : Theia_48
- Track 138 : HuhtaEnerson15_49
- Track 139 : Florence4_49
- Track 140 : Scorpia_54
- Track 141 : UnionJack_51
- Track 142 : Naca_50
- Track 143 : Prinashe11_49
- Track 144 : Cuco_49
- Track 145 : Benedict_53
- Track 146 : Jordennis_58, Dorothea_58
- Track 147 : ToneTone_56, Artemis2UCLA_59, BennyP_59, Koko_60, Helmet_61, Temprado_60, Tucker_59, Indra_62, BlessJoy_59, Jeffabunny_59, Garak_61, Zulu_60, Lilbunny_58, WunderPhul_59, Yokurt_59, Zaka_59, Wiks_58, CloudWang3_59, Hexamo_59
- Track 148 : Gruunaga_59, Blue7_60, Gladiator_56
- Track 149 : Candra_58, Polyphemus_60, SmellyB_58, SuperCallie99_57, Cookiedough_58, GreedyLawyer_58, Kipper29_58, McFly_58, Kazan_59, EricB_58, Hoot_53, Newrala_58, VohminGhazi_58, Pmask_58, Neeharika16_57
- Track 150 : Isiphiwo_56, DaVinci_57, Chartreuse_57
- Track 151 : SuperAwesome_58
- Track 152 : Priamo_60
- Track 153 : Blinn1_61
- Track 154 : Rifter_59, Hammer_59, Roksolana_60
- Track 155 : JewelBug_59
- Track 156 : BABullseye_52
- Track 157 : DroogsArmy_50
- Track 158 : PP_55
- Track 159 : Sheen_55, Toro_57, FlyCatcher_59
- Track 160 : Timshel_51
- Track 161 : HINdeR_49
- Track 162 : Caitlin_54
- Track 163 : Smeadley_56, Expelliarmus_54
- Track 164 : Phillis_55
- Track 165 : Dixon_55
- Track 166 : Stephig9_56
- Track 167 : CogOmlette_56, Rahalelujah_57, Bellris_56, Minispark_56, WorldCup_56
- Track 168 : SheaKeira_55
- Track 169 : Klodlith_56, Charm_55, DreamTeam1_55
- Track 170 : Maminiaina_56, BogosyJay_56
- Track 171 : Celestiallunch_56, MegTheThird_56
- Track 172 : Vanisoa_57
- Track 173 : Alma_57
- Track 174 : Toaka_57
- Track 175 : Yecey3_58
- Track 176 : Gsput1_65

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

The start number called the most often in the published annotations is 50, it was called in 123 of the 287 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- A6_49, AN9_60, ANI8_60, Aldrich_53, Alma_57, Alsfro_57, BK1_49, BPBiebs31_54, BaconJack_55, BarrowTuph_54, BeesKnees_56, Bethlehem_54, Bexan_51, Bigfoot_49, BillKnuckles_53, Blackflame_52, Blessner_52, Briton15_57, Burton_53, Buttons_52, Bxb1_49, C3_55, CatBus_53, Celestiallunch_56, Charm_55, Ciao_53, Corvo_54, D29_55, D32_58, DBQu4n_59, DD5_53, Dexes_54, Doom_52, DreamCatcher_57, DreamTeam1_55, Dulcie_54, Duplo_59, Dynamix_55, EnzoK_52, Fajezeel_55, Fenn_56, Forsytheast_53, GMonster_50, Gandalf20_56, GrecoEtereo_54, Greg_55, GroundGoblin_54, Gwendoluna_57, HanShotFirst_54, Hermia_54, Homines_46, Hope4ever_55, ILeeKay_57, Ichabod_56, Jorgensen_54, JuliaChild_54, KBG_54, KSSJEB_53, Kerberos_59, KikiBouba_54, Killigrew_54, Klodlith_56, Kugel_54, Kykar_53, Lamina13_54, Licorice_56, Lockley_52, Lopton_53, Magnito_52, Marcell_51, Marge_53, Marsha_53, MaryBeth_53, McGuire_55, McSinger_54, MegTheThird_56, MetalQZJ_52, MilleFeuille_50, Moose_53, Mryolo_51, Museum_54, NEHalo_51, Naira_56, Naji_59, Nerujay_56, Nhonho_53, Noxious_53, Ohno789_55, Papez_56, Paphu_51, Paraselene_51, Parliament_53, PascalRango_54, PattyP_53, Peterson_58, PinkPlastic_54, Pinto_53, Pippin_55, Pomar16_59, PowerRanger_53, ProMouse_55, Puppet_54, Raid_54, Rajelicia_54, RidgeCB_53, Ringer_54, Rubeus_53, Ruotula_56, STLscum_56, Sagefire_56, Sandaddy_52, Sanya_51, SarFire_51, Seabiscuit_56, SheaKeira_55, SkiPole_58, Solon_52, Sorpresa_52, Squee_54, StarStuff_59, StewieG_52, StrongArm_52, Sumter_50, Sunshine924_55, SwissCheese_55, Switzer_55, Swole_54, Target_54, Tasp14_55, TheloniousMonk_54, Thor_51, Tomathan_59, Topgun_53, Traft412_56, Travvers_59, Turj99_52, U2_53, VC3_60, Watermelon_54, Whitspit_51, Wilkins_53, Yecey3_58, Zephyr_53,

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

- Pari_55, Smeagol_55, Tote_49,

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

- Adzzy_58, AgentM_48, Airmid_50, Altman_56, Anthony_52, Aragog_48, Arcanine_54, Archetta_48, Artemis2UCLA_59, Atkinbua_56, BABullseye_52, Bellris_56, Benedict_53, BennyP_59, Bigchungu_53, BlessJoy_59, Blinn1_61, Blue7_60, Bluefalcon_48, BogosyJay_56, Bonamassa_49, Bradman_56, CRB1_61, CactusRose_50, Caitlin_54, Candra_58, Caraxes_57, CartmannCramer_52, Chadwick_53, Changeling_56, Chartreuse_57, Che12_58, CloudWang3_59, CogOmlette_56, Colin_57, ConceptII_55, Conspiracy_49, Coog_48, Cookiedough_58, Crucio_57, Cuco_49, DaVinci_57, DarthPhader_53, Discoknowium_47, Dixon_55, Dorothea_58, DroogsArmy_50, Dublin_49, EagleEye_59, ElTiger69_52, EricB_58, Expelliarmus_54, Fameo_57, Fascinus_49, FatCactus_48, FiringLine_57, Florence1_47, Florence4_49, FlyCatcher_59, ForGetIt_49, Gachnar_53, Gail_61, Garak_61, George_47, Georgie2_58, Ghouboy_52, Gladiator_56, GreedyLawyer_58, Gruunaga_59, Gspu1_65, Gyzlar_49, HINdeR_49, Hammer_59, HarryOW_52, Heffalump_56, Helmet_61, Herbertwm_55, Hexamo_59, Hoot_53, HuhtaEnerson15_49, Indra_62, Isiphiwo_56, 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_58, LittleCherry_49, Luchador_61, Lucyedi_58, MajorMajor_56, Maminiaina_56, Maroc7_51, MarysWell_49, McFly_58,

Micasa_50, Midas2_48, Milcery_49, Minispark_56, MissWhite_56, Molly_54, Naca_50, Neeharika16_57, Newrala_58, Norz_54, Odin_55, Oogway_52, PP_55, PainterBoy_58, Petp2012_54, PetterN_54, Ph8s_58, Pharaoh_52, Phillis_55, Phlippers_52, Phlorence_47, PickleBack_49, Pmask_58, Polyphemus_60, Power_56, Priamo_60, Prinash11_49, QTRlifeCrisis_52, QueenB2_56, QueenBeesly_57, Quokka_55, Rahalelujah_57, Refuge_55, Rifter_59, Roksolana_60, Scorpia_54, SemperFi_58, Serenity_57, Sheen_55, ShortQueendom_47, Slagathor_55, Smeadley_56, SmellyB_58, SnapTap_57, Snazzy_52, SororFago_59, Steamy_53, Stephig9_56, Sunhee_60, SuperAwesome_58, SuperCallie99_57, Superchunk_55, SweetiePie_57, SwirlSquare_62, SydNat_52, Temprado_60, Theia_48, Tiger_48, Timshel_51, TopsytheTRex_53, Toaka_57, ToneTone_56, Toro_57, Trixie_55, Trooper_58, Tucker_59, UnionJack_51, Vanisoa_57, VohminGhazi_58, WeiHuaDA_59, Wiks_58, WorldCup_56, WunderPhul_59, Yokurt_59, Zaka_59, Zimmer_54, Zolita_51, Zulu_60,

Summary by start number:

Start 31:

- Found in 11 of 336 (3.3%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Maroc7_51 (A1),

Start 32:

- Found in 1 of 336 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PP_55 (A7),

Start 39:

- Found in 8 of 336 (2.4%) of genes in pham
- No Manual Annotations of this start.
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Florence4_49 (A5),

Start 43:

- Found in 19 of 336 (5.7%) of genes in pham
- Manual Annotations of this start: 16 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adzzy_58 (A2), Caitlin_54 (A8), Caraxes_57 (A2), Che12_58 (A2), DarthPhader_53 (A12), Dixon_55 (A8), Expelliarmus_54 (A8), Herbertwm_55 (A2), Odin_55 (A2), PainterBoy_58 (A16), Ph8s_58 (A2), Pharaoh_52 (A12), Phillis_55 (A8), Refuge_55 (A12), Smeadley_56 (A8), Stephig9_56 (A8), Superchunk_55 (A2), SwirlSquare_62 (A2), Zimmer_54 (A12),

Start 44:

- Found in 18 of 336 (5.4%) of genes in pham
- Manual Annotations of this start: 3 of 287
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Pari_55 (A1), Smeagol_55 (A1), Tote_49 (A1),

Start 47:

- Found in 27 of 336 (8.0%) of genes in pham
- Manual Annotations of this start: 20 of 287
- Called 96.3% of time when present
- Phage (with cluster) where this start called: Altman_56 (A1), Atkinbua_56 (A1), Bigchung_53 (A1), CactusRose_50 (A1), CartmannCramer_52 (A1), ConceptII_55 (A1), DroogsArmy_50 (A7), Fascinus_49 (A1), FlyCatcher_59 (A7), Gachnar_53 (A1), Gyzlar_49 (A1), HINdeR_49 (A7), HarryOW_52 (A1), JackSparrow_55 (A1), Kanely_55 (A1), KyMonks1A_55 (A1), LilBib_53 (A1), Norz_54 (A1), Oogway_52 (A1), Phlippers_52 (A1), QTRlifeCrisis_52 (A1), Sheen_55 (A7), ShortQueendom_47 (A1), Snazzy_52 (A1), Timshel_51 (A7), Toro_57 (A7),

Start 48:

- Found in 2 of 336 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anthony_52 (A20), FatCactus_48 (A20),

Start 49:

- Found in 39 of 336 (11.6%) of genes in pham
- Manual Annotations of this start: 36 of 287
- Called 97.4% 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), ElTiger69_52 (A5), Florence1_47 (A5), ForGetIt_49 (A5), George_47 (A5), Ghouboy_52 (A5), HuhtaEnerson15_49 (A5), Jabiru_51 (A5), Jovo_49 (A5), Lev2_49 (A5), LittleCherry_49 (A5), MarysWell_49 (A5), Micasa_50 (A5), Midas2_48 (A5), Milcery_49 (A5), Naca_50 (A5), PetterN_54 (A5), Phlorence_47 (A5), PickleBack_49 (A5), Prinashe11_49 (A5), Scorpio_54 (A5), SydNat_52 (A5), Theia_48 (A5), Tiger_48 (A5), UnionJack_51 (A5), Zolita_51 (A5),

Start 50:

- Found in 146 of 336 (43.5%) of genes in pham
- Manual Annotations of this start: 123 of 287
- Called 97.9% of time when present
- Phage (with cluster) where this start called: A6_49 (A1), AN9_60 (A2), ANI8_60 (A2), Aldrich_53 (A1), Alma_57 (A9), Alsfo_57 (A1), BK1_49 (A1), BPBiebs31_54 (A1), BaconJack_55 (A1), BarrowTuph_54 (A1), BeesKnees_56 (A1), Bethlehem_54 (A1), Bexan_51 (A1), Bigfoot_49 (A1), BillKnuckles_53 (A1), Blackflame_52 (A1), Blesser_52 (A1), Briton15_57 (A1), Burton_53 (A1), Buttons_52 (A1), Bxb1_49 (A1), C3_55 (A2), CatBus_53 (A1), Celestialunch_56 (A9), Charm_55 (A9), Ciao_53 (A1), Corvo_54 (A1), D29_55 (A2), D32_58 (A2), DBQu4n_59 (A2), DD5_53 (A1), Dexes_54 (A1), Doom_52 (A1), DreamCatcher_57 (A1), DreamTeam1_55 (A9), Dulcie_54 (A1), Duplo_59 (A2), Dynamix_55 (A1), EnzoK_52 (A1), Fajezeel_55 (A1), Fenn_56 (A1), Forsytheast_53 (A1), GMonster_50 (A1), Gandalf20_56 (A1), GrecoEtereo_54 (A1), Greg_55 (A1), GroundGoblin_54 (A1), Gwendoluna_57 (A1), HanShotFirst_54 (A1), Hermia_54 (A1), Homines_46 (A1), Hope4ever_55 (A1), ILeeKay_57 (A1), Ichabod_56 (A1), Jorgensen_54 (A1), JuliaChild_54 (A1), KBG_54 (A1), KSSJEB_53 (A1), Kerberos_59 (A2), KikiBouba_54 (A1), Killigrew_54 (A1), Klodlith_56 (A9), Kugel_54 (A1), Kykar_53 (A1), Lamina13_54 (A1), Licorice_56 (A1), Lockley_52 (A1), Lopton_53 (A1), Magnito_52 (A1), Marcell_51 (A1), Marge_53 (A1),

Marsha_53 (A1), MaryBeth_53 (A1), McGuire_55 (A1), McSinger_54 (A1), MegTheThird_56 (A9), MetalQZJ_52 (A1), MilleFeuille_50 (A1), Moose_53 (A1), Mryolo_51 (A1), Museum_54 (A1), NEHalo_51 (A1), Naira_56 (A1), Naji_59 (A2), Nerujay_56 (A1), Nhonho_53 (A1), Noxious_53 (A1), Ohno789_55 (A1), Papez_56 (A1), Paphu_51 (A1), Paraselene_51 (A1), Parliament_53 (A1), PascalRango_54 (A1), PattyP_53 (A1), Peterson_58 (A1), PinkPlastic_54 (A1), Pinto_53 (A1), Pippin_55 (A1), Pomar16_59 (A2), PowerRanger_53 (A1), ProMouse_55 (A1), Puppet_54 (A1), Raid_54 (A1), Rajelicia_54 (A1), RidgeCB_53 (A1), Ringer_54 (A1), Rubeus_53 (A1), Ruotula_56 (A1), STLscum_56 (A1), Sagefire_56 (A1), Sandaddy_52 (A1), Sanya_51 (A1), SarFire_51 (A1), Seabiscuit_56 (A1), SheaKeira_55 (A9), SkiPole_58 (A1), Solon_52 (A1), Sorpresa_52 (A1), Squee_54 (A1), StarStuff_59 (A2), StewieG_52 (A1), StrongArm_52 (A1), Sumter_50 (A1), Sunshine924_55 (A1), SwissCheese_55 (A1), Switzer_55 (A1), Swole_54 (A1), Target_54 (A1), Tasp14_55 (A1), TheloniousMonk_54 (A1), Thor_51 (A1), Tomathan_59 (A2), Topgun_53 (A1), Traft412_56 (A1), Travvers_59 (A2), Turj99_52 (A1), U2_53 (A1), VC3_60 (A2), Watermelon_54 (A1), Whitspit_51 (A1), Wilkins_53 (A1), Yecey3_58 (A9), Zephyr_53 (A1),

Start 51:

- Found in 1 of 336 (0.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gsput1_65 (CU2),

Start 52:

- Found in 4 of 336 (1.2%) of genes in pham
- Manual Annotations of this start: 4 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arcanine_54 (A1), Molly_54 (A1), Petp2012_54 (A1), Slagathor_55 (A1),

Start 53:

- Found in 4 of 336 (1.2%) of genes in pham
- Manual Annotations of this start: 3 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gail_61 (A14), JoshKayV_59 (A2), Luchador_61 (A14), Sunhee_60 (A14),

Start 54:

- Found in 93 of 336 (27.7%) of genes in pham
- Manual Annotations of this start: 79 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Artemis2UCLA_59 (A6), BABullseye_52 (A6), Bellris_56 (A9), BennyP_59 (A6), BlessJoy_59 (A6), Blinn1_61 (A6), Blue7_60 (A6), BogosyJay_56 (A9), Bradman_56 (A2), CRB1_61 (A2), Candra_58 (A6), Changeling_56 (A2), Chartreuse_57 (A6), CloudWang3_59 (A6), CogOmlette_56 (A9), Colin_57 (A2), Cookiedough_58 (A6), Crucio_57 (A2), DaVinci_57 (A6), Dorothea_58 (A6), EagleEye_59 (A16), EricB_58 (A6), 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), Hexamo_59 (A6), Hoot_53 (A6), Indra_62 (A6), Isiphiwo_56 (A6), Jeeves_62 (A14), 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_58 (A6), Lucyedi_58 (A16), MajorMajor_56 (A2), Maminiaina_56 (A9), McFly_58 (A6), Minispark_56 (A9), MissWhite_56 (A2), Neeharika16_57 (A6), Newrala_58 (A6), Pmask_58 (A6), Polyphemus_60 (A6), Power_56 (A2), Priamo_60 (A6), QueenB2_56 (A2), QueenBeesly_57 (A2), Quokka_55 (A2), Rahalelujah_57 (A9), Rifter_59 (A6), Roksolana_60 (A6), SemperFi_58 (A2), Serenity_57 (A2), SmellyB_58 (A6), SnapTap_57 (A2), SororFago_59 (A14), Steamy_53 (A12), SuperAwesome_58 (A6), SuperCallie99_57 (A6), SweetiePie_57 (A2), Temprado_60 (A6), TopsytheTRex_53 (A2), Toaka_57 (A9), ToneTone_56 (A6), Trixie_55 (A2), Trooper_58 (A2), Tucker_59 (A6), Vanisoa_57 (A9), VohminGhazi_58 (A6), WeiHuaDA_59 (A2), Wiks_58 (A6), WorldCup_56 (A9), WunderPhul_59 (A6), Yokurt_59 (A6), Zaka_59 (A6), Zulu_60 (A6),

Summary by clusters:

There are 12 clusters represented in this pham: A20, A14, A16, CU2, A12, A1, A2, A5, A7, A6, A9, A8,

Info for manual annotations of cluster A1:

- Start number 31 was manually annotated 1 time for cluster A1.
- Start number 44 was manually annotated 3 times for cluster A1.
- Start number 47 was manually annotated 16 times for cluster A1.
- Start number 50 was manually annotated 105 times for cluster A1.
- Start number 52 was manually annotated 4 times for cluster A1.

Info for manual annotations of cluster A12:

- Start number 43 was manually annotated 4 times for cluster A12.
- Start number 54 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A14:

- Start number 53 was manually annotated 2 times for cluster A14.
- Start number 54 was manually annotated 2 times for cluster A14.

Info for manual annotations of cluster A16:

- Start number 43 was manually annotated 1 time for cluster A16.
- Start number 54 was manually annotated 2 times for cluster A16.

Info for manual annotations of cluster A2:

- Start number 43 was manually annotated 6 times for cluster A2.
- Start number 50 was manually annotated 13 times for cluster A2.
- Start number 53 was manually annotated 1 time for cluster A2.
- Start number 54 was manually annotated 22 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 48 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A5:

- Start number 49 was manually annotated 36 times for cluster A5.

Info for manual annotations of cluster A6:

- Start number 54 was manually annotated 47 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 32 was manually annotated 1 time for cluster A7.
- Start number 47 was manually annotated 4 times for cluster A7.

Info for manual annotations of cluster A8:

- Start number 43 was manually annotated 5 times for cluster A8.

Info for manual annotations of cluster A9:

- Start number 50 was manually annotated 5 times for cluster A9.
- Start number 54 was manually annotated 5 times for cluster A9.

Gene Information:

Gene: A6_49 Start: 36945, Stop: 36379, Start Num: 50

Candidate Starts for A6_49:

(Start: 50 @36945 has 123 MA's), (62, 36846), (74, 36792), (79, 36768), (116, 36633), (127, 36597), (145, 36543), (154, 36522), (169, 36501), (200, 36417),

Gene: AN9_60 Start: 38397, Stop: 37942, Start Num: 50

Candidate Starts for AN9_60:

(Start: 50 @38397 has 123 MA's), (70, 38256), (74, 38244), (77, 38235), (83, 38181), (117, 38106), (125, 38085), (126, 38076), (169, 37962),

Gene: ANI8_60 Start: 38397, Stop: 37942, Start Num: 50

Candidate Starts for ANI8_60:

(Start: 50 @38397 has 123 MA's), (70, 38256), (74, 38244), (77, 38235), (83, 38181), (117, 38106), (125, 38085), (126, 38076), (169, 37962),

Gene: Adzzy_58 Start: 36978, Stop: 36487, Start Num: 43

Candidate Starts for Adzzy_58:

(2, 37269), (6, 37194), (Start: 43 @36978 has 16 MA's), (69, 36840), (70, 36834), (74, 36822), (87, 36720), (119, 36639), (138, 36573), (146, 36555), (179, 36492),

Gene: AgentM_48 Start: 36508, Stop: 36041, Start Num: 49

Candidate Starts for AgentM_48:

(Start: 49 @36508 has 36 MA's), (62, 36409), (74, 36355), (75, 36352), (76, 36349), (139, 36112), (169, 36058),

Gene: Airmid_50 Start: 36667, Stop: 36200, Start Num: 49

Candidate Starts for Airmid_50:

(12, 36814), (Start: 49 @36667 has 36 MA's), (62, 36568), (70, 36526), (71, 36523), (74, 36514), (115, 36343), (135, 36292),

Gene: Aldrich_53 Start: 38813, Stop: 38196, Start Num: 50

Candidate Starts for Aldrich_53:

(Start: 50 @38813 has 123 MA's), (62, 38714), (74, 38660), (78, 38645), (79, 38636), (116, 38501), (127, 38465), (145, 38411), (154, 38390),

Gene: Alma_57 Start: 38259, Stop: 37786, Start Num: 50

Candidate Starts for Alma_57:

(Start: 50 @38259 has 123 MA's), (62, 38160), (70, 38118), (74, 38106), (79, 38082), (86, 38022), (105, 37971), (174, 37791),

Gene: Alsfro_57 Start: 38448, Stop: 37891, Start Num: 50

Candidate Starts for Alsfro_57:

(40, 38475), (Start: 50 @38448 has 123 MA's), (57, 38415), (62, 38349), (74, 38295), (78, 38280), (79, 38271), (116, 38136), (127, 38100), (145, 38046), (154, 38025), (173, 37986),

Gene: Altman_56 Start: 39112, Stop: 38498, Start Num: 47

Candidate Starts for Altman_56:

(Start: 31 @39163 has 1 MA's), (Start: 47 @39112 has 20 MA's), (62, 39010), (74, 38956), (78, 38941), (79, 38932), (116, 38797), (127, 38761), (145, 38710), (154, 38689), (164, 38668), (172, 38653), (183, 38620),

Gene: Anthony_52 Start: 35777, Stop: 35280, Start Num: 48

Candidate Starts for Anthony_52:

(Start: 48 @35777 has 1 MA's), (70, 35636), (73, 35627), (74, 35624), (75, 35621), (116, 35435), (149, 35339), (155, 35324), (173, 35297), (174, 35294),

Gene: Aragog_48 Start: 36528, Stop: 36061, Start Num: 49

Candidate Starts for Aragog_48:

(Start: 49 @36528 has 36 MA's), (62, 36429), (74, 36375), (75, 36372), (76, 36369), (139, 36132), (169, 36078),

Gene: Arcanine_54 Start: 38877, Stop: 38323, Start Num: 52

Candidate Starts for Arcanine_54:

(36, 38919), (45, 38889), (Start: 52 @38877 has 4 MA's), (62, 38778), (74, 38724), (78, 38709), (79, 38700), (116, 38565), (127, 38529), (145, 38478), (154, 38457), (173, 38418),

Gene: Archetta_48 Start: 36938, Stop: 36471, Start Num: 49

Candidate Starts for Archetta_48:

(Start: 49 @36938 has 36 MA's), (62, 36839), (74, 36785), (75, 36782), (76, 36779), (139, 36542), (169, 36488),

Gene: Artemis2UCLA_59 Start: 37105, Stop: 36662, Start Num: 54

Candidate Starts for Artemis2UCLA_59:

(Start: 54 @37105 has 79 MA's), (73, 36961), (74, 36958), (80, 36931), (88, 36865), (102, 36805), (126, 36760),

Gene: Atkinbua_56 Start: 38718, Stop: 38152, Start Num: 47

Candidate Starts for Atkinbua_56:

(15, 38829), (30, 38772), (Start: 47 @38718 has 20 MA's), (62, 38616), (74, 38562), (78, 38547), (79, 38538), (116, 38403), (127, 38367), (145, 38316), (154, 38295), (169, 38274), (200, 38190),

Gene: BABullseye_52 Start: 34678, Stop: 34244, Start Num: 54

Candidate Starts for BABullseye_52:

(Start: 54 @34678 has 79 MA's), (73, 34534), (74, 34531), (80, 34504), (82, 34477), (88, 34438), (102, 34378), (126, 34333),

Gene: BK1_49 Start: 36945, Stop: 36379, Start Num: 50

Candidate Starts for BK1_49:

(Start: 50 @36945 has 123 MA's), (62, 36846), (74, 36792), (79, 36768), (116, 36633), (127, 36597), (145, 36543), (154, 36522), (169, 36501), (200, 36417),

Gene: BPBiebs31_54 Start: 39309, Stop: 38695, Start Num: 50

Candidate Starts for BPBiebs31_54:

(33, 39351), (Start: 44 @39321 has 3 MA's), (Start: 50 @39309 has 123 MA's), (62, 39210), (74, 39156), (78, 39141), (79, 39132), (116, 38997), (127, 38961), (145, 38907), (154, 38886), (173, 38847),

Gene: BaconJack_55 Start: 39964, Stop: 39221, Start Num: 50

Candidate Starts for BaconJack_55:

(Start: 44 @39976 has 3 MA's), (Start: 50 @39964 has 123 MA's), (62, 39865), (74, 39811), (78, 39796), (79, 39787), (116, 39652), (127, 39616), (145, 39562), (156, 39538), (189, 39451), (190, 39445), (191, 39439), (192, 39430), (199, 39400), (202, 39349),

Gene: BarrowTuph_54 Start: 38581, Stop: 38015, Start Num: 50

Candidate Starts for BarrowTuph_54:

(Start: 50 @38581 has 123 MA's), (62, 38482), (74, 38428), (78, 38413), (79, 38404), (116, 38269), (127, 38233), (145, 38179), (156, 38155), (197, 38026),

Gene: BeesKnees_56 Start: 38614, Stop: 38048, Start Num: 50

Candidate Starts for BeesKnees_56:

(Start: 50 @38614 has 123 MA's), (62, 38515), (74, 38461), (78, 38446), (79, 38437), (116, 38302), (127, 38266), (145, 38212), (154, 38191), (169, 38170), (195, 38113), (200, 38086),

Gene: Bellris_56 Start: 37720, Stop: 37262, Start Num: 54

Candidate Starts for Bellris_56:

(Start: 54 @37720 has 79 MA's), (70, 37582), (72, 37576), (73, 37573), (74, 37570), (80, 37543), (82, 37516), (88, 37477), (119, 37396), (143, 37324), (174, 37267),

Gene: Benedict_53 Start: 36915, Stop: 36427, Start Num: 49

Candidate Starts for Benedict_53:

(12, 37062), (Start: 49 @36915 has 36 MA's), (62, 36816), (70, 36774), (71, 36771), (74, 36762), (124, 36558), (126, 36549), (174, 36441),

Gene: BennyP_59 Start: 37175, Stop: 36732, Start Num: 54

Candidate Starts for BennyP_59:

(Start: 54 @37175 has 79 MA's), (73, 37031), (74, 37028), (80, 37001), (88, 36935), (102, 36875), (126, 36830),

Gene: Bethlehem_54 Start: 40112, Stop: 39468, Start Num: 50

Candidate Starts for Bethlehem_54:

(Start: 50 @40112 has 123 MA's), (62, 40013), (74, 39959), (78, 39944), (79, 39935), (94, 39815), (116, 39719), (127, 39683), (145, 39632), (154, 39611), (169, 39590), (195, 39533), (200, 39506),

Gene: Bexan_51 Start: 39240, Stop: 38497, Start Num: 50

Candidate Starts for Bexan_51:

(Start: 50 @39240 has 123 MA's), (62, 39141), (74, 39087), (78, 39072), (79, 39063), (116, 38928), (127, 38892), (145, 38838), (156, 38814), (189, 38727), (190, 38721), (191, 38715), (192, 38706), (199, 38676), (202, 38625),

Gene: Bigchungi_53 Start: 37682, Stop: 37113, Start Num: 47

Candidate Starts for Bigchungi_53:

(Start: 31 @37733 has 1 MA's), (Start: 47 @37682 has 20 MA's), (62, 37580), (74, 37526), (78, 37511), (79, 37502), (116, 37367), (127, 37331), (145, 37277), (154, 37256), (169, 37235), (200, 37151),

Gene: Bigfoot_49 Start: 37265, Stop: 36663, Start Num: 50

Candidate Starts for Bigfoot_49:

(Start: 50 @37265 has 123 MA's), (62, 37166), (74, 37112), (78, 37097), (79, 37088), (116, 36953), (127, 36917), (145, 36863), (154, 36842), (169, 36809), (180, 36785), (200, 36701),

Gene: BillKnuckles_53 Start: 39161, Stop: 38388, Start Num: 50

Candidate Starts for BillKnuckles_53:

(Start: 50 @39161 has 123 MA's), (62, 39062), (74, 39008), (78, 38993), (79, 38984), (116, 38849), (127, 38813), (154, 38753), (203, 38567), (204, 38516), (206, 38453),

Gene: Blackflame_52 Start: 38321, Stop: 37674, Start Num: 50

Candidate Starts for Blackflame_52:

(Start: 50 @38321 has 123 MA's), (62, 38222), (74, 38168), (78, 38153), (79, 38144), (94, 38024), (116, 37928), (127, 37892), (145, 37838), (154, 37817), (169, 37796), (200, 37712),

Gene: BlessJoy_59 Start: 37531, Stop: 37088, Start Num: 54

Candidate Starts for BlessJoy_59:

(Start: 54 @37531 has 79 MA's), (73, 37387), (74, 37384), (80, 37357), (88, 37291), (102, 37231), (126, 37186),

Gene: Blessor_52 Start: 38226, Stop: 37630, Start Num: 50

Candidate Starts for Blessor_52:

(Start: 50 @38226 has 123 MA's), (62, 38127), (74, 38073), (78, 38058), (79, 38049), (116, 37914), (127, 37878), (145, 37824), (154, 37803), (156, 37800), (159, 37797), (182, 37743),

Gene: Blinn1_61 Start: 37123, Stop: 36680, Start Num: 54

Candidate Starts for Blinn1_61:

(Start: 54 @37123 has 79 MA's), (73, 36979), (74, 36976), (80, 36949), (88, 36883), (126, 36778),

Gene: Blue7_60 Start: 37199, Stop: 36762, Start Num: 54

Candidate Starts for Blue7_60:

(Start: 54 @37199 has 79 MA's), (73, 37055), (74, 37052), (80, 37025), (88, 36959), (102, 36896), (126, 36851), (172, 36773),

Gene: Bluefalcon_48 Start: 37083, Stop: 36616, Start Num: 49

Candidate Starts for Bluefalcon_48:

(38, 37119), (Start: 49 @37083 has 36 MA's), (62, 36984), (74, 36930), (75, 36927), (76, 36924), (77, 36921), (139, 36687), (169, 36633),

Gene: BogosyJay_56 Start: 37976, Stop: 37491, Start Num: 54

Candidate Starts for BogosyJay_56:

(7, 38201), (8, 38192), (Start: 54 @37976 has 79 MA's), (70, 37838), (72, 37832), (73, 37829), (74, 37826), (80, 37799), (82, 37772), (88, 37733), (119, 37628), (160, 37526), (169, 37505), (174, 37496),

Gene: Bonamassa_49 Start: 36951, Stop: 36457, Start Num: 49

Candidate Starts for Bonamassa_49:

(39, 36981), (Start: 49 @36951 has 36 MA's), (62, 36852), (70, 36810), (71, 36807), (74, 36798), (127, 36579), (157, 36501), (174, 36471),

Gene: Bradman_56 Start: 37152, Stop: 36703, Start Num: 54

Candidate Starts for Bradman_56:

(Start: 54 @37152 has 79 MA's), (70, 37014), (72, 37008), (73, 37005), (74, 37002), (80, 36975), (82, 36948), (88, 36909), (153, 36738), (174, 36708),

Gene: Briton15_57 Start: 38936, Stop: 38289, Start Num: 50

Candidate Starts for Briton15_57:

(Start: 50 @38936 has 123 MA's), (62, 38837), (74, 38783), (78, 38768), (79, 38759), (94, 38639), (116, 38543), (127, 38507), (145, 38453), (154, 38432), (169, 38411), (195, 38354), (200, 38327),

Gene: Burton_53 Start: 38704, Stop: 38138, Start Num: 50

Candidate Starts for Burton_53:

(24, 38788), (Start: 44 @38716 has 3 MA's), (Start: 50 @38704 has 123 MA's), (62, 38605), (74, 38551), (78, 38536), (79, 38527), (116, 38392), (127, 38356), (145, 38302), (154, 38281), (169, 38260), (195, 38203), (200, 38176),

Gene: Buttons_52 Start: 36766, Stop: 36149, Start Num: 50

Candidate Starts for Buttons_52:

(Start: 50 @36766 has 123 MA's), (62, 36667), (74, 36613), (78, 36598), (79, 36589), (116, 36454), (127, 36418), (145, 36364), (154, 36343),

Gene: Bxb1_49 Start: 37514, Stop: 36960, Start Num: 50

Candidate Starts for Bxb1_49:

(Start: 50 @37514 has 123 MA's), (62, 37415), (74, 37361), (78, 37346), (79, 37337), (116, 37202), (127, 37166), (145, 37115), (154, 37094), (173, 37055),

Gene: C3_55 Start: 38397, Stop: 37942, Start Num: 50

Candidate Starts for C3_55:

(Start: 50 @38397 has 123 MA's), (70, 38256), (74, 38244), (77, 38235), (83, 38181), (117, 38106), (125, 38085), (126, 38076), (169, 37962),

Gene: CRB1_61 Start: 39164, Stop: 38667, Start Num: 54

Candidate Starts for CRB1_61:

(Start: 54 @39164 has 79 MA's), (70, 39023), (72, 39017), (73, 39014), (74, 39011), (80, 38984), (82, 38957), (88, 38918), (98, 38867), (115, 38822), (120, 38807),

Gene: CactusRose_50 Start: 37728, Stop: 36982, Start Num: 47

Candidate Starts for CactusRose_50:

(Start: 31 @37779 has 1 MA's), (Start: 47 @37728 has 20 MA's), (62, 37626), (74, 37572), (78, 37557), (79, 37548), (116, 37413), (127, 37377), (145, 37323), (156, 37299), (189, 37212), (190, 37206), (191, 37200), (192, 37191), (199, 37161), (202, 37110), (205, 37047),

Gene: Caitlin_54 Start: 36631, Stop: 36161, Start Num: 43

Candidate Starts for Caitlin_54:

(Start: 43 @36631 has 16 MA's), (64, 36514), (70, 36478), (73, 36469), (74, 36466), (106, 36340), (147, 36223), (155, 36205), (174, 36172),

Gene: Candra_58 Start: 37045, Stop: 36602, Start Num: 54

Candidate Starts for Candra_58:

(Start: 54 @37045 has 79 MA's), (73, 36901), (74, 36898), (80, 36871), (88, 36805), (102, 36745), (126, 36700),

Gene: Caraxes_57 Start: 36675, Stop: 36196, Start Num: 43

Candidate Starts for Caraxes_57:

(6, 36891), (Start: 43 @36675 has 16 MA's), (69, 36513), (70, 36507), (74, 36495), (87, 36393), (115, 36324), (119, 36312), (135, 36270), (168, 36201),

Gene: CartmannCramer_52 Start: 40075, Stop: 39509, Start Num: 47

Candidate Starts for CartmannCramer_52:

(Start: 31 @40126 has 1 MA's), (Start: 47 @40075 has 20 MA's), (62, 39973), (74, 39919), (78, 39904), (79, 39895), (116, 39760), (127, 39724), (145, 39673), (154, 39652), (169, 39631), (200, 39547),

Gene: CatBus_53 Start: 39005, Stop: 38388, Start Num: 50

Candidate Starts for CatBus_53:

(Start: 50 @39005 has 123 MA's), (62, 38906), (74, 38852), (78, 38837), (79, 38828), (116, 38693), (127, 38657), (145, 38603), (154, 38582),

Gene: Celestiallunch_56 Start: 37762, Stop: 37325, Start Num: 50

Candidate Starts for Celestiallunch_56:

(3, 38056), (Start: 50 @37762 has 123 MA's), (74, 37609), (86, 37525), (116, 37480), (137, 37417), (174, 37330),

Gene: Chadwick_53 Start: 36756, Stop: 36268, Start Num: 49

Candidate Starts for Chadwick_53:

(Start: 49 @36756 has 36 MA's), (62, 36657), (70, 36615), (71, 36612), (74, 36603), (77, 36594), (126, 36390), (174, 36282),

Gene: Changeling_56 Start: 38803, Stop: 38336, Start Num: 54

Candidate Starts for Changeling_56:

(Start: 54 @38803 has 79 MA's), (70, 38665), (73, 38656), (74, 38653), (80, 38626), (82, 38599), (88, 38560), (101, 38503), (109, 38482), (176, 38356),

Gene: Charm_55 Start: 37821, Stop: 37384, Start Num: 50

Candidate Starts for Charm_55:

(Start: 50 @37821 has 123 MA's), (62, 37722), (74, 37668), (130, 37500), (174, 37389),

Gene: Chartreuse_57 Start: 36396, Stop: 35962, Start Num: 54

Candidate Starts for Chartreuse_57:

(Start: 54 @36396 has 79 MA's), (73, 36252), (74, 36249), (80, 36222), (88, 36156), (102, 36096), (172, 35973),

Gene: Che12_58 Start: 37116, Stop: 36628, Start Num: 43

Candidate Starts for Che12_58:

(Start: 43 @37116 has 16 MA's), (69, 36975), (70, 36969), (74, 36957), (81, 36906), (87, 36855), (170, 36654), (179, 36633),

Gene: Ciao_53 Start: 38224, Stop: 37607, Start Num: 50

Candidate Starts for Ciao_53:

(Start: 50 @38224 has 123 MA's), (62, 38125), (74, 38071), (78, 38056), (79, 38047), (116, 37912), (127, 37876), (145, 37822), (154, 37801),

Gene: CloudWang3_59 Start: 37193, Stop: 36750, Start Num: 54

Candidate Starts for CloudWang3_59:

(Start: 54 @37193 has 79 MA's), (73, 37049), (74, 37046), (80, 37019), (88, 36953), (102, 36893), (126, 36848),

Gene: CogOmlette_56 Start: 37717, Stop: 37259, Start Num: 54

Candidate Starts for CogOmlette_56:

(Start: 54 @37717 has 79 MA's), (70, 37579), (72, 37573), (73, 37570), (74, 37567), (80, 37540), (82, 37513), (88, 37474), (119, 37393), (143, 37321), (174, 37264),

Gene: Colin_57 Start: 38509, Stop: 38060, Start Num: 54

Candidate Starts for Colin_57:

(Start: 54 @38509 has 79 MA's), (70, 38374), (72, 38368), (73, 38365), (74, 38362), (80, 38335), (82, 38308), (88, 38269), (95, 38230), (103, 38197), (109, 38188),

Gene: ConceptII_55 Start: 39890, Stop: 39276, Start Num: 47

Candidate Starts for ConceptII_55:

(16, 40001), (30, 39944), (Start: 47 @39890 has 20 MA's), (62, 39788), (74, 39734), (78, 39719), (79, 39710), (116, 39575), (127, 39539), (145, 39488), (154, 39467), (164, 39446), (172, 39431), (183, 39398),

Gene: Conspiracy_49 Start: 36750, Stop: 36283, Start Num: 49

Candidate Starts for Conspiracy_49:

(Start: 49 @36750 has 36 MA's), (62, 36651), (74, 36597), (75, 36594), (76, 36591), (139, 36354), (169, 36300),

Gene: Coog_48 Start: 36935, Stop: 36441, Start Num: 49

Candidate Starts for Coog_48:

(Start: 49 @36935 has 36 MA's), (71, 36791), (73, 36785), (74, 36782), (127, 36563), (157, 36485), (174, 36455),

Gene: Cookiedough_58 Start: 37024, Stop: 36581, Start Num: 54

Candidate Starts for Cookiedough_58:

(Start: 54 @37024 has 79 MA's), (73, 36880), (74, 36877), (80, 36850), (88, 36784), (102, 36724), (126, 36679),

Gene: Corvo_54 Start: 39669, Stop: 39103, Start Num: 50

Candidate Starts for Corvo_54:

(Start: 50 @39669 has 123 MA's), (62, 39570), (74, 39516), (78, 39501), (79, 39492), (116, 39357), (127, 39321), (145, 39267), (154, 39246), (169, 39225), (195, 39168), (200, 39141),

Gene: Crucio_57 Start: 38174, Stop: 37680, Start Num: 54

Candidate Starts for Crucio_57:

(Start: 54 @38174 has 79 MA's), (70, 38036), (72, 38030), (73, 38027), (74, 38024), (80, 37997), (82, 37970), (88, 37931), (91, 37901), (123, 37817), (149, 37742),

Gene: Cuco_49 Start: 36807, Stop: 36313, Start Num: 49

Candidate Starts for Cuco_49:

(38, 36843), (Start: 49 @36807 has 36 MA's), (71, 36663), (73, 36657), (74, 36654), (127, 36435), (157, 36357), (174, 36327),

Gene: D29_55 Start: 38000, Stop: 37545, Start Num: 50

Candidate Starts for D29_55:

(Start: 50 @38000 has 123 MA's), (70, 37859), (74, 37847), (77, 37838), (83, 37784), (117, 37709), (125, 37688), (126, 37679), (169, 37565),

Gene: D32_58 Start: 38000, Stop: 37545, Start Num: 50

Candidate Starts for D32_58:

(Start: 50 @38000 has 123 MA's), (70, 37859), (74, 37847), (77, 37838), (83, 37784), (117, 37709), (125, 37688), (126, 37679), (169, 37565),

Gene: DBQu4n_59 Start: 37981, Stop: 37526, Start Num: 50

Candidate Starts for DBQu4n_59:

(Start: 50 @37981 has 123 MA's), (70, 37840), (74, 37828), (77, 37819), (83, 37765), (117, 37690), (125, 37669), (126, 37660), (169, 37546),

Gene: DD5_53 Start: 39005, Stop: 38370, Start Num: 50

Candidate Starts for DD5_53:

(Start: 50 @39005 has 123 MA's), (62, 38906), (74, 38852), (78, 38837), (79, 38828), (94, 38708), (116, 38612), (127, 38576), (154, 38513), (169, 38492), (200, 38408),

Gene: DaVinci_57 Start: 36450, Stop: 36016, Start Num: 54

Candidate Starts for DaVinci_57:

(Start: 54 @36450 has 79 MA's), (73, 36306), (74, 36303), (80, 36276), (88, 36210), (102, 36150), (172, 36027),

Gene: DARTHPhader_53 Start: 38914, Stop: 38369, Start Num: 43

Candidate Starts for DARTHPhader_53:

(Start: 43 @38914 has 16 MA's), (62, 38815), (70, 38767), (74, 38755), (78, 38740), (100, 38608), (117, 38557), (187, 38374),

Gene: Dexes_54 Start: 39125, Stop: 38514, Start Num: 50

Candidate Starts for Dexes_54:

(Start: 50 @39125 has 123 MA's), (62, 39026), (74, 38972), (78, 38957), (79, 38948), (116, 38813), (127, 38777), (145, 38726), (154, 38705), (164, 38684), (169, 38672), (172, 38669), (183, 38636), (185, 38633), (201, 38525),

Gene: Discoknowium_47 Start: 36417, Stop: 35950, Start Num: 49

Candidate Starts for Discoknowium_47:

(Start: 49 @36417 has 36 MA's), (62, 36318), (74, 36264), (75, 36261), (76, 36258), (139, 36021), (169, 35967),

Gene: Dixon_55 Start: 36492, Stop: 36022, Start Num: 43

Candidate Starts for Dixon_55:

(1, 36777), (11, 36618), (Start: 43 @36492 has 16 MA's), (64, 36375), (70, 36339), (73, 36330), (74, 36327), (106, 36201), (147, 36084), (155, 36066), (174, 36033),

Gene: Doom_52 Start: 38537, Stop: 37764, Start Num: 50

Candidate Starts for Doom_52:

(Start: 50 @38537 has 123 MA's), (62, 38438), (74, 38384), (78, 38369), (79, 38360), (116, 38225), (127, 38189), (154, 38129), (203, 37943), (204, 37892),

Gene: Dorothea_58 Start: 37019, Stop: 36585, Start Num: 54

Candidate Starts for Dorothea_58:

(Start: 54 @37019 has 79 MA's), (73, 36875), (74, 36872), (80, 36845), (82, 36818), (88, 36779), (102, 36719), (126, 36674), (172, 36596),

Gene: DreamCatcher_57 Start: 39673, Stop: 39026, Start Num: 50

Candidate Starts for DreamCatcher_57:

(Start: 50 @39673 has 123 MA's), (62, 39574), (74, 39520), (78, 39505), (79, 39496), (94, 39376), (116, 39280), (127, 39244), (145, 39190), (154, 39169), (169, 39148), (195, 39091), (200, 39064),

Gene: DreamTeam1_55 Start: 37653, Stop: 37216, Start Num: 50

Candidate Starts for DreamTeam1_55:

(Start: 50 @37653 has 123 MA's), (62, 37554), (74, 37500), (130, 37332), (174, 37221),

Gene: DroogsArmy_50 Start: 38758, Stop: 38237, Start Num: 47

Candidate Starts for DroogsArmy_50:

(14, 38866), (23, 38833), (25, 38827), (Start: 47 @38758 has 20 MA's), (62, 38659), (68, 38626), (74, 38605), (75, 38602), (77, 38596), (78, 38590), (122, 38407),

Gene: Dublin_49 Start: 36919, Stop: 36452, Start Num: 49

Candidate Starts for Dublin_49:

(38, 36955), (Start: 49 @36919 has 36 MA's), (62, 36820), (74, 36766), (75, 36763), (76, 36760), (139, 36523), (169, 36469),

Gene: Dulcie_54 Start: 38438, Stop: 37827, Start Num: 50

Candidate Starts for Dulcie_54:

(Start: 50 @38438 has 123 MA's), (62, 38339), (74, 38285), (78, 38270), (79, 38261), (116, 38126), (127, 38096), (145, 38042), (154, 38021),

Gene: Duplo_59 Start: 38037, Stop: 37582, Start Num: 50

Candidate Starts for Duplo_59:

(Start: 50 @38037 has 123 MA's), (70, 37896), (74, 37884), (77, 37875), (83, 37821), (117, 37746), (125, 37725), (126, 37716), (169, 37602),

Gene: Dynamix_55 Start: 38412, Stop: 37846, Start Num: 50

Candidate Starts for Dynamix_55:

(Start: 50 @38412 has 123 MA's), (62, 38313), (74, 38259), (78, 38244), (79, 38235), (116, 38100), (127, 38064), (145, 38010), (154, 37989), (169, 37968), (195, 37911), (200, 37884),

Gene: EagleEye_59 Start: 37874, Stop: 37425, Start Num: 54

Candidate Starts for EagleEye_59:

(Start: 54 @37874 has 79 MA's), (73, 37730), (74, 37727), (80, 37700), (82, 37673), (85, 37646), (101, 37577), (105, 37559),

Gene: ElTiger69_52 Start: 36876, Stop: 36409, Start Num: 49

Candidate Starts for ElTiger69_52:

(12, 37023), (Start: 49 @36876 has 36 MA's), (62, 36777), (70, 36735), (71, 36732), (74, 36723), (115, 36552), (135, 36501),

Gene: EnzoK_52 Start: 36041, Stop: 35424, Start Num: 50

Candidate Starts for EnzoK_52:

(Start: 44 @36053 has 3 MA's), (Start: 50 @36041 has 123 MA's), (62, 35942), (74, 35888), (78, 35873), (79, 35864), (116, 35729), (127, 35693), (145, 35639), (154, 35618),

Gene: EricB_58 Start: 37002, Stop: 36559, Start Num: 54

Candidate Starts for EricB_58:

(Start: 54 @37002 has 79 MA's), (73, 36858), (74, 36855), (80, 36828), (88, 36762), (102, 36702), (126, 36657),

Gene: Expelliarmus_54 Start: 36696, Stop: 36226, Start Num: 43

Candidate Starts for Expelliarmus_54:

(1, 36981), (11, 36822), (Start: 43 @36696 has 16 MA's), (64, 36579), (70, 36543), (73, 36534), (74, 36531), (106, 36405), (147, 36288), (174, 36237),

Gene: Fajezeel_55 Start: 38573, Stop: 37956, Start Num: 50

Candidate Starts for Fajezeel_55:

(Start: 50 @38573 has 123 MA's), (62, 38474), (74, 38420), (78, 38405), (79, 38396), (116, 38261), (127, 38225), (145, 38171), (154, 38150),

Gene: Fameo_57 Start: 38505, Stop: 38011, Start Num: 54

Candidate Starts for Fameo_57:

(Start: 54 @38505 has 79 MA's), (70, 38367), (72, 38361), (73, 38358), (74, 38355), (80, 38328), (82, 38301), (88, 38262), (91, 38232), (98, 38211),

Gene: Fascinus_49 Start: 37456, Stop: 36887, Start Num: 47

Candidate Starts for Fascinus_49:

(Start: 31 @37507 has 1 MA's), (Start: 47 @37456 has 20 MA's), (62, 37354), (74, 37300), (78, 37285), (79, 37276), (116, 37141), (127, 37105), (145, 37054), (154, 37033), (169, 37012), (200, 36925),

Gene: FatCactus_48 Start: 35445, Stop: 34978, Start Num: 48

Candidate Starts for FatCactus_48:

(37, 35484), (41, 35472), (Start: 48 @35445 has 1 MA's), (74, 35292), (75, 35289), (89, 35199), (108, 35124), (116, 35112), (129, 35079), (136, 35058), (174, 34983),

Gene: Fenn_56 Start: 40358, Stop: 39792, Start Num: 50

Candidate Starts for Fenn_56:

(Start: 50 @40358 has 123 MA's), (62, 40259), (74, 40205), (78, 40190), (79, 40181), (116, 40046), (127, 40010), (145, 39956), (154, 39935), (169, 39914), (195, 39857), (200, 39830),

Gene: FiringLine_57 Start: 38155, Stop: 37661, Start Num: 54

Candidate Starts for FiringLine_57:

(Start: 54 @38155 has 79 MA's), (70, 38017), (72, 38011), (73, 38008), (74, 38005), (80, 37978), (82, 37951), (88, 37912), (91, 37882), (123, 37798), (149, 37723),

Gene: Florence1_47 Start: 36280, Stop: 35786, Start Num: 49

Candidate Starts for Florence1_47:

(39, 36310), (Start: 49 @36280 has 36 MA's), (62, 36181), (70, 36139), (71, 36136), (74, 36127), (127, 35908), (157, 35830), (174, 35800),

Gene: Florence4_49 Start: 36310, Stop: 35786, Start Num: 39

Candidate Starts for Florence4_49:

(39, 36310), (Start: 49 @36280 has 36 MA's), (62, 36181), (70, 36139), (71, 36136), (74, 36127), (127, 35908), (157, 35830), (174, 35800),

Gene: FlyCatcher_59 Start: 40134, Stop: 39640, Start Num: 47

Candidate Starts for FlyCatcher_59:

(Start: 47 @40134 has 20 MA's), (61, 40038), (74, 39981), (77, 39972), (79, 39957), (117, 39819),

Gene: ForGetIt_49 Start: 36775, Stop: 36308, Start Num: 49

Candidate Starts for ForGetIt_49:

(Start: 49 @36775 has 36 MA's), (62, 36676), (74, 36622), (75, 36619), (76, 36616), (139, 36379), (169, 36325),

Gene: Forsytheast_53 Start: 37985, Stop: 37419, Start Num: 50

Candidate Starts for Forsytheast_53:

(Start: 50 @37985 has 123 MA's), (62, 37886), (74, 37832), (78, 37817), (79, 37808), (116, 37673), (127, 37637), (145, 37583), (154, 37562), (169, 37541), (195, 37484), (200, 37457),

Gene: GMonster_50 Start: 36829, Stop: 36272, Start Num: 50

Candidate Starts for GMonster_50:

(9, 37015), (27, 36895), (Start: 50 @36829 has 123 MA's), (57, 36796), (62, 36730), (74, 36676), (78, 36661), (79, 36652), (116, 36517), (127, 36481), (145, 36427), (154, 36406), (173, 36367),

Gene: Gachnar_53 Start: 37597, Stop: 37031, Start Num: 47

Candidate Starts for Gachnar_53:

(9, 37783), (27, 37663), (Start: 47 @37597 has 20 MA's), (57, 37564), (62, 37498), (74, 37444), (78, 37429), (79, 37420), (116, 37285), (127, 37249), (145, 37195), (154, 37174), (169, 37153), (195, 37096), (200, 37069),

Gene: Gail_61 Start: 39377, Stop: 38874, Start Num: 53

Candidate Starts for Gail_61:

(Start: 53 @39377 has 3 MA's), (70, 39242), (72, 39236), (73, 39233), (74, 39230), (80, 39203), (82, 39176), (85, 39149), (88, 39137), (98, 39083), (162, 38903),

Gene: Gandalf20_56 Start: 40348, Stop: 39758, Start Num: 50

Candidate Starts for Gandalf20_56:

(Start: 50 @40348 has 123 MA's), (62, 40249), (74, 40195), (78, 40180), (79, 40171), (116, 40036), (127, 40000), (145, 39946), (154, 39925), (173, 39886), (184, 39853),

Gene: Garak_61 Start: 37472, Stop: 37029, Start Num: 54

Candidate Starts for Garak_61:

(Start: 54 @37472 has 79 MA's), (73, 37328), (74, 37325), (80, 37298), (88, 37232), (102, 37172), (126, 37127),

Gene: George_47 Start: 36848, Stop: 36360, Start Num: 49

Candidate Starts for George_47:

(39, 36878), (Start: 49 @36848 has 36 MA's), (62, 36749), (70, 36707), (71, 36704), (74, 36695), (127, 36476),

Gene: Georgie2_58 Start: 38200, Stop: 37706, Start Num: 54

Candidate Starts for Georgie2_58:

(Start: 54 @38200 has 79 MA's), (70, 38062), (72, 38056), (73, 38053), (74, 38050), (80, 38023), (82, 37996), (88, 37957), (91, 37927), (123, 37843), (149, 37768),

Gene: Ghoulboy_52 Start: 37654, Stop: 37187, Start Num: 49

Candidate Starts for Ghoulboy_52:

(38, 37690), (Start: 49 @37654 has 36 MA's), (62, 37555), (74, 37501), (75, 37498), (76, 37495), (77, 37492), (139, 37258), (169, 37204),

Gene: Gladiator_56 Start: 36697, Stop: 36260, Start Num: 54

Candidate Starts for Gladiator_56:

(Start: 54 @36697 has 79 MA's), (73, 36553), (74, 36550), (80, 36523), (88, 36457), (102, 36394), (126, 36349), (172, 36271),

Gene: GrecoEtereo_54 Start: 38332, Stop: 37766, Start Num: 50

Candidate Starts for GrecoEtereo_54:

(Start: 50 @38332 has 123 MA's), (62, 38233), (74, 38179), (78, 38164), (79, 38155), (116, 38020), (127, 37984), (145, 37930), (154, 37909), (200, 37804),

Gene: GreedyLawyer_58 Start: 37009, Stop: 36566, Start Num: 54

Candidate Starts for GreedyLawyer_58:

(Start: 54 @37009 has 79 MA's), (73, 36865), (74, 36862), (80, 36835), (88, 36769), (102, 36709), (126, 36664),

Gene: Greg_55 Start: 38573, Stop: 37956, Start Num: 50

Candidate Starts for Greg_55:

(Start: 50 @38573 has 123 MA's), (62, 38474), (74, 38420), (78, 38405), (79, 38396), (116, 38261), (127, 38225), (145, 38171), (154, 38150),

Gene: GroundGoblin_54 Start: 38955, Stop: 38338, Start Num: 50

Candidate Starts for GroundGoblin_54:

(Start: 50 @38955 has 123 MA's), (62, 38856), (74, 38802), (78, 38787), (79, 38778), (116, 38643), (127, 38607), (145, 38553), (154, 38532),

Gene: Gruunaga_59 Start: 37396, Stop: 36959, Start Num: 54

Candidate Starts for Gruunaga_59:

(Start: 54 @37396 has 79 MA's), (73, 37252), (74, 37249), (80, 37222), (88, 37156), (102, 37093), (126, 37048), (172, 36970),

Gene: Gsput1_65 Start: 41393, Stop: 42007, Start Num: 51

Candidate Starts for Gsput1_65:

(17, 41279), (18, 41288), (20, 41294), (26, 41315), (46, 41387), (51, 41393), (55, 41408), (65, 41516), (72, 41543), (74, 41549), (76, 41555), (77, 41558), (80, 41576), (83, 41612), (92, 41681), (99, 41705), (102, 41720), (107, 41735), (110, 41744), (113, 41750), (118, 41765), (127, 41792), (140, 41843), (150, 41861), (165, 41897), (181, 41933), (185, 41948), (193, 41996),

Gene: Gwendoluna_57 Start: 40576, Stop: 39968, Start Num: 50

Candidate Starts for Gwendoluna_57:

(Start: 50 @40576 has 123 MA's), (62, 40477), (74, 40423), (78, 40408), (79, 40399), (116, 40264), (127, 40228), (145, 40177), (154, 40156),

Gene: Gyzlar_49 Start: 36249, Stop: 35680, Start Num: 47

Candidate Starts for Gyzlar_49:

(Start: 31 @36300 has 1 MA's), (Start: 47 @36249 has 20 MA's), (62, 36147), (74, 36093), (78, 36078), (79, 36069), (116, 35934), (127, 35898), (145, 35844), (154, 35823), (169, 35802), (200, 35718),

Gene: HINdeR_49 Start: 38405, Stop: 37899, Start Num: 47

Candidate Starts for HINdeR_49:

(23, 38486), (25, 38480), (Start: 47 @38405 has 20 MA's), (68, 38273), (74, 38252), (75, 38249), (78, 38237),

Gene: Hammer_59 Start: 37003, Stop: 36566, Start Num: 54

Candidate Starts for Hammer_59:

(Start: 54 @37003 has 79 MA's), (73, 36859), (74, 36856), (80, 36829), (88, 36763), (126, 36655), (172, 36577),

Gene: HanShotFirst_54 Start: 38872, Stop: 38306, Start Num: 50

Candidate Starts for HanShotFirst_54:

(Start: 50 @38872 has 123 MA's), (62, 38773), (74, 38719), (78, 38704), (79, 38695), (116, 38560), (127, 38524), (145, 38470), (154, 38449), (169, 38428), (200, 38344),

Gene: HarryOW_52 Start: 37507, Stop: 36938, Start Num: 47

Candidate Starts for HarryOW_52:

(15, 37618), (30, 37561), (Start: 47 @37507 has 20 MA's), (62, 37405), (74, 37351), (78, 37336), (79, 37327), (116, 37192), (127, 37156), (145, 37102), (154, 37081), (200, 36976),

Gene: Heffalump_56 Start: 38973, Stop: 38479, Start Num: 54

Candidate Starts for Heffalump_56:

(Start: 54 @38973 has 79 MA's), (70, 38835), (72, 38829), (73, 38826), (74, 38823), (80, 38796), (82, 38769), (88, 38730), (91, 38700), (98, 38679), (100, 38673),

Gene: Helmet_61 Start: 37472, Stop: 37029, Start Num: 54

Candidate Starts for Helmet_61:

(Start: 54 @37472 has 79 MA's), (73, 37328), (74, 37325), (80, 37298), (88, 37232), (102, 37172), (126, 37127),

Gene: Herbertwm_55 Start: 37937, Stop: 37377, Start Num: 43

Candidate Starts for Herbertwm_55:

(5, 38162), (Start: 43 @37937 has 16 MA's), (58, 37868), (74, 37772), (75, 37769), (77, 37763), (100, 37625), (106, 37601), (114, 37583), (163, 37448), (177, 37418),

Gene: Hermia_54 Start: 39005, Stop: 38388, Start Num: 50

Candidate Starts for Hermia_54:

(Start: 50 @39005 has 123 MA's), (62, 38906), (74, 38852), (78, 38837), (79, 38828), (116, 38693), (127, 38657), (145, 38603), (154, 38582),

Gene: Hexamo_59 Start: 37102, Stop: 36659, Start Num: 54

Candidate Starts for Hexamo_59:

(Start: 54 @37102 has 79 MA's), (73, 36958), (74, 36955), (80, 36928), (88, 36862), (102, 36802), (126, 36757),

Gene: Homines_46 Start: 34514, Stop: 33951, Start Num: 50

Candidate Starts for Homines_46:

(Start: 50 @34514 has 123 MA's), (62, 34415), (74, 34361), (78, 34346), (79, 34337), (116, 34202), (127, 34166), (145, 34115), (154, 34094), (169, 34073), (200, 33989),

Gene: Hoot_53 Start: 34860, Stop: 34417, Start Num: 54

Candidate Starts for Hoot_53:

(Start: 54 @34860 has 79 MA's), (73, 34716), (74, 34713), (80, 34686), (88, 34620), (102, 34560), (126, 34515),

Gene: Hope4ever_55 Start: 39237, Stop: 38413, Start Num: 50

Candidate Starts for Hope4ever_55:

(Start: 50 @39237 has 123 MA's), (62, 39138), (74, 39084), (78, 39069), (79, 39060), (94, 38940), (116, 38844), (127, 38808), (145, 38754), (156, 38730), (189, 38643), (190, 38637), (191, 38631), (192, 38622), (199, 38592), (202, 38541),

Gene: HuhtaEnerson15_49 Start: 36845, Stop: 36351, Start Num: 49

Candidate Starts for HuhtaEnerson15_49:

(10, 37010), (12, 36992), (Start: 49 @36845 has 36 MA's), (62, 36746), (70, 36704), (71, 36701), (74, 36692), (127, 36473), (157, 36395), (174, 36365),

Gene: ILeeKay_57 Start: 39101, Stop: 38547, Start Num: 50

Candidate Starts for ILeeKay_57:

(Start: 50 @39101 has 123 MA's), (62, 39002), (74, 38948), (78, 38933), (79, 38924), (116, 38789), (127, 38753), (145, 38702), (154, 38681), (173, 38642),

Gene: Ichabod_56 Start: 39693, Stop: 39127, Start Num: 50

Candidate Starts for Ichabod_56:

(36, 39735), (Start: 44 @39705 has 3 MA's), (Start: 50 @39693 has 123 MA's), (62, 39594), (74, 39540), (78, 39525), (79, 39516), (116, 39381), (127, 39345), (145, 39291), (154, 39270), (169, 39249), (200, 39165),

Gene: Indra_62 Start: 37473, Stop: 37030, Start Num: 54

Candidate Starts for Indra_62:

(Start: 54 @37473 has 79 MA's), (73, 37329), (74, 37326), (80, 37299), (88, 37233), (102, 37173), (126, 37128),

Gene: Isiphiwo_56 Start: 36576, Stop: 36142, Start Num: 54

Candidate Starts for Isiphiwo_56:

(Start: 54 @36576 has 79 MA's), (73, 36432), (74, 36429), (80, 36402), (88, 36336), (102, 36276), (172, 36153),

Gene: Jabiru_51 Start: 36770, Stop: 36282, Start Num: 49

Candidate Starts for Jabiru_51:

(12, 36917), (Start: 49 @36770 has 36 MA's), (62, 36671), (70, 36629), (71, 36626), (74, 36617), (77, 36608), (124, 36413), (126, 36404), (174, 36296),

Gene: JackSparrow_55 Start: 38752, Stop: 38186, Start Num: 47

Candidate Starts for JackSparrow_55:

(30, 38803), (Start: 47 @38752 has 20 MA's), (57, 38719), (62, 38653), (74, 38599), (78, 38584), (79, 38575), (116, 38440), (127, 38404), (145, 38350), (154, 38329), (169, 38308), (200, 38224),

Gene: Jeeves_62 Start: 38354, Stop: 37857, Start Num: 54

Candidate Starts for Jeeves_62:

(Start: 54 @38354 has 79 MA's), (70, 38219), (72, 38213), (73, 38210), (74, 38207), (80, 38180), (82, 38153), (88, 38114), (91, 38084), (98, 38063), (162, 37886),

Gene: Jeffabunny_59 Start: 37099, Stop: 36656, Start Num: 54

Candidate Starts for Jeffabunny_59:

(Start: 54 @37099 has 79 MA's), (73, 36955), (74, 36952), (80, 36925), (88, 36859), (102, 36799), (126, 36754),

Gene: JewelBug_59 Start: 37215, Stop: 36772, Start Num: 54

Candidate Starts for JewelBug_59:

(Start: 54 @37215 has 79 MA's), (73, 37071), (74, 37068), (80, 37041), (88, 36975), (126, 36870), (132, 36855),

Gene: Jordennis_58 Start: 36696, Stop: 36262, Start Num: 54

Candidate Starts for Jordennis_58:

(Start: 54 @36696 has 79 MA's), (73, 36552), (74, 36549), (80, 36522), (82, 36495), (88, 36456), (102, 36396), (126, 36351), (172, 36273),

Gene: Jorgensen_54 Start: 38562, Stop: 37738, Start Num: 50

Candidate Starts for Jorgensen_54:

(Start: 50 @38562 has 123 MA's), (62, 38463), (74, 38409), (78, 38394), (79, 38385), (94, 38265), (116, 38169), (127, 38133), (145, 38079), (156, 38055), (189, 37968), (190, 37962), (191, 37956), (192, 37947), (199, 37917), (202, 37866),

Gene: JoshKayV_59 Start: 38828, Stop: 38325, Start Num: 53

Candidate Starts for JoshKayV_59:

(Start: 53 @38828 has 3 MA's), (70, 38687), (72, 38681), (73, 38678), (74, 38675), (80, 38648), (88, 38582), (98, 38531),

Gene: Journey13_51 Start: 36542, Stop: 36054, Start Num: 54

Candidate Starts for Journey13_51:

(Start: 54 @36542 has 79 MA's), (70, 36404), (72, 36398), (73, 36395), (74, 36392), (80, 36365), (85, 36311), (88, 36299), (173, 36071),

Gene: Jovo_49 Start: 37031, Stop: 36564, Start Num: 49

Candidate Starts for Jovo_49:

(Start: 49 @37031 has 36 MA's), (62, 36932), (74, 36878), (75, 36875), (76, 36872), (139, 36635), (169, 36581),

Gene: Jsquared_55 Start: 37136, Stop: 36672, Start Num: 54

Candidate Starts for Jsquared_55:

(Start: 54 @37136 has 79 MA's), (70, 36998), (72, 36992), (73, 36989), (74, 36986), (80, 36959), (82, 36932), (88, 36893), (118, 36812), (123, 36800), (151, 36722),

Gene: JuliaChild_54 Start: 38193, Stop: 37627, Start Num: 50

Candidate Starts for JuliaChild_54:

(36, 38235), (Start: 44 @38205 has 3 MA's), (Start: 50 @38193 has 123 MA's), (62, 38094), (74, 38040), (78, 38025), (79, 38016), (116, 37881), (127, 37845), (145, 37791), (154, 37770), (169, 37749), (195, 37692), (200, 37665),

Gene: KBG_54 Start: 40472, Stop: 39729, Start Num: 50

Candidate Starts for KBG_54:

(Start: 50 @40472 has 123 MA's), (62, 40373), (74, 40319), (78, 40304), (79, 40295), (116, 40160), (127, 40124), (145, 40070), (156, 40046), (189, 39959), (190, 39953), (191, 39947), (192, 39938), (199, 39908), (202, 39857),

Gene: KSSJEB_53 Start: 38192, Stop: 37626, Start Num: 50

Candidate Starts for KSSJEB_53:

(Start: 50 @38192 has 123 MA's), (62, 38093), (74, 38039), (78, 38024), (79, 38015), (116, 37880), (127, 37844), (145, 37790), (154, 37769), (169, 37748), (195, 37691), (200, 37664),

Gene: Kalpine_55 Start: 38383, Stop: 37931, Start Num: 54

Candidate Starts for Kalpine_55:

(Start: 54 @38383 has 79 MA's), (70, 38245), (72, 38239), (73, 38236), (74, 38233), (80, 38206), (82, 38179), (88, 38140), (109, 38059),

Gene: Kanely_55 Start: 38889, Stop: 38275, Start Num: 47

Candidate Starts for Kanely_55:

(Start: 31 @38940 has 1 MA's), (Start: 47 @38889 has 20 MA's), (62, 38787), (74, 38733), (78, 38718), (79, 38709), (116, 38574), (127, 38538), (145, 38487), (154, 38466), (164, 38445), (172, 38430), (183, 38397),

Gene: Kazan_59 Start: 37015, Stop: 36572, Start Num: 54

Candidate Starts for Kazan_59:

(Start: 54 @37015 has 79 MA's), (73, 36871), (74, 36868), (80, 36841), (88, 36775), (102, 36715), (126, 36670),

Gene: Kerberos_59 Start: 37999, Stop: 37544, Start Num: 50

Candidate Starts for Kerberos_59:

(Start: 50 @37999 has 123 MA's), (70, 37858), (74, 37846), (77, 37837), (83, 37783), (117, 37708), (125, 37687), (126, 37678), (169, 37564),

Gene: KikiBouba_54 Start: 38814, Stop: 38197, Start Num: 50

Candidate Starts for KikiBouba_54:

(Start: 50 @38814 has 123 MA's), (62, 38715), (74, 38661), (78, 38646), (79, 38637), (116, 38502), (127, 38466), (145, 38412), (154, 38391),

Gene: Killigrew_54 Start: 39392, Stop: 38826, Start Num: 50

Candidate Starts for Killigrew_54:

(Start: 50 @39392 has 123 MA's), (62, 39293), (74, 39239), (78, 39224), (79, 39215), (116, 39080), (127, 39044), (145, 38990), (154, 38969), (169, 38948), (195, 38891), (200, 38864),

Gene: Kipper29_58 Start: 37028, Stop: 36585, Start Num: 54

Candidate Starts for Kipper29_58:

(Start: 54 @37028 has 79 MA's), (73, 36884), (74, 36881), (80, 36854), (88, 36788), (102, 36728), (126, 36683),

Gene: Klodlith_56 Start: 37715, Stop: 37278, Start Num: 50

Candidate Starts for Klodlith_56:

(Start: 50 @37715 has 123 MA's), (62, 37616), (74, 37562), (130, 37394), (174, 37283),

Gene: Koduck_58 Start: 37415, Stop: 36957, Start Num: 54

Candidate Starts for Koduck_58:

(Start: 54 @37415 has 79 MA's), (70, 37277), (73, 37268), (74, 37265), (80, 37238), (82, 37211), (88, 37172), (123, 37082), (174, 36962),

Gene: Koko_60 Start: 37533, Stop: 37090, Start Num: 54

Candidate Starts for Koko_60:

(Start: 54 @37533 has 79 MA's), (73, 37389), (74, 37386), (80, 37359), (88, 37293), (102, 37233), (126, 37188),

Gene: Kugel_54 Start: 39457, Stop: 38903, Start Num: 50

Candidate Starts for Kugel_54:

(Start: 50 @39457 has 123 MA's), (62, 39358), (74, 39304), (78, 39289), (79, 39280), (116, 39145), (127, 39109), (145, 39058), (154, 39037), (173, 38998),

Gene: KyMonks1A_55 Start: 38450, Stop: 37833, Start Num: 47

Candidate Starts for KyMonks1A_55:

(Start: 31 @38501 has 1 MA's), (Start: 47 @38450 has 20 MA's), (62, 38348), (74, 38294), (78, 38279), (79, 38270), (116, 38135), (127, 38099), (145, 38045), (154, 38024), (172, 37988), (183, 37955),

Gene: Kykar_53 Start: 38219, Stop: 37605, Start Num: 50

Candidate Starts for Kykar_53:

(Start: 50 @38219 has 123 MA's), (62, 38120), (74, 38066), (78, 38051), (79, 38042), (116, 37907), (145, 37817), (154, 37796), (164, 37775), (172, 37760), (183, 37727),

Gene: L5_55 Start: 37502, Stop: 37032, Start Num: 54

Candidate Starts for L5_55:

(Start: 54 @37502 has 79 MA's), (70, 37364), (73, 37355), (74, 37352), (80, 37325), (82, 37298), (88, 37259), (99, 37205), (103, 37184), (120, 37157), (130, 37130), (133, 37115), (160, 37064),

Gene: LadyBird_62 Start: 39099, Stop: 38653, Start Num: 54

Candidate Starts for LadyBird_62:

(Start: 54 @39099 has 79 MA's), (70, 38958), (72, 38952), (73, 38949), (74, 38946), (80, 38919), (82, 38892), (88, 38853),

Gene: Lamina13_54 Start: 38247, Stop: 37576, Start Num: 50

Candidate Starts for Lamina13_54:

(Start: 50 @38247 has 123 MA's), (62, 38148), (74, 38094), (78, 38079), (79, 38070), (94, 37950), (116, 37854), (127, 37818), (145, 37764), (154, 37743), (173, 37704), (184, 37671),

Gene: Lev2_49 Start: 36663, Stop: 36196, Start Num: 49

Candidate Starts for Lev2_49:

(Start: 49 @36663 has 36 MA's), (62, 36564), (74, 36510), (75, 36507), (76, 36504), (139, 36267), (169, 36213),

Gene: Licorice_56 Start: 40561, Stop: 39995, Start Num: 50

Candidate Starts for Licorice_56:

(Start: 50 @40561 has 123 MA's), (62, 40462), (74, 40408), (78, 40393), (79, 40384), (116, 40249), (127, 40213), (145, 40159), (154, 40138), (169, 40117), (200, 40033),

Gene: LilBib_53 Start: 39658, Stop: 39053, Start Num: 47

Candidate Starts for LilBib_53:

(15, 39769), (28, 39721), (Start: 47 @39658 has 20 MA's), (62, 39556), (74, 39502), (78, 39487), (79, 39478), (116, 39343), (127, 39307), (141, 39247), (194, 39124), (201, 39064),

Gene: Lilbunny_58 Start: 37103, Stop: 36660, Start Num: 54

Candidate Starts for Lilbunny_58:

(Start: 54 @37103 has 79 MA's), (73, 36959), (74, 36956), (80, 36929), (88, 36863), (102, 36803), (126, 36758),

Gene: LittleCherry_49 Start: 36865, Stop: 36371, Start Num: 49

Candidate Starts for LittleCherry_49:

(39, 36895), (Start: 49 @36865 has 36 MA's), (62, 36766), (70, 36724), (71, 36721), (74, 36712), (127, 36493), (157, 36415), (174, 36385),

Gene: Lockley_52 Start: 38167, Stop: 37532, Start Num: 50

Candidate Starts for Lockley_52:

(Start: 50 @38167 has 123 MA's), (62, 38068), (74, 38014), (78, 37999), (79, 37990), (94, 37870), (116, 37774), (127, 37738), (154, 37675), (169, 37654), (200, 37570),

Gene: Lopton_53 Start: 40447, Stop: 39704, Start Num: 50

Candidate Starts for Lopton_53:

(35, 40489), (Start: 44 @40459 has 3 MA's), (Start: 50 @40447 has 123 MA's), (62, 40348), (74, 40294), (78, 40279), (79, 40270), (116, 40135), (127, 40099), (145, 40045), (156, 40021), (189, 39934), (190, 39928), (191, 39922), (192, 39913), (199, 39883), (202, 39832), (205, 39769),

Gene: Luchador_61 Start: 39939, Stop: 39442, Start Num: 53

Candidate Starts for Luchador_61:

(Start: 53 @39939 has 3 MA's), (70, 39804), (72, 39798), (73, 39795), (74, 39792), (80, 39765), (82, 39738), (88, 39699), (91, 39669), (98, 39648), (162, 39471),

Gene: Lucyedi_58 Start: 38070, Stop: 37621, Start Num: 54

Candidate Starts for Lucyedi_58:

(Start: 54 @38070 has 79 MA's), (73, 37926), (74, 37923), (80, 37896), (82, 37869), (85, 37842), (101, 37773), (105, 37755),

Gene: Magnito_52 Start: 38460, Stop: 37900, Start Num: 50

Candidate Starts for Magnito_52:

(Start: 50 @38460 has 123 MA's), (62, 38361), (74, 38307), (78, 38292), (79, 38283), (116, 38148), (127, 38112), (145, 38058), (154, 38037), (200, 37938),

Gene: MajorMajor_56 Start: 37152, Stop: 36703, Start Num: 54

Candidate Starts for MajorMajor_56:

(Start: 54 @37152 has 79 MA's), (70, 37014), (72, 37008), (73, 37005), (74, 37002), (80, 36975), (82, 36948), (88, 36909), (153, 36738), (174, 36708),

Gene: Maminiaina_56 Start: 37958, Stop: 37473, Start Num: 54

Candidate Starts for Maminiaina_56:

(7, 38183), (8, 38174), (Start: 54 @37958 has 79 MA's), (70, 37820), (72, 37814), (73, 37811), (74, 37808), (80, 37781), (82, 37754), (88, 37715), (119, 37610), (160, 37508), (169, 37487), (174, 37478),

Gene: Marcell_51 Start: 37819, Stop: 37265, Start Num: 50

Candidate Starts for Marcell_51:

(Start: 50 @37819 has 123 MA's), (62, 37720), (74, 37666), (78, 37651), (79, 37642), (116, 37507), (127, 37471), (145, 37420), (154, 37399), (173, 37360),

Gene: Marge_53 Start: 38708, Stop: 38079, Start Num: 50

Candidate Starts for Marge_53:

(Start: 50 @38708 has 123 MA's), (62, 38609), (74, 38555), (78, 38540), (79, 38531), (116, 38396), (127, 38360), (145, 38306), (154, 38285),

Gene: Maroc7_51 Start: 37816, Stop: 37196, Start Num: 31

Candidate Starts for Maroc7_51:

(Start: 31 @37816 has 1 MA's), (Start: 47 @37765 has 20 MA's), (62, 37663), (74, 37609), (78, 37594), (79, 37585), (116, 37450), (127, 37414), (145, 37363), (154, 37342), (169, 37321), (200, 37234),

Gene: Marsha_53 Start: 39249, Stop: 38638, Start Num: 50

Candidate Starts for Marsha_53:

(Start: 50 @39249 has 123 MA's), (62, 39150), (74, 39096), (78, 39081), (79, 39072), (116, 38937), (127, 38901), (145, 38850), (154, 38829), (172, 38793), (183, 38760),

Gene: MaryBeth_53 Start: 39046, Stop: 38489, Start Num: 50

Candidate Starts for MaryBeth_53:

(Start: 50 @39046 has 123 MA's), (62, 38947), (74, 38893), (78, 38878), (79, 38869), (116, 38734), (127, 38698), (145, 38644), (154, 38623), (173, 38584),

Gene: MarysWell_49 Start: 37162, Stop: 36695, Start Num: 49

Candidate Starts for MarysWell_49:

(38, 37198), (Start: 49 @37162 has 36 MA's), (62, 37063), (74, 37009), (75, 37006), (76, 37003), (139, 36766), (169, 36712),

Gene: McFly_58 Start: 37009, Stop: 36566, Start Num: 54

Candidate Starts for McFly_58:

(Start: 54 @37009 has 79 MA's), (73, 36865), (74, 36862), (80, 36835), (88, 36769), (102, 36709), (126, 36664),

Gene: McGuire_55 Start: 38290, Stop: 37724, Start Num: 50

Candidate Starts for McGuire_55:

(Start: 50 @38290 has 123 MA's), (62, 38191), (74, 38137), (78, 38122), (79, 38113), (116, 37978), (127, 37942), (145, 37888), (154, 37867), (169, 37846), (195, 37789), (200, 37762),

Gene: McSinger_54 Start: 38436, Stop: 37870, Start Num: 50

Candidate Starts for McSinger_54:

(Start: 50 @38436 has 123 MA's), (62, 38337), (74, 38283), (78, 38268), (79, 38259), (116, 38124), (127, 38088), (145, 38034), (154, 38013), (169, 37992), (200, 37908),

Gene: MegTheThird_56 Start: 37761, Stop: 37324, Start Num: 50

Candidate Starts for MegTheThird_56:

(3, 38055), (Start: 50 @37761 has 123 MA's), (74, 37608), (86, 37524), (116, 37479), (137, 37416), (174, 37329),

Gene: MetalQZJ_52 Start: 39046, Stop: 38489, Start Num: 50

Candidate Starts for MetalQZJ_52:

(Start: 50 @39046 has 123 MA's), (62, 38947), (74, 38893), (78, 38878), (79, 38869), (116, 38734), (127, 38698), (145, 38644), (154, 38623), (173, 38584),

Gene: Micasa_50 Start: 37033, Stop: 36539, Start Num: 49

Candidate Starts for Micasa_50:

(Start: 49 @37033 has 36 MA's), (71, 36889), (73, 36883), (74, 36880), (127, 36661), (157, 36583), (174, 36553),

Gene: Midas2_48 Start: 36935, Stop: 36441, Start Num: 49

Candidate Starts for Midas2_48:

(Start: 49 @36935 has 36 MA's), (71, 36791), (73, 36785), (74, 36782), (127, 36563), (157, 36485), (174, 36455),

Gene: Milcery_49 Start: 36816, Stop: 36328, Start Num: 49

Candidate Starts for Milcery_49:

(39, 36846), (Start: 49 @36816 has 36 MA's), (62, 36717), (70, 36675), (71, 36672), (74, 36663), (127, 36444),

Gene: MilleFeuille_50 Start: 38205, Stop: 37639, Start Num: 50

Candidate Starts for MilleFeuille_50:

(Start: 50 @38205 has 123 MA's), (62, 38106), (74, 38052), (78, 38037), (79, 38028), (116, 37893), (127, 37857), (145, 37806), (154, 37785), (169, 37764), (200, 37677),

Gene: Minispark_56 Start: 37714, Stop: 37256, Start Num: 54

Candidate Starts for Minispark_56:

(Start: 54 @37714 has 79 MA's), (70, 37576), (72, 37570), (73, 37567), (74, 37564), (80, 37537), (82, 37510), (88, 37471), (119, 37390), (143, 37318), (174, 37261),

Gene: MissWhite_56 Start: 36656, Stop: 36198, Start Num: 54

Candidate Starts for MissWhite_56:

(Start: 54 @36656 has 79 MA's), (70, 36518), (72, 36512), (73, 36509), (74, 36506), (80, 36479), (88, 36413), (142, 36260), (158, 36236), (162, 36227), (174, 36203),

Gene: Molly_54 Start: 37493, Stop: 36939, Start Num: 52

Candidate Starts for Molly_54:

(36, 37535), (45, 37505), (Start: 52 @37493 has 4 MA's), (62, 37394), (74, 37340), (78, 37325), (79, 37316), (116, 37181), (127, 37145), (145, 37094), (154, 37073), (173, 37034),

Gene: Moose_53 Start: 37985, Stop: 37419, Start Num: 50

Candidate Starts for Moose_53:

(Start: 50 @37985 has 123 MA's), (62, 37886), (74, 37832), (78, 37817), (79, 37808), (116, 37673), (127, 37637), (145, 37583), (154, 37562), (169, 37541), (195, 37484), (200, 37457),

Gene: Mryolo_51 Start: 38512, Stop: 37898, Start Num: 50

Candidate Starts for Mryolo_51:

(Start: 50 @38512 has 123 MA's), (62, 38413), (74, 38359), (78, 38344), (79, 38335), (116, 38200), (127, 38164), (145, 38110), (154, 38089), (164, 38068), (172, 38053), (183, 38020),

Gene: Museum_54 Start: 38643, Stop: 38077, Start Num: 50

Candidate Starts for Museum_54:

(36, 38685), (Start: 44 @38655 has 3 MA's), (Start: 50 @38643 has 123 MA's), (62, 38544), (74, 38490), (78, 38475), (79, 38466), (116, 38331), (127, 38295), (145, 38241), (154, 38220), (169, 38199), (195, 38142), (200, 38115),

Gene: NEHalo_51 Start: 38428, Stop: 37814, Start Num: 50

Candidate Starts for NEHalo_51:

(35, 38470), (Start: 44 @38440 has 3 MA's), (Start: 50 @38428 has 123 MA's), (62, 38329), (74, 38275), (78, 38260), (79, 38251), (116, 38116), (127, 38080), (145, 38026), (154, 38005), (164, 37984), (172, 37969), (183, 37936),

Gene: Naca_50 Start: 37309, Stop: 36818, Start Num: 49

Candidate Starts for Naca_50:

(12, 37456), (29, 37375), (39, 37339), (Start: 49 @37309 has 36 MA's), (62, 37210), (70, 37168), (71, 37165), (74, 37156), (124, 36952), (126, 36943), (145, 36886), (174, 36832),

Gene: Naira_56 Start: 40405, Stop: 39839, Start Num: 50

Candidate Starts for Naira_56:

(Start: 50 @40405 has 123 MA's), (62, 40306), (74, 40252), (78, 40237), (79, 40228), (116, 40093), (127, 40057), (145, 40003), (154, 39982), (169, 39961), (195, 39904), (200, 39877),

Gene: Naji_59 Start: 38000, Stop: 37545, Start Num: 50

Candidate Starts for Naji_59:

(Start: 50 @38000 has 123 MA's), (70, 37859), (74, 37847), (77, 37838), (83, 37784), (117, 37709), (125, 37688), (126, 37679), (169, 37565),

Gene: Neeharika16_57 Start: 36469, Stop: 36026, Start Num: 54

Candidate Starts for Neeharika16_57:

(Start: 54 @36469 has 79 MA's), (73, 36325), (74, 36322), (80, 36295), (88, 36229), (102, 36169), (126, 36124),

Gene: Nerujay_56 Start: 39287, Stop: 38544, Start Num: 50

Candidate Starts for Nerujay_56:

(Start: 50 @39287 has 123 MA's), (62, 39188), (74, 39134), (78, 39119), (79, 39110), (116, 38975), (127, 38939), (145, 38885), (156, 38861), (189, 38774), (190, 38768), (191, 38762), (192, 38753), (199, 38723), (202, 38672),

Gene: Newrala_58 Start: 37011, Stop: 36568, Start Num: 54

Candidate Starts for Newrala_58:

(Start: 54 @37011 has 79 MA's), (73, 36867), (74, 36864), (80, 36837), (88, 36771), (102, 36711), (126, 36666),

Gene: Nhonho_53 Start: 39633, Stop: 38809, Start Num: 50

Candidate Starts for Nhonho_53:

(Start: 50 @39633 has 123 MA's), (62, 39534), (74, 39480), (78, 39465), (79, 39456), (94, 39336), (116, 39240), (127, 39204), (145, 39150), (156, 39126), (189, 39039), (190, 39033), (191, 39027), (192, 39018), (199, 38988), (202, 38937),

Gene: Norz_54 Start: 39632, Stop: 39066, Start Num: 47

Candidate Starts for Norz_54:

(15, 39743), (30, 39686), (Start: 47 @39632 has 20 MA's), (62, 39530), (74, 39476), (78, 39461), (79, 39452), (116, 39317), (127, 39281), (145, 39230), (154, 39209), (169, 39188), (200, 39104),

Gene: Noxious_53 Start: 39005, Stop: 38388, Start Num: 50

Candidate Starts for Noxious_53:

(Start: 50 @39005 has 123 MA's), (62, 38906), (74, 38852), (78, 38837), (79, 38828), (116, 38693), (127, 38657), (145, 38603), (154, 38582),

Gene: Odin_55 Start: 37059, Stop: 36571, Start Num: 43

Candidate Starts for Odin_55:

(Start: 43 @37059 has 16 MA's), (59, 36984), (69, 36921), (70, 36915), (74, 36903), (87, 36801), (121, 36714), (178, 36582),

Gene: Ohno789_55 Start: 39227, Stop: 38613, Start Num: 50

Candidate Starts for Ohno789_55:

(Start: 50 @39227 has 123 MA's), (62, 39128), (74, 39074), (78, 39059), (79, 39050), (116, 38915), (127, 38879), (145, 38828), (154, 38807),

Gene: Oogway_52 Start: 38320, Stop: 37736, Start Num: 47

Candidate Starts for Oogway_52:

(15, 38431), (Start: 47 @38320 has 20 MA's), (62, 38218), (74, 38164), (78, 38149), (79, 38140), (107, 38020), (127, 37957), (145, 37903), (154, 37882), (169, 37861), (200, 37774),

Gene: PP_55 Start: 41225, Stop: 40698, Start Num: 32

Candidate Starts for PP_55:

(13, 41300), (19, 41264), (Start: 32 @41225 has 1 MA's), (42, 41198), (62, 41075), (74, 41021), (77, 41012), (79, 40997), (131, 40829), (149, 40778), (161, 40748), (166, 40730),

Gene: PainterBoy_58 Start: 38029, Stop: 37562, Start Num: 43

Candidate Starts for PainterBoy_58:

(Start: 43 @38029 has 16 MA's), (69, 37891), (74, 37873), (83, 37795), (85, 37777), (87, 37771), (98, 37735), (135, 37648), (152, 37600), (171, 37573),

Gene: Papez_56 Start: 40588, Stop: 40022, Start Num: 50

Candidate Starts for Papez_56:

(Start: 50 @40588 has 123 MA's), (62, 40489), (74, 40435), (78, 40420), (79, 40411), (116, 40276), (127, 40240), (145, 40186), (154, 40165), (169, 40144), (195, 40087), (200, 40060),

Gene: Paphu_51 Start: 37777, Stop: 37160, Start Num: 50

Candidate Starts for Paphu_51:

(34, 37819), (Start: 44 @37789 has 3 MA's), (Start: 50 @37777 has 123 MA's), (62, 37678), (74, 37624), (78, 37609), (79, 37600), (116, 37465), (127, 37429), (145, 37375), (154, 37354),

Gene: Paraselene_51 Start: 39100, Stop: 38486, Start Num: 50

Candidate Starts for Paraselene_51:

(Start: 50 @39100 has 123 MA's), (62, 39001), (74, 38947), (78, 38932), (79, 38923), (116, 38788), (127, 38752), (145, 38698), (154, 38677), (164, 38656), (172, 38641), (183, 38608),

Gene: Pari_55 Start: 38216, Stop: 37557, Start Num: 44

Candidate Starts for Pari_55:

(Start: 44 @38216 has 3 MA's), (Start: 50 @38204 has 123 MA's), (62, 38105), (74, 38051), (78, 38036), (79, 38027), (94, 37907), (116, 37811), (127, 37775), (145, 37721), (154, 37700), (169, 37679), (195, 37622), (200, 37595),

Gene: Parliament_53 Start: 38723, Stop: 38079, Start Num: 50

Candidate Starts for Parliament_53:

(Start: 50 @38723 has 123 MA's), (62, 38624), (74, 38570), (78, 38555), (79, 38546), (94, 38426), (116, 38330), (127, 38294), (145, 38243), (154, 38222), (169, 38201), (200, 38117),

Gene: PascalRango_54 Start: 38941, Stop: 38375, Start Num: 50

Candidate Starts for PascalRango_54:

(Start: 50 @38941 has 123 MA's), (62, 38842), (74, 38788), (78, 38773), (79, 38764), (116, 38629), (127, 38593), (145, 38539), (154, 38518), (169, 38497), (195, 38440), (200, 38413),

Gene: PattyP_53 Start: 38837, Stop: 38064, Start Num: 50

Candidate Starts for PattyP_53:

(21, 38921), (34, 38879), (Start: 44 @38849 has 3 MA's), (Start: 50 @38837 has 123 MA's), (62, 38738), (74, 38684), (78, 38669), (79, 38660), (116, 38525), (127, 38489), (154, 38429), (203, 38243), (204, 38192),

Gene: Peterson_58 Start: 40881, Stop: 40273, Start Num: 50

Candidate Starts for Peterson_58:

(Start: 50 @40881 has 123 MA's), (62, 40782), (74, 40728), (78, 40713), (79, 40704), (116, 40569), (127, 40539), (145, 40485), (154, 40464), (164, 40443), (172, 40428), (183, 40395),

Gene: Petp2012_54 Start: 38452, Stop: 37898, Start Num: 52

Candidate Starts for Petp2012_54:

(24, 38536), (36, 38494), (45, 38464), (Start: 52 @38452 has 4 MA's), (62, 38353), (74, 38299), (78, 38284), (79, 38275), (116, 38140), (127, 38104), (145, 38053), (154, 38032), (173, 37993),

Gene: PetterN_54 Start: 36924, Stop: 36436, Start Num: 49

Candidate Starts for PetterN_54:

(Start: 49 @36924 has 36 MA's), (62, 36825), (70, 36783), (71, 36780), (74, 36771), (77, 36762), (126, 36558), (174, 36450),

Gene: Ph8s_58 Start: 37416, Stop: 36925, Start Num: 43

Candidate Starts for Ph8s_58:

(2, 37707), (6, 37632), (Start: 43 @37416 has 16 MA's), (69, 37275), (70, 37269), (74, 37257), (87, 37155), (121, 37068),

Gene: Pharaoh_52 Start: 38002, Stop: 37490, Start Num: 43

Candidate Starts for Pharaoh_52:

(Start: 43 @38002 has 16 MA's), (60, 37918), (70, 37849), (71, 37846), (74, 37837), (75, 37834), (84, 37765), (91, 37732), (167, 37549), (186, 37501), (187, 37495),

Gene: Phillis_55 Start: 36641, Stop: 36165, Start Num: 43

Candidate Starts for Phillis_55:

(Start: 43 @36641 has 16 MA's), (64, 36524), (70, 36488), (73, 36479), (74, 36476), (106, 36344), (155, 36209), (174, 36176),

Gene: Phlippers_52 Start: 39121, Stop: 38552, Start Num: 47

Candidate Starts for Phlippers_52:

(Start: 31 @39172 has 1 MA's), (Start: 47 @39121 has 20 MA's), (62, 39019), (74, 38965), (78, 38950), (79, 38941), (116, 38806), (127, 38770), (145, 38719), (154, 38698), (169, 38677), (200, 38590),

Gene: Phlorence_47 Start: 36408, Stop: 35941, Start Num: 49

Candidate Starts for Phlorence_47:

(Start: 49 @36408 has 36 MA's), (62, 36309), (74, 36255), (75, 36252), (76, 36249), (139, 36012), (169, 35958),

Gene: PickleBack_49 Start: 36655, Stop: 36188, Start Num: 49

Candidate Starts for PickleBack_49:

(Start: 49 @36655 has 36 MA's), (62, 36556), (74, 36502), (75, 36499), (76, 36496), (139, 36259), (169, 36205),

Gene: PinkPlastic_54 Start: 38325, Stop: 37675, Start Num: 50

Candidate Starts for PinkPlastic_54:

(Start: 50 @38325 has 123 MA's), (62, 38226), (74, 38172), (78, 38157), (79, 38148), (94, 38028), (116, 37932), (127, 37896), (145, 37842), (154, 37821), (169, 37800), (200, 37713),

Gene: Pinto_53 Start: 38711, Stop: 38067, Start Num: 50

Candidate Starts for Pinto_53:

(36, 38753), (Start: 44 @38723 has 3 MA's), (Start: 50 @38711 has 123 MA's), (62, 38612), (74, 38558), (78, 38543), (79, 38534), (94, 38414), (116, 38318), (127, 38282), (145, 38231), (154, 38210), (169, 38189), (200, 38105),

Gene: Pippin_55 Start: 38617, Stop: 38000, Start Num: 50

Candidate Starts for Pippin_55:

(Start: 50 @38617 has 123 MA's), (62, 38518), (74, 38464), (78, 38449), (79, 38440), (116, 38305), (127, 38269), (145, 38215), (154, 38194),

Gene: Pmask_58 Start: 37012, Stop: 36569, Start Num: 54

Candidate Starts for Pmask_58:

(Start: 54 @37012 has 79 MA's), (73, 36868), (74, 36865), (80, 36838), (88, 36772), (102, 36712), (126, 36667),

Gene: Polyphemus_60 Start: 37394, Stop: 36951, Start Num: 54

Candidate Starts for Polyphemus_60:

(Start: 54 @37394 has 79 MA's), (73, 37250), (74, 37247), (80, 37220), (88, 37154), (102, 37094), (126, 37049),

Gene: Pomar16_59 Start: 38040, Stop: 37585, Start Num: 50

Candidate Starts for Pomar16_59:

(Start: 50 @38040 has 123 MA's), (70, 37899), (74, 37887), (77, 37878), (83, 37824), (117, 37749), (125, 37728), (126, 37719), (169, 37605),

Gene: Power_56 Start: 38208, Stop: 37714, Start Num: 54

Candidate Starts for Power_56:

(Start: 54 @38208 has 79 MA's), (70, 38070), (72, 38064), (73, 38061), (74, 38058), (80, 38031), (82, 38004), (88, 37965), (123, 37851), (149, 37776),

Gene: PowerRanger_53 Start: 39835, Stop: 39092, Start Num: 50

Candidate Starts for PowerRanger_53:

(Start: 50 @39835 has 123 MA's), (62, 39736), (74, 39682), (78, 39667), (79, 39658), (116, 39523), (127, 39487), (145, 39433), (156, 39409), (189, 39322), (190, 39316), (191, 39310), (192, 39301), (199, 39271), (202, 39220),

Gene: Priamo_60 Start: 36762, Stop: 36328, Start Num: 54

Candidate Starts for Priamo_60:

(Start: 54 @36762 has 79 MA's), (73, 36618), (74, 36615), (80, 36588), (88, 36522), (126, 36417), (172, 36339),

Gene: Prinash11_49 Start: 36718, Stop: 36230, Start Num: 49

Candidate Starts for Prinash11_49:

(39, 36748), (Start: 49 @36718 has 36 MA's), (62, 36619), (70, 36577), (71, 36574), (74, 36565), (127, 36346), (169, 36247),

Gene: ProMouse_55 Start: 38872, Stop: 38312, Start Num: 50

Candidate Starts for ProMouse_55:

(Start: 50 @38872 has 123 MA's), (62, 38773), (74, 38719), (78, 38704), (79, 38695), (116, 38560), (127, 38524), (145, 38470), (156, 38446),

Gene: Puppet_54 Start: 39041, Stop: 38298, Start Num: 50

Candidate Starts for Puppet_54:

(Start: 50 @39041 has 123 MA's), (62, 38942), (74, 38888), (78, 38873), (79, 38864), (116, 38729), (127, 38693), (145, 38639), (156, 38615), (189, 38528), (190, 38522), (191, 38516), (192, 38507), (199, 38477), (202, 38426), (205, 38363),

Gene: QTRLifeCrisis_52 Start: 38670, Stop: 37924, Start Num: 47

Candidate Starts for QTRLifeCrisis_52:

(Start: 31 @38721 has 1 MA's), (Start: 47 @38670 has 20 MA's), (62, 38568), (74, 38514), (78, 38499), (79, 38490), (116, 38355), (127, 38319), (145, 38265), (156, 38241), (189, 38154), (190, 38148), (191, 38142), (192, 38133), (199, 38103), (202, 38052),

Gene: QueenB2_56 Start: 38186, Stop: 37692, Start Num: 54

Candidate Starts for QueenB2_56:

(Start: 54 @38186 has 79 MA's), (70, 38048), (72, 38042), (73, 38039), (74, 38036), (80, 38009), (82, 37982), (88, 37943), (91, 37913), (98, 37892), (100, 37886),

Gene: QueenBeesly_57 Start: 38155, Stop: 37661, Start Num: 54

Candidate Starts for QueenBeesly_57:

(Start: 54 @38155 has 79 MA's), (70, 38017), (72, 38011), (73, 38008), (74, 38005), (80, 37978), (82, 37951), (88, 37912), (91, 37882), (123, 37798), (149, 37723),

Gene: Quokka_55 Start: 37152, Stop: 36703, Start Num: 54

Candidate Starts for Quokka_55:

(Start: 54 @37152 has 79 MA's), (70, 37014), (72, 37008), (73, 37005), (74, 37002), (80, 36975), (82, 36948), (88, 36909), (153, 36738), (174, 36708),

Gene: Rahalelujah_57 Start: 37729, Stop: 37271, Start Num: 54

Candidate Starts for Rahalelujah_57:

(Start: 54 @37729 has 79 MA's), (70, 37591), (72, 37585), (73, 37582), (74, 37579), (80, 37552), (82, 37525), (88, 37486), (119, 37405), (143, 37333), (174, 37276),

Gene: Raid_54 Start: 38288, Stop: 37695, Start Num: 50

Candidate Starts for Raid_54:

(Start: 50 @38288 has 123 MA's), (62, 38189), (74, 38135), (78, 38120), (79, 38111), (116, 37976), (154, 37880),

Gene: Rajelicia_54 Start: 39566, Stop: 39009, Start Num: 50

Candidate Starts for Rajelicia_54:

(Start: 50 @39566 has 123 MA's), (62, 39467), (74, 39413), (78, 39398), (79, 39389), (116, 39254), (127, 39218), (145, 39164), (154, 39143), (173, 39104),

Gene: Refuge_55 Start: 39270, Stop: 38728, Start Num: 43

Candidate Starts for Refuge_55:

(4, 39543), (5, 39495), (6, 39486), (Start: 43 @39270 has 16 MA's), (62, 39171), (70, 39123), (74, 39111), (78, 39096), (100, 38964), (117, 38913), (175, 38766), (187, 38733),

Gene: RidgeCB_53 Start: 38830, Stop: 38195, Start Num: 50

Candidate Starts for RidgeCB_53:

(Start: 50 @38830 has 123 MA's), (62, 38731), (74, 38677), (78, 38662), (79, 38653), (94, 38533), (116, 38437), (127, 38401), (145, 38350), (154, 38329), (173, 38290),

Gene: Rifter_59 Start: 36599, Stop: 36162, Start Num: 54

Candidate Starts for Rifter_59:

(Start: 54 @36599 has 79 MA's), (73, 36455), (74, 36452), (80, 36425), (88, 36359), (126, 36251), (172, 36173),

Gene: Ringer_54 Start: 39883, Stop: 39317, Start Num: 50

Candidate Starts for Ringer_54:

(Start: 50 @39883 has 123 MA's), (62, 39784), (74, 39730), (78, 39715), (79, 39706), (116, 39571), (127, 39535), (145, 39481), (154, 39460), (169, 39439), (200, 39355),

Gene: Roksolana_60 Start: 37433, Stop: 36996, Start Num: 54

Candidate Starts for Roksolana_60:

(Start: 54 @37433 has 79 MA's), (73, 37289), (74, 37286), (80, 37259), (88, 37193), (126, 37085), (172, 37007),

Gene: Rubeus_53 Start: 36498, Stop: 35935, Start Num: 50

Candidate Starts for Rubeus_53:

(36, 36540), (Start: 44 @36510 has 3 MA's), (Start: 50 @36498 has 123 MA's), (62, 36399), (74, 36345), (78, 36330), (79, 36321), (116, 36186), (127, 36150), (145, 36099), (154, 36078), (169, 36057), (200, 35973),

Gene: Ruotula_56 Start: 39803, Stop: 39174, Start Num: 50

Candidate Starts for Ruotula_56:

(Start: 50 @39803 has 123 MA's), (62, 39704), (74, 39650), (78, 39635), (79, 39626), (116, 39491), (127, 39455), (145, 39401), (154, 39380),

Gene: STLscum_56 Start: 39588, Stop: 38947, Start Num: 50

Candidate Starts for STLscum_56:

(Start: 50 @39588 has 123 MA's), (62, 39489), (74, 39435), (78, 39420), (79, 39411), (96, 39282), (111, 39237), (116, 39225), (127, 39189), (145, 39135), (154, 39114), (173, 39075), (184, 39042),

Gene: Sagefire_56 Start: 39529, Stop: 38915, Start Num: 50

Candidate Starts for Sagefire_56:

(Start: 50 @39529 has 123 MA's), (62, 39430), (74, 39376), (78, 39361), (79, 39352), (116, 39217), (127, 39181), (145, 39127), (154, 39106), (173, 39067),

Gene: Sandaddy_52 Start: 38282, Stop: 37716, Start Num: 50

Candidate Starts for Sandaddy_52:

(Start: 50 @38282 has 123 MA's), (62, 38183), (74, 38129), (78, 38114), (79, 38105), (116, 37970), (127, 37934), (145, 37880), (154, 37859), (169, 37838), (200, 37754),

Gene: Sanya_51 Start: 38572, Stop: 38009, Start Num: 50

Candidate Starts for Sanya_51:

(Start: 50 @38572 has 123 MA's), (62, 38473), (74, 38419), (78, 38404), (79, 38395), (116, 38260), (127, 38224), (145, 38173), (154, 38152), (169, 38131), (200, 38047),

Gene: SarFire_51 Start: 37844, Stop: 37278, Start Num: 50

Candidate Starts for SarFire_51:

(Start: 50 @37844 has 123 MA's), (62, 37745), (74, 37691), (78, 37676), (79, 37667), (116, 37532), (145, 37442), (154, 37421), (169, 37400), (200, 37316),

Gene: Scorpia_54 Start: 36983, Stop: 36492, Start Num: 49

Candidate Starts for Scorpia_54:

(Start: 49 @36983 has 36 MA's), (62, 36884), (70, 36842), (71, 36839), (74, 36830), (77, 36821), (124, 36626), (126, 36617), (145, 36560), (174, 36506),

Gene: Seabiscuit_56 Start: 38458, Stop: 37811, Start Num: 50

Candidate Starts for Seabiscuit_56:

(Start: 50 @38458 has 123 MA's), (62, 38359), (74, 38305), (78, 38290), (79, 38281), (94, 38161), (116, 38065), (127, 38029), (145, 37975), (154, 37954), (169, 37933), (195, 37876), (200, 37849),

Gene: SemperFi_58 Start: 38423, Stop: 37929, Start Num: 54

Candidate Starts for SemperFi_58:

(Start: 54 @38423 has 79 MA's), (70, 38285), (72, 38279), (73, 38276), (74, 38273), (80, 38246), (82, 38219), (88, 38180), (91, 38150), (123, 38066), (149, 37991),

Gene: Serenity_57 Start: 37359, Stop: 36895, Start Num: 54

Candidate Starts for Serenity_57:

(Start: 54 @37359 has 79 MA's), (70, 37221), (72, 37215), (73, 37212), (74, 37209), (80, 37182), (82, 37155), (88, 37116), (118, 37035), (123, 37023), (151, 36945),

Gene: SheaKeira_55 Start: 37666, Stop: 37181, Start Num: 50

Candidate Starts for SheaKeira_55:

(Start: 50 @37666 has 123 MA's), (62, 37567), (74, 37513), (112, 37360), (125, 37327), (126, 37321), (142, 37264),

Gene: Sheen_55 Start: 40022, Stop: 39528, Start Num: 47

Candidate Starts for Sheen_55:

(Start: 47 @40022 has 20 MA's), (61, 39926), (74, 39869), (77, 39860), (79, 39845), (117, 39707),

Gene: ShortQueendom_47 Start: 35302, Stop: 34736, Start Num: 47

Candidate Starts for ShortQueendom_47:

(9, 35488), (27, 35368), (Start: 47 @35302 has 20 MA's), (57, 35269), (62, 35203), (74, 35149), (78, 35134), (79, 35125), (116, 34990), (127, 34954), (145, 34900), (154, 34879), (169, 34858), (200, 34774),

Gene: SkiPole_58 Start: 39258, Stop: 38668, Start Num: 50

Candidate Starts for SkiPole_58:

(Start: 50 @39258 has 123 MA's), (62, 39159), (74, 39105), (78, 39090), (79, 39081), (116, 38946), (127, 38910), (145, 38856), (154, 38835), (173, 38796), (184, 38763),

Gene: Slagathor_55 Start: 39464, Stop: 38910, Start Num: 52

Candidate Starts for Slagathor_55:

(36, 39506), (45, 39476), (Start: 52 @39464 has 4 MA's), (62, 39365), (74, 39311), (78, 39296), (79, 39287), (116, 39152), (127, 39116), (145, 39065), (154, 39044), (173, 39005),

Gene: Smeadley_56 Start: 36818, Stop: 36348, Start Num: 43

Candidate Starts for Smeadley_56:

(1, 37103), (11, 36944), (Start: 43 @36818 has 16 MA's), (64, 36701), (70, 36665), (73, 36656), (74, 36653), (106, 36527), (147, 36410), (174, 36359),

Gene: Smeagol_55 Start: 39706, Stop: 39155, Start Num: 44

Candidate Starts for Smeagol_55:

(Start: 44 @39706 has 3 MA's), (Start: 50 @39694 has 123 MA's), (62, 39595), (74, 39541), (78, 39526), (79, 39517), (116, 39382), (127, 39346), (145, 39322), (154, 39301), (169, 39280), (200, 39193),

Gene: SmellyB_58 Start: 37009, Stop: 36566, Start Num: 54

Candidate Starts for SmellyB_58:

(Start: 54 @37009 has 79 MA's), (73, 36865), (74, 36862), (80, 36835), (88, 36769), (102, 36709), (126, 36664),

Gene: SnapTap_57 Start: 38234, Stop: 37740, Start Num: 54

Candidate Starts for SnapTap_57:

(Start: 54 @38234 has 79 MA's), (70, 38096), (72, 38090), (73, 38087), (74, 38084), (80, 38057), (82, 38030), (88, 37991), (91, 37961), (123, 37877), (149, 37802),

Gene: Snazzy_52 Start: 37911, Stop: 37345, Start Num: 47

Candidate Starts for Snazzy_52:

(9, 38097), (27, 37977), (Start: 47 @37911 has 20 MA's), (57, 37878), (62, 37812), (74, 37758), (78, 37743), (79, 37734), (116, 37599), (127, 37563), (145, 37509), (154, 37488), (169, 37467), (200, 37383),

Gene: Solon_52 Start: 38166, Stop: 37603, Start Num: 50

Candidate Starts for Solon_52:

(Start: 50 @38166 has 123 MA's), (62, 38067), (74, 38013), (78, 37998), (79, 37989), (116, 37854), (127, 37818), (145, 37767), (154, 37746), (169, 37725), (200, 37641),

Gene: SororFago_59 Start: 39270, Stop: 38767, Start Num: 54

Candidate Starts for SororFago_59:

(Start: 54 @39270 has 79 MA's), (70, 39135), (72, 39129), (73, 39126), (74, 39123), (80, 39096), (82, 39069), (88, 39030), (91, 39000), (98, 38979), (162, 38796),

Gene: Sorpresa_52 Start: 38284, Stop: 37718, Start Num: 50

Candidate Starts for Sorpresa_52:

(Start: 50 @38284 has 123 MA's), (62, 38185), (74, 38131), (78, 38116), (79, 38107), (116, 37972), (127, 37936), (145, 37882), (154, 37861), (169, 37840), (200, 37756),

Gene: Squee_54 Start: 38872, Stop: 38306, Start Num: 50

Candidate Starts for Squee_54:

(Start: 50 @38872 has 123 MA's), (62, 38773), (74, 38719), (78, 38704), (79, 38695), (116, 38560), (127, 38524), (145, 38470), (154, 38449), (169, 38428), (195, 38371), (200, 38344),

Gene: StarStuff_59 Start: 38002, Stop: 37547, Start Num: 50

Candidate Starts for StarStuff_59:

(Start: 50 @38002 has 123 MA's), (70, 37861), (74, 37849), (77, 37840), (83, 37786), (117, 37711), (125, 37690), (126, 37681), (169, 37567),

Gene: Steamy_53 Start: 37734, Stop: 37234, Start Num: 54

Candidate Starts for Steamy_53:

(7, 37959), (8, 37950), (Start: 54 @37734 has 79 MA's), (56, 37725), (66, 37611), (70, 37596), (73, 37587), (74, 37584), (80, 37557), (82, 37530), (88, 37491), (93, 37458), (101, 37428), (104, 37413),

Gene: Stephig9_56 Start: 36929, Stop: 36414, Start Num: 43

Candidate Starts for Stephig9_56:

(11, 37055), (Start: 43 @36929 has 16 MA's), (63, 36815), (64, 36812), (73, 36767), (74, 36764), (99, 36617), (106, 36593), (115, 36572), (147, 36476), (174, 36425),

Gene: StewieG_52 Start: 35689, Stop: 35123, Start Num: 50

Candidate Starts for StewieG_52:

(Start: 50 @35689 has 123 MA's), (62, 35590), (74, 35536), (78, 35521), (79, 35512), (116, 35377), (127, 35341), (145, 35290), (154, 35269), (169, 35248), (200, 35161),

Gene: StrongArm_52 Start: 39368, Stop: 38625, Start Num: 50

Candidate Starts for StrongArm_52:

(Start: 50 @39368 has 123 MA's), (62, 39269), (74, 39215), (78, 39200), (79, 39191), (116, 39056), (127, 39020), (145, 38966), (156, 38942), (189, 38855), (190, 38849), (191, 38843), (192, 38834), (199, 38804), (202, 38753),

Gene: Sumter_50 Start: 38825, Stop: 38259, Start Num: 50

Candidate Starts for Sumter_50:

(Start: 50 @38825 has 123 MA's), (62, 38726), (74, 38672), (78, 38657), (79, 38648), (116, 38513), (127, 38477), (145, 38423), (154, 38402), (169, 38381), (195, 38324), (200, 38297),

Gene: Sunhee_60 Start: 37715, Stop: 37224, Start Num: 53

Candidate Starts for Sunhee_60:

(Start: 53 @37715 has 3 MA's), (70, 37577), (72, 37571), (73, 37568), (74, 37565), (80, 37538), (82, 37511), (85, 37484), (88, 37472), (97, 37436), (162, 37256),

Gene: Sunshine924_55 Start: 37963, Stop: 37409, Start Num: 50

Candidate Starts for Sunshine924_55:

(Start: 50 @37963 has 123 MA's), (62, 37864), (74, 37810), (78, 37795), (79, 37786), (116, 37651), (127, 37615), (145, 37564), (154, 37543), (173, 37504), (196, 37426),

Gene: SuperAwesome_58 Start: 37014, Stop: 36580, Start Num: 54

Candidate Starts for SuperAwesome_58:

(Start: 54 @37014 has 79 MA's), (73, 36870), (74, 36867), (80, 36840), (88, 36774), (102, 36714),

Gene: SuperCallie99_57 Start: 36896, Stop: 36453, Start Num: 54

Candidate Starts for SuperCallie99_57:

(Start: 54 @36896 has 79 MA's), (73, 36752), (74, 36749), (80, 36722), (88, 36656), (102, 36596), (126, 36551),

Gene: Superchunk_55 Start: 36675, Stop: 36196, Start Num: 43

Candidate Starts for Superchunk_55:

(6, 36891), (Start: 43 @36675 has 16 MA's), (69, 36513), (70, 36507), (74, 36495), (87, 36393), (115, 36324), (119, 36312), (135, 36270), (168, 36201),

Gene: SweetiePie_57 Start: 38366, Stop: 37872, Start Num: 54

Candidate Starts for SweetiePie_57:

(Start: 54 @38366 has 79 MA's), (70, 38228), (72, 38222), (73, 38219), (74, 38216), (80, 38189), (82, 38162), (88, 38123), (91, 38093), (123, 38009), (149, 37934),

Gene: SwirlSquare_62 Start: 37597, Stop: 37061, Start Num: 43

Candidate Starts for SwirlSquare_62:

(Start: 43 @37597 has 16 MA's), (59, 37522), (69, 37459), (70, 37453), (74, 37441), (87, 37339), (98, 37288), (119, 37240), (121, 37234), (140, 37168), (167, 37123), (188, 37066),

Gene: SwissCheese_55 Start: 38485, Stop: 37919, Start Num: 50

Candidate Starts for SwissCheese_55:

(Start: 50 @38485 has 123 MA's), (62, 38386), (74, 38332), (78, 38317), (79, 38308), (116, 38173), (127, 38137), (145, 38083), (154, 38062), (169, 38041), (195, 37984), (200, 37957),

Gene: Switzer_55 Start: 39397, Stop: 38831, Start Num: 50

Candidate Starts for Switzer_55:

(Start: 50 @39397 has 123 MA's), (62, 39298), (74, 39244), (78, 39229), (79, 39220), (116, 39085), (127, 39049), (145, 38995), (154, 38974), (169, 38953), (195, 38896), (200, 38869),

Gene: Swole_54 Start: 37668, Stop: 37102, Start Num: 50

Candidate Starts for Swole_54:

(36, 37710), (Start: 44 @37680 has 3 MA's), (Start: 50 @37668 has 123 MA's), (62, 37569), (74, 37515), (78, 37500), (79, 37491), (116, 37356), (127, 37320), (145, 37266), (154, 37245), (169, 37224), (195, 37167), (200, 37140),

Gene: SydNat_52 Start: 37663, Stop: 37196, Start Num: 49

Candidate Starts for SydNat_52:

(38, 37699), (Start: 49 @37663 has 36 MA's), (62, 37564), (74, 37510), (75, 37507), (76, 37504), (77, 37501), (139, 37267), (169, 37213),

Gene: Target_54 Start: 37073, Stop: 36507, Start Num: 50

Candidate Starts for Target_54:

(Start: 50 @37073 has 123 MA's), (62, 36974), (74, 36920), (78, 36905), (79, 36896), (116, 36761), (127, 36725), (145, 36671), (154, 36650), (169, 36629), (200, 36545),

Gene: Tasp14_55 Start: 38871, Stop: 38200, Start Num: 50

Candidate Starts for Tasp14_55:

(Start: 50 @38871 has 123 MA's), (62, 38772), (74, 38718), (78, 38703), (79, 38694), (94, 38574), (116, 38478), (127, 38442), (145, 38388), (154, 38367), (173, 38328), (184, 38295),

Gene: Temprado_60 Start: 37472, Stop: 37029, Start Num: 54

Candidate Starts for Temprado_60:

(Start: 54 @37472 has 79 MA's), (73, 37328), (74, 37325), (80, 37298), (88, 37232), (102, 37172), (126, 37127),

Gene: Theia_48 Start: 37140, Stop: 36673, Start Num: 49

Candidate Starts for Theia_48:

(38, 37176), (Start: 49 @37140 has 36 MA's), (62, 37041), (74, 36987), (75, 36984), (76, 36981), (78, 36972), (139, 36744), (169, 36690),

Gene: TheloniousMonk_54 Start: 40538, Stop: 39924, Start Num: 50

Candidate Starts for TheloniousMonk_54:

(Start: 50 @40538 has 123 MA's), (62, 40439), (74, 40385), (78, 40370), (79, 40361), (116, 40226), (127, 40190), (145, 40136), (154, 40115), (164, 40094), (172, 40079), (183, 40046),

Gene: Thor_51 Start: 37202, Stop: 36636, Start Num: 50

Candidate Starts for Thor_51:

(Start: 50 @37202 has 123 MA's), (62, 37103), (74, 37049), (78, 37034), (79, 37025), (116, 36890), (145, 36800), (154, 36779), (169, 36758), (200, 36674),

Gene: Tiger_48 Start: 36329, Stop: 35862, Start Num: 49

Candidate Starts for Tiger_48:

(Start: 49 @36329 has 36 MA's), (62, 36230), (74, 36176), (75, 36173), (76, 36170), (139, 35933), (169, 35879),

Gene: Timshel_51 Start: 38839, Stop: 38318, Start Num: 47

Candidate Starts for Timshel_51:

(22, 38905), (25, 38899), (Start: 47 @38839 has 20 MA's), (62, 38740), (68, 38707), (74, 38686), (75, 38683), (77, 38677), (78, 38671), (122, 38488),

Gene: TipsytheTRex_53 Start: 37429, Stop: 36965, Start Num: 54

Candidate Starts for TipsytheTRex_53:

(Start: 54 @37429 has 79 MA's), (72, 37285), (73, 37282), (74, 37279), (80, 37252), (82, 37225), (88, 37186), (118, 37105), (123, 37093), (151, 37015),

Gene: Toaka_57 Start: 37937, Stop: 37467, Start Num: 54

Candidate Starts for Toaka_57:

(Start: 54 @37937 has 79 MA's), (66, 37814), (70, 37799), (73, 37790), (74, 37787), (80, 37760), (82, 37733), (88, 37694), (118, 37604), (128, 37574), (174, 37472),

Gene: Tomathan_59 Start: 38049, Stop: 37594, Start Num: 50

Candidate Starts for Tomathan_59:

(Start: 50 @38049 has 123 MA's), (70, 37908), (74, 37896), (77, 37887), (83, 37833), (125, 37737), (126, 37728), (169, 37614),

Gene: ToneTone_56 Start: 37032, Stop: 36589, Start Num: 54

Candidate Starts for ToneTone_56:

(Start: 54 @37032 has 79 MA's), (73, 36888), (74, 36885), (80, 36858), (88, 36792), (102, 36732), (126, 36687),

Gene: Topgun_53 Start: 38055, Stop: 37489, Start Num: 50

Candidate Starts for Topgun_53:

(Start: 50 @38055 has 123 MA's), (62, 37956), (74, 37902), (78, 37887), (79, 37878), (116, 37743), (127, 37707), (145, 37656), (154, 37635), (169, 37614), (200, 37527),

Gene: Toro_57 Start: 40134, Stop: 39640, Start Num: 47

Candidate Starts for Toro_57:

(Start: 47 @40134 has 20 MA's), (61, 40038), (74, 39981), (77, 39972), (79, 39957), (117, 39819),

Gene: Tote_49 Start: 34947, Stop: 34369, Start Num: 44

Candidate Starts for Tote_49:

(36, 34977), (Start: 44 @34947 has 3 MA's), (Start: 50 @34935 has 123 MA's), (62, 34836), (74, 34782), (78, 34767), (79, 34758), (116, 34623), (127, 34587), (145, 34533), (154, 34512), (169, 34491), (195, 34434), (200, 34407),

Gene: Traft412_56 Start: 39446, Stop: 38832, Start Num: 50

Candidate Starts for Traft412_56:

(Start: 50 @39446 has 123 MA's), (62, 39347), (74, 39293), (78, 39278), (79, 39269), (116, 39134), (127, 39098), (145, 39044), (154, 39023), (164, 39002), (172, 38987), (183, 38954),

Gene: Travvers_59 Start: 37999, Stop: 37544, Start Num: 50

Candidate Starts for Travvers_59:

(Start: 50 @37999 has 123 MA's), (70, 37858), (74, 37846), (77, 37837), (83, 37783), (117, 37708), (125, 37687), (126, 37678), (169, 37564),

Gene: Trixie_55 Start: 38251, Stop: 37799, Start Num: 54

Candidate Starts for Trixie_55:

(Start: 54 @38251 has 79 MA's), (70, 38113), (72, 38107), (73, 38104), (74, 38101), (80, 38074), (82, 38047), (88, 38008), (109, 37927),

Gene: Trooper_58 Start: 38528, Stop: 38091, Start Num: 54

Candidate Starts for Trooper_58:

(Start: 54 @38528 has 79 MA's), (70, 38393), (72, 38387), (73, 38384), (74, 38381), (80, 38354), (82, 38327), (88, 38288), (134, 38156), (144, 38132),

Gene: Tucker_59 Start: 37201, Stop: 36758, Start Num: 54

Candidate Starts for Tucker_59:

(Start: 54 @37201 has 79 MA's), (73, 37057), (74, 37054), (80, 37027), (88, 36961), (102, 36901), (126, 36856),

Gene: Turj99_52 Start: 38730, Stop: 38170, Start Num: 50

Candidate Starts for Turj99_52:

(Start: 50 @38730 has 123 MA's), (62, 38631), (74, 38577), (78, 38562), (79, 38553), (116, 38418), (127, 38382), (145, 38328), (154, 38307), (200, 38208),

Gene: U2_53 Start: 39377, Stop: 38811, Start Num: 50

Candidate Starts for U2_53:

(Start: 50 @39377 has 123 MA's), (62, 39278), (74, 39224), (78, 39209), (79, 39200), (116, 39065), (127, 39029), (145, 38975), (154, 38954), (169, 38933), (200, 38849),

Gene: UnionJack_51 Start: 36473, Stop: 35982, Start Num: 49

Candidate Starts for UnionJack_51:

(Start: 49 @36473 has 36 MA's), (62, 36374), (67, 36347), (70, 36332), (71, 36329), (74, 36320), (77, 36311), (90, 36209), (126, 36107), (174, 35996),

Gene: VC3_60 Start: 38397, Stop: 37942, Start Num: 50

Candidate Starts for VC3_60:

(Start: 50 @38397 has 123 MA's), (70, 38256), (74, 38244), (77, 38235), (83, 38181), (117, 38106), (125, 38085), (126, 38076), (169, 37962),

Gene: Vanisoa_57 Start: 39057, Stop: 38596, Start Num: 54

Candidate Starts for Vanisoa_57:

(Start: 54 @39057 has 79 MA's), (66, 38934), (70, 38919), (73, 38910), (74, 38907), (80, 38880), (82, 38853), (88, 38814), (174, 38601),

Gene: VohminGhazi_58 Start: 37010, Stop: 36567, Start Num: 54

Candidate Starts for VohminGhazi_58:

(Start: 54 @37010 has 79 MA's), (73, 36866), (74, 36863), (80, 36836), (88, 36770), (102, 36710), (126, 36665),

Gene: Watermelon_54 Start: 38595, Stop: 38029, Start Num: 50

Candidate Starts for Watermelon_54:

(Start: 50 @38595 has 123 MA's), (62, 38496), (74, 38442), (78, 38427), (79, 38418), (116, 38283), (127, 38247), (145, 38193), (154, 38172), (169, 38151), (198, 38085), (200, 38067),

Gene: WeiHuaDA_59 Start: 39056, Stop: 38604, Start Num: 54

Candidate Starts for WeiHuaDA_59:

(Start: 54 @39056 has 79 MA's), (70, 38918), (72, 38912), (73, 38909), (74, 38906), (80, 38879), (82, 38852), (88, 38813), (95, 38774), (103, 38741),

Gene: Whitspit_51 Start: 36041, Stop: 35406, Start Num: 50

Candidate Starts for Whitspit_51:

(Start: 50 @36041 has 123 MA's), (62, 35942), (74, 35888), (78, 35873), (79, 35864), (94, 35744), (116, 35648), (127, 35612), (145, 35561), (154, 35540), (173, 35501),

Gene: Wiks_58 Start: 37103, Stop: 36660, Start Num: 54

Candidate Starts for Wiks_58:

(Start: 54 @37103 has 79 MA's), (73, 36959), (74, 36956), (80, 36929), (88, 36863), (102, 36803), (126, 36758),

Gene: Wilkins_53 Start: 37985, Stop: 37419, Start Num: 50

Candidate Starts for Wilkins_53:

(Start: 50 @37985 has 123 MA's), (62, 37886), (74, 37832), (78, 37817), (79, 37808), (116, 37673), (127, 37637), (145, 37586), (154, 37565), (169, 37544), (200, 37457),

Gene: WorldCup_56 Start: 37723, Stop: 37265, Start Num: 54

Candidate Starts for WorldCup_56:

(Start: 54 @37723 has 79 MA's), (70, 37585), (72, 37579), (73, 37576), (74, 37573), (80, 37546), (82, 37519), (88, 37480), (119, 37399), (143, 37327), (174, 37270),

Gene: WunderPhul_59 Start: 37101, Stop: 36658, Start Num: 54

Candidate Starts for WunderPhul_59:

(Start: 54 @37101 has 79 MA's), (73, 36957), (74, 36954), (80, 36927), (88, 36861), (102, 36801), (126, 36756),

Gene: Yecey3_58 Start: 37824, Stop: 37375, Start Num: 50

Candidate Starts for Yecey3_58:

(Start: 50 @37824 has 123 MA's), (70, 37683), (74, 37671), (79, 37647), (111, 37545), (125, 37509), (148, 37437), (174, 37380),

Gene: Yokurt_59 Start: 37103, Stop: 36660, Start Num: 54

Candidate Starts for Yokurt_59:

(Start: 54 @37103 has 79 MA's), (73, 36959), (74, 36956), (80, 36929), (88, 36863), (102, 36803), (126, 36758),

Gene: Zaka_59 Start: 37103, Stop: 36660, Start Num: 54

Candidate Starts for Zaka_59:

(Start: 54 @37103 has 79 MA's), (73, 36959), (74, 36956), (80, 36929), (88, 36863), (102, 36803), (126, 36758),

Gene: Zephyr_53 Start: 38133, Stop: 37516, Start Num: 50

Candidate Starts for Zephyr_53:

(24, 38217), (Start: 44 @38145 has 3 MA's), (Start: 50 @38133 has 123 MA's), (62, 38034), (74, 37980), (78, 37965), (79, 37956), (116, 37821), (127, 37785), (145, 37731), (154, 37710),

Gene: Zimmer_54 Start: 38954, Stop: 38418, Start Num: 43

Candidate Starts for Zimmer_54:

(4, 39227), (5, 39179), (6, 39170), (Start: 43 @38954 has 16 MA's), (70, 38807), (74, 38795), (78, 38780), (100, 38648), (115, 38609), (187, 38423),

Gene: Zolita_51 Start: 37667, Stop: 37200, Start Num: 49

Candidate Starts for Zolita_51:

(38, 37703), (Start: 49 @37667 has 36 MA's), (62, 37568), (74, 37514), (75, 37511), (76, 37508), (77, 37505), (139, 37271), (169, 37217),

Gene: Zulu_60 Start: 37481, Stop: 37038, Start Num: 54

Candidate Starts for Zulu_60:

(Start: 54 @37481 has 79 MA's), (73, 37337), (74, 37334), (80, 37307), (88, 37241), (102, 37181), (126, 37136),