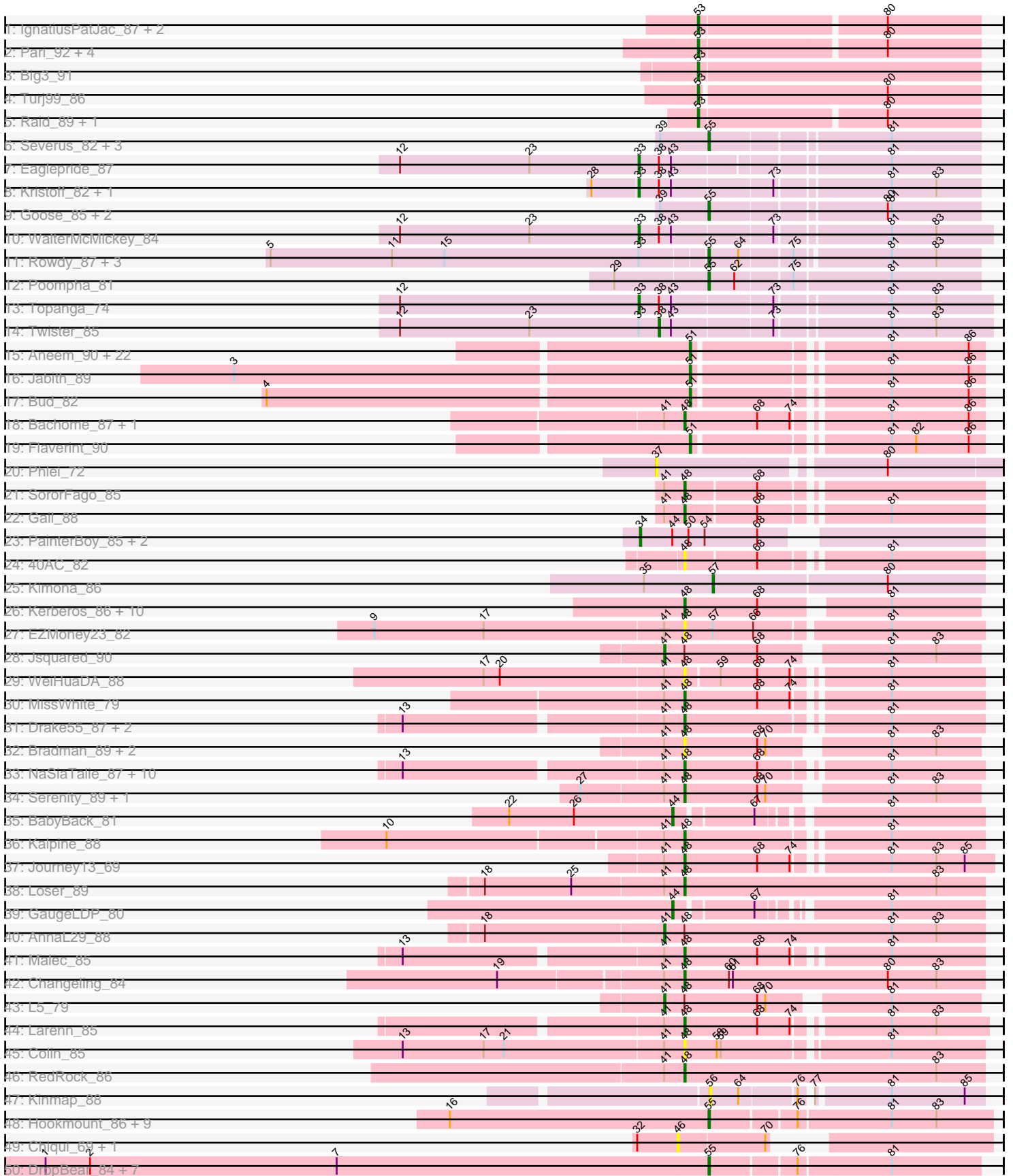
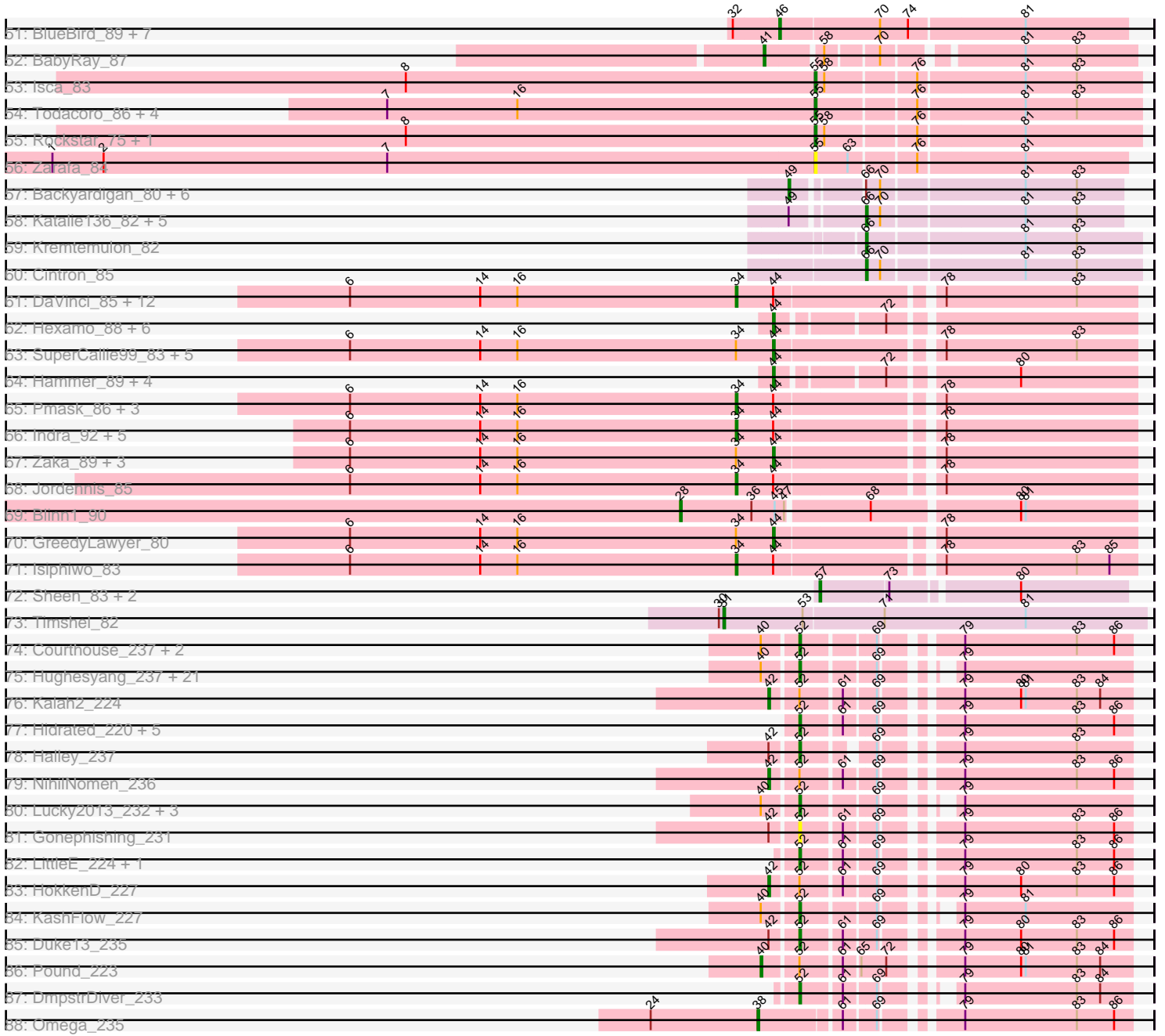


Pham 296199



Pham 296199



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 296199 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296199 has 266 members, 47 are drafts.

Phages represented in each track:

- Track 1 : IgnatiusPatJac_87, BluSpix_85, Alsfro_94
- Track 2 : Pari_92, PherrisBueller_88, Killigrew_87, EnzoK_94, Zeeculate_91
- Track 3 : Big3_91
- Track 4 : Turj99_86
- Track 5 : Raid_89, Lesedi_88
- Track 6 : Severus_82, KittenMittens_79, Drake94_81, PeaceMeal1_81
- Track 7 : Eaglepride_87
- Track 8 : Kristoff_82, Rebeuca_85
- Track 9 : Goose_85, Chupacabra_81, OKCentral2016_83
- Track 10 : WalterMcMickey_84
- Track 11 : Rowdy_87, RhynO_72, DustyMartin_87, Shapes_87
- Track 12 : Poompha_81
- Track 13 : Topanga_74
- Track 14 : Twister_85
- Track 15 : Aneem_90, MaCh_89, TinyTimmy_87, Salz_85, Munch_88, Joselito_87, Et2Brutus_89, Kimba_86, Lucivia_90, Mabel_89, Sham4_86, Ebony_88, Wolpertinger_89, Petersenfast_83, Orange_89, Gilberta_87, Hutc2_86, Bowtie_85, Fibonacci_89, Mulciber_88, Insomnia_89, Timothy_89, Snape_89
- Track 16 : Jabith_89
- Track 17 : Bud_82
- Track 18 : Bachome_87, Saskia_86
- Track 19 : Flaverint_90
- Track 20 : Phlei_72
- Track 21 : SororFago_85
- Track 22 : Gail_88
- Track 23 : PainterBoy_85, Lucyedi_86, EagleEye_87
- Track 24 : 40AC_82
- Track 25 : Kimona_86
- Track 26 : Kerberos_86, DBQu4n_86, Tomathan_86, Duplo_87, StarStuff_86, ANI8_85, Travvers_86, Pomar16_86, VC3_84, AN9_85, C3_78
- Track 27 : EZMoney23_82
- Track 28 : Jsquared_90
- Track 29 : WeiHuaDA_88
- Track 30 : MissWhite_79
- Track 31 : Drake55_87, HarryHoudini_86, Piro94_85
- Track 32 : Bradman_89, Quokka_88, MajorMajor_83

- Track 33 : NaSiaTalie_87, Flare16_86, WideWale_87, Baehexic_85, Equemioh13_86, MiculUcigas_86, Terrific_87, Updawg_87, Sknot_86, Gratitude_84, Centaur_86
- Track 34 : Serenity_89, TipsytheTRex_85
- Track 35 : BabyBack_81
- Track 36 : Kalpine_88
- Track 37 : Journey13_69
- Track 38 : Loser_89
- Track 39 : GaugeLDP_80
- Track 40 : AnnaL29_88
- Track 41 : Malec_85
- Track 42 : Changeling_84
- Track 43 : L5_79
- Track 44 : Larenn_85
- Track 45 : Colin_85
- Track 46 : RedRock_86
- Track 47 : Kinmap_88
- Track 48 : Hookmount_86, EtoileNova_83, Popcicle_86, Caviar_75, ResDef_84, Panamaxus_82, Noella_87, Pocahontas_85, Norbert_82, Texage_84
- Track 49 : Chiqui_69, BabyJohn_69
- Track 50 : DropBear_84, Roimos_85, HelDan_86, Heathen_86, Fred313_84, Scout_86, Kachowdy_84, Marchesa_86
- Track 51 : BlueBird_89, Pistachio_87, SaturnRing_88, Clammy_88, TNguyen7_88, Puppy_88, Giroux_90, Bugatti_88
- Track 52 : BabyRay_87
- Track 53 : Isca_83
- Track 54 : Todacoro_86, QuinnKiro_85, Veracruz_83, Margo_86, Lambert1_86
- Track 55 : Rockstar_75, Phantastic_87
- Track 56 : Zarafa_84
- Track 57 : Backyardigan_80, Badger_81, Achebe_81, Cici_82, Wile_81, Wizard007_82, Druantia_84
- Track 58 : Katalie136_82, PetiteSangsue_82, Perplexer_82, Bumblebee11_81, Morpher26_82, AbbysRanger_82
- Track 59 : Kremtemulon_82
- Track 60 : Cintron_85
- Track 61 : DaVinci_85, Hoot_82, Chartreuse_86, Zulu_90, Polyphemus_80, Kazan_88, McFly_87, Dorothea_87, SmellyB_87, BABullseye_80, Cookiedough_87, Kipper29_87, VohminGhazi_87
- Track 62 : Hexamo_88, CloudWang3_89, Roksolana_89, Rifter_89, Gruunaga_88, Artemis2UCLA_88, Gladiator_85
- Track 63 : SuperCallie99_83, DelvinSonDorr_82, EricB_85, Neeharika16_86, Candra_85, Priamo_88
- Track 64 : Hammer_89, BlessJoy_89, ToneTone_86, Tucker_89, Lilbunny_88
- Track 65 : Pmask_86, SuperAwesome_87, JewelBug_79, Newrala_86
- Track 66 : Indra_92, Wiks_88, Koko_90, Blue7_90, Temprado_90, Helmet_91
- Track 67 : Zaka_89, BennyP_88, Garak_90, Yokurt_88
- Track 68 : Jordennis_85
- Track 69 : Blinn1_90
- Track 70 : GreedyLawyer_80
- Track 71 : Isiphiwo_83
- Track 72 : Sheen_83, FlyCatcher_86, Toro_84
- Track 73 : Timshel_82
- Track 74 : Courthouse_237, Ariel_241, Superphikiman_233

- Track 75 : Hughesyang_237, Beem_238, JuicyJay_230, Shaboozey_232, Klein_242, Hannaconda_225, Dove_217, Schatzie_227, Squint_233, Nibley_225, Yeet_229, Bombitas_219, EricMillard_232, Redno2_226, Ejimix_226, Zelink_228, Phoebus_233, BronnyJames_226, ThreeRngTarjay_234, Odette_234, Nekros_235, Bagrid_240
- Track 76 : Kalah2_224
- Track 77 : Hidrated_220, Marleymoo_215, Constella_224, Bobby_213, Thibault_209, Xiaokay_220
- Track 78 : Halley_237
- Track 79 : NihilNomen_236
- Track 80 : Lucky2013_232, Porcelain_236, MiaZeal_245, Wanda_234
- Track 81 : Gonephishing_231
- Track 82 : LittleE_224, Rearden_235
- Track 83 : HokkenD_227
- Track 84 : KashFlow_227
- Track 85 : Duke13_235
- Track 86 : Pound_223
- Track 87 : DmpstrDiver_233
- Track 88 : Omega_235

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

The start number called the most often in the published annotations is 48, it was called in 35 of the 219 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 40AC_82, AN9_85, ANI8_85, Bachome_87, Baehexic_85, Bradman_89, C3_78, Centaur_86, Changeling_84, Colin_85, DBQu4n_86, Drake55_87, Duplo_87, EZMoney23_82, Equemioh13_86, Flare16_86, Gail_88, Gratitude_84, HarryHoudini_86, Journey13_69, Kalpine_88, Kerberos_86, Larenn_85, Loser_89, MajorMajor_83, Malec_85, MiculUcigas_86, MissWhite_79, NaSiaTalie_87, Piro94_85, Pomar16_86, Quokka_88, RedRock_86, Saskia_86, Serenity_89, Sknot_86, SororFago_85, StarStuff_86, Terrific_87, TipsytheTRex_85, Tomathan_86, Travvers_86, Updawg_87, VC3_84, WeiHuaDA_88, WideWale_87,

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

- AnnaL29_88, Jsquared_90, L5_79,

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

- AbbysRanger_82, Achebe_81, Alsfro_94, Aneem_90, Ariel_241, Artemis2UCLA_88, BABullseye_80, BabyBack_81, BabyJohn_69, BabyRay_87, Backyardigan_80, Badger_81, Bagrid_240, Beem_238, BennyP_88, Big3_91, BlessJoy_89, Blinn1_90, BluSpix_85, Blue7_90, BlueBird_89, Bobby_213, Bombitas_219, Bowtie_85, BronnyJames_226, Bud_82, Bugatti_88, Bumblebee11_81, Candra_85, Caviar_75, Chartreuse_86, Chiqui_69, Chupacabra_81, Cici_82, Cintron_85, Clammy_88, CloudWang3_89, Constella_224, Cookiedough_87, Courthouse_237, DaVinci_85, DelvinSonDorr_82, DmpstrDiver_233, Dorothea_87, Dove_217, Drake94_81, DropBear_84, Druantia_84, Duke13_235, DustyMartin_87, EagleEye_87, Eaglepride_87, Ebony_88, Ejimix_226, EnzoK_94, EricB_85, EricMillard_232, Et2Brutus_89, EtoileNova_83, Fibonacci_89, Flaverint_90, FlyCatcher_86,

Fred313_84, Garak_90, GaugeLDP_80, Gilberta_87, Giroux_90, Gladiator_85, Gonephishing_231, Goose_85, GreedyLawyer_80, Gruunaga_88, Halley_237, Hammer_89, Hannaconda_225, Heathen_86, HelDan_86, Helmet_91, Hexamo_88, Hidrated_220, HokkenD_227, Hookmount_86, Hoot_82, Hughesyang_237, Hutc2_86, IgnatiusPatJac_87, Indra_92, Insomnia_89, Isca_83, Isiphiwo_83, Jabith_89, JewelBug_79, Jordennis_85, Joselito_87, JuicyJay_230, Kachowdy_84, Kalah2_224, KashFlow_227, Katalie136_82, Kazan_88, Killigrew_87, Kimba_86, Kimona_86, Kinmap_88, Kipper29_87, KittenMittens_79, Klein_242, Koko_90, Kremtemulon_82, Kristoff_82, Lambert1_86, Lesedi_88, Lilbunny_88, LittleE_224, Lucivia_90, Lucky2013_232, Lucyedi_86, MaCh_89, Mabel_89, Marchesa_86, Margo_86, Marleymoo_215, McFly_87, MiaZeal_245, Morpher26_82, Mulciber_88, Munch_88, Neeharika16_86, Nekros_235, Newrala_86, Nibley_225, NihilNomen_236, Noella_87, Norbert_82, OKCentral2016_83, Odette_234, Omega_235, Orange_89, PainterBoy_85, Panamaxus_82, Pari_92, PeaceMeal1_81, Perplexer_82, Petersenfast_83, PetiteSangsue_82, Phantastic_87, PherrisBueller_88, Phlei_72, Phoebus_233, Pistachio_87, Pmask_86, Pocahontas_85, Polyphemus_80, Poompha_81, Popcicle_86, Porcelain_236, Pound_223, Priamo_88, Puppy_88, QuinnKiro_85, Raid_89, Rearden_235, Rebeuca_85, Redno2_226, ResDef_84, RhynO_72, Rifter_89, Rockstar_75, Roimos_85, Roksolana_89, Rowdy_87, Salz_85, SaturnRing_88, Schatzie_227, Scout_86, Severus_82, Shaboozey_232, Sham4_86, Shapes_87, Sheen_83, SmellyB_87, Snape_89, Squint_233, SuperAwesome_87, SuperCallie99_83, Superphikiman_233, TNguyen7_88, Temprado_90, Texage_84, Thibault_209, ThreeRngTarjay_234, Timothy_89, Timshel_82, TinyTimmy_87, Todacoro_86, ToneTone_86, Topanga_74, Toro_84, Tucker_89, Turj99_86, Twister_85, Veracruz_83, VohminGhazi_87, WalterMcMickey_84, Wanda_234, Wiks_88, Wile_81, Wizard007_82, Wolpertinger_89, Xiaokay_220, Yeet_229, Yokurt_88, Zaka_89, Zarafa_84, Zeeculate_91, Zelink_228, Zulu_90,

Summary by start number:

Start 28:

- Found in 3 of 266 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 219
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Blinn1_90 (A6),

Start 31:

- Found in 1 of 266 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 219
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Timshel_82 (A7),

Start 33:

- Found in 10 of 266 (3.8%) of genes in pham
- Manual Annotations of this start: 5 of 219
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Eaglepride_87 (A10), Kristoff_82 (A10), Rebeuca_85 (A10), Topanga_74 (A10), WalterMcMickey_84 (A10),

Start 34:

- Found in 39 of 266 (14.7%) of genes in pham
- Manual Annotations of this start: 28 of 219

- Called 71.8% of time when present
- Phage (with cluster) where this start called: BABullseye_80 (A6), Blue7_90 (A6), Chartreuse_86 (A6), Cookiedough_87 (A6), DaVinci_85 (A6), Dorothea_87 (A6), EagleEye_87 (A16), Helmet_91 (A6), Hoot_82 (A6), Indra_92 (A6), Isiphiwo_83 (A6), JewelBug_79 (A6), Jordennis_85 (A6), Kazan_88 (A6), Kipper29_87 (A6), Koko_90 (A6), Lucyedi_86 (A16), McFly_87 (A6), Newrala_86 (A6), PainterBoy_85 (A16), Pmask_86 (A6), Polyphemus_80 (A6), SmellyB_87 (A6), SuperAwesome_87 (A6), Temprado_90 (A6), VohminGhazi_87 (A6), Wiks_88 (A6), Zulu_90 (A6),

Start 37:

- Found in 1 of 266 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phlei_72 (A13),

Start 38:

- Found in 7 of 266 (2.6%) of genes in pham
- Manual Annotations of this start: 2 of 219
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Omega_235 (J), Twister_85 (A10),

Start 40:

- Found in 31 of 266 (11.7%) of genes in pham
- Manual Annotations of this start: 1 of 219
- Called 3.2% of time when present
- Phage (with cluster) where this start called: Pound_223 (J),

Start 41:

- Found in 38 of 266 (14.3%) of genes in pham
- Manual Annotations of this start: 4 of 219
- Called 10.5% of time when present
- Phage (with cluster) where this start called: AnnaL29_88 (A2), BabyRay_87 (A3), Jsquared_90 (A2), L5_79 (A2),

Start 42:

- Found in 6 of 266 (2.3%) of genes in pham
- Manual Annotations of this start: 3 of 219
- Called 50.0% of time when present
- Phage (with cluster) where this start called: HokkenD_227 (J), Kalah2_224 (J), NihilNomen_236 (J),

Start 44:

- Found in 53 of 266 (19.9%) of genes in pham
- Manual Annotations of this start: 21 of 219
- Called 47.2% of time when present
- Phage (with cluster) where this start called: Artemis2UCLA_88 (A6), BabyBack_81 (A2), BennyP_88 (A6), BlessJoy_89 (A6), Candra_85 (A6), CloudWang3_89 (A6), DelvinSonDorr_82 (A6), EricB_85 (A6), Garak_90 (A6), GaugeLDP_80 (A2), Gladiator_85 (A6), GreedyLawyer_80 (A6), Gruunaga_88 (A6), Hammer_89 (A6), Hexamo_88 (A6), Lilbunny_88 (A6), Neeharika16_86 (A6), Priamo_88 (A6), Rifter_89 (A6), Roksolana_89 (A6), SuperCallie99_83 (A6), ToneTone_86 (A6), Tucker_89 (A6), Yokurt_88 (A6), Zaka_89 (A6),

Start 46:

- Found in 10 of 266 (3.8%) of genes in pham
- Manual Annotations of this start: 5 of 219
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BabyJohn_69 (A3), BlueBird_89 (A3), Bugatti_88 (A3), Chiqui_69 (A3), Clammy_88 (A3), Giroux_90 (A3), Pistachio_87 (A3), Puppy_88 (A3), SaturnRing_88 (A3), TNguyen7_88 (A3),

Start 48:

- Found in 49 of 266 (18.4%) of genes in pham
- Manual Annotations of this start: 35 of 219
- Called 93.9% of time when present
- Phage (with cluster) where this start called: 40AC_82 (A17), AN9_85 (A2), ANI8_85 (A2), Bachome_87 (A11), Baehexic_85 (A2), Bradman_89 (A2), C3_78 (A2), Centaur_86 (A2), Changeling_84 (A2), Colin_85 (A2), DBQu4n_86 (A2), Drake55_87 (A2), Duplo_87 (A2), EZMoney23_82 (A2), Equemioh13_86 (A2), Flare16_86 (A2), Gail_88 (A14), Gratitude_84 (A2), HarryHoudini_86 (A2), Journey13_69 (A2), Kalpine_88 (A2), Kerberos_86 (A2), Larenn_85 (A2), Loser_89 (A2), MajorMajor_83 (A2), Malec_85 (A2), MiculUcigas_86 (A2), MissWhite_79 (A2), NaSiaTalie_87 (A2), Piro94_85 (A2), Pomar16_86 (A2), Quokka_88 (A2), RedRock_86 (A2), Saskia_86 (A11), Serenity_89 (A2), Sknot_86 (A2), SororFago_85 (A14), StarStuff_86 (A2), Terrific_87 (A2), TopsytheTRex_85 (A2), Tomathan_86 (A2), Travvers_86 (A2), Updawg_87 (A2), VC3_84 (A2), WeiHuaDA_88 (A2), WideWale_87 (A2),

Start 49:

- Found in 13 of 266 (4.9%) of genes in pham
- Manual Annotations of this start: 7 of 219
- Called 53.8% of time when present
- Phage (with cluster) where this start called: Achebe_81 (A4), Backyardigan_80 (A4), Badger_81 (A4), Cici_82 (A4), Druantia_84 (A4), Wile_81 (A4), Wizard007_82 (A4),

Start 51:

- Found in 26 of 266 (9.8%) of genes in pham
- Manual Annotations of this start: 23 of 219
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aneem_90 (A11), Bowtie_85 (A11), Bud_82 (A11), Ebony_88 (A11), Et2Brutus_89 (A11), Fibonacci_89 (A11), Flaverint_90 (A11), Gilberta_87 (A11), Hutc2_86 (A11), Insomnia_89 (A11), Jabith_89 (A11), Joselito_87 (A11), Kimba_86 (A11), Lucivia_90 (A11), MaCh_89 (A11), Mabel_89 (A11), Mulciber_88 (A11), Munch_88 (A11), Orange_89 (A11), Petersenfast_83 (A11), Salz_85 (A11), Sham4_86 (A11), Snape_89 (A11), Timothy_89 (A11), TinyTimmy_87 (A11), Wolpertinger_89 (A11),

Start 52:

- Found in 46 of 266 (17.3%) of genes in pham
- Manual Annotations of this start: 31 of 219
- Called 91.3% of time when present
- Phage (with cluster) where this start called: Ariel_241 (J), Bagrid_240 (J), Beem_238 (J), Bobby_213 (J), Bombitas_219 (J), BronnyJames_226 (J), Constella_224 (J), Courthouse_237 (J), DmpstrDiver_233 (J), Dove_217 (J), Duke13_235 (J), Ejimix_226 (J), EricMillard_232 (J), Gonephishing_231 (J), Halley_237 (J), Hannaconda_225 (J), Hidrated_220 (J), Hughesyang_237 (J), JuicyJay_230 (J), KashFlow_227 (J), Klein_242 (J), LittleE_224 (J), Lucky2013_232 (J),

Marleymoo_215 (J), MiaZeal_245 (J), Nekros_235 (J), Nibley_225 (J), Odette_234 (J), Phoebus_233 (J), Porcelain_236 (J), Rearden_235 (J), Redno2_226 (J), Schatzie_227 (J), Shaboozey_232 (J), Squint_233 (J), Superphikiman_233 (J), Thibault_209 (J), ThreeRngTarjay_234 (J), Wanda_234 (J), Xiaokay_220 (J), Yeet_229 (J), Zelink_228 (J),

Start 53:

- Found in 13 of 266 (4.9%) of genes in pham
- Manual Annotations of this start: 12 of 219
- Called 92.3% of time when present
- Phage (with cluster) where this start called: Alsfro_94 (A1), Big3_91 (A1), BluSpix_85 (A1), EnzoK_94 (A1), IgnatiusPatJac_87 (A1), Killigrew_87 (A1), Lesedi_88 (A1), Pari_92 (A1), PherrisBueller_88 (A1), Raid_89 (A1), Turj99_86 (A1), Zeeculate_91 (A1),

Start 55:

- Found in 39 of 266 (14.7%) of genes in pham
- Manual Annotations of this start: 30 of 219
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Caviar_75 (A3), Chupacabra_81 (A10), Drake94_81 (A10), DropBear_84 (A3), DustyMartin_87 (A10), EtoileNova_83 (A3), Fred313_84 (A3), Goose_85 (A10), Heathen_86 (A3), HelDan_86 (A3), Hookmount_86 (A3), Isca_83 (A3), Kachowdy_84 (A3), KittenMittens_79 (A10), Lambert1_86 (A3), Marchesa_86 (A3), Margo_86 (A3), Noella_87 (A3), Norbert_82 (A3), OKCentral2016_83 (A10), Panamaxus_82 (A3), PeaceMeal1_81 (A10), Phantastic_87 (A3), Pocahontas_85 (A3), Poompha_81 (A10), Popcicle_86 (A3), QuinnKiro_85 (A3), ResDef_84 (A3), RhynO_72 (A10), Rockstar_75 (A3), Roimos_85 (A3), Rowdy_87 (A10), Scout_86 (A3), Severus_82 (A10), Shapes_87 (A10), Texage_84 (A3), Todacoro_86 (A3), Veracruz_83 (A3), Zarafa_84 (A3),

Start 56:

- Found in 1 of 266 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kinmap_88 (A21),

Start 57:

- Found in 5 of 266 (1.9%) of genes in pham
- Manual Annotations of this start: 2 of 219
- Called 80.0% of time when present
- Phage (with cluster) where this start called: FlyCatcher_86 (A7), Kimona_86 (A19), Sheen_83 (A7), Toro_84 (A7),

Start 66:

- Found in 16 of 266 (6.0%) of genes in pham
- Manual Annotations of this start: 8 of 219
- Called 50.0% of time when present
- Phage (with cluster) where this start called: AbbysRanger_82 (A4), Bumblebee11_81 (A4), Cintron_85 (A4), Katalie136_82 (A4), Kremtemulon_82 (A4), Morpher26_82 (A4), Perplexer_82 (A4), PetiteSangsue_82 (A4),

Summary by clusters:

There are 15 clusters represented in this pham: A14, A17, A16, A11, A10, A13, A21, J, A19, A1, A3, A2, A4, A7, A6,

Info for manual annotations of cluster A1:

- Start number 53 was manually annotated 12 times for cluster A1.

Info for manual annotations of cluster A10:

- Start number 33 was manually annotated 5 times for cluster A10.
- Start number 38 was manually annotated 1 time for cluster A10.
- Start number 55 was manually annotated 9 times for cluster A10.

Info for manual annotations of cluster A11:

- Start number 48 was manually annotated 1 time for cluster A11.
- Start number 51 was manually annotated 23 times for cluster A11.

Info for manual annotations of cluster A14:

- Start number 48 was manually annotated 2 times for cluster A14.

Info for manual annotations of cluster A16:

- Start number 34 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A19:

- Start number 57 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 41 was manually annotated 3 times for cluster A2.
- Start number 44 was manually annotated 2 times for cluster A2.
- Start number 48 was manually annotated 32 times for cluster A2.

Info for manual annotations of cluster A3:

- Start number 41 was manually annotated 1 time for cluster A3.
- Start number 46 was manually annotated 5 times for cluster A3.
- Start number 55 was manually annotated 21 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 49 was manually annotated 7 times for cluster A4.
- Start number 66 was manually annotated 8 times for cluster A4.

Info for manual annotations of cluster A6:

- Start number 28 was manually annotated 1 time for cluster A6.
- Start number 34 was manually annotated 25 times for cluster A6.
- Start number 44 was manually annotated 19 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 31 was manually annotated 1 time for cluster A7.
- Start number 57 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster J:

- Start number 38 was manually annotated 1 time for cluster J.
- Start number 40 was manually annotated 1 time for cluster J.

- Start number 42 was manually annotated 3 times for cluster J.
- Start number 52 was manually annotated 31 times for cluster J.

Gene Information:

Gene: 40AC_82 Start: 48479, Stop: 48276, Start Num: 48

Candidate Starts for 40AC_82:

(Start: 48 @48479 has 35 MA's), (68, 48428), (81, 48344),

Gene: AN9_85 Start: 47253, Stop: 47056, Start Num: 48

Candidate Starts for AN9_85:

(Start: 48 @47253 has 35 MA's), (68, 47199), (81, 47121),

Gene: ANI8_85 Start: 47253, Stop: 47056, Start Num: 48

Candidate Starts for ANI8_85:

(Start: 48 @47253 has 35 MA's), (68, 47199), (81, 47121),

Gene: AbbysRanger_82 Start: 48599, Stop: 48441, Start Num: 66

Candidate Starts for AbbysRanger_82:

(Start: 49 @48638 has 7 MA's), (Start: 66 @48599 has 8 MA's), (70, 48590), (81, 48503), (83, 48470),

Gene: Achebe_81 Start: 48782, Stop: 48585, Start Num: 49

Candidate Starts for Achebe_81:

(Start: 49 @48782 has 7 MA's), (Start: 66 @48743 has 8 MA's), (70, 48734), (81, 48647), (83, 48614),

Gene: Alsfro_94 Start: 49646, Stop: 49846, Start Num: 53

Candidate Starts for Alsfro_94:

(Start: 53 @49646 has 12 MA's), (80, 49778),

Gene: Aneem_90 Start: 48299, Stop: 48102, Start Num: 51

Candidate Starts for Aneem_90:

(Start: 51 @48299 has 23 MA's), (81, 48170), (86, 48113),

Gene: AnnaL29_88 Start: 49242, Stop: 49006, Start Num: 41

Candidate Starts for AnnaL29_88:

(18, 49371), (Start: 41 @49242 has 4 MA's), (Start: 48 @49227 has 35 MA's), (81, 49074), (83, 49041),

Gene: Ariel_241 Start: 107734, Stop: 107546, Start Num: 52

Candidate Starts for Ariel_241:

(Start: 40 @107755 has 1 MA's), (Start: 52 @107734 has 31 MA's), (69, 107692), (79, 107653), (83, 107581), (86, 107557),

Gene: Artemis2UCLA_88 Start: 46537, Stop: 46328, Start Num: 44

Candidate Starts for Artemis2UCLA_88:

(Start: 44 @46537 has 21 MA's), (72, 46477),

Gene: BABullseye_80 Start: 44890, Stop: 44648, Start Num: 34

Candidate Starts for BABullseye_80:

(6, 45139), (14, 45055), (16, 45031), (Start: 34 @44890 has 28 MA's), (Start: 44 @44866 has 21 MA's), (78, 44770), (83, 44686),

Gene: BabyBack_81 Start: 48271, Stop: 48068, Start Num: 44
Candidate Starts for BabyBack_81:
(22, 48391), (26, 48343), (Start: 44 @48271 has 21 MA's), (67, 48220), (81, 48136),

Gene: BabyJohn_69 Start: 44585, Stop: 44400, Start Num: 46
Candidate Starts for BabyJohn_69:
(32, 44612), (Start: 46 @44585 has 5 MA's), (70, 44522),

Gene: BabyRay_87 Start: 47952, Stop: 47743, Start Num: 41
Candidate Starts for BabyRay_87:
(Start: 41 @47952 has 4 MA's), (58, 47919), (70, 47889), (81, 47814), (83, 47781),

Gene: Bachome_87 Start: 47191, Stop: 46985, Start Num: 48
Candidate Starts for Bachome_87:
(Start: 41 @47206 has 4 MA's), (Start: 48 @47191 has 35 MA's), (68, 47137), (74, 47113), (81, 47053),
(86, 46996),

Gene: Backyardigan_80 Start: 48654, Stop: 48457, Start Num: 49
Candidate Starts for Backyardigan_80:
(Start: 49 @48654 has 7 MA's), (Start: 66 @48615 has 8 MA's), (70, 48606), (81, 48519), (83, 48486),

Gene: Badger_81 Start: 48620, Stop: 48423, Start Num: 49
Candidate Starts for Badger_81:
(Start: 49 @48620 has 7 MA's), (Start: 66 @48581 has 8 MA's), (70, 48572), (81, 48485), (83, 48452),

Gene: Baehexic_85 Start: 48457, Stop: 48251, Start Num: 48
Candidate Starts for Baehexic_85:
(13, 48655), (Start: 41 @48472 has 4 MA's), (Start: 48 @48457 has 35 MA's), (68, 48403), (81, 48319),

Gene: Bagrid_240 Start: 111821, Stop: 111645, Start Num: 52
Candidate Starts for Bagrid_240:
(Start: 40 @111842 has 1 MA's), (Start: 52 @111821 has 31 MA's), (69, 111779), (79, 111752),

Gene: Beem_238 Start: 110940, Stop: 110764, Start Num: 52
Candidate Starts for Beem_238:
(Start: 40 @110961 has 1 MA's), (Start: 52 @110940 has 31 MA's), (69, 110898), (79, 110871),

Gene: BennyP_88 Start: 46711, Stop: 46493, Start Num: 44
Candidate Starts for BennyP_88:
(6, 46984), (14, 46900), (16, 46876), (Start: 34 @46735 has 28 MA's), (Start: 44 @46711 has 21 MA's),
(78, 46615),

Gene: Big3_91 Start: 53046, Stop: 52840, Start Num: 53
Candidate Starts for Big3_91:
(Start: 53 @53046 has 12 MA's),

Gene: BlessJoy_89 Start: 47058, Stop: 46849, Start Num: 44
Candidate Starts for BlessJoy_89:
(Start: 44 @47058 has 21 MA's), (72, 46998), (80, 46923),

Gene: Blinn1_90 Start: 47426, Stop: 47145, Start Num: 28
Candidate Starts for Blinn1_90:

(Start: 28 @47426 has 1 MA's), (36, 47381), (45, 47366), (47, 47360), (68, 47309), (80, 47219), (81, 47216),

Gene: BluSpix_85 Start: 44982, Stop: 45182, Start Num: 53

Candidate Starts for BluSpix_85:

(Start: 53 @44982 has 12 MA's), (80, 45114),

Gene: Blue7_90 Start: 46789, Stop: 46547, Start Num: 34

Candidate Starts for Blue7_90:

(6, 47038), (14, 46954), (16, 46930), (Start: 34 @46789 has 28 MA's), (Start: 44 @46765 has 21 MA's), (78, 46669),

Gene: BlueBird_89 Start: 48203, Stop: 47985, Start Num: 46

Candidate Starts for BlueBird_89:

(32, 48230), (Start: 46 @48203 has 5 MA's), (70, 48140), (74, 48122), (81, 48050),

Gene: Bobby_213 Start: 108407, Stop: 108219, Start Num: 52

Candidate Starts for Bobby_213:

(Start: 52 @108407 has 31 MA's), (61, 108383), (69, 108365), (79, 108326), (83, 108254), (86, 108230),

Gene: Bombitas_219 Start: 107223, Stop: 107050, Start Num: 52

Candidate Starts for Bombitas_219:

(Start: 40 @107244 has 1 MA's), (Start: 52 @107223 has 31 MA's), (69, 107181), (79, 107154),

Gene: Bowtie_85 Start: 46906, Stop: 46709, Start Num: 51

Candidate Starts for Bowtie_85:

(Start: 51 @46906 has 23 MA's), (81, 46777), (86, 46720),

Gene: Bradman_89 Start: 47929, Stop: 47726, Start Num: 48

Candidate Starts for Bradman_89:

(Start: 41 @47944 has 4 MA's), (Start: 48 @47929 has 35 MA's), (68, 47875), (70, 47869), (81, 47791), (83, 47758),

Gene: BronnyJames_226 Start: 105609, Stop: 105433, Start Num: 52

Candidate Starts for BronnyJames_226:

(Start: 40 @105630 has 1 MA's), (Start: 52 @105609 has 31 MA's), (69, 105567), (79, 105540),

Gene: Bud_82 Start: 46736, Stop: 46539, Start Num: 51

Candidate Starts for Bud_82:

(4, 47042), (Start: 51 @46736 has 23 MA's), (81, 46607), (86, 46550),

Gene: Bugatti_88 Start: 48203, Stop: 47985, Start Num: 46

Candidate Starts for Bugatti_88:

(32, 48230), (Start: 46 @48203 has 5 MA's), (70, 48140), (74, 48122), (81, 48050),

Gene: Bumblebee11_81 Start: 48581, Stop: 48423, Start Num: 66

Candidate Starts for Bumblebee11_81:

(Start: 49 @48620 has 7 MA's), (Start: 66 @48581 has 8 MA's), (70, 48572), (81, 48485), (83, 48452),

Gene: C3_78 Start: 47253, Stop: 47056, Start Num: 48

Candidate Starts for C3_78:

(Start: 48 @47253 has 35 MA's), (68, 47199), (81, 47121),

Gene: Candra_85 Start: 46570, Stop: 46352, Start Num: 44

Candidate Starts for Candra_85:

(6, 46843), (14, 46759), (16, 46735), (Start: 34 @46594 has 28 MA's), (Start: 44 @46570 has 21 MA's), (78, 46474), (83, 46390),

Gene: Caviar_75 Start: 44830, Stop: 44630, Start Num: 55

Candidate Starts for Caviar_75:

(16, 45019), (Start: 55 @44830 has 30 MA's), (76, 44770), (81, 44704), (83, 44671),

Gene: Centaur_86 Start: 48324, Stop: 48118, Start Num: 48

Candidate Starts for Centaur_86:

(13, 48522), (Start: 41 @48339 has 4 MA's), (Start: 48 @48324 has 35 MA's), (68, 48270), (81, 48186),

Gene: Changeling_84 Start: 49033, Stop: 48812, Start Num: 48

Candidate Starts for Changeling_84:

(19, 49165), (Start: 41 @49048 has 4 MA's), (Start: 48 @49033 has 35 MA's), (60, 49000), (61, 48997), (80, 48883), (83, 48847),

Gene: Chartreuse_86 Start: 45895, Stop: 45653, Start Num: 34

Candidate Starts for Chartreuse_86:

(6, 46144), (14, 46060), (16, 46036), (Start: 34 @45895 has 28 MA's), (Start: 44 @45871 has 21 MA's), (78, 45775), (83, 45691),

Gene: Chiqui_69 Start: 44594, Stop: 44409, Start Num: 46

Candidate Starts for Chiqui_69:

(32, 44621), (Start: 46 @44594 has 5 MA's), (70, 44531),

Gene: Chupacabra_81 Start: 48564, Stop: 48376, Start Num: 55

Candidate Starts for Chupacabra_81:

(39, 48597), (Start: 55 @48564 has 30 MA's), (80, 48444), (81, 48441),

Gene: Cici_82 Start: 48633, Stop: 48436, Start Num: 49

Candidate Starts for Cici_82:

(Start: 49 @48633 has 7 MA's), (Start: 66 @48594 has 8 MA's), (70, 48585), (81, 48498), (83, 48465),

Gene: Cintron_85 Start: 48872, Stop: 48702, Start Num: 66

Candidate Starts for Cintron_85:

(Start: 66 @48872 has 8 MA's), (70, 48863), (81, 48776), (83, 48743),

Gene: Clammy_88 Start: 48203, Stop: 47985, Start Num: 46

Candidate Starts for Clammy_88:

(32, 48230), (Start: 46 @48203 has 5 MA's), (70, 48140), (74, 48122), (81, 48050),

Gene: CloudWang3_89 Start: 47066, Stop: 46857, Start Num: 44

Candidate Starts for CloudWang3_89:

(Start: 44 @47066 has 21 MA's), (72, 47006),

Gene: Colin_85 Start: 49399, Stop: 49190, Start Num: 48

Candidate Starts for Colin_85:

(13, 49606), (17, 49546), (21, 49531), (Start: 41 @49414 has 4 MA's), (Start: 48 @49399 has 35 MA's), (58, 49375), (59, 49372), (81, 49258),

Gene: Constella_224 Start: 108319, Stop: 108131, Start Num: 52
Candidate Starts for Constella_224:
(Start: 52 @108319 has 31 MA's), (61, 108295), (69, 108277), (79, 108238), (83, 108166), (86, 108142),

Gene: Cookiedough_87 Start: 47203, Stop: 46961, Start Num: 34
Candidate Starts for Cookiedough_87:
(6, 47452), (14, 47368), (16, 47344), (Start: 34 @47203 has 28 MA's), (Start: 44 @47179 has 21 MA's), (78, 47083), (83, 46999),

Gene: Courthouse_237 Start: 108498, Stop: 108310, Start Num: 52
Candidate Starts for Courthouse_237:
(Start: 40 @108519 has 1 MA's), (Start: 52 @108498 has 31 MA's), (69, 108456), (79, 108417), (83, 108345), (86, 108321),

Gene: DBQu4n_86 Start: 48304, Stop: 48101, Start Num: 48
Candidate Starts for DBQu4n_86:
(Start: 48 @48304 has 35 MA's), (68, 48250), (81, 48166),

Gene: DaVinci_85 Start: 45949, Stop: 45707, Start Num: 34
Candidate Starts for DaVinci_85:
(6, 46198), (14, 46114), (16, 46090), (Start: 34 @45949 has 28 MA's), (Start: 44 @45925 has 21 MA's), (78, 45829), (83, 45745),

Gene: DelvinSonDorr_82 Start: 46134, Stop: 45916, Start Num: 44
Candidate Starts for DelvinSonDorr_82:
(6, 46407), (14, 46323), (16, 46299), (Start: 34 @46158 has 28 MA's), (Start: 44 @46134 has 21 MA's), (78, 46038), (83, 45954),

Gene: DmpstrDiver_233 Start: 109198, Stop: 109022, Start Num: 52
Candidate Starts for DmpstrDiver_233:
(Start: 52 @109198 has 31 MA's), (61, 109174), (69, 109156), (79, 109129), (83, 109057), (84, 109042),

Gene: Dorothea_87 Start: 47195, Stop: 46953, Start Num: 34
Candidate Starts for Dorothea_87:
(6, 47444), (14, 47360), (16, 47336), (Start: 34 @47195 has 28 MA's), (Start: 44 @47171 has 21 MA's), (78, 47075), (83, 46991),

Gene: Dove_217 Start: 105704, Stop: 105528, Start Num: 52
Candidate Starts for Dove_217:
(Start: 40 @105725 has 1 MA's), (Start: 52 @105704 has 31 MA's), (69, 105662), (79, 105635),

Gene: Drake55_87 Start: 48575, Stop: 48369, Start Num: 48
Candidate Starts for Drake55_87:
(13, 48773), (Start: 41 @48590 has 4 MA's), (Start: 48 @48575 has 35 MA's), (81, 48437),

Gene: Drake94_81 Start: 47718, Stop: 47530, Start Num: 55
Candidate Starts for Drake94_81:
(39, 47751), (Start: 55 @47718 has 30 MA's), (81, 47595),

Gene: DropBear_84 Start: 48015, Stop: 47824, Start Num: 55
Candidate Starts for DropBear_84:

(1, 48504), (2, 48471), (7, 48288), (Start: 55 @48015 has 30 MA's), (76, 47955), (81, 47889),

Gene: Druantia_84 Start: 48829, Stop: 48632, Start Num: 49

Candidate Starts for Druantia_84:

(Start: 49 @48829 has 7 MA's), (Start: 66 @48790 has 8 MA's), (70, 48781), (81, 48694), (83, 48661),

Gene: Duke13_235 Start: 110008, Stop: 109820, Start Num: 52

Candidate Starts for Duke13_235:

(Start: 42 @110023 has 3 MA's), (Start: 52 @110008 has 31 MA's), (61, 109984), (69, 109966), (79, 109927), (80, 109891), (83, 109855), (86, 109831),

Gene: Duplo_87 Start: 48361, Stop: 48158, Start Num: 48

Candidate Starts for Duplo_87:

(Start: 48 @48361 has 35 MA's), (68, 48307), (81, 48223),

Gene: DustyMartin_87 Start: 48813, Stop: 48628, Start Num: 55

Candidate Starts for DustyMartin_87:

(5, 49131), (11, 49041), (15, 49002), (Start: 33 @48858 has 5 MA's), (Start: 55 @48813 has 30 MA's), (64, 48792), (75, 48756), (81, 48693), (83, 48660),

Gene: EZMoney23_82 Start: 48034, Stop: 47822, Start Num: 48

Candidate Starts for EZMoney23_82:

(9, 48262), (17, 48181), (Start: 41 @48049 has 4 MA's), (Start: 48 @48034 has 35 MA's), (Start: 57 @48013 has 2 MA's), (Start: 66 @47983 has 8 MA's), (81, 47890),

Gene: EagleEye_87 Start: 48171, Stop: 47941, Start Num: 34

Candidate Starts for EagleEye_87:

(Start: 34 @48171 has 28 MA's), (Start: 44 @48147 has 21 MA's), (50, 48135), (54, 48123), (68, 48084),

Gene: Eaglepride_87 Start: 48695, Stop: 48462, Start Num: 33

Candidate Starts for Eaglepride_87:

(12, 48872), (23, 48776), (Start: 33 @48695 has 5 MA's), (Start: 38 @48680 has 2 MA's), (43, 48671), (81, 48527),

Gene: Ebony_88 Start: 47870, Stop: 47673, Start Num: 51

Candidate Starts for Ebony_88:

(Start: 51 @47870 has 23 MA's), (81, 47741), (86, 47684),

Gene: Ejimix_226 Start: 109183, Stop: 109007, Start Num: 52

Candidate Starts for Ejimix_226:

(Start: 40 @109204 has 1 MA's), (Start: 52 @109183 has 31 MA's), (69, 109141), (79, 109114),

Gene: EnzoK_94 Start: 50479, Stop: 50279, Start Num: 53

Candidate Starts for EnzoK_94:

(Start: 53 @50479 has 12 MA's), (80, 50347),

Gene: Equemioh13_86 Start: 48553, Stop: 48347, Start Num: 48

Candidate Starts for Equemioh13_86:

(13, 48751), (Start: 41 @48568 has 4 MA's), (Start: 48 @48553 has 35 MA's), (68, 48499), (81, 48415),

Gene: EricB_85 Start: 46068, Stop: 45850, Start Num: 44

Candidate Starts for EricB_85:

(6, 46341), (14, 46257), (16, 46233), (Start: 34 @46092 has 28 MA's), (Start: 44 @46068 has 21 MA's), (78, 45972), (83, 45888),

Gene: EricMillard_232 Start: 111027, Stop: 110851, Start Num: 52

Candidate Starts for EricMillard_232:

(Start: 40 @111048 has 1 MA's), (Start: 52 @111027 has 31 MA's), (69, 110985), (79, 110958),

Gene: Et2Brutus_89 Start: 48147, Stop: 47950, Start Num: 51

Candidate Starts for Et2Brutus_89:

(Start: 51 @48147 has 23 MA's), (81, 48018), (86, 47961),

Gene: EtoileNova_83 Start: 47837, Stop: 47637, Start Num: 55

Candidate Starts for EtoileNova_83:

(16, 48026), (Start: 55 @47837 has 30 MA's), (76, 47777), (81, 47711), (83, 47678),

Gene: Fibonacci_89 Start: 48153, Stop: 47956, Start Num: 51

Candidate Starts for Fibonacci_89:

(Start: 51 @48153 has 23 MA's), (81, 48024), (86, 47967),

Gene: Flare16_86 Start: 48368, Stop: 48162, Start Num: 48

Candidate Starts for Flare16_86:

(13, 48566), (Start: 41 @48383 has 4 MA's), (Start: 48 @48368 has 35 MA's), (68, 48314), (81, 48230),

Gene: Flaverint_90 Start: 48297, Stop: 48100, Start Num: 51

Candidate Starts for Flaverint_90:

(Start: 51 @48297 has 23 MA's), (81, 48168), (82, 48150), (86, 48111),

Gene: FlyCatcher_86 Start: 51563, Stop: 51378, Start Num: 57

Candidate Starts for FlyCatcher_86:

(Start: 57 @51563 has 2 MA's), (73, 51521), (80, 51446),

Gene: Fred313_84 Start: 47806, Stop: 47615, Start Num: 55

Candidate Starts for Fred313_84:

(1, 48295), (2, 48262), (7, 48079), (Start: 55 @47806 has 30 MA's), (76, 47746), (81, 47680),

Gene: Gail_88 Start: 48344, Stop: 48141, Start Num: 48

Candidate Starts for Gail_88:

(Start: 41 @48359 has 4 MA's), (Start: 48 @48344 has 35 MA's), (68, 48293), (81, 48209),

Gene: Garak_90 Start: 47008, Stop: 46790, Start Num: 44

Candidate Starts for Garak_90:

(6, 47281), (14, 47197), (16, 47173), (Start: 34 @47032 has 28 MA's), (Start: 44 @47008 has 21 MA's), (78, 46912),

Gene: GaugeLDP_80 Start: 47824, Stop: 47624, Start Num: 44

Candidate Starts for GaugeLDP_80:

(Start: 44 @47824 has 21 MA's), (67, 47773), (81, 47692),

Gene: Gilberta_87 Start: 47173, Stop: 46976, Start Num: 51

Candidate Starts for Gilberta_87:

(Start: 51 @47173 has 23 MA's), (81, 47044), (86, 46987),

Gene: Giroux_90 Start: 48202, Stop: 47984, Start Num: 46

Candidate Starts for Giroux_90:

(32, 48229), (Start: 46 @48202 has 5 MA's), (70, 48139), (74, 48121), (81, 48049),

Gene: Gladiator_85 Start: 46722, Stop: 46513, Start Num: 44

Candidate Starts for Gladiator_85:

(Start: 44 @46722 has 21 MA's), (72, 46662),

Gene: Gonephishing_231 Start: 108727, Stop: 108539, Start Num: 52

Candidate Starts for Gonephishing_231:

(Start: 42 @108742 has 3 MA's), (Start: 52 @108727 has 31 MA's), (61, 108703), (69, 108685), (79, 108646), (83, 108574), (86, 108550),

Gene: Goose_85 Start: 48375, Stop: 48187, Start Num: 55

Candidate Starts for Goose_85:

(39, 48408), (Start: 55 @48375 has 30 MA's), (80, 48255), (81, 48252),

Gene: Gratitude_84 Start: 48553, Stop: 48347, Start Num: 48

Candidate Starts for Gratitude_84:

(13, 48751), (Start: 41 @48568 has 4 MA's), (Start: 48 @48553 has 35 MA's), (68, 48499), (81, 48415),

Gene: GreedyLawyer_80 Start: 46501, Stop: 46283, Start Num: 44

Candidate Starts for GreedyLawyer_80:

(6, 46774), (14, 46690), (16, 46666), (Start: 34 @46525 has 28 MA's), (Start: 44 @46501 has 21 MA's), (78, 46405),

Gene: Gruunaga_88 Start: 46677, Stop: 46468, Start Num: 44

Candidate Starts for Gruunaga_88:

(Start: 44 @46677 has 21 MA's), (72, 46617),

Gene: Halley_237 Start: 109664, Stop: 109482, Start Num: 52

Candidate Starts for Halley_237:

(Start: 42 @109679 has 3 MA's), (Start: 52 @109664 has 31 MA's), (69, 109628), (79, 109589), (83, 109517),

Gene: Hammer_89 Start: 46384, Stop: 46175, Start Num: 44

Candidate Starts for Hammer_89:

(Start: 44 @46384 has 21 MA's), (72, 46324), (80, 46249),

Gene: Hannaconda_225 Start: 109232, Stop: 109056, Start Num: 52

Candidate Starts for Hannaconda_225:

(Start: 40 @109253 has 1 MA's), (Start: 52 @109232 has 31 MA's), (69, 109190), (79, 109163),

Gene: HarryHoudini_86 Start: 48578, Stop: 48372, Start Num: 48

Candidate Starts for HarryHoudini_86:

(13, 48776), (Start: 41 @48593 has 4 MA's), (Start: 48 @48578 has 35 MA's), (81, 48440),

Gene: Heathen_86 Start: 47894, Stop: 47703, Start Num: 55

Candidate Starts for Heathen_86:

(1, 48383), (2, 48350), (7, 48167), (Start: 55 @47894 has 30 MA's), (76, 47834), (81, 47768),

Gene: HelDan_86 Start: 48117, Stop: 47926, Start Num: 55

Candidate Starts for HelDan_86:

(1, 48606), (2, 48573), (7, 48390), (Start: 55 @48117 has 30 MA's), (76, 48057), (81, 47991),

Gene: Helmet_91 Start: 47032, Stop: 46790, Start Num: 34
Candidate Starts for Helmet_91:
(6, 47281), (14, 47197), (16, 47173), (Start: 34 @47032 has 28 MA's), (Start: 44 @47008 has 21 MA's),
(78, 46912),

Gene: Hexamo_88 Start: 46552, Stop: 46343, Start Num: 44
Candidate Starts for Hexamo_88:
(Start: 44 @46552 has 21 MA's), (72, 46492),

Gene: Hidrated_220 Start: 109826, Stop: 109638, Start Num: 52
Candidate Starts for Hidrated_220:
(Start: 52 @109826 has 31 MA's), (61, 109802), (69, 109784), (79, 109745), (83, 109673), (86,
109649),

Gene: HokkenD_227 Start: 110994, Stop: 110791, Start Num: 42
Candidate Starts for HokkenD_227:
(Start: 42 @110994 has 3 MA's), (Start: 52 @110979 has 31 MA's), (61, 110955), (69, 110937), (79,
110898), (80, 110862), (83, 110826), (86, 110802),

Gene: Hookmount_86 Start: 47833, Stop: 47633, Start Num: 55
Candidate Starts for Hookmount_86:
(16, 48022), (Start: 55 @47833 has 30 MA's), (76, 47773), (81, 47707), (83, 47674),

Gene: Hoot_82 Start: 44409, Stop: 44167, Start Num: 34
Candidate Starts for Hoot_82:
(6, 44658), (14, 44574), (16, 44550), (Start: 34 @44409 has 28 MA's), (Start: 44 @44385 has 21 MA's),
(78, 44289), (83, 44205),

Gene: Hughesyang_237 Start: 110914, Stop: 110738, Start Num: 52
Candidate Starts for Hughesyang_237:
(Start: 40 @110935 has 1 MA's), (Start: 52 @110914 has 31 MA's), (69, 110872), (79, 110845),

Gene: Hutc2_86 Start: 47037, Stop: 46840, Start Num: 51
Candidate Starts for Hutc2_86:
(Start: 51 @47037 has 23 MA's), (81, 46908), (86, 46851),

Gene: IgnatiusPatJac_87 Start: 48927, Stop: 49127, Start Num: 53
Candidate Starts for IgnatiusPatJac_87:
(Start: 53 @48927 has 12 MA's), (80, 49059),

Gene: Indra_92 Start: 47033, Stop: 46791, Start Num: 34
Candidate Starts for Indra_92:
(6, 47282), (14, 47198), (16, 47174), (Start: 34 @47033 has 28 MA's), (Start: 44 @47009 has 21 MA's),
(78, 46913),

Gene: Insomnia_89 Start: 48331, Stop: 48134, Start Num: 51
Candidate Starts for Insomnia_89:
(Start: 51 @48331 has 23 MA's), (81, 48202), (86, 48145),

Gene: Isca_83 Start: 47223, Stop: 47023, Start Num: 55
Candidate Starts for Isca_83:
(8, 47487), (Start: 55 @47223 has 30 MA's), (58, 47217), (76, 47163), (81, 47097), (83, 47064),

Gene: Isiphiwo_83 Start: 46120, Stop: 45878, Start Num: 34

Candidate Starts for Isiphiwo_83:

(6, 46369), (14, 46285), (16, 46261), (Start: 34 @46120 has 28 MA's), (Start: 44 @46096 has 21 MA's), (78, 46000), (83, 45916), (85, 45895),

Gene: Jabith_89 Start: 48345, Stop: 48148, Start Num: 51

Candidate Starts for Jabith_89:

(3, 48675), (Start: 51 @48345 has 23 MA's), (81, 48216), (86, 48159),

Gene: JewelBug_79 Start: 44888, Stop: 44646, Start Num: 34

Candidate Starts for JewelBug_79:

(6, 45137), (14, 45053), (16, 45029), (Start: 34 @44888 has 28 MA's), (Start: 44 @44864 has 21 MA's), (78, 44768),

Gene: Jordennis_85 Start: 46792, Stop: 46550, Start Num: 34

Candidate Starts for Jordennis_85:

(6, 47041), (14, 46957), (16, 46933), (Start: 34 @46792 has 28 MA's), (Start: 44 @46768 has 21 MA's), (78, 46672),

Gene: Joselito_87 Start: 48051, Stop: 47854, Start Num: 51

Candidate Starts for Joselito_87:

(Start: 51 @48051 has 23 MA's), (81, 47922), (86, 47865),

Gene: Journey13_69 Start: 43468, Stop: 43256, Start Num: 48

Candidate Starts for Journey13_69:

(Start: 41 @43483 has 4 MA's), (Start: 48 @43468 has 35 MA's), (68, 43414), (74, 43390), (81, 43330), (83, 43297), (85, 43276),

Gene: Jsquared_90 Start: 48187, Stop: 47969, Start Num: 41

Candidate Starts for Jsquared_90:

(Start: 41 @48187 has 4 MA's), (Start: 48 @48172 has 35 MA's), (68, 48118), (81, 48034), (83, 48001),

Gene: JuicyJay_230 Start: 110889, Stop: 110713, Start Num: 52

Candidate Starts for JuicyJay_230:

(Start: 40 @110910 has 1 MA's), (Start: 52 @110889 has 31 MA's), (69, 110847), (79, 110820),

Gene: Kachowdy_84 Start: 48146, Stop: 47955, Start Num: 55

Candidate Starts for Kachowdy_84:

(1, 48635), (2, 48602), (7, 48419), (Start: 55 @48146 has 30 MA's), (76, 48086), (81, 48020),

Gene: Kalah2_224 Start: 108578, Stop: 108375, Start Num: 42

Candidate Starts for Kalah2_224:

(Start: 42 @108578 has 3 MA's), (Start: 52 @108563 has 31 MA's), (61, 108539), (69, 108521), (79, 108482), (80, 108446), (81, 108443), (83, 108410), (84, 108395),

Gene: Kalpine_88 Start: 49294, Stop: 49088, Start Num: 48

Candidate Starts for Kalpine_88:

(10, 49507), (Start: 41 @49309 has 4 MA's), (Start: 48 @49294 has 35 MA's), (81, 49156),

Gene: KashFlow_227 Start: 109125, Stop: 108949, Start Num: 52

Candidate Starts for KashFlow_227:

(Start: 40 @109146 has 1 MA's), (Start: 52 @109125 has 31 MA's), (69, 109083), (79, 109056), (81, 109017),

Gene: Katalie136_82 Start: 48581, Stop: 48423, Start Num: 66

Candidate Starts for Katalie136_82:

(Start: 49 @48620 has 7 MA's), (Start: 66 @48581 has 8 MA's), (70, 48572), (81, 48485), (83, 48452),

Gene: Kazan_88 Start: 46564, Stop: 46322, Start Num: 34

Candidate Starts for Kazan_88:

(6, 46813), (14, 46729), (16, 46705), (Start: 34 @46564 has 28 MA's), (Start: 44 @46540 has 21 MA's), (78, 46444), (83, 46360),

Gene: Kerberos_86 Start: 48324, Stop: 48121, Start Num: 48

Candidate Starts for Kerberos_86:

(Start: 48 @48324 has 35 MA's), (68, 48270), (81, 48186),

Gene: Killigrew_87 Start: 50774, Stop: 50574, Start Num: 53

Candidate Starts for Killigrew_87:

(Start: 53 @50774 has 12 MA's), (80, 50642),

Gene: Kimba_86 Start: 47354, Stop: 47157, Start Num: 51

Candidate Starts for Kimba_86:

(Start: 51 @47354 has 23 MA's), (81, 47225), (86, 47168),

Gene: Kimona_86 Start: 47954, Stop: 47757, Start Num: 57

Candidate Starts for Kimona_86:

(35, 48005), (Start: 57 @47954 has 2 MA's), (80, 47828),

Gene: Kinmap_88 Start: 46506, Stop: 46321, Start Num: 56

Candidate Starts for Kinmap_88:

(56, 46506), (64, 46485), (76, 46446), (77, 46440), (81, 46389), (85, 46335),

Gene: Kipper29_87 Start: 46567, Stop: 46325, Start Num: 34

Candidate Starts for Kipper29_87:

(6, 46816), (14, 46732), (16, 46708), (Start: 34 @46567 has 28 MA's), (Start: 44 @46543 has 21 MA's), (78, 46447), (83, 46363),

Gene: KittenMittens_79 Start: 47725, Stop: 47537, Start Num: 55

Candidate Starts for KittenMittens_79:

(39, 47758), (Start: 55 @47725 has 30 MA's), (81, 47602),

Gene: Klein_242 Start: 109911, Stop: 109735, Start Num: 52

Candidate Starts for Klein_242:

(Start: 40 @109932 has 1 MA's), (Start: 52 @109911 has 31 MA's), (69, 109869), (79, 109842),

Gene: Koko_90 Start: 47422, Stop: 47180, Start Num: 34

Candidate Starts for Koko_90:

(6, 47671), (14, 47587), (16, 47563), (Start: 34 @47422 has 28 MA's), (Start: 44 @47398 has 21 MA's), (78, 47302),

Gene: Kremtemulon_82 Start: 48636, Stop: 48466, Start Num: 66

Candidate Starts for Kremtemulon_82:

(Start: 66 @48636 has 8 MA's), (81, 48540), (83, 48507),

Gene: Kristoff_82 Start: 49033, Stop: 48797, Start Num: 33

Candidate Starts for Kristoff_82:

(Start: 28 @49066 has 1 MA's), (Start: 33 @49033 has 5 MA's), (Start: 38 @49018 has 2 MA's), (43, 49009), (73, 48940), (81, 48862), (83, 48829),

Gene: L5_79 Start: 47417, Stop: 47199, Start Num: 41

Candidate Starts for L5_79:

(Start: 41 @47417 has 4 MA's), (Start: 48 @47402 has 35 MA's), (68, 47348), (70, 47342), (81, 47264),

Gene: Lambert1_86 Start: 47834, Stop: 47634, Start Num: 55

Candidate Starts for Lambert1_86:

(7, 48107), (16, 48023), (Start: 55 @47834 has 30 MA's), (76, 47774), (81, 47708), (83, 47675),

Gene: Larenn_85 Start: 48736, Stop: 48527, Start Num: 48

Candidate Starts for Larenn_85:

(Start: 41 @48751 has 4 MA's), (Start: 48 @48736 has 35 MA's), (68, 48682), (74, 48658), (81, 48598), (83, 48565),

Gene: Lesedi_88 Start: 50089, Stop: 49889, Start Num: 53

Candidate Starts for Lesedi_88:

(Start: 53 @50089 has 12 MA's), (80, 49957),

Gene: Lilbunny_88 Start: 46631, Stop: 46422, Start Num: 44

Candidate Starts for Lilbunny_88:

(Start: 44 @46631 has 21 MA's), (72, 46571), (80, 46496),

Gene: LittleE_224 Start: 106916, Stop: 106728, Start Num: 52

Candidate Starts for LittleE_224:

(Start: 52 @106916 has 31 MA's), (61, 106892), (69, 106874), (79, 106835), (83, 106763), (86, 106739),

Gene: Loser_89 Start: 49477, Stop: 49256, Start Num: 48

Candidate Starts for Loser_89:

(18, 49621), (25, 49558), (Start: 41 @49492 has 4 MA's), (Start: 48 @49477 has 35 MA's), (83, 49291),

Gene: Lucivia_90 Start: 48330, Stop: 48133, Start Num: 51

Candidate Starts for Lucivia_90:

(Start: 51 @48330 has 23 MA's), (81, 48201), (86, 48144),

Gene: Lucky2013_232 Start: 106413, Stop: 106237, Start Num: 52

Candidate Starts for Lucky2013_232:

(Start: 40 @106434 has 1 MA's), (Start: 52 @106413 has 31 MA's), (69, 106371), (79, 106344),

Gene: Lucyedi_86 Start: 48370, Stop: 48140, Start Num: 34

Candidate Starts for Lucyedi_86:

(Start: 34 @48370 has 28 MA's), (Start: 44 @48346 has 21 MA's), (50, 48334), (54, 48322), (68, 48283),

Gene: MaCh_89 Start: 48294, Stop: 48097, Start Num: 51

Candidate Starts for MaCh_89:

(Start: 51 @48294 has 23 MA's), (81, 48165), (86, 48108),

Gene: Mabel_89 Start: 48295, Stop: 48098, Start Num: 51

Candidate Starts for Mabel_89:

(Start: 51 @48295 has 23 MA's), (81, 48166), (86, 48109),

Gene: MajorMajor_83 Start: 46221, Stop: 46018, Start Num: 48

Candidate Starts for MajorMajor_83:

(Start: 41 @46236 has 4 MA's), (Start: 48 @46221 has 35 MA's), (68, 46167), (70, 46161), (81, 46083), (83, 46050),

Gene: Malec_85 Start: 49144, Stop: 48938, Start Num: 48

Candidate Starts for Malec_85:

(13, 49342), (Start: 41 @49159 has 4 MA's), (Start: 48 @49144 has 35 MA's), (68, 49090), (74, 49066), (81, 49006),

Gene: Marchesa_86 Start: 48008, Stop: 47817, Start Num: 55

Candidate Starts for Marchesa_86:

(1, 48497), (2, 48464), (7, 48281), (Start: 55 @48008 has 30 MA's), (76, 47948), (81, 47882),

Gene: Margo_86 Start: 47859, Stop: 47659, Start Num: 55

Candidate Starts for Margo_86:

(7, 48132), (16, 48048), (Start: 55 @47859 has 30 MA's), (76, 47799), (81, 47733), (83, 47700),

Gene: Marleymoo_215 Start: 106507, Stop: 106319, Start Num: 52

Candidate Starts for Marleymoo_215:

(Start: 52 @106507 has 31 MA's), (61, 106483), (69, 106465), (79, 106426), (83, 106354), (86, 106330),

Gene: McFly_87 Start: 46903, Stop: 46661, Start Num: 34

Candidate Starts for McFly_87:

(6, 47152), (14, 47068), (16, 47044), (Start: 34 @46903 has 28 MA's), (Start: 44 @46879 has 21 MA's), (78, 46783), (83, 46699),

Gene: MiaZeal_245 Start: 108550, Stop: 108374, Start Num: 52

Candidate Starts for MiaZeal_245:

(Start: 40 @108571 has 1 MA's), (Start: 52 @108550 has 31 MA's), (69, 108508), (79, 108481),

Gene: MiculUcigas_86 Start: 48271, Stop: 48065, Start Num: 48

Candidate Starts for MiculUcigas_86:

(13, 48469), (Start: 41 @48286 has 4 MA's), (Start: 48 @48271 has 35 MA's), (68, 48217), (81, 48133),

Gene: MissWhite_79 Start: 45139, Stop: 44933, Start Num: 48

Candidate Starts for MissWhite_79:

(Start: 41 @45154 has 4 MA's), (Start: 48 @45139 has 35 MA's), (68, 45085), (74, 45061), (81, 45001),

Gene: Morpher26_82 Start: 48602, Stop: 48444, Start Num: 66

Candidate Starts for Morpher26_82:

(Start: 49 @48641 has 7 MA's), (Start: 66 @48602 has 8 MA's), (70, 48593), (81, 48506), (83, 48473),

Gene: Mulciber_88 Start: 48150, Stop: 47953, Start Num: 51

Candidate Starts for Mulciber_88:

(Start: 51 @48150 has 23 MA's), (81, 48021), (86, 47964),

Gene: Munch_88 Start: 48299, Stop: 48102, Start Num: 51

Candidate Starts for Munch_88:

(Start: 51 @48299 has 23 MA's), (81, 48170), (86, 48113),

Gene: NaSiaTalie_87 Start: 48558, Stop: 48352, Start Num: 48

Candidate Starts for NaSiaTalie_87:

(13, 48756), (Start: 41 @48573 has 4 MA's), (Start: 48 @48558 has 35 MA's), (68, 48504), (81, 48420),

Gene: Neeharika16_86 Start: 46630, Stop: 46412, Start Num: 44

Candidate Starts for Neeharika16_86:

(6, 46903), (14, 46819), (16, 46795), (Start: 34 @46654 has 28 MA's), (Start: 44 @46630 has 21 MA's), (78, 46534), (83, 46450),

Gene: Nekros_235 Start: 109893, Stop: 109717, Start Num: 52

Candidate Starts for Nekros_235:

(Start: 40 @109914 has 1 MA's), (Start: 52 @109893 has 31 MA's), (69, 109851), (79, 109824),

Gene: Newrala_86 Start: 47000, Stop: 46758, Start Num: 34

Candidate Starts for Newrala_86:

(6, 47249), (14, 47165), (16, 47141), (Start: 34 @47000 has 28 MA's), (Start: 44 @46976 has 21 MA's), (78, 46880),

Gene: Nibley_225 Start: 105186, Stop: 105010, Start Num: 52

Candidate Starts for Nibley_225:

(Start: 40 @105207 has 1 MA's), (Start: 52 @105186 has 31 MA's), (69, 105144), (79, 105117),

Gene: NihilNomen_236 Start: 108748, Stop: 108545, Start Num: 42

Candidate Starts for NihilNomen_236:

(Start: 42 @108748 has 3 MA's), (Start: 52 @108733 has 31 MA's), (61, 108709), (69, 108691), (79, 108652), (83, 108580), (86, 108556),

Gene: Noella_87 Start: 47835, Stop: 47635, Start Num: 55

Candidate Starts for Noella_87:

(16, 48024), (Start: 55 @47835 has 30 MA's), (76, 47775), (81, 47709), (83, 47676),

Gene: Norbert_82 Start: 47832, Stop: 47632, Start Num: 55

Candidate Starts for Norbert_82:

(16, 48021), (Start: 55 @47832 has 30 MA's), (76, 47772), (81, 47706), (83, 47673),

Gene: OKCentral2016_83 Start: 47802, Stop: 47614, Start Num: 55

Candidate Starts for OKCentral2016_83:

(39, 47835), (Start: 55 @47802 has 30 MA's), (80, 47682), (81, 47679),

Gene: Odette_234 Start: 110012, Stop: 109836, Start Num: 52

Candidate Starts for Odette_234:

(Start: 40 @110033 has 1 MA's), (Start: 52 @110012 has 31 MA's), (69, 109970), (79, 109943),

Gene: Omega_235 Start: 109887, Stop: 109675, Start Num: 38

Candidate Starts for Omega_235:

(24, 109956), (Start: 38 @109887 has 2 MA's), (61, 109839), (69, 109821), (79, 109782), (83, 109710), (86, 109686),

Gene: Orange_89 Start: 47849, Stop: 47652, Start Num: 51

Candidate Starts for Orange_89:

(Start: 51 @47849 has 23 MA's), (81, 47720), (86, 47663),

Gene: PainterBoy_85 Start: 48081, Stop: 47851, Start Num: 34

Candidate Starts for PainterBoy_85:

(Start: 34 @48081 has 28 MA's), (Start: 44 @48057 has 21 MA's), (50, 48045), (54, 48033), (68, 47994),

Gene: Panamaxus_82 Start: 47834, Stop: 47634, Start Num: 55

Candidate Starts for Panamaxus_82:

(16, 48023), (Start: 55 @47834 has 30 MA's), (76, 47774), (81, 47708), (83, 47675),

Gene: Pari_92 Start: 50227, Stop: 50027, Start Num: 53

Candidate Starts for Pari_92:

(Start: 53 @50227 has 12 MA's), (80, 50095),

Gene: PeaceMeal1_81 Start: 47729, Stop: 47541, Start Num: 55

Candidate Starts for PeaceMeal1_81:

(39, 47762), (Start: 55 @47729 has 30 MA's), (81, 47606),

Gene: Perplexer_82 Start: 48582, Stop: 48424, Start Num: 66

Candidate Starts for Perplexer_82:

(Start: 49 @48621 has 7 MA's), (Start: 66 @48582 has 8 MA's), (70, 48573), (81, 48486), (83, 48453),

Gene: Petersenfast_83 Start: 46730, Stop: 46533, Start Num: 51

Candidate Starts for Petersenfast_83:

(Start: 51 @46730 has 23 MA's), (81, 46601), (86, 46544),

Gene: PetiteSangsue_82 Start: 48585, Stop: 48427, Start Num: 66

Candidate Starts for PetiteSangsue_82:

(Start: 49 @48624 has 7 MA's), (Start: 66 @48585 has 8 MA's), (70, 48576), (81, 48489), (83, 48456),

Gene: Phantastic_87 Start: 47341, Stop: 47150, Start Num: 55

Candidate Starts for Phantastic_87:

(8, 47605), (Start: 55 @47341 has 30 MA's), (58, 47335), (76, 47281), (81, 47215),

Gene: PherrisBueller_88 Start: 48812, Stop: 48612, Start Num: 53

Candidate Starts for PherrisBueller_88:

(Start: 53 @48812 has 12 MA's), (80, 48680),

Gene: Phlei_72 Start: 46175, Stop: 45936, Start Num: 37

Candidate Starts for Phlei_72:

(37, 46175), (80, 46019),

Gene: Phoebus_233 Start: 112122, Stop: 111946, Start Num: 52

Candidate Starts for Phoebus_233:

(Start: 40 @112143 has 1 MA's), (Start: 52 @112122 has 31 MA's), (69, 112080), (79, 112053),

Gene: Piro94_85 Start: 48506, Stop: 48300, Start Num: 48

Candidate Starts for Piro94_85:

(13, 48704), (Start: 41 @48521 has 4 MA's), (Start: 48 @48506 has 35 MA's), (81, 48368),

Gene: Pistachio_87 Start: 47750, Stop: 47532, Start Num: 46

Candidate Starts for Pistachio_87:

(32, 47777), (Start: 46 @47750 has 5 MA's), (70, 47687), (74, 47669), (81, 47597),

Gene: Pmask_86 Start: 47201, Stop: 46959, Start Num: 34

Candidate Starts for Pmask_86:

(6, 47450), (14, 47366), (16, 47342), (Start: 34 @47201 has 28 MA's), (Start: 44 @47177 has 21 MA's), (78, 47081),

Gene: Pocahontas_85 Start: 47830, Stop: 47630, Start Num: 55

Candidate Starts for Pocahontas_85:

(16, 48019), (Start: 55 @47830 has 30 MA's), (76, 47770), (81, 47704), (83, 47671),

Gene: Polyphemus_80 Start: 44972, Stop: 44730, Start Num: 34

Candidate Starts for Polyphemus_80:

(6, 45221), (14, 45137), (16, 45113), (Start: 34 @44972 has 28 MA's), (Start: 44 @44948 has 21 MA's), (78, 44852), (83, 44768),

Gene: Pomar16_86 Start: 48397, Stop: 48194, Start Num: 48

Candidate Starts for Pomar16_86:

(Start: 48 @48397 has 35 MA's), (68, 48343), (81, 48259),

Gene: Poompha_81 Start: 47730, Stop: 47539, Start Num: 55

Candidate Starts for Poompha_81:

(29, 47796), (Start: 55 @47730 has 30 MA's), (62, 47712), (75, 47673), (81, 47604),

Gene: Popcicle_86 Start: 47830, Stop: 47630, Start Num: 55

Candidate Starts for Popcicle_86:

(16, 48019), (Start: 55 @47830 has 30 MA's), (76, 47770), (81, 47704), (83, 47671),

Gene: Porcelain_236 Start: 107360, Stop: 107184, Start Num: 52

Candidate Starts for Porcelain_236:

(Start: 40 @107381 has 1 MA's), (Start: 52 @107360 has 31 MA's), (69, 107318), (79, 107291),

Gene: Pound_223 Start: 107829, Stop: 107617, Start Num: 40

Candidate Starts for Pound_223:

(Start: 40 @107829 has 1 MA's), (Start: 52 @107808 has 31 MA's), (61, 107784), (65, 107775), (72, 107760), (79, 107724), (80, 107688), (81, 107685), (83, 107652), (84, 107637),

Gene: Priamo_88 Start: 46420, Stop: 46202, Start Num: 44

Candidate Starts for Priamo_88:

(6, 46693), (14, 46609), (16, 46585), (Start: 34 @46444 has 28 MA's), (Start: 44 @46420 has 21 MA's), (78, 46324), (83, 46240),

Gene: Puppy_88 Start: 47820, Stop: 47602, Start Num: 46

Candidate Starts for Puppy_88:

(32, 47847), (Start: 46 @47820 has 5 MA's), (70, 47757), (74, 47739), (81, 47667),

Gene: QuinnKiro_85 Start: 47833, Stop: 47633, Start Num: 55

Candidate Starts for QuinnKiro_85:

(7, 48106), (16, 48022), (Start: 55 @47833 has 30 MA's), (76, 47773), (81, 47707), (83, 47674),

Gene: Quokka_88 Start: 47930, Stop: 47727, Start Num: 48

Candidate Starts for Quokka_88:

(Start: 41 @47945 has 4 MA's), (Start: 48 @47930 has 35 MA's), (68, 47876), (70, 47870), (81, 47792), (83, 47759),

Gene: Raid_89 Start: 51090, Stop: 50890, Start Num: 53

Candidate Starts for Raid_89:

(Start: 53 @51090 has 12 MA's), (80, 50958),

Gene: Rearden_235 Start: 108013, Stop: 107825, Start Num: 52

Candidate Starts for Rearden_235:

(Start: 52 @108013 has 31 MA's), (61, 107989), (69, 107971), (79, 107932), (83, 107860), (86, 107836),

Gene: Rebeuca_85 Start: 49034, Stop: 48798, Start Num: 33

Candidate Starts for Rebeuca_85:

(Start: 28 @49067 has 1 MA's), (Start: 33 @49034 has 5 MA's), (Start: 38 @49019 has 2 MA's), (43, 49010), (73, 48941), (81, 48863), (83, 48830),

Gene: RedRock_86 Start: 49130, Stop: 48909, Start Num: 48

Candidate Starts for RedRock_86:

(Start: 41 @49145 has 4 MA's), (Start: 48 @49130 has 35 MA's), (83, 48944),

Gene: Redno2_226 Start: 106231, Stop: 106055, Start Num: 52

Candidate Starts for Redno2_226:

(Start: 40 @106252 has 1 MA's), (Start: 52 @106231 has 31 MA's), (69, 106189), (79, 106162),

Gene: ResDef_84 Start: 47836, Stop: 47636, Start Num: 55

Candidate Starts for ResDef_84:

(16, 48025), (Start: 55 @47836 has 30 MA's), (76, 47776), (81, 47710), (83, 47677),

Gene: RhynO_72 Start: 44427, Stop: 44242, Start Num: 55

Candidate Starts for RhynO_72:

(5, 44745), (11, 44655), (15, 44616), (Start: 33 @44472 has 5 MA's), (Start: 55 @44427 has 30 MA's), (64, 44406), (75, 44370), (81, 44307), (83, 44274),

Gene: Rifter_89 Start: 46179, Stop: 45970, Start Num: 44

Candidate Starts for Rifter_89:

(Start: 44 @46179 has 21 MA's), (72, 46119),

Gene: Rockstar_75 Start: 45031, Stop: 44831, Start Num: 55

Candidate Starts for Rockstar_75:

(8, 45295), (Start: 55 @45031 has 30 MA's), (58, 45025), (76, 44971), (81, 44905),

Gene: Roimos_85 Start: 48032, Stop: 47841, Start Num: 55

Candidate Starts for Roimos_85:

(1, 48521), (2, 48488), (7, 48305), (Start: 55 @48032 has 30 MA's), (76, 47972), (81, 47906),

Gene: Roksolana_89 Start: 46895, Stop: 46686, Start Num: 44

Candidate Starts for Roksolana_89:

(Start: 44 @46895 has 21 MA's), (72, 46835),

Gene: Rowdy_87 Start: 48813, Stop: 48628, Start Num: 55

Candidate Starts for Rowdy_87:

(5, 49131), (11, 49041), (15, 49002), (Start: 33 @48858 has 5 MA's), (Start: 55 @48813 has 30 MA's), (64, 48792), (75, 48756), (81, 48693), (83, 48660),

Gene: Salz_85 Start: 46959, Stop: 46762, Start Num: 51
Candidate Starts for Salz_85:
(Start: 51 @46959 has 23 MA's), (81, 46830), (86, 46773),

Gene: Saskia_86 Start: 47205, Stop: 46999, Start Num: 48
Candidate Starts for Saskia_86:
(Start: 41 @47220 has 4 MA's), (Start: 48 @47205 has 35 MA's), (68, 47151), (74, 47127), (81, 47067), (86, 47010),

Gene: SaturnRing_88 Start: 48203, Stop: 47985, Start Num: 46
Candidate Starts for SaturnRing_88:
(32, 48230), (Start: 46 @48203 has 5 MA's), (70, 48140), (74, 48122), (81, 48050),

Gene: Schatzie_227 Start: 109153, Stop: 108977, Start Num: 52
Candidate Starts for Schatzie_227:
(Start: 40 @109174 has 1 MA's), (Start: 52 @109153 has 31 MA's), (69, 109111), (79, 109084),

Gene: Scout_86 Start: 47357, Stop: 47166, Start Num: 55
Candidate Starts for Scout_86:
(1, 47846), (2, 47813), (7, 47630), (Start: 55 @47357 has 30 MA's), (76, 47297), (81, 47231),

Gene: Serenity_89 Start: 47970, Stop: 47767, Start Num: 48
Candidate Starts for Serenity_89:
(27, 48045), (Start: 41 @47985 has 4 MA's), (Start: 48 @47970 has 35 MA's), (68, 47916), (70, 47910), (81, 47832), (83, 47799),

Gene: Severus_82 Start: 47724, Stop: 47536, Start Num: 55
Candidate Starts for Severus_82:
(39, 47757), (Start: 55 @47724 has 30 MA's), (81, 47601),

Gene: Shaboozey_232 Start: 106458, Stop: 106282, Start Num: 52
Candidate Starts for Shaboozey_232:
(Start: 40 @106479 has 1 MA's), (Start: 52 @106458 has 31 MA's), (69, 106416), (79, 106389),

Gene: Sham4_86 Start: 47045, Stop: 46848, Start Num: 51
Candidate Starts for Sham4_86:
(Start: 51 @47045 has 23 MA's), (81, 46916), (86, 46859),

Gene: Shapes_87 Start: 48813, Stop: 48628, Start Num: 55
Candidate Starts for Shapes_87:
(5, 49131), (11, 49041), (15, 49002), (Start: 33 @48858 has 5 MA's), (Start: 55 @48813 has 30 MA's), (64, 48792), (75, 48756), (81, 48693), (83, 48660),

Gene: Sheen_83 Start: 50900, Stop: 50715, Start Num: 57
Candidate Starts for Sheen_83:
(Start: 57 @50900 has 2 MA's), (73, 50858), (80, 50783),

Gene: Sknot_86 Start: 48365, Stop: 48159, Start Num: 48
Candidate Starts for Sknot_86:
(13, 48563), (Start: 41 @48380 has 4 MA's), (Start: 48 @48365 has 35 MA's), (68, 48311), (81, 48227),

Gene: SmellyB_87 Start: 46558, Stop: 46316, Start Num: 34

Candidate Starts for SmellyB_87:

(6, 46807), (14, 46723), (16, 46699), (Start: 34 @46558 has 28 MA's), (Start: 44 @46534 has 21 MA's), (78, 46438), (83, 46354),

Gene: Snape_89 Start: 47838, Stop: 47641, Start Num: 51

Candidate Starts for Snape_89:

(Start: 51 @47838 has 23 MA's), (81, 47709), (86, 47652),

Gene: SororFago_85 Start: 48106, Stop: 47903, Start Num: 48

Candidate Starts for SororFago_85:

(Start: 41 @48121 has 4 MA's), (Start: 48 @48106 has 35 MA's), (68, 48055),

Gene: Squint_233 Start: 108166, Stop: 107990, Start Num: 52

Candidate Starts for Squint_233:

(Start: 40 @108187 has 1 MA's), (Start: 52 @108166 has 31 MA's), (69, 108124), (79, 108097),

Gene: StarStuff_86 Start: 48359, Stop: 48156, Start Num: 48

Candidate Starts for StarStuff_86:

(Start: 48 @48359 has 35 MA's), (68, 48305), (81, 48221),

Gene: SuperAwesome_87 Start: 47240, Stop: 46998, Start Num: 34

Candidate Starts for SuperAwesome_87:

(6, 47489), (14, 47405), (16, 47381), (Start: 34 @47240 has 28 MA's), (Start: 44 @47216 has 21 MA's), (78, 47120),

Gene: SuperCallie99_83 Start: 46597, Stop: 46379, Start Num: 44

Candidate Starts for SuperCallie99_83:

(6, 46870), (14, 46786), (16, 46762), (Start: 34 @46621 has 28 MA's), (Start: 44 @46597 has 21 MA's), (78, 46501), (83, 46417),

Gene: Superphikiman_233 Start: 107294, Stop: 107106, Start Num: 52

Candidate Starts for Superphikiman_233:

(Start: 40 @107315 has 1 MA's), (Start: 52 @107294 has 31 MA's), (69, 107252), (79, 107213), (83, 107141), (86, 107117),

Gene: TNguyen7_88 Start: 48161, Stop: 47943, Start Num: 46

Candidate Starts for TNguyen7_88:

(32, 48188), (Start: 46 @48161 has 5 MA's), (70, 48098), (74, 48080), (81, 48008),

Gene: Temprado_90 Start: 47032, Stop: 46790, Start Num: 34

Candidate Starts for Temprado_90:

(6, 47281), (14, 47197), (16, 47173), (Start: 34 @47032 has 28 MA's), (Start: 44 @47008 has 21 MA's), (78, 46912),

Gene: Terrific_87 Start: 48339, Stop: 48133, Start Num: 48

Candidate Starts for Terrific_87:

(13, 48537), (Start: 41 @48354 has 4 MA's), (Start: 48 @48339 has 35 MA's), (68, 48285), (81, 48201),

Gene: Texage_84 Start: 47834, Stop: 47634, Start Num: 55

Candidate Starts for Texage_84:

(16, 48023), (Start: 55 @47834 has 30 MA's), (76, 47774), (81, 47708), (83, 47675),

Gene: Thibault_209 Start: 104098, Stop: 103910, Start Num: 52

Candidate Starts for Thibault_209:

(Start: 52 @104098 has 31 MA's), (61, 104074), (69, 104056), (79, 104017), (83, 103945), (86, 103921),

Gene: ThreeRngTarjay_234 Start: 111335, Stop: 111162, Start Num: 52

Candidate Starts for ThreeRngTarjay_234:

(Start: 40 @111356 has 1 MA's), (Start: 52 @111335 has 31 MA's), (69, 111293), (79, 111266),

Gene: Timothy_89 Start: 47815, Stop: 47618, Start Num: 51

Candidate Starts for Timothy_89:

(Start: 51 @47815 has 23 MA's), (81, 47686), (86, 47629),

Gene: Timshel_82 Start: 50786, Stop: 50517, Start Num: 31

Candidate Starts for Timshel_82:

(30, 50789), (Start: 31 @50786 has 1 MA's), (Start: 53 @50735 has 12 MA's), (71, 50684), (81, 50594),

Gene: TinyTimmy_87 Start: 47544, Stop: 47347, Start Num: 51

Candidate Starts for TinyTimmy_87:

(Start: 51 @47544 has 23 MA's), (81, 47415), (86, 47358),

Gene: TopsytheTRex_85 Start: 47972, Stop: 47769, Start Num: 48

Candidate Starts for TopsytheTRex_85:

(27, 48047), (Start: 41 @47987 has 4 MA's), (Start: 48 @47972 has 35 MA's), (68, 47918), (70, 47912), (81, 47834), (83, 47801),

Gene: Todacoro_86 Start: 47833, Stop: 47633, Start Num: 55

Candidate Starts for Todacoro_86:

(7, 48106), (16, 48022), (Start: 55 @47833 has 30 MA's), (76, 47773), (81, 47707), (83, 47674),

Gene: Tomathan_86 Start: 48437, Stop: 48234, Start Num: 48

Candidate Starts for Tomathan_86:

(Start: 48 @48437 has 35 MA's), (68, 48383), (81, 48299),

Gene: ToneTone_86 Start: 46559, Stop: 46350, Start Num: 44

Candidate Starts for ToneTone_86:

(Start: 44 @46559 has 21 MA's), (72, 46499), (80, 46424),

Gene: Topanga_74 Start: 45508, Stop: 45263, Start Num: 33

Candidate Starts for Topanga_74:

(12, 45685), (Start: 33 @45508 has 5 MA's), (Start: 38 @45493 has 2 MA's), (43, 45484), (73, 45415), (81, 45337), (83, 45304),

Gene: Toro_84 Start: 51563, Stop: 51378, Start Num: 57

Candidate Starts for Toro_84:

(Start: 57 @51563 has 2 MA's), (73, 51521), (80, 51446),

Gene: Travvers_86 Start: 48354, Stop: 48151, Start Num: 48

Candidate Starts for Travvers_86:

(Start: 48 @48354 has 35 MA's), (68, 48300), (81, 48216),

Gene: Tucker_89 Start: 46762, Stop: 46553, Start Num: 44

Candidate Starts for Tucker_89:
(Start: 44 @46762 has 21 MA's), (72, 46702), (80, 46627),

Gene: Turj99_86 Start: 50763, Stop: 50560, Start Num: 53
Candidate Starts for Turj99_86:
(Start: 53 @50763 has 12 MA's), (80, 50628),

Gene: Twister_85 Start: 48707, Stop: 48477, Start Num: 38
Candidate Starts for Twister_85:
(12, 48899), (23, 48803), (Start: 33 @48722 has 5 MA's), (Start: 38 @48707 has 2 MA's), (43, 48698),
(73, 48629), (81, 48551), (83, 48518),

Gene: Updawg_87 Start: 48553, Stop: 48347, Start Num: 48
Candidate Starts for Updawg_87:
(13, 48751), (Start: 41 @48568 has 4 MA's), (Start: 48 @48553 has 35 MA's), (68, 48499), (81, 48415),

Gene: VC3_84 Start: 47253, Stop: 47056, Start Num: 48
Candidate Starts for VC3_84:
(Start: 48 @47253 has 35 MA's), (68, 47199), (81, 47121),

Gene: Veracruz_83 Start: 47834, Stop: 47634, Start Num: 55
Candidate Starts for Veracruz_83:
(7, 48107), (16, 48023), (Start: 55 @47834 has 30 MA's), (76, 47774), (81, 47708), (83, 47675),

Gene: VohminGhazi_87 Start: 46559, Stop: 46317, Start Num: 34
Candidate Starts for VohminGhazi_87:
(6, 46808), (14, 46724), (16, 46700), (Start: 34 @46559 has 28 MA's), (Start: 44 @46535 has 21 MA's),
(78, 46439), (83, 46355),

Gene: WalterMcMickey_84 Start: 48722, Stop: 48477, Start Num: 33
Candidate Starts for WalterMcMickey_84:
(12, 48899), (23, 48803), (Start: 33 @48722 has 5 MA's), (Start: 38 @48707 has 2 MA's), (43, 48698),
(73, 48629), (81, 48551), (83, 48518),

Gene: Wanda_234 Start: 107541, Stop: 107365, Start Num: 52
Candidate Starts for Wanda_234:
(Start: 40 @107562 has 1 MA's), (Start: 52 @107541 has 31 MA's), (69, 107499), (79, 107472),

Gene: WeiHuaDA_88 Start: 49575, Stop: 49372, Start Num: 48
Candidate Starts for WeiHuaDA_88:
(17, 49722), (20, 49710), (Start: 41 @49590 has 4 MA's), (Start: 48 @49575 has 35 MA's), (59, 49551),
(68, 49524), (74, 49500), (81, 49440),

Gene: WideWale_87 Start: 48553, Stop: 48347, Start Num: 48
Candidate Starts for WideWale_87:
(13, 48751), (Start: 41 @48568 has 4 MA's), (Start: 48 @48553 has 35 MA's), (68, 48499), (81, 48415),

Gene: Wiks_88 Start: 46663, Stop: 46421, Start Num: 34
Candidate Starts for Wiks_88:
(6, 46912), (14, 46828), (16, 46804), (Start: 34 @46663 has 28 MA's), (Start: 44 @46639 has 21 MA's),
(78, 46543),

Gene: Wile_81 Start: 48650, Stop: 48453, Start Num: 49

Candidate Starts for Wile_81:

(Start: 49 @48650 has 7 MA's), (Start: 66 @48611 has 8 MA's), (70, 48602), (81, 48515), (83, 48482),

Gene: Wizard007_82 Start: 48376, Stop: 48179, Start Num: 49

Candidate Starts for Wizard007_82:

(Start: 49 @48376 has 7 MA's), (Start: 66 @48337 has 8 MA's), (70, 48328), (81, 48241), (83, 48208),

Gene: Wolpertinger_89 Start: 48164, Stop: 47967, Start Num: 51

Candidate Starts for Wolpertinger_89:

(Start: 51 @48164 has 23 MA's), (81, 48035), (86, 47978),

Gene: Xiaokay_220 Start: 108420, Stop: 108232, Start Num: 52

Candidate Starts for Xiaokay_220:

(Start: 52 @108420 has 31 MA's), (61, 108396), (69, 108378), (79, 108339), (83, 108267), (86, 108243),

Gene: Yeet_229 Start: 109251, Stop: 109075, Start Num: 52

Candidate Starts for Yeet_229:

(Start: 40 @109272 has 1 MA's), (Start: 52 @109251 has 31 MA's), (69, 109209), (79, 109182),

Gene: Yokurt_88 Start: 46639, Stop: 46421, Start Num: 44

Candidate Starts for Yokurt_88:

(6, 46912), (14, 46828), (16, 46804), (Start: 34 @46663 has 28 MA's), (Start: 44 @46639 has 21 MA's), (78, 46543),

Gene: Zaka_89 Start: 46639, Stop: 46421, Start Num: 44

Candidate Starts for Zaka_89:

(6, 46912), (14, 46828), (16, 46804), (Start: 34 @46663 has 28 MA's), (Start: 44 @46639 has 21 MA's), (78, 46543),

Gene: Zarafa_84 Start: 48022, Stop: 47831, Start Num: 55

Candidate Starts for Zarafa_84:

(1, 48511), (2, 48478), (7, 48295), (Start: 55 @48022 has 30 MA's), (63, 48001), (76, 47962), (81, 47896),

Gene: Zeeculate_91 Start: 53471, Stop: 53271, Start Num: 53

Candidate Starts for Zeeculate_91:

(Start: 53 @53471 has 12 MA's), (80, 53339),

Gene: Zelink_228 Start: 108839, Stop: 108663, Start Num: 52

Candidate Starts for Zelink_228:

(Start: 40 @108860 has 1 MA's), (Start: 52 @108839 has 31 MA's), (69, 108797), (79, 108770),

Gene: Zulu_90 Start: 47040, Stop: 46798, Start Num: 34

Candidate Starts for Zulu_90:

(6, 47289), (14, 47205), (16, 47181), (Start: 34 @47040 has 28 MA's), (Start: 44 @47016 has 21 MA's), (78, 46920), (83, 46836),