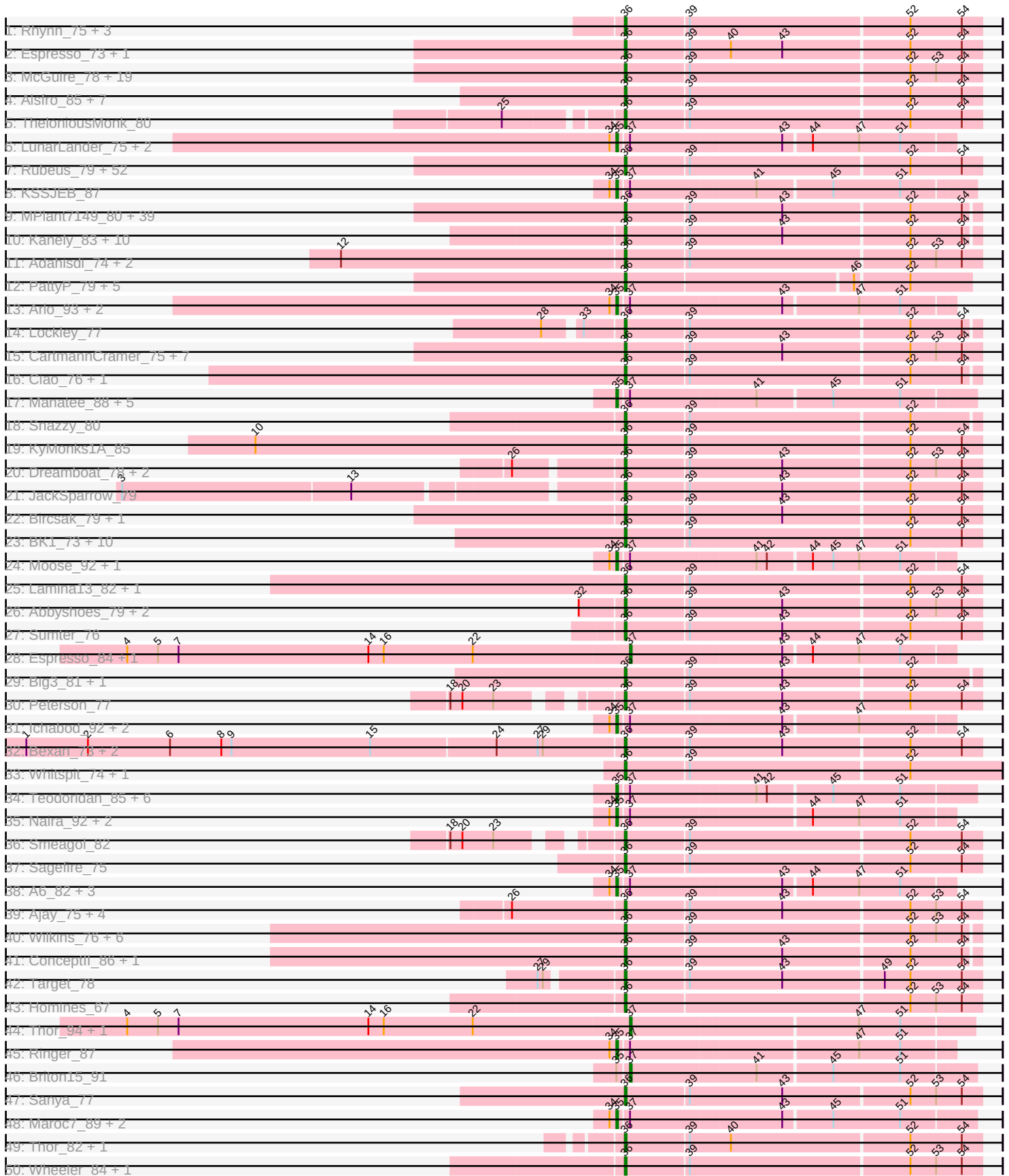
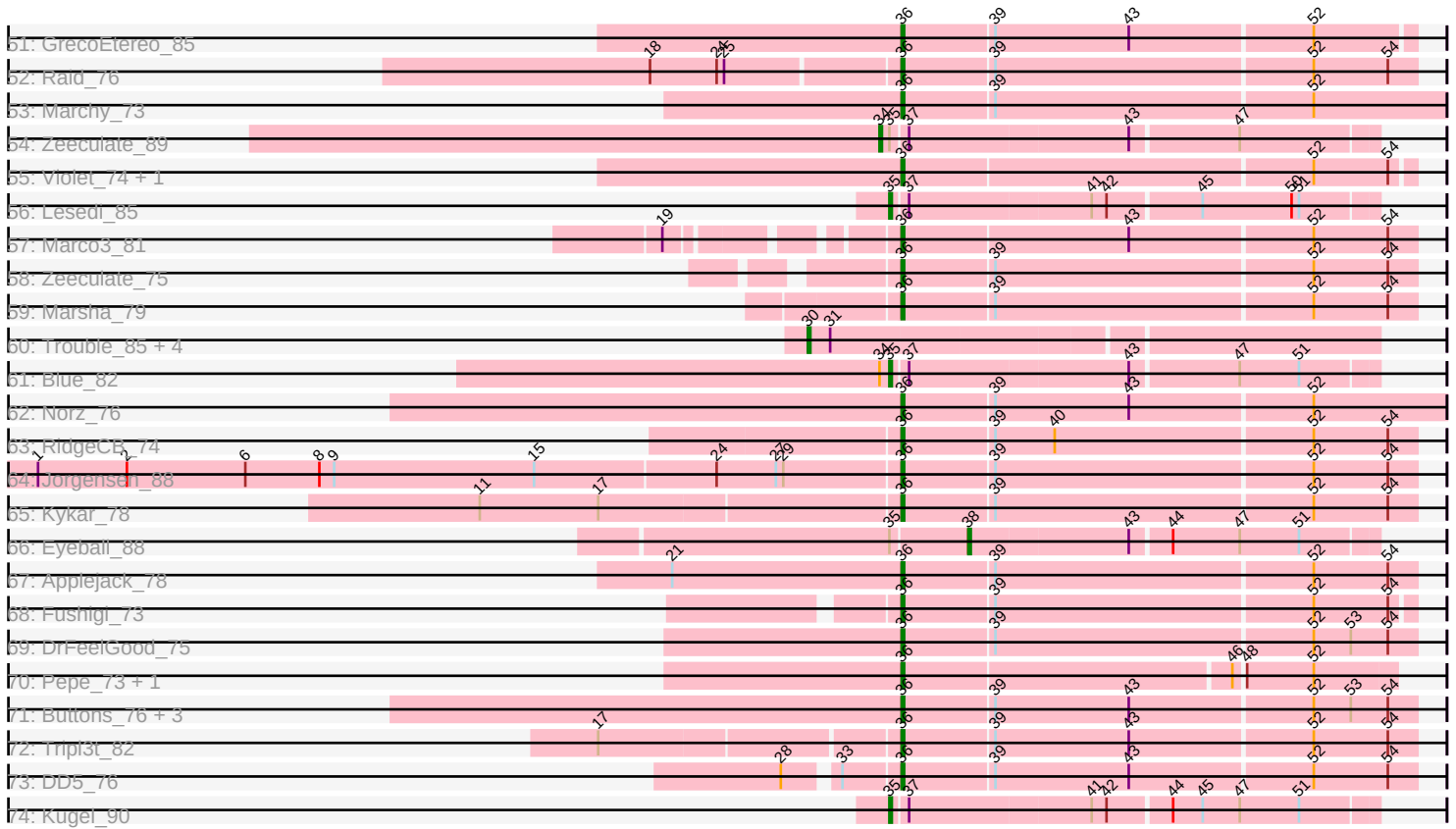


Pham 322819



Pham 322819



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 322819 Report

This analysis was run 09/05/26 on database version 662.

Pham number 322819 has 289 members, 18 are drafts.

Phages represented in each track:

- Track 1 : Rhynn_75, PhrostyMug_81, Smairt_84, Mule_79
- Track 2 : Espresso_73, Gandalf20_78
- Track 3 : McGuire_78, Ohno789_82, Oogway_77, Bigchung_79, ShortQueendom_73, Sandaddy_77, Hermia_74, Aldrich_71, GageAP_81, McSinger_77, CatBus_71, Noxious_75, AFIS_76, KikiBouba_75, Sorpresa_78, Chanagan_75, Tasp14_78, DirtDevil_73, StewieG_74, GroundGoblin_73
- Track 4 : Alsfo_85, BeesKnees_79, BillKnuckles_72, Lesedi_76, HarryOW_80, Graduation_82, Marge_75, ProMouse_78
- Track 5 : TheloniousMonk_80
- Track 6 : LunarLander_75, Paphu_82, Puppet_86
- Track 7 : Rubeus_79, Dulcie_80, Blue_75, Makemake_82, Nerujay_83, BluSpix_77, Ichabod_81, Bruns_81, Levia_73, Phillippers_77, Iqorha_70, Bxb1_73, Barriga_86, TwoPeat_78, Squee_79, PSullivan_78, PhineBark_75, Magnar_76, Briton15_81, Pita2_81, Papez_83, Mkhuseli_77, Traft412_78, Watermelon_82, Swole_81, Maroc7_81, Petp2012_79, Bigfoot_74, PascalRango_77, Michley_79, Euphoria_80, SwissCheese_83, Zeuska_82, SpikeBT_76, Moose_82, Forsytheast_82, Switzer_77, IgnatiusPatJac_79, Inyanga_70, Lopton_79, Scowl_79, Tote_76, JuliaChild_81, Bethlehem_82, CactusRose_82, Nhonho_75, Hope4ever_80, Fascinus_75, Pari_84, Zephyr_80, Rufus_81, Carlyle_79, Seabiscuit_79
- Track 8 : KSSJEB_87
- Track 9 : MPlant7149_80, BigPaolini_78, Doom_71, PacerPaul_83, Blackflame_75, Francis47_80, Niza_79, Acme_84, PowerRanger_74, Sunshine924_81, Blesser_73, BPBiebs31_85, Pinto_78, MilleFeuille_80, GMonster_76, Trouble_79, U2_73, Fajezeel_83, Killigrew_75, Licorice_82, Ringer_79, Sibs6_80, Greg_83, Solon_74, Seanderson_78, ChristmasHams_71, JC27_82, Agaliana_76, BarrowTuph_82, Bones_74, MaryBeth_78, Burton_81, Rohr_82, MetalQZJ_77, BaconJack_81, Paphu_76, Rajelicia_80, Arlo_80, KBG_78, Corvo_82
- Track 10 : Kanely_83, Altman_84, Atkinbua_88, DreamCatcher_83, Monet_82, STLscum_85, Edtherson_77, Rutherford_81, EnzoK_80, Mryolo_74, PinkPlastic_74
- Track 11 : Adahisdi_74, Magnito_78, Turj99_75
- Track 12 : PattyP_79, Arcanine_82, Slagathor_79, NEHalo_75, Museum_79, Molly_79
- Track 13 : Arlo_93, Mkhuseli_85, Carlyle_87
- Track 14 : Lockley_77
- Track 15 : CartmannCramer_75, Dynamix_78, HermioneGrange_82, Manatee_77, Bob3_79, Gwendoluna_83, BigMau_81, Jerm2_80
- Track 16 : Ciao_76, Pippin_80

- Track 17 : Manatee_88, BeesKnees_91, Seabiscuit_90, PowerRanger_82, U2_81, McGuire_88
- Track 18 : Snazzy_80
- Track 19 : KyMonks1A_85
- Track 20 : Dreamboat_78, PherrisBueller_77, Jasper_77
- Track 21 : JackSparrow_79
- Track 22 : Bircsak_79, Gompeii16_79
- Track 23 : BK1_73, Anglerfish_82, Pelly_82, Alvin_76, Marcell_71, Ruotula_84, Naira_80, Fenn_81, A6_73, Dexes_82, HanShotFirst_77
- Track 24 : Moose_92, Forsytheast_93
- Track 25 : Lamina13_82, Petruchio_80
- Track 26 : Abbyshoes_79, Kenmech_81, Dussy_78
- Track 27 : Sumter_76
- Track 28 : Espresso_84, Homines_76
- Track 29 : Big3_81, MrGordo_81
- Track 30 : Peterson_77
- Track 31 : Ichabod_92, Switzer_87, Zephyr_89
- Track 32 : Bexan_73, Beatrix_75, StrongArm_74
- Track 33 : Whitspit_74, Hami1_74
- Track 34 : Teodoridan_85, Topgun_85, Dreamboat_90, Jasper_90, Wilkins_86, Seanderson_87, Snazzy_90
- Track 35 : Naira_92, Fenn_93, Squee_87
- Track 36 : Smeagol_82
- Track 37 : Sagefire_75
- Track 38 : A6_82, ILeeKay_88, Marcell_80, BK1_82
- Track 39 : Ajay_75, Puppet_75, Eyeball_78, KSSJEB_77, Teodoridan_76
- Track 40 : Wilkins_76, Topgun_75, Crispicous1_74, Aeneas_84, Perseus_79, Abrogate_760, Gyzlar_71
- Track 41 : Conceptll_86, Kugel_80
- Track 42 : Target_78
- Track 43 : Homines_67
- Track 44 : Thor_94, SarFire_94
- Track 45 : Ringer_87
- Track 46 : Briton15_91
- Track 47 : Sanya_77
- Track 48 : Maroc7_89, Fascinus_84, CactusRose_93
- Track 49 : Thor_82, SarFire_82
- Track 50 : Wheeler_84, Treddle_80
- Track 51 : GrecoEtereo_85
- Track 52 : Raid_76
- Track 53 : Marchy_73
- Track 54 : Zeeculate_89
- Track 55 : Violet_74, Paraselene_77
- Track 56 : Lesedi_85
- Track 57 : Marco3_81
- Track 58 : Zeeculate_75
- Track 59 : Marsha_79
- Track 60 : Trouble_85, Sumter_82, Perseus_85, Pelly_88, Paraselene_82
- Track 61 : Blue_82
- Track 62 : Norz_76
- Track 63 : RidgeCB_74
- Track 64 : Jorgensen_88
- Track 65 : Kykar_78

- Track 66 : Eyeball_88
- Track 67 : Applejack_78
- Track 68 : Fushigi_73
- Track 69 : DrFeelGood_75
- Track 70 : Pepe_73, SkiPole_88
- Track 71 : Buttons_76, QTRlifeCrisis_78, Parliament_80, ILeeKay_76
- Track 72 : Tripl3t_82
- Track 73 : DD5_76
- Track 74 : Kugel_90

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

The start number called the most often in the published annotations is 36, it was called in 222 of the 271 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• A6_73, AFIS_76, Abbyshoes_79, Abrogate_760, Acme_84, Adahisdi_74, Aeneas_84, Agaliana_76, Ajay_75, Aldrich_71, Alsfro_85, Altman_84, Alvin_76, Anglerfish_82, Applejack_78, Arcanine_82, Arlo_80, Atkinbua_88, BK1_73, BPBiebs31_85, BaconJack_81, Barriga_86, BarrowTuph_82, Beatrix_75, BeesKnees_79, Bethlehem_82, Bexan_73, Big3_81, BigMau_81, BigPaolini_78, Bigchungu_79, Bigfoot_74, BillKnuckles_72, Bircsak_79, Blackflame_75, Blesser_73, BluSpix_77, Blue_75, Bob3_79, Bones_74, Briton15_81, Bruns_81, Burton_81, Buttons_76, Bxb1_73, CactusRose_82, Carlyle_79, CartmannCramer_75, CatBus_71, Chanagan_75, ChristmasHams_71, Ciao_76, ConceptII_86, Corvo_82, Crispicous1_74, DD5_76, Dexes_82, DirtDevil_73, Doom_71, DrFeelGood_75, DreamCatcher_83, Dreamboat_78, Dulcie_80, Dussy_78, Dynamix_78, Edtherson_77, EnzoK_80, Espresso_73, Euphoria_80, Eyeball_78, Fajezeel_83, Fascinus_75, Fenn_81, Forsytheast_82, Francis47_80, Fushigi_73, GMonster_76, GageAP_81, Gandalf20_78, Gompeii16_79, Graduation_82, GrecoEtereo_85, Greg_83, GroundGoblin_73, Gwendoluna_83, Gyzlar_71, Hami1_74, HanShotFirst_77, HarryOW_80, Hermia_74, HermioneGrange_82, Homines_67, Hope4ever_80, ILeeKay_76, Ichabod_81, IgnatiusPatJac_79, Inyanga_70, Iqorha_70, JC27_82, JackSparrow_79, Jasper_77, Jerm2_80, Jorgensen_88, JuliaChild_81, KBG_78, KSSJEB_77, Kanely_83, Kenmech_81, KikiBouba_75, Killigrew_75, Kugel_80, KyMonks1A_85, Kykar_78, Lamina13_82, Lesedi_76, Levia_73, Licorice_82, Lockley_77, Lopton_79, MPlant7149_80, Magnar_76, Magnito_78, Makemake_82, Manatee_77, Marcell_71, Marchy_73, Marco3_81, Marge_75, Maroc7_81, Marsha_79, MaryBeth_78, McGuire_78, McSinger_77, MetalQZJ_77, Michley_79, MilleFeuille_80, Mkhuseli_77, Molly_79, Monet_82, Moose_82, MrGordo_81, Mryolo_74, Mule_79, Museum_79, NEHalo_75, Naira_80, Nerujay_83, Nhonho_75, Niza_79, Norz_76, Noxious_75, Ohno789_82, Oogway_77, PSullivan_78, PacerPaul_83, Papez_83, Paphu_76, Paraselene_77, Pari_84, Parliament_80, PascalRango_77, PattyP_79, Pelly_82, Pepe_73, Perseus_79, Peterson_77, Petp2012_79, Petruchio_80, PherrisBueller_77, PhineBark_75, Phlippers_77, PhrostyMug_81, PinkPlastic_74, Pinto_78, Pippin_80, Pita2_81, PowerRanger_74, ProMouse_78, Puppet_75, QTRlifeCrisis_78, Raid_76, Rajelicia_80, Rhynn_75, RidgeCB_74, Ringer_79, Rohr_82, Rubeus_79, Rufus_81, Ruotula_84, Rutherford_81, STLscum_85, Sagefire_75, Sandaddy_77, Sanya_77, SarFire_82, Scowl_79, Seabiscuit_79, Seanderson_78, ShortQueendom_73,

Sibs6_80, SkiPole_88, Slagathor_79, Smairt_84, Smeagol_82, Snazzy_80, Solon_74, Sorpresa_78, SpikeBT_76, Squee_79, StewieG_74, StrongArm_74, Sumter_76, Sunshine924_81, SwissCheese_83, Switzer_77, Swole_81, Target_78, Tasp14_78, Teodoridan_76, TheloniousMonk_80, Thor_82, Topgun_75, Tote_76, Traft412_78, Treddle_80, Tripl3t_82, Trouble_79, Turj99_75, TwoPeat_78, U2_73, Violet_74, Watermelon_82, Wheeler_84, Whitspit_74, Wilkins_76, Zeeculate_75, Zephyr_80, Zeuska_82,

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

-

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

- A6_82, Arlo_93, BK1_82, BeesKnees_91, Blue_82, Briton15_91, CactusRose_93, Carlyle_87, Dreamboat_90, Espresso_84, Eyeball_88, Fascinus_84, Fenn_93, Forsytheast_93, Homines_76, ILeeKay_88, Ichabod_92, Jasper_90, KSSJEB_87, Kugel_90, Lesedi_85, LunarLander_75, Manatee_88, Marcell_80, Maroc7_89, McGuire_88, Mkhuseleli_85, Moose_92, Naira_92, Paphu_82, Paraselene_82, Pelly_88, Perseus_85, PowerRanger_82, Puppet_86, Ringer_87, SarFire_94, Seabiscuit_90, Seanderson_87, Snazzy_90, Squee_87, Sumter_82, Switzer_87, Teodoridan_85, Thor_94, Topgun_85, Trouble_85, U2_81, Wilkins_86, Zeeculate_89, Zephyr_89,

Summary by start number:

Start 30:

- Found in 5 of 289 (1.7%) of genes in pham
- Manual Annotations of this start: 5 of 271
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Paraselene_82 (A1), Pelly_88 (A1), Perseus_85 (A1), Sumter_82 (A1), Trouble_85 (A1),

Start 34:

- Found in 25 of 289 (8.7%) of genes in pham
- Manual Annotations of this start: 1 of 271
- Called 4.0% of time when present
- Phage (with cluster) where this start called: Zeeculate_89 (A1),

Start 35:

- Found in 42 of 289 (14.5%) of genes in pham
- Manual Annotations of this start: 37 of 271
- Called 92.9% of time when present
- Phage (with cluster) where this start called: A6_82 (A1), Arlo_93 (A1), BK1_82 (A1), BeesKnees_91 (A1), Blue_82 (A1), CactusRose_93 (A1), Carlyle_87 (A1), Dreamboat_90 (A1), Fascinus_84 (A1), Fenn_93 (A1), Forsytheast_93 (A1), ILeeKay_88 (A1), Ichabod_92 (A1), Jasper_90 (A1), KSSJEB_87 (A1), Kugel_90 (A1), Lesedi_85 (A1), LunarLander_75 (A1), Manatee_88 (A1), Marcell_80 (A1), Maroc7_89 (A1), McGuire_88 (A1), Mkhuseleli_85 (A1), Moose_92 (A1), Naira_92 (A1), Paphu_82 (A1), PowerRanger_82 (A1), Puppet_86 (A1), Ringer_87 (A1), Seabiscuit_90 (A1), Seanderson_87 (A1), Snazzy_90 (A1), Squee_87 (A1), Switzer_87 (A1), Teodoridan_85 (A1), Topgun_85 (A1), U2_81 (A1), Wilkins_86 (A1), Zephyr_89 (A1),

Start 36:

- Found in 238 of 289 (82.4%) of genes in pham
- Manual Annotations of this start: 222 of 271
- Called 100.0% of time when present
- Phage (with cluster) where this start called: A6_73 (A1), AFIS_76 (A1), Abbyshoes_79 (A1), Abrogate_760 (A1), Acme_84 (A1), Adahisdi_74 (A1), Aeneas_84 (A1), Agaliana_76 (A1), Ajay_75 (A1), Aldrich_71 (A1), Alsfro_85 (A1), Altman_84 (A1), Alvin_76 (A1), Anglerfish_82 (A1), Applejack_78 (A1), Arcanine_82 (A1), Arlo_80 (A1), Atkinbua_88 (A1), BK1_73 (A1), BPBiebs31_85 (A1), BaconJack_81 (A1), Barriga_86 (A1), BarrowTuph_82 (A1), Beatrix_75 (A1), BeesKnees_79 (A1), Bethlehem_82 (A1), Bexan_73 (A1), Big3_81 (A1), BigMau_81 (A1), BigPaolini_78 (A1), Bigchungi_79 (A1), Bigfoot_74 (A1), BillKnuckles_72 (A1), Bircsak_79 (A1), Blackflame_75 (A1), Blessner_73 (A1), BluSpix_77 (A1), Blue_75 (A1), Bob3_79 (A1), Bones_74 (A1), Briton15_81 (A1), Bruns_81 (A1), Burton_81 (A1), Buttons_76 (A1), Bxb1_73 (A1), CactusRose_82 (A1), Carlyle_79 (A1), CartmannCramer_75 (A1), CatBus_71 (A1), Chanagan_75 (A1), ChristmasHams_71 (A1), Ciao_76 (A1), ConceptII_86 (A1), Corvo_82 (A1), Crispicous1_74 (A1), DD5_76 (A1), Dexes_82 (A1), DirtDevil_73 (A1), Doom_71 (A1), DrFeelGood_75 (A1), DreamCatcher_83 (A1), Dreamboat_78 (A1), Dulcie_80 (A1), Dussy_78 (A1), Dynamix_78 (A1), Edtherson_77 (A1), EnzoK_80 (A1), Espresso_73 (A1), Euphoria_80 (A1), Eyeball_78 (A1), Fajezeel_83 (A1), Fascinus_75 (A1), Fenn_81 (A1), Forsytheast_82 (A1), Francis47_80 (A1), Fushigi_73 (A1), GMonster_76 (A1), GageAP_81 (A1), Gandalf20_78 (A1), Gompeii16_79 (A1), Graduation_82 (A1), GrecoEtereo_85 (A1), Greg_83 (A1), GroundGoblin_73 (A1), Gwendoluna_83 (A1), Gyzlar_71 (A1), Hami1_74 (A1), HanShotFirst_77 (A1), HarryOW_80 (A1), Hermia_74 (A1), HermioneGrange_82 (A1), Homines_67 (A1), Hope4ever_80 (A1), ILeeKay_76 (A1), Ichabod_81 (A1), IgnatiusPatJac_79 (A1), Inyanga_70 (A1), Iqorha_70 (A1), JC27_82 (A1), JackSparrow_79 (A1), Jasper_77 (A1), Jerm2_80 (A1), Jorgensen_88 (A1), JuliaChild_81 (A1), KBG_78 (A1), KSSJEB_77 (A1), Kanely_83 (A1), Kenmech_81 (A1), KikiBouba_75 (A1), Killigrew_75 (A1), Kugel_80 (A1), KyMonks1A_85 (A1), Kykar_78 (A1), Lamina13_82 (A1), Lesedi_76 (A1), Levia_73 (A1), Licorice_82 (A1), Lockley_77 (A1), Lopton_79 (A1), MPlant7149_80 (A1), Magnar_76 (A1), Magnito_78 (A1), Makemake_82 (A1), Manatee_77 (A1), Marcell_71 (A1), Marchy_73 (A1), Marco3_81 (A1), Marge_75 (A1), Maroc7_81 (A1), Marsha_79 (A1), MaryBeth_78 (A1), McGuire_78 (A1), McSinger_77 (A1), MetalQZJ_77 (A1), Michley_79 (A1), MilleFeuille_80 (A1), Mkhusei_77 (A1), Molly_79 (A1), Monet_82 (A1), Moose_82 (A1), MrGordo_81 (A1), Mryolo_74 (A1), Mule_79 (A1), Museum_79 (A1), NEHalo_75 (A1), Naira_80 (A1), Nerujay_83 (A1), Nhonho_75 (A1), Niza_79 (A1), Norz_76 (A1), Noxious_75 (A1), Ohno789_82 (A1), Oogway_77 (A1), PSullivan_78 (A1), PacerPaul_83 (A1), Papez_83 (A1), Paphu_76 (A1), Paraselene_77 (A1), Pari_84 (A1), Parliament_80 (A1), PascalRango_77 (A1), PattyP_79 (A1), Pelly_82 (A1), Pepe_73 (A1), Perseus_79 (A1), Peterson_77 (A1), Petp2012_79 (A1), Petruchio_80 (A1), PherrisBueller_77 (A1), PhineBark_75 (A1), Phlippers_77 (A1), PhrostyMug_81 (A1), PinkPlastic_74 (A1), Pinto_78 (A1), Pippin_80 (A1), Pita2_81 (A1), PowerRanger_74 (A1), ProMouse_78 (A1), Puppet_75 (A1), QTRLifeCrisis_78 (A1), Raid_76 (A1), Rajelicia_80 (A1), Rhynn_75 (A1), RidgeCB_74 (A1), Ringer_79 (A1), Rohr_82 (A1), Rubeus_79 (A1), Rufus_81 (A1), Ruotula_84 (A1), Rutherford_81 (A1), STLscum_85 (A1), Sagefire_75 (A1), Sandaddy_77 (A1), Sanya_77 (A1), SarFire_82 (A1), Scowl_79 (A1), Seabiscuit_79 (A1), Seanderson_78 (A1), ShortQueendom_73 (A1), Sibs6_80 (A1), SkiPole_88 (A1), Slagathor_79 (A1), Smairt_84 (A1), Smeagol_82 (A1), Snazzy_80 (A1), Solon_74 (A1), Sorpresa_78 (A1), SpikeBT_76 (A1), Squee_79 (A1), StewieG_74 (A1), StrongArm_74 (A1), Sumter_76 (A1), Sunshine924_81 (A1), SwissCheese_83 (A1), Switzer_77 (A1), Swole_81 (A1), Target_78 (A1), Tasp14_78 (A1),

Teodoridan_76 (A1), TheloniousMonk_80 (A1), Thor_82 (A1), Topgun_75 (A1), Tote_76 (A1), Traft412_78 (A1), Treddle_80 (A1), Tripl3t_82 (A1), Trouble_79 (A1), Turj99_75 (A1), TwoPeat_78 (A1), U2_73 (A1), Violet_74 (A1), Watermelon_82 (A1), Wheeler_84 (A1), Whitspit_74 (A1), Wilkins_76 (A1), Zeeculate_75 (A1), Zephyr_80 (A1), Zeuska_82 (A1),

Start 37:

- Found in 45 of 289 (15.6%) of genes in pham
- Manual Annotations of this start: 5 of 271
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Briton15_91 (A1), Espresso_84 (A1), Homines_76 (A1), SarFire_94 (A1), Thor_94 (A1),

Start 38:

- Found in 1 of 289 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 271
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Eyeball_88 (A1),

Summary by clusters:

There is one cluster represented in this pham: A1

Info for manual annotations of cluster A1:

- Start number 30 was manually annotated 5 times for cluster A1.
- Start number 34 was manually annotated 1 time for cluster A1.
- Start number 35 was manually annotated 37 times for cluster A1.
- Start number 36 was manually annotated 222 times for cluster A1.
- Start number 37 was manually annotated 5 times for cluster A1.
- Start number 38 was manually annotated 1 time for cluster A1.

Gene Information:

Gene: A6_82 Start: 48189, Stop: 48001, Start Num: 35

Candidate Starts for A6_82:

(Start: 34 @48192 has 1 MA's), (Start: 35 @48189 has 37 MA's), (Start: 37 @48183 has 5 MA's), (43, 48096), (44, 48081), (47, 48054), (51, 48030),

Gene: A6_73 Start: 45132, Stop: 44929, Start Num: 36

Candidate Starts for A6_73:

(Start: 36 @45132 has 222 MA's), (39, 45096), (52, 44970), (54, 44940),

Gene: AFIS_76 Start: 48153, Stop: 47950, Start Num: 36

Candidate Starts for AFIS_76:

(Start: 36 @48153 has 222 MA's), (39, 48117), (52, 47991), (53, 47976), (54, 47961),

Gene: Abbyshoes_79 Start: 47406, Stop: 47203, Start Num: 36

Candidate Starts for Abbyshoes_79:

(32, 47430), (Start: 36 @47406 has 222 MA's), (39, 47370), (43, 47316), (52, 47244), (53, 47229), (54, 47214),

Gene: Abrogate_760 Start: 48119, Stop: 47916, Start Num: 36

Candidate Starts for Abrogate_760:

(Start: 36 @48119 has 222 MA's), (39, 48083), (52, 47957), (53, 47942), (54, 47927),

Gene: Acme_84 Start: 49836, Stop: 49636, Start Num: 36

Candidate Starts for Acme_84:

(Start: 36 @49836 has 222 MA's), (39, 49800), (43, 49746), (52, 49674), (54, 49644),

Gene: Adahisdi_74 Start: 47304, Stop: 47101, Start Num: 36

Candidate Starts for Adahisdi_74:

(12, 47466), (Start: 36 @47304 has 222 MA's), (39, 47268), (52, 47142), (53, 47127), (54, 47112),

Gene: Aeneas_84 Start: 49765, Stop: 49562, Start Num: 36

Candidate Starts for Aeneas_84:

(Start: 36 @49765 has 222 MA's), (39, 49729), (52, 49603), (53, 49588), (54, 49573),

Gene: Agaliana_76 Start: 46122, Stop: 45919, Start Num: 36

Candidate Starts for Agaliana_76:

(Start: 36 @46122 has 222 MA's), (39, 46086), (43, 46032), (52, 45960), (54, 45930),

Gene: Ajay_75 Start: 46505, Stop: 46302, Start Num: 36

Candidate Starts for Ajay_75:

(26, 46568), (Start: 36 @46505 has 222 MA's), (39, 46469), (43, 46415), (52, 46343), (53, 46328), (54, 46313),

Gene: Aldrich_71 Start: 45995, Stop: 45792, Start Num: 36

Candidate Starts for Aldrich_71:

(Start: 36 @45995 has 222 MA's), (39, 45959), (52, 45833), (53, 45818), (54, 45803),

Gene: Alsfro_85 Start: 47868, Stop: 47665, Start Num: 36

Candidate Starts for Alsfro_85:

(Start: 36 @47868 has 222 MA's), (39, 47832), (52, 47706), (54, 47676),

Gene: Altman_84 Start: 48968, Stop: 48768, Start Num: 36

Candidate Starts for Altman_84:

(Start: 36 @48968 has 222 MA's), (39, 48932), (43, 48878), (52, 48806), (54, 48776),

Gene: Alvin_76 Start: 46725, Stop: 46522, Start Num: 36

Candidate Starts for Alvin_76:

(Start: 36 @46725 has 222 MA's), (39, 46689), (52, 46563), (54, 46533),

Gene: Anglerfish_82 Start: 48973, Stop: 48773, Start Num: 36

Candidate Starts for Anglerfish_82:

(Start: 36 @48973 has 222 MA's), (39, 48937), (52, 48811), (54, 48781),

Gene: Applejack_78 Start: 45786, Stop: 45583, Start Num: 36

Candidate Starts for Applejack_78:

(21, 45879), (Start: 36 @45786 has 222 MA's), (39, 45750), (52, 45624), (54, 45594),

Gene: Arcanine_82 Start: 49232, Stop: 49038, Start Num: 36

Candidate Starts for Arcanine_82:

(Start: 36 @49232 has 222 MA's), (46, 49103), (52, 49073),

Gene: Arlo_93 Start: 51829, Stop: 51641, Start Num: 35

Candidate Starts for Arlo_93:

(Start: 34 @51832 has 1 MA's), (Start: 35 @51829 has 37 MA's), (Start: 37 @51823 has 5 MA's), (43, 51736), (47, 51694), (51, 51670),

Gene: Arlo_80 Start: 48283, Stop: 48083, Start Num: 36

Candidate Starts for Arlo_80:

(Start: 36 @48283 has 222 MA's), (39, 48247), (43, 48193), (52, 48121), (54, 48091),

Gene: Atkinbua_88 Start: 49776, Stop: 49576, Start Num: 36

Candidate Starts for Atkinbua_88:

(Start: 36 @49776 has 222 MA's), (39, 49740), (43, 49686), (52, 49614), (54, 49584),

Gene: BK1_73 Start: 45132, Stop: 44929, Start Num: 36

Candidate Starts for BK1_73:

(Start: 36 @45132 has 222 MA's), (39, 45096), (52, 44970), (54, 44940),

Gene: BK1_82 Start: 48189, Stop: 48001, Start Num: 35

Candidate Starts for BK1_82:

(Start: 34 @48192 has 1 MA's), (Start: 35 @48189 has 37 MA's), (Start: 37 @48183 has 5 MA's), (43, 48096), (44, 48081), (47, 48054), (51, 48030),

Gene: BPBiebs31_85 Start: 49488, Stop: 49288, Start Num: 36

Candidate Starts for BPBiebs31_85:

(Start: 36 @49488 has 222 MA's), (39, 49452), (43, 49398), (52, 49326), (54, 49296),

Gene: BaconJack_81 Start: 49467, Stop: 49264, Start Num: 36

Candidate Starts for BaconJack_81:

(Start: 36 @49467 has 222 MA's), (39, 49431), (43, 49377), (52, 49305), (54, 49275),

Gene: Barriga_86 Start: 48333, Stop: 48130, Start Num: 36

Candidate Starts for Barriga_86:

(Start: 36 @48333 has 222 MA's), (39, 48297), (52, 48171), (54, 48141),

Gene: BarrowTuph_82 Start: 48513, Stop: 48310, Start Num: 36

Candidate Starts for BarrowTuph_82:

(Start: 36 @48513 has 222 MA's), (39, 48477), (43, 48423), (52, 48351), (54, 48321),

Gene: Beatrix_75 Start: 47300, Stop: 47097, Start Num: 36

Candidate Starts for Beatrix_75:

(1, 47645), (2, 47609), (6, 47561), (8, 47531), (9, 47525), (15, 47444), (24, 47372), (27, 47348), (29, 47345), (Start: 36 @47300 has 222 MA's), (39, 47264), (43, 47210), (52, 47138), (54, 47108),

Gene: BeesKnees_79 Start: 46403, Stop: 46200, Start Num: 36

Candidate Starts for BeesKnees_79:

(Start: 36 @46403 has 222 MA's), (39, 46367), (52, 46241), (54, 46211),

Gene: BeesKnees_91 Start: 49945, Stop: 49745, Start Num: 35

Candidate Starts for BeesKnees_91:

(Start: 35 @49945 has 37 MA's), (Start: 37 @49939 has 5 MA's), (41, 49867), (45, 49825), (51, 49786),

Gene: Bethlehem_82 Start: 50352, Stop: 50149, Start Num: 36

Candidate Starts for Bethlehem_82:

(Start: 36 @50352 has 222 MA's), (39, 50316), (52, 50190), (54, 50160),

Gene: Bexan_73 Start: 47074, Stop: 46871, Start Num: 36

Candidate Starts for Bexan_73:

(1, 47419), (2, 47383), (6, 47335), (8, 47305), (9, 47299), (15, 47218), (24, 47146), (27, 47122), (29, 47119), (Start: 36 @47074 has 222 MA's), (39, 47038), (43, 46984), (52, 46912), (54, 46882),

Gene: Big3_81 Start: 49478, Stop: 49278, Start Num: 36

Candidate Starts for Big3_81:

(Start: 36 @49478 has 222 MA's), (39, 49442), (43, 49388), (52, 49316),

Gene: BigMau_81 Start: 48890, Stop: 48687, Start Num: 36

Candidate Starts for BigMau_81:

(Start: 36 @48890 has 222 MA's), (39, 48854), (43, 48800), (52, 48728), (53, 48713), (54, 48698),

Gene: BigPaolini_78 Start: 46838, Stop: 46635, Start Num: 36

Candidate Starts for BigPaolini_78:

(Start: 36 @46838 has 222 MA's), (39, 46802), (43, 46748), (52, 46676), (54, 46646),

Gene: Bigchungi_79 Start: 48715, Stop: 48512, Start Num: 36

Candidate Starts for Bigchungi_79:

(Start: 36 @48715 has 222 MA's), (39, 48679), (52, 48553), (53, 48538), (54, 48523),

Gene: Bigfoot_74 Start: 47546, Stop: 47346, Start Num: 36

Candidate Starts for Bigfoot_74:

(Start: 36 @47546 has 222 MA's), (39, 47510), (52, 47384), (54, 47354),

Gene: BillKnuckles_72 Start: 47277, Stop: 47074, Start Num: 36

Candidate Starts for BillKnuckles_72:

(Start: 36 @47277 has 222 MA's), (39, 47241), (52, 47115), (54, 47085),

Gene: Bircsak_79 Start: 49965, Stop: 49762, Start Num: 36

Candidate Starts for Bircsak_79:

(Start: 36 @49965 has 222 MA's), (39, 49929), (43, 49875), (52, 49803), (54, 49773),

Gene: Blackflame_75 Start: 47670, Stop: 47467, Start Num: 36

Candidate Starts for Blackflame_75:

(Start: 36 @47670 has 222 MA's), (39, 47634), (43, 47580), (52, 47508), (54, 47478),

Gene: Blessner_73 Start: 46003, Stop: 45800, Start Num: 36

Candidate Starts for Blessner_73:

(Start: 36 @46003 has 222 MA's), (39, 45967), (43, 45913), (52, 45841), (54, 45811),

Gene: BluSpix_77 Start: 43001, Stop: 42798, Start Num: 36

Candidate Starts for BluSpix_77:

(Start: 36 @43001 has 222 MA's), (39, 42965), (52, 42839), (54, 42809),

Gene: Blue_75 Start: 47181, Stop: 46978, Start Num: 36

Candidate Starts for Blue_75:

(Start: 36 @47181 has 222 MA's), (39, 47145), (52, 47019), (54, 46989),

Gene: Blue_82 Start: 49700, Stop: 49512, Start Num: 35

Candidate Starts for Blue_82:

(Start: 34 @49703 has 1 MA's), (Start: 35 @49700 has 37 MA's), (Start: 37 @49694 has 5 MA's), (43, 49607), (47, 49565), (51, 49541),

Gene: Bob3_79 Start: 48157, Stop: 47954, Start Num: 36

Candidate Starts for Bob3_79:

(Start: 36 @48157 has 222 MA's), (39, 48121), (43, 48067), (52, 47995), (53, 47980), (54, 47965),

Gene: Bones_74 Start: 47463, Stop: 47260, Start Num: 36

Candidate Starts for Bones_74:

(Start: 36 @47463 has 222 MA's), (39, 47427), (43, 47373), (52, 47301), (54, 47271),

Gene: Briton15_81 Start: 48543, Stop: 48340, Start Num: 36

Candidate Starts for Briton15_81:

(Start: 36 @48543 has 222 MA's), (39, 48507), (52, 48381), (54, 48351),

Gene: Briton15_91 Start: 51502, Stop: 51308, Start Num: 37

Candidate Starts for Briton15_91:

(Start: 35 @51508 has 37 MA's), (Start: 37 @51502 has 5 MA's), (41, 51430), (45, 51388), (51, 51349),

Gene: Bruns_81 Start: 47406, Stop: 47203, Start Num: 36

Candidate Starts for Bruns_81:

(Start: 36 @47406 has 222 MA's), (39, 47370), (52, 47244), (54, 47214),

Gene: Burton_81 Start: 49920, Stop: 49720, Start Num: 36

Candidate Starts for Burton_81:

(Start: 36 @49920 has 222 MA's), (39, 49884), (43, 49830), (52, 49758), (54, 49728),

Gene: Buttons_76 Start: 45862, Stop: 45659, Start Num: 36

Candidate Starts for Buttons_76:

(Start: 36 @45862 has 222 MA's), (39, 45826), (43, 45772), (52, 45700), (53, 45685), (54, 45670),

Gene: Bxb1_73 Start: 45949, Stop: 45746, Start Num: 36

Candidate Starts for Bxb1_73:

(Start: 36 @45949 has 222 MA's), (39, 45913), (52, 45787), (54, 45757),

Gene: CactusRose_82 Start: 48563, Stop: 48363, Start Num: 36

Candidate Starts for CactusRose_82:

(Start: 36 @48563 has 222 MA's), (39, 48527), (52, 48401), (54, 48371),

Gene: CactusRose_93 Start: 51517, Stop: 51317, Start Num: 35

Candidate Starts for CactusRose_93:

(Start: 34 @51520 has 1 MA's), (Start: 35 @51517 has 37 MA's), (Start: 37 @51511 has 5 MA's), (43, 51424), (45, 51397), (51, 51358),

Gene: Carlyle_87 Start: 49720, Stop: 49532, Start Num: 35

Candidate Starts for Carlyle_87:

(Start: 34 @49723 has 1 MA's), (Start: 35 @49720 has 37 MA's), (Start: 37 @49714 has 5 MA's), (43, 49627), (47, 49585), (51, 49561),

Gene: Carlyle_79 Start: 46861, Stop: 46658, Start Num: 36

Candidate Starts for Carlyle_79:

(Start: 36 @46861 has 222 MA's), (39, 46825), (52, 46699), (54, 46669),

Gene: CartmannCramer_75 Start: 48488, Stop: 48285, Start Num: 36
Candidate Starts for CartmannCramer_75:
(Start: 36 @48488 has 222 MA's), (39, 48452), (43, 48398), (52, 48326), (53, 48311), (54, 48296),

Gene: CatBus_71 Start: 46187, Stop: 45984, Start Num: 36
Candidate Starts for CatBus_71:
(Start: 36 @46187 has 222 MA's), (39, 46151), (52, 46025), (53, 46010), (54, 45995),

Gene: Chanagan_75 Start: 45822, Stop: 45619, Start Num: 36
Candidate Starts for Chanagan_75:
(Start: 36 @45822 has 222 MA's), (39, 45786), (52, 45660), (53, 45645), (54, 45630),

Gene: ChristmasHams_71 Start: 44661, Stop: 44458, Start Num: 36
Candidate Starts for ChristmasHams_71:
(Start: 36 @44661 has 222 MA's), (39, 44625), (43, 44571), (52, 44499), (54, 44469),

Gene: Ciao_76 Start: 46158, Stop: 45958, Start Num: 36
Candidate Starts for Ciao_76:
(Start: 36 @46158 has 222 MA's), (39, 46122), (52, 45996), (54, 45966),

Gene: ConceptII_86 Start: 50069, Stop: 49869, Start Num: 36
Candidate Starts for ConceptII_86:
(Start: 36 @50069 has 222 MA's), (39, 50033), (43, 49979), (52, 49907), (54, 49877),

Gene: Corvo_82 Start: 49411, Stop: 49211, Start Num: 36
Candidate Starts for Corvo_82:
(Start: 36 @49411 has 222 MA's), (39, 49375), (43, 49321), (52, 49249), (54, 49219),

Gene: Crispicous1_74 Start: 45668, Stop: 45465, Start Num: 36
Candidate Starts for Crispicous1_74:
(Start: 36 @45668 has 222 MA's), (39, 45632), (52, 45506), (53, 45491), (54, 45476),

Gene: DD5_76 Start: 47589, Stop: 47386, Start Num: 36
Candidate Starts for DD5_76:
(28, 47628), (33, 47610), (Start: 36 @47589 has 222 MA's), (39, 47553), (43, 47499), (52, 47427), (54, 47397),

Gene: Dexes_82 Start: 50671, Stop: 50468, Start Num: 36
Candidate Starts for Dexes_82:
(Start: 36 @50671 has 222 MA's), (39, 50635), (52, 50509), (54, 50479),

Gene: DirtDevil_73 Start: 45995, Stop: 45792, Start Num: 36
Candidate Starts for DirtDevil_73:
(Start: 36 @45995 has 222 MA's), (39, 45959), (52, 45833), (53, 45818), (54, 45803),

Gene: Doom_71 Start: 46518, Stop: 46315, Start Num: 36
Candidate Starts for Doom_71:
(Start: 36 @46518 has 222 MA's), (39, 46482), (43, 46428), (52, 46356), (54, 46326),

Gene: DrFeelGood_75 Start: 45947, Stop: 45744, Start Num: 36
Candidate Starts for DrFeelGood_75:
(Start: 36 @45947 has 222 MA's), (39, 45911), (52, 45785), (53, 45770), (54, 45755),

Gene: DreamCatcher_83 Start: 48569, Stop: 48369, Start Num: 36

Candidate Starts for DreamCatcher_83:

(Start: 36 @48569 has 222 MA's), (39, 48533), (43, 48479), (52, 48407), (54, 48377),

Gene: Dreamboat_78 Start: 45875, Stop: 45672, Start Num: 36

Candidate Starts for Dreamboat_78:

(26, 45932), (Start: 36 @45875 has 222 MA's), (39, 45839), (43, 45785), (52, 45713), (53, 45698), (54, 45683),

Gene: Dreamboat_90 Start: 49294, Stop: 49094, Start Num: 35

Candidate Starts for Dreamboat_90:

(Start: 35 @49294 has 37 MA's), (Start: 37 @49288 has 5 MA's), (41, 49216), (42, 49210), (45, 49174), (51, 49135),

Gene: Dulcie_80 Start: 49841, Stop: 49638, Start Num: 36

Candidate Starts for Dulcie_80:

(Start: 36 @49841 has 222 MA's), (39, 49805), (52, 49679), (54, 49649),

Gene: Dussy_78 Start: 47426, Stop: 47223, Start Num: 36

Candidate Starts for Dussy_78:

(32, 47450), (Start: 36 @47426 has 222 MA's), (39, 47390), (43, 47336), (52, 47264), (53, 47249), (54, 47234),

Gene: Dynamix_78 Start: 46309, Stop: 46106, Start Num: 36

Candidate Starts for Dynamix_78:

(Start: 36 @46309 has 222 MA's), (39, 46273), (43, 46219), (52, 46147), (53, 46132), (54, 46117),

Gene: Edtherson_77 Start: 47485, Stop: 47282, Start Num: 36

Candidate Starts for Edtherson_77:

(Start: 36 @47485 has 222 MA's), (39, 47449), (43, 47395), (52, 47323), (54, 47293),

Gene: EnzoK_80 Start: 45767, Stop: 45564, Start Num: 36

Candidate Starts for EnzoK_80:

(Start: 36 @45767 has 222 MA's), (39, 45731), (43, 45677), (52, 45605), (54, 45575),

Gene: Espresso_73 Start: 46530, Stop: 46327, Start Num: 36

Candidate Starts for Espresso_73:

(Start: 36 @46530 has 222 MA's), (39, 46494), (40, 46470), (43, 46440), (52, 46368), (54, 46338),

Gene: Espresso_84 Start: 49761, Stop: 49579, Start Num: 37

Candidate Starts for Espresso_84:

(4, 50052), (5, 50034), (7, 50022), (14, 49911), (16, 49902), (22, 49851), (Start: 37 @49761 has 5 MA's), (43, 49674), (44, 49659), (47, 49632), (51, 49608),

Gene: Euphoria_80 Start: 48246, Stop: 48043, Start Num: 36

Candidate Starts for Euphoria_80:

(Start: 36 @48246 has 222 MA's), (39, 48210), (52, 48084), (54, 48054),

Gene: Eyeball_88 Start: 49419, Stop: 49577, Start Num: 38

Candidate Starts for Eyeball_88:

(Start: 35 @49389 has 37 MA's), (Start: 38 @49419 has 1 MA's), (43, 49482), (44, 49497), (47, 49524), (51, 49548),

Gene: Eyeball_78 Start: 47531, Stop: 47328, Start Num: 36

Candidate Starts for Eyeball_78:

(26, 47594), (Start: 36 @47531 has 222 MA's), (39, 47495), (43, 47441), (52, 47369), (53, 47354), (54, 47339),

Gene: Fajezeel_83 Start: 49126, Stop: 48926, Start Num: 36

Candidate Starts for Fajezeel_83:

(Start: 36 @49126 has 222 MA's), (39, 49090), (43, 49036), (52, 48964), (54, 48934),

Gene: Fascinus_84 Start: 51014, Stop: 50814, Start Num: 35

Candidate Starts for Fascinus_84:

(Start: 34 @51017 has 1 MA's), (Start: 35 @51014 has 37 MA's), (Start: 37 @51008 has 5 MA's), (43, 50921), (45, 50894), (51, 50855),

Gene: Fascinus_75 Start: 48059, Stop: 47859, Start Num: 36

Candidate Starts for Fascinus_75:

(Start: 36 @48059 has 222 MA's), (39, 48023), (52, 47897), (54, 47867),

Gene: Fenn_81 Start: 48414, Stop: 48211, Start Num: 36

Candidate Starts for Fenn_81:

(Start: 36 @48414 has 222 MA's), (39, 48378), (52, 48252), (54, 48222),

Gene: Fenn_93 Start: 51503, Stop: 51315, Start Num: 35

Candidate Starts for Fenn_93:

(Start: 34 @51506 has 1 MA's), (Start: 35 @51503 has 37 MA's), (Start: 37 @51497 has 5 MA's), (44, 51395), (47, 51368), (51, 51344),

Gene: Forsytheast_82 Start: 48445, Stop: 48245, Start Num: 36

Candidate Starts for Forsytheast_82:

(Start: 36 @48445 has 222 MA's), (39, 48409), (52, 48283), (54, 48253),

Gene: Forsytheast_93 Start: 51556, Stop: 51368, Start Num: 35

Candidate Starts for Forsytheast_93:

(Start: 34 @51559 has 1 MA's), (Start: 35 @51556 has 37 MA's), (Start: 37 @51550 has 5 MA's), (41, 51478), (42, 51472), (44, 51448), (45, 51436), (47, 51421), (51, 51397),

Gene: Francis47_80 Start: 49966, Stop: 49763, Start Num: 36

Candidate Starts for Francis47_80:

(Start: 36 @49966 has 222 MA's), (39, 49930), (43, 49876), (52, 49804), (54, 49774),

Gene: Fushigi_73 Start: 44498, Stop: 44298, Start Num: 36

Candidate Starts for Fushigi_73:

(Start: 36 @44498 has 222 MA's), (39, 44462), (52, 44336), (54, 44306),

Gene: GMonster_76 Start: 47261, Stop: 47058, Start Num: 36

Candidate Starts for GMonster_76:

(Start: 36 @47261 has 222 MA's), (39, 47225), (43, 47171), (52, 47099), (54, 47069),

Gene: GageAP_81 Start: 49319, Stop: 49116, Start Num: 36

Candidate Starts for GageAP_81:

(Start: 36 @49319 has 222 MA's), (39, 49283), (52, 49157), (53, 49142), (54, 49127),

Gene: Gandalf20_78 Start: 47815, Stop: 47612, Start Num: 36

Candidate Starts for Gandalf20_78:

(Start: 36 @47815 has 222 MA's), (39, 47779), (40, 47755), (43, 47725), (52, 47653), (54, 47623),

Gene: Gompeii16_79 Start: 49966, Stop: 49763, Start Num: 36

Candidate Starts for Gompeii16_79:

(Start: 36 @49966 has 222 MA's), (39, 49930), (43, 49876), (52, 49804), (54, 49774),

Gene: Graduation_82 Start: 48096, Stop: 47893, Start Num: 36

Candidate Starts for Graduation_82:

(Start: 36 @48096 has 222 MA's), (39, 48060), (52, 47934), (54, 47904),

Gene: GrecoEtereo_85 Start: 49769, Stop: 49569, Start Num: 36

Candidate Starts for GrecoEtereo_85:

(Start: 36 @49769 has 222 MA's), (39, 49733), (43, 49679), (52, 49607),

Gene: Greg_83 Start: 49126, Stop: 48926, Start Num: 36

Candidate Starts for Greg_83:

(Start: 36 @49126 has 222 MA's), (39, 49090), (43, 49036), (52, 48964), (54, 48934),

Gene: GroundGoblin_73 Start: 46137, Stop: 45934, Start Num: 36

Candidate Starts for GroundGoblin_73:

(Start: 36 @46137 has 222 MA's), (39, 46101), (52, 45975), (53, 45960), (54, 45945),

Gene: Gwendoluna_83 Start: 49080, Stop: 48877, Start Num: 36

Candidate Starts for Gwendoluna_83:

(Start: 36 @49080 has 222 MA's), (39, 49044), (43, 48990), (52, 48918), (53, 48903), (54, 48888),

Gene: Gyzlar_71 Start: 44267, Stop: 44064, Start Num: 36

Candidate Starts for Gyzlar_71:

(Start: 36 @44267 has 222 MA's), (39, 44231), (52, 44105), (53, 44090), (54, 44075),

Gene: Hami1_74 Start: 43709, Stop: 43494, Start Num: 36

Candidate Starts for Hami1_74:

(Start: 36 @43709 has 222 MA's), (39, 43673), (52, 43547),

Gene: HanShotFirst_77 Start: 48049, Stop: 47849, Start Num: 36

Candidate Starts for HanShotFirst_77:

(Start: 36 @48049 has 222 MA's), (39, 48013), (52, 47887), (54, 47857),

Gene: HarryOW_80 Start: 49291, Stop: 49088, Start Num: 36

Candidate Starts for HarryOW_80:

(Start: 36 @49291 has 222 MA's), (39, 49255), (52, 49129), (54, 49099),

Gene: Hermia_74 Start: 46187, Stop: 45984, Start Num: 36

Candidate Starts for Hermia_74:

(Start: 36 @46187 has 222 MA's), (39, 46151), (52, 46025), (53, 46010), (54, 45995),

Gene: HermioneGrange_82 Start: 49384, Stop: 49181, Start Num: 36

Candidate Starts for HermioneGrange_82:

(Start: 36 @49384 has 222 MA's), (39, 49348), (43, 49294), (52, 49222), (53, 49207), (54, 49192),

Gene: Homines_76 Start: 45144, Stop: 44962, Start Num: 37

Candidate Starts for Homines_76:

(4, 45435), (5, 45417), (7, 45405), (14, 45294), (16, 45285), (22, 45234), (Start: 37 @45144 has 5 MA's), (43, 45057), (44, 45042), (47, 45015), (51, 44991),

Gene: Homines_67 Start: 42517, Stop: 42314, Start Num: 36

Candidate Starts for Homines_67:

(Start: 36 @42517 has 222 MA's), (52, 42355), (53, 42340), (54, 42325),

Gene: Hope4ever_80 Start: 47898, Stop: 47695, Start Num: 36

Candidate Starts for Hope4ever_80:

(Start: 36 @47898 has 222 MA's), (39, 47862), (52, 47736), (54, 47706),

Gene: ILeeKay_88 Start: 49875, Stop: 49687, Start Num: 35

Candidate Starts for ILeeKay_88:

(Start: 34 @49878 has 1 MA's), (Start: 35 @49875 has 37 MA's), (Start: 37 @49869 has 5 MA's), (43, 49782), (44, 49767), (47, 49740), (51, 49716),

Gene: ILeeKay_76 Start: 45909, Stop: 45706, Start Num: 36

Candidate Starts for ILeeKay_76:

(Start: 36 @45909 has 222 MA's), (39, 45873), (43, 45819), (52, 45747), (53, 45732), (54, 45717),

Gene: Ichabod_81 Start: 48156, Stop: 47953, Start Num: 36

Candidate Starts for Ichabod_81:

(Start: 36 @48156 has 222 MA's), (39, 48120), (52, 47994), (54, 47964),

Gene: Ichabod_92 Start: 51778, Stop: 51590, Start Num: 35

Candidate Starts for Ichabod_92:

(Start: 34 @51781 has 1 MA's), (Start: 35 @51778 has 37 MA's), (Start: 37 @51772 has 5 MA's), (43, 51685), (47, 51643),

Gene: IgnatiusPatJac_79 Start: 46946, Stop: 46743, Start Num: 36

Candidate Starts for IgnatiusPatJac_79:

(Start: 36 @46946 has 222 MA's), (39, 46910), (52, 46784), (54, 46754),

Gene: Inyanga_70 Start: 46102, Stop: 45899, Start Num: 36

Candidate Starts for Inyanga_70:

(Start: 36 @46102 has 222 MA's), (39, 46066), (52, 45940), (54, 45910),

Gene: Iqorha_70 Start: 46101, Stop: 45898, Start Num: 36

Candidate Starts for Iqorha_70:

(Start: 36 @46101 has 222 MA's), (39, 46065), (52, 45939), (54, 45909),

Gene: JC27_82 Start: 48025, Stop: 47822, Start Num: 36

Candidate Starts for JC27_82:

(Start: 36 @48025 has 222 MA's), (39, 47989), (43, 47935), (52, 47863), (54, 47833),

Gene: JackSparrow_79 Start: 47009, Stop: 46806, Start Num: 36

Candidate Starts for JackSparrow_79:

(3, 47285), (13, 47153), (Start: 36 @47009 has 222 MA's), (39, 46973), (43, 46919), (52, 46847), (54, 46817),

Gene: Jasper_90 Start: 49180, Stop: 48980, Start Num: 35

Candidate Starts for Jasper_90:

(Start: 35 @49180 has 37 MA's), (Start: 37 @49174 has 5 MA's), (41, 49102), (42, 49096), (45, 49060), (51, 49021),

Gene: Jasper_77 Start: 45761, Stop: 45558, Start Num: 36

Candidate Starts for Jasper_77:

(26, 45818), (Start: 36 @45761 has 222 MA's), (39, 45725), (43, 45671), (52, 45599), (53, 45584), (54, 45569),

Gene: Jerm2_80 Start: 49454, Stop: 49251, Start Num: 36

Candidate Starts for Jerm2_80:

(Start: 36 @49454 has 222 MA's), (39, 49418), (43, 49364), (52, 49292), (53, 49277), (54, 49262),

Gene: Jorgensen_88 Start: 49498, Stop: 49295, Start Num: 36

Candidate Starts for Jorgensen_88:

(1, 49843), (2, 49807), (6, 49759), (8, 49729), (9, 49723), (15, 49642), (24, 49570), (27, 49546), (29, 49543), (Start: 36 @49498 has 222 MA's), (39, 49462), (52, 49336), (54, 49306),

Gene: JuliaChild_81 Start: 48350, Stop: 48150, Start Num: 36

Candidate Starts for JuliaChild_81:

(Start: 36 @48350 has 222 MA's), (39, 48314), (52, 48188), (54, 48158),

Gene: KBG_78 Start: 48993, Stop: 48790, Start Num: 36

Candidate Starts for KBG_78:

(Start: 36 @48993 has 222 MA's), (39, 48957), (43, 48903), (52, 48831), (54, 48801),

Gene: KSSJEB_87 Start: 49614, Stop: 49414, Start Num: 35

Candidate Starts for KSSJEB_87:

(Start: 34 @49617 has 1 MA's), (Start: 35 @49614 has 37 MA's), (Start: 37 @49608 has 5 MA's), (41, 49536), (45, 49494), (51, 49455),

Gene: KSSJEB_77 Start: 46474, Stop: 46274, Start Num: 36

Candidate Starts for KSSJEB_77:

(26, 46537), (Start: 36 @46474 has 222 MA's), (39, 46438), (43, 46384), (52, 46312), (53, 46297), (54, 46282),

Gene: Kanely_83 Start: 48745, Stop: 48545, Start Num: 36

Candidate Starts for Kanely_83:

(Start: 36 @48745 has 222 MA's), (39, 48709), (43, 48655), (52, 48583), (54, 48553),

Gene: Kenmech_81 Start: 48552, Stop: 48349, Start Num: 36

Candidate Starts for Kenmech_81:

(32, 48576), (Start: 36 @48552 has 222 MA's), (39, 48516), (43, 48462), (52, 48390), (53, 48375), (54, 48360),

Gene: KikiBouba_75 Start: 45996, Stop: 45793, Start Num: 36

Candidate Starts for KikiBouba_75:

(Start: 36 @45996 has 222 MA's), (39, 45960), (52, 45834), (53, 45819), (54, 45804),

Gene: Killigrew_75 Start: 46600, Stop: 46397, Start Num: 36

Candidate Starts for Killigrew_75:

(Start: 36 @46600 has 222 MA's), (39, 46564), (43, 46510), (52, 46438), (54, 46408),

Gene: Kugel_80 Start: 48242, Stop: 48039, Start Num: 36

Candidate Starts for Kugel_80:

(Start: 36 @48242 has 222 MA's), (39, 48206), (43, 48152), (52, 48080), (54, 48050),

Gene: Kugel_90 Start: 50859, Stop: 50671, Start Num: 35

Candidate Starts for Kugel_90:

(Start: 35 @50859 has 37 MA's), (Start: 37 @50853 has 5 MA's), (41, 50781), (42, 50775), (44, 50751), (45, 50739), (47, 50724), (51, 50700),

Gene: KyMonks1A_85 Start: 48883, Stop: 48680, Start Num: 36

Candidate Starts for KyMonks1A_85:

(10, 49099), (Start: 36 @48883 has 222 MA's), (39, 48847), (52, 48721), (54, 48691),

Gene: Kykar_78 Start: 47281, Stop: 47078, Start Num: 36

Candidate Starts for Kykar_78:

(11, 47446), (17, 47398), (Start: 36 @47281 has 222 MA's), (39, 47245), (52, 47119), (54, 47089),

Gene: Lamina13_82 Start: 49734, Stop: 49531, Start Num: 36

Candidate Starts for Lamina13_82:

(Start: 36 @49734 has 222 MA's), (39, 49698), (52, 49572), (54, 49542),

Gene: Lesedi_76 Start: 46040, Stop: 45837, Start Num: 36

Candidate Starts for Lesedi_76:

(Start: 36 @46040 has 222 MA's), (39, 46004), (52, 45878), (54, 45848),

Gene: Lesedi_85 Start: 49329, Stop: 49141, Start Num: 35

Candidate Starts for Lesedi_85:

(Start: 35 @49329 has 37 MA's), (Start: 37 @49323 has 5 MA's), (41, 49251), (42, 49245), (45, 49209), (50, 49173), (51, 49170),

Gene: Levia_73 Start: 45578, Stop: 45375, Start Num: 36

Candidate Starts for Levia_73:

(Start: 36 @45578 has 222 MA's), (39, 45542), (52, 45416), (54, 45386),

Gene: Licorice_82 Start: 50034, Stop: 49831, Start Num: 36

Candidate Starts for Licorice_82:

(Start: 36 @50034 has 222 MA's), (39, 49998), (43, 49944), (52, 49872), (54, 49842),

Gene: Lockley_77 Start: 47186, Stop: 46986, Start Num: 36

Candidate Starts for Lockley_77:

(28, 47225), (33, 47207), (Start: 36 @47186 has 222 MA's), (39, 47150), (52, 47024), (54, 46994),

Gene: Lopton_79 Start: 49061, Stop: 48861, Start Num: 36

Candidate Starts for Lopton_79:

(Start: 36 @49061 has 222 MA's), (39, 49025), (52, 48899), (54, 48869),

Gene: LunarLander_75 Start: 47154, Stop: 46966, Start Num: 35

Candidate Starts for LunarLander_75:

(Start: 34 @47157 has 1 MA's), (Start: 35 @47154 has 37 MA's), (Start: 37 @47148 has 5 MA's), (43, 47061), (44, 47046), (47, 47019), (51, 46995),

Gene: MPlant7149_80 Start: 47615, Stop: 47415, Start Num: 36

Candidate Starts for MPlant7149_80:

(Start: 36 @47615 has 222 MA's), (39, 47579), (43, 47525), (52, 47453), (54, 47423),

Gene: Magnar_76 Start: 46914, Stop: 46711, Start Num: 36

Candidate Starts for Magnar_76:

(Start: 36 @46914 has 222 MA's), (39, 46878), (52, 46752), (54, 46722),

Gene: Magnito_78 Start: 46868, Stop: 46665, Start Num: 36

Candidate Starts for Magnito_78:

(12, 47030), (Start: 36 @46868 has 222 MA's), (39, 46832), (52, 46706), (53, 46691), (54, 46676),

Gene: Makemake_82 Start: 48490, Stop: 48287, Start Num: 36

Candidate Starts for Makemake_82:

(Start: 36 @48490 has 222 MA's), (39, 48454), (52, 48328), (54, 48298),

Gene: Manatee_88 Start: 49510, Stop: 49310, Start Num: 35

Candidate Starts for Manatee_88:

(Start: 35 @49510 has 37 MA's), (Start: 37 @49504 has 5 MA's), (41, 49432), (45, 49390), (51, 49351),

Gene: Manatee_77 Start: 46420, Stop: 46217, Start Num: 36

Candidate Starts for Manatee_77:

(Start: 36 @46420 has 222 MA's), (39, 46384), (43, 46330), (52, 46258), (53, 46243), (54, 46228),

Gene: Marcell_71 Start: 45015, Stop: 44812, Start Num: 36

Candidate Starts for Marcell_71:

(Start: 36 @45015 has 222 MA's), (39, 44979), (52, 44853), (54, 44823),

Gene: Marcell_80 Start: 48034, Stop: 47846, Start Num: 35

Candidate Starts for Marcell_80:

(Start: 34 @48037 has 1 MA's), (Start: 35 @48034 has 37 MA's), (Start: 37 @48028 has 5 MA's), (43, 47941), (44, 47926), (47, 47899), (51, 47875),

Gene: Marchy_73 Start: 45220, Stop: 45005, Start Num: 36

Candidate Starts for Marchy_73:

(Start: 36 @45220 has 222 MA's), (39, 45184), (52, 45058),

Gene: Marco3_81 Start: 48970, Stop: 48767, Start Num: 36

Candidate Starts for Marco3_81:

(19, 49045), (Start: 36 @48970 has 222 MA's), (43, 48880), (52, 48808), (54, 48778),

Gene: Marge_75 Start: 46512, Stop: 46309, Start Num: 36

Candidate Starts for Marge_75:

(Start: 36 @46512 has 222 MA's), (39, 46476), (52, 46350), (54, 46320),

Gene: Maroc7_81 Start: 49487, Stop: 49287, Start Num: 36

Candidate Starts for Maroc7_81:

(Start: 36 @49487 has 222 MA's), (39, 49451), (52, 49325), (54, 49295),

Gene: Maroc7_89 Start: 52233, Stop: 52033, Start Num: 35

Candidate Starts for Maroc7_89:

(Start: 34 @52236 has 1 MA's), (Start: 35 @52233 has 37 MA's), (Start: 37 @52227 has 5 MA's), (43, 52140), (45, 52113), (51, 52074),

Gene: Marsha_79 Start: 49315, Stop: 49112, Start Num: 36

Candidate Starts for Marsha_79:

(Start: 36 @49315 has 222 MA's), (39, 49279), (52, 49153), (54, 49123),

Gene: MaryBeth_78 Start: 47886, Stop: 47686, Start Num: 36

Candidate Starts for MaryBeth_78:

(Start: 36 @47886 has 222 MA's), (39, 47850), (43, 47796), (52, 47724), (54, 47694),

Gene: McGuire_78 Start: 46551, Stop: 46348, Start Num: 36

Candidate Starts for McGuire_78:

(Start: 36 @46551 has 222 MA's), (39, 46515), (52, 46389), (53, 46374), (54, 46359),

Gene: McGuire_88 Start: 49744, Stop: 49544, Start Num: 35

Candidate Starts for McGuire_88:

(Start: 35 @49744 has 37 MA's), (Start: 37 @49738 has 5 MA's), (41, 49666), (45, 49624), (51, 49585),

Gene: McSinger_77 Start: 47681, Stop: 47478, Start Num: 36

Candidate Starts for McSinger_77:

(Start: 36 @47681 has 222 MA's), (39, 47645), (52, 47519), (53, 47504), (54, 47489),

Gene: MetalQZJ_77 Start: 47886, Stop: 47686, Start Num: 36

Candidate Starts for MetalQZJ_77:

(Start: 36 @47886 has 222 MA's), (39, 47850), (43, 47796), (52, 47724), (54, 47694),

Gene: Michley_79 Start: 47279, Stop: 47076, Start Num: 36

Candidate Starts for Michley_79:

(Start: 36 @47279 has 222 MA's), (39, 47243), (52, 47117), (54, 47087),

Gene: MilleFeuille_80 Start: 46952, Stop: 46749, Start Num: 36

Candidate Starts for MilleFeuille_80:

(Start: 36 @46952 has 222 MA's), (39, 46916), (43, 46862), (52, 46790), (54, 46760),

Gene: Mkhuseli_85 Start: 47970, Stop: 47782, Start Num: 35

Candidate Starts for Mkhuseli_85:

(Start: 34 @47973 has 1 MA's), (Start: 35 @47970 has 37 MA's), (Start: 37 @47964 has 5 MA's), (43, 47877), (47, 47835), (51, 47811),

Gene: Mkhuseli_77 Start: 45606, Stop: 45403, Start Num: 36

Candidate Starts for Mkhuseli_77:

(Start: 36 @45606 has 222 MA's), (39, 45570), (52, 45444), (54, 45414),

Gene: Molly_79 Start: 47090, Stop: 46896, Start Num: 36

Candidate Starts for Molly_79:

(Start: 36 @47090 has 222 MA's), (46, 46961), (52, 46931),

Gene: Monet_82 Start: 48961, Stop: 48758, Start Num: 36

Candidate Starts for Monet_82:

(Start: 36 @48961 has 222 MA's), (39, 48925), (43, 48871), (52, 48799), (54, 48769),

Gene: Moose_92 Start: 51556, Stop: 51368, Start Num: 35

Candidate Starts for Moose_92:

(Start: 34 @51559 has 1 MA's), (Start: 35 @51556 has 37 MA's), (Start: 37 @51550 has 5 MA's), (41, 51478), (42, 51472), (44, 51448), (45, 51436), (47, 51421), (51, 51397),

Gene: Moose_82 Start: 48445, Stop: 48245, Start Num: 36

Candidate Starts for Moose_82:

(Start: 36 @48445 has 222 MA's), (39, 48409), (52, 48283), (54, 48253),

Gene: MrGordo_81 Start: 47224, Stop: 47024, Start Num: 36

Candidate Starts for MrGordo_81:

(Start: 36 @47224 has 222 MA's), (39, 47188), (43, 47134), (52, 47062),

Gene: Mryolo_74 Start: 46054, Stop: 45851, Start Num: 36

Candidate Starts for Mryolo_74:

(Start: 36 @46054 has 222 MA's), (39, 46018), (43, 45964), (52, 45892), (54, 45862),

Gene: Mule_79 Start: 47341, Stop: 47138, Start Num: 36

Candidate Starts for Mule_79:

(Start: 36 @47341 has 222 MA's), (39, 47305), (52, 47179), (54, 47149),

Gene: Museum_79 Start: 48153, Stop: 47959, Start Num: 36

Candidate Starts for Museum_79:

(Start: 36 @48153 has 222 MA's), (46, 48024), (52, 47994),

Gene: NEHalo_75 Start: 46963, Stop: 46769, Start Num: 36

Candidate Starts for NEHalo_75:

(Start: 36 @46963 has 222 MA's), (46, 46834), (52, 46804),

Gene: Naira_92 Start: 51635, Stop: 51447, Start Num: 35

Candidate Starts for Naira_92:

(Start: 34 @51638 has 1 MA's), (Start: 35 @51635 has 37 MA's), (Start: 37 @51629 has 5 MA's), (44, 51527), (47, 51500), (51, 51476),

Gene: Naira_80 Start: 48470, Stop: 48267, Start Num: 36

Candidate Starts for Naira_80:

(Start: 36 @48470 has 222 MA's), (39, 48434), (52, 48308), (54, 48278),

Gene: Nerujay_83 Start: 49538, Stop: 49335, Start Num: 36

Candidate Starts for Nerujay_83:

(Start: 36 @49538 has 222 MA's), (39, 49502), (52, 49376), (54, 49346),

Gene: Nhonho_75 Start: 47335, Stop: 47132, Start Num: 36

Candidate Starts for Nhonho_75:

(Start: 36 @47335 has 222 MA's), (39, 47299), (52, 47173), (54, 47143),

Gene: Niza_79 Start: 48442, Stop: 48239, Start Num: 36

Candidate Starts for Niza_79:

(Start: 36 @48442 has 222 MA's), (39, 48406), (43, 48352), (52, 48280), (54, 48250),

Gene: Norz_76 Start: 49697, Stop: 49482, Start Num: 36

Candidate Starts for Norz_76:

(Start: 36 @49697 has 222 MA's), (39, 49661), (43, 49607), (52, 49535),

Gene: Noxious_75 Start: 46187, Stop: 45984, Start Num: 36

Candidate Starts for Noxious_75:

(Start: 36 @46187 has 222 MA's), (39, 46151), (52, 46025), (53, 46010), (54, 45995),

Gene: Ohno789_82 Start: 49192, Stop: 48989, Start Num: 36

Candidate Starts for Ohno789_82:

(Start: 36 @49192 has 222 MA's), (39, 49156), (52, 49030), (53, 49015), (54, 49000),

Gene: Oogway_77 Start: 47851, Stop: 47648, Start Num: 36

Candidate Starts for Oogway_77:

(Start: 36 @47851 has 222 MA's), (39, 47815), (52, 47689), (53, 47674), (54, 47659),

Gene: PSullivan_78 Start: 46418, Stop: 46218, Start Num: 36

Candidate Starts for PSullivan_78:

(Start: 36 @46418 has 222 MA's), (39, 46382), (52, 46256), (54, 46226),

Gene: PacerPaul_83 Start: 49333, Stop: 49130, Start Num: 36

Candidate Starts for PacerPaul_83:

(Start: 36 @49333 has 222 MA's), (39, 49297), (43, 49243), (52, 49171), (54, 49141),

Gene: Papez_83 Start: 48887, Stop: 48687, Start Num: 36

Candidate Starts for Papez_83:

(Start: 36 @48887 has 222 MA's), (39, 48851), (52, 48725), (54, 48695),

Gene: Paphu_82 Start: 48282, Stop: 48094, Start Num: 35

Candidate Starts for Paphu_82:

(Start: 34 @48285 has 1 MA's), (Start: 35 @48282 has 37 MA's), (Start: 37 @48276 has 5 MA's), (43, 48189), (44, 48174), (47, 48147), (51, 48123),

Gene: Paphu_76 Start: 47057, Stop: 46854, Start Num: 36

Candidate Starts for Paphu_76:

(Start: 36 @47057 has 222 MA's), (39, 47021), (43, 46967), (52, 46895), (54, 46865),

Gene: Paraselene_77 Start: 47305, Stop: 47102, Start Num: 36

Candidate Starts for Paraselene_77:

(Start: 36 @47305 has 222 MA's), (52, 47143), (54, 47113),

Gene: Paraselene_82 Start: 48170, Stop: 47949, Start Num: 30

Candidate Starts for Paraselene_82:

(Start: 30 @48170 has 5 MA's), (31, 48161),

Gene: Pari_84 Start: 48036, Stop: 47833, Start Num: 36

Candidate Starts for Pari_84:

(Start: 36 @48036 has 222 MA's), (39, 48000), (52, 47874), (54, 47844),

Gene: Parliament_80 Start: 50217, Stop: 50014, Start Num: 36

Candidate Starts for Parliament_80:

(Start: 36 @50217 has 222 MA's), (39, 50181), (43, 50127), (52, 50055), (53, 50040), (54, 50025),

Gene: PascalRango_77 Start: 47311, Stop: 47108, Start Num: 36

Candidate Starts for PascalRango_77:

(Start: 36 @47311 has 222 MA's), (39, 47275), (52, 47149), (54, 47119),

Gene: PattyP_79 Start: 47859, Stop: 47665, Start Num: 36

Candidate Starts for PattyP_79:

(Start: 36 @47859 has 222 MA's), (46, 47730), (52, 47700),

Gene: Pelly_82 Start: 50581, Stop: 50378, Start Num: 36

Candidate Starts for Pelly_82:

(Start: 36 @50581 has 222 MA's), (39, 50545), (52, 50419), (54, 50389),

Gene: Pelly_88 Start: 51616, Stop: 51395, Start Num: 30

Candidate Starts for Pelly_88:

(Start: 30 @51616 has 5 MA's), (31, 51607),

Gene: Pepe_73 Start: 45753, Stop: 45562, Start Num: 36

Candidate Starts for Pepe_73:

(Start: 36 @45753 has 222 MA's), (46, 45624), (48, 45621), (52, 45594),

Gene: Perseus_85 Start: 50464, Stop: 50243, Start Num: 30

Candidate Starts for Perseus_85:

(Start: 30 @50464 has 5 MA's), (31, 50455),

Gene: Perseus_79 Start: 49298, Stop: 49095, Start Num: 36

Candidate Starts for Perseus_79:

(Start: 36 @49298 has 222 MA's), (39, 49262), (52, 49136), (53, 49121), (54, 49106),

Gene: Peterson_77 Start: 48292, Stop: 48089, Start Num: 36

Candidate Starts for Peterson_77:

(18, 48370), (20, 48364), (23, 48346), (Start: 36 @48292 has 222 MA's), (39, 48256), (43, 48202), (52, 48130), (54, 48100),

Gene: Petp2012_79 Start: 48474, Stop: 48271, Start Num: 36

Candidate Starts for Petp2012_79:

(Start: 36 @48474 has 222 MA's), (39, 48438), (52, 48312), (54, 48282),

Gene: Petruchio_80 Start: 46874, Stop: 46671, Start Num: 36

Candidate Starts for Petruchio_80:

(Start: 36 @46874 has 222 MA's), (39, 46838), (52, 46712), (54, 46682),

Gene: PherrisBueller_77 Start: 45412, Stop: 45209, Start Num: 36

Candidate Starts for PherrisBueller_77:

(26, 45469), (Start: 36 @45412 has 222 MA's), (39, 45376), (43, 45322), (52, 45250), (53, 45235), (54, 45220),

Gene: PhineBark_75 Start: 46596, Stop: 46393, Start Num: 36

Candidate Starts for PhineBark_75:

(Start: 36 @46596 has 222 MA's), (39, 46560), (52, 46434), (54, 46404),

Gene: Phlippers_77 Start: 48951, Stop: 48751, Start Num: 36

Candidate Starts for Phlippers_77:

(Start: 36 @48951 has 222 MA's), (39, 48915), (52, 48789), (54, 48759),

Gene: PhrostyMug_81 Start: 49511, Stop: 49308, Start Num: 36

Candidate Starts for PhrostyMug_81:

(Start: 36 @49511 has 222 MA's), (39, 49475), (52, 49349), (54, 49319),

Gene: PinkPlastic_74 Start: 46060, Stop: 45857, Start Num: 36

Candidate Starts for PinkPlastic_74:

(Start: 36 @46060 has 222 MA's), (39, 46024), (43, 45970), (52, 45898), (54, 45868),

Gene: Pinto_78 Start: 47923, Stop: 47720, Start Num: 36
Candidate Starts for Pinto_78:
(Start: 36 @47923 has 222 MA's), (39, 47887), (43, 47833), (52, 47761), (54, 47731),

Gene: Pippin_80 Start: 47741, Stop: 47541, Start Num: 36
Candidate Starts for Pippin_80:
(Start: 36 @47741 has 222 MA's), (39, 47705), (52, 47579), (54, 47549),

Gene: Pita2_81 Start: 47914, Stop: 47714, Start Num: 36
Candidate Starts for Pita2_81:
(Start: 36 @47914 has 222 MA's), (39, 47878), (52, 47752), (54, 47722),

Gene: PowerRanger_74 Start: 47498, Stop: 47295, Start Num: 36
Candidate Starts for PowerRanger_74:
(Start: 36 @47498 has 222 MA's), (39, 47462), (43, 47408), (52, 47336), (54, 47306),

Gene: PowerRanger_82 Start: 50174, Stop: 49974, Start Num: 35
Candidate Starts for PowerRanger_82:
(Start: 35 @50174 has 37 MA's), (Start: 37 @50168 has 5 MA's), (41, 50096), (45, 50054), (51, 50015),

Gene: ProMouse_78 Start: 47065, Stop: 46862, Start Num: 36
Candidate Starts for ProMouse_78:
(Start: 36 @47065 has 222 MA's), (39, 47029), (52, 46903), (54, 46873),

Gene: Puppet_75 Start: 47955, Stop: 47752, Start Num: 36
Candidate Starts for Puppet_75:
(26, 48018), (Start: 36 @47955 has 222 MA's), (39, 47919), (43, 47865), (52, 47793), (53, 47778), (54, 47763),

Gene: Puppet_86 Start: 50602, Stop: 50414, Start Num: 35
Candidate Starts for Puppet_86:
(Start: 34 @50605 has 1 MA's), (Start: 35 @50602 has 37 MA's), (Start: 37 @50596 has 5 MA's), (43, 50509), (44, 50494), (47, 50467), (51, 50443),

Gene: QTRLifeCrisis_78 Start: 47097, Stop: 46894, Start Num: 36
Candidate Starts for QTRLifeCrisis_78:
(Start: 36 @47097 has 222 MA's), (39, 47061), (43, 47007), (52, 46935), (53, 46920), (54, 46905),

Gene: Raid_76 Start: 46964, Stop: 46761, Start Num: 36
Candidate Starts for Raid_76:
(18, 47060), (24, 47033), (25, 47030), (Start: 36 @46964 has 222 MA's), (39, 46928), (52, 46802), (54, 46772),

Gene: Rajelicia_80 Start: 49746, Stop: 49543, Start Num: 36
Candidate Starts for Rajelicia_80:
(Start: 36 @49746 has 222 MA's), (39, 49710), (43, 49656), (52, 49584), (54, 49554),

Gene: Rhynn_75 Start: 47688, Stop: 47485, Start Num: 36
Candidate Starts for Rhynn_75:
(Start: 36 @47688 has 222 MA's), (39, 47652), (52, 47526), (54, 47496),

Gene: RidgeCB_74 Start: 46007, Stop: 45804, Start Num: 36
Candidate Starts for RidgeCB_74:

(Start: 36 @46007 has 222 MA's), (39, 45971), (40, 45947), (52, 45845), (54, 45815),

Gene: Ringer_87 Start: 50657, Stop: 50469, Start Num: 35

Candidate Starts for Ringer_87:

(Start: 34 @50660 has 1 MA's), (Start: 35 @50657 has 37 MA's), (Start: 37 @50651 has 5 MA's), (47, 50522), (51, 50498),

Gene: Ringer_79 Start: 48655, Stop: 48452, Start Num: 36

Candidate Starts for Ringer_79:

(Start: 36 @48655 has 222 MA's), (39, 48619), (43, 48565), (52, 48493), (54, 48463),

Gene: Rohr_82 Start: 49705, Stop: 49505, Start Num: 36

Candidate Starts for Rohr_82:

(Start: 36 @49705 has 222 MA's), (39, 49669), (43, 49615), (52, 49543), (54, 49513),

Gene: Rubeus_79 Start: 46029, Stop: 45826, Start Num: 36

Candidate Starts for Rubeus_79:

(Start: 36 @46029 has 222 MA's), (39, 45993), (52, 45867), (54, 45837),

Gene: Rufus_81 Start: 48718, Stop: 48515, Start Num: 36

Candidate Starts for Rufus_81:

(Start: 36 @48718 has 222 MA's), (39, 48682), (52, 48556), (54, 48526),

Gene: Ruotula_84 Start: 49577, Stop: 49377, Start Num: 36

Candidate Starts for Ruotula_84:

(Start: 36 @49577 has 222 MA's), (39, 49541), (52, 49415), (54, 49385),

Gene: Rutherferd_81 Start: 48483, Stop: 48280, Start Num: 36

Candidate Starts for Rutherferd_81:

(Start: 36 @48483 has 222 MA's), (39, 48447), (43, 48393), (52, 48321), (54, 48291),

Gene: STLscum_85 Start: 48512, Stop: 48309, Start Num: 36

Candidate Starts for STLscum_85:

(Start: 36 @48512 has 222 MA's), (39, 48476), (43, 48422), (52, 48350), (54, 48320),

Gene: Sagefire_75 Start: 47388, Stop: 47185, Start Num: 36

Candidate Starts for Sagefire_75:

(Start: 36 @47388 has 222 MA's), (39, 47352), (52, 47226), (54, 47196),

Gene: Sandaddy_77 Start: 47892, Stop: 47689, Start Num: 36

Candidate Starts for Sandaddy_77:

(Start: 36 @47892 has 222 MA's), (39, 47856), (52, 47730), (53, 47715), (54, 47700),

Gene: Sanya_77 Start: 48025, Stop: 47822, Start Num: 36

Candidate Starts for Sanya_77:

(Start: 36 @48025 has 222 MA's), (39, 47989), (43, 47935), (52, 47863), (53, 47848), (54, 47833),

Gene: SarFire_82 Start: 49362, Stop: 49159, Start Num: 36

Candidate Starts for SarFire_82:

(Start: 36 @49362 has 222 MA's), (39, 49326), (40, 49302), (52, 49200), (54, 49170),

Gene: SarFire_94 Start: 52388, Stop: 52194, Start Num: 37

Candidate Starts for SarFire_94:

(4, 52679), (5, 52661), (7, 52649), (14, 52538), (16, 52529), (22, 52478), (Start: 37 @52388 has 5 MA's), (47, 52259), (51, 52235),

Gene: Scowl_79 Start: 47685, Stop: 47482, Start Num: 36

Candidate Starts for Scowl_79:

(Start: 36 @47685 has 222 MA's), (39, 47649), (52, 47523), (54, 47493),

Gene: Seabiscuit_90 Start: 49976, Stop: 49776, Start Num: 35

Candidate Starts for Seabiscuit_90:

(Start: 35 @49976 has 37 MA's), (Start: 37 @49970 has 5 MA's), (41, 49898), (45, 49856), (51, 49817),

Gene: Seabiscuit_79 Start: 46785, Stop: 46582, Start Num: 36

Candidate Starts for Seabiscuit_79:

(Start: 36 @46785 has 222 MA's), (39, 46749), (52, 46623), (54, 46593),

Gene: Seanderson_78 Start: 49089, Stop: 48886, Start Num: 36

Candidate Starts for Seanderson_78:

(Start: 36 @49089 has 222 MA's), (39, 49053), (43, 48999), (52, 48927), (54, 48897),

Gene: Seanderson_87 Start: 51872, Stop: 51684, Start Num: 35

Candidate Starts for Seanderson_87:

(Start: 35 @51872 has 37 MA's), (Start: 37 @51866 has 5 MA's), (41, 51794), (42, 51788), (45, 51752), (51, 51713),

Gene: ShortQueendom_73 Start: 45394, Stop: 45191, Start Num: 36

Candidate Starts for ShortQueendom_73:

(Start: 36 @45394 has 222 MA's), (39, 45358), (52, 45232), (53, 45217), (54, 45202),

Gene: Sibs6_80 Start: 45382, Stop: 45182, Start Num: 36

Candidate Starts for Sibs6_80:

(Start: 36 @45382 has 222 MA's), (39, 45346), (43, 45292), (52, 45220), (54, 45190),

Gene: SkiPole_88 Start: 49295, Stop: 49104, Start Num: 36

Candidate Starts for SkiPole_88:

(Start: 36 @49295 has 222 MA's), (46, 49166), (48, 49163), (52, 49136),

Gene: Slagathor_79 Start: 48540, Stop: 48346, Start Num: 36

Candidate Starts for Slagathor_79:

(Start: 36 @48540 has 222 MA's), (46, 48411), (52, 48381),

Gene: Smairt_84 Start: 50528, Stop: 50325, Start Num: 36

Candidate Starts for Smairt_84:

(Start: 36 @50528 has 222 MA's), (39, 50492), (52, 50366), (54, 50336),

Gene: Smeagol_82 Start: 50026, Stop: 49823, Start Num: 36

Candidate Starts for Smeagol_82:

(18, 50104), (20, 50098), (23, 50080), (Start: 36 @50026 has 222 MA's), (39, 49990), (52, 49864), (54, 49834),

Gene: Snazzy_80 Start: 48373, Stop: 48173, Start Num: 36

Candidate Starts for Snazzy_80:

(Start: 36 @48373 has 222 MA's), (39, 48337), (52, 48211),

Gene: Snazzy_90 Start: 51084, Stop: 50884, Start Num: 35

Candidate Starts for Snazzy_90:

(Start: 35 @51084 has 37 MA's), (Start: 37 @51078 has 5 MA's), (41, 51006), (42, 51000), (45, 50964), (51, 50925),

Gene: Solon_74 Start: 45832, Stop: 45629, Start Num: 36

Candidate Starts for Solon_74:

(Start: 36 @45832 has 222 MA's), (39, 45796), (43, 45742), (52, 45670), (54, 45640),

Gene: Sorpresa_78 Start: 47898, Stop: 47695, Start Num: 36

Candidate Starts for Sorpresa_78:

(Start: 36 @47898 has 222 MA's), (39, 47862), (52, 47736), (53, 47721), (54, 47706),

Gene: SpikeBT_76 Start: 46826, Stop: 46623, Start Num: 36

Candidate Starts for SpikeBT_76:

(Start: 36 @46826 has 222 MA's), (39, 46790), (52, 46664), (54, 46634),

Gene: Squee_79 Start: 47270, Stop: 47067, Start Num: 36

Candidate Starts for Squee_79:

(Start: 36 @47270 has 222 MA's), (39, 47234), (52, 47108), (54, 47078),

Gene: Squee_87 Start: 50007, Stop: 49819, Start Num: 35

Candidate Starts for Squee_87:

(Start: 34 @50010 has 1 MA's), (Start: 35 @50007 has 37 MA's), (Start: 37 @50001 has 5 MA's), (44, 49899), (47, 49872), (51, 49848),

Gene: StewieG_74 Start: 44976, Stop: 44773, Start Num: 36

Candidate Starts for StewieG_74:

(Start: 36 @44976 has 222 MA's), (39, 44940), (52, 44814), (53, 44799), (54, 44784),

Gene: StrongArm_74 Start: 47202, Stop: 46999, Start Num: 36

Candidate Starts for StrongArm_74:

(1, 47547), (2, 47511), (6, 47463), (8, 47433), (9, 47427), (15, 47346), (24, 47274), (27, 47250), (29, 47247), (Start: 36 @47202 has 222 MA's), (39, 47166), (43, 47112), (52, 47040), (54, 47010),

Gene: Sumter_76 Start: 48550, Stop: 48347, Start Num: 36

Candidate Starts for Sumter_76:

(Start: 36 @48550 has 222 MA's), (39, 48514), (43, 48460), (52, 48388), (54, 48358),

Gene: Sumter_82 Start: 49815, Stop: 49594, Start Num: 30

Candidate Starts for Sumter_82:

(Start: 30 @49815 has 5 MA's), (31, 49806),

Gene: Sunshine924_81 Start: 47337, Stop: 47134, Start Num: 36

Candidate Starts for Sunshine924_81:

(Start: 36 @47337 has 222 MA's), (39, 47301), (43, 47247), (52, 47175), (54, 47145),

Gene: SwissCheese_83 Start: 47889, Stop: 47686, Start Num: 36

Candidate Starts for SwissCheese_83:

(Start: 36 @47889 has 222 MA's), (39, 47853), (52, 47727), (54, 47697),

Gene: Switzer_87 Start: 50760, Stop: 50560, Start Num: 35

Candidate Starts for Switzer_87:

(Start: 34 @50763 has 1 MA's), (Start: 35 @50760 has 37 MA's), (Start: 37 @50754 has 5 MA's), (43, 50667), (47, 50625),

Gene: Switzer_77 Start: 47661, Stop: 47458, Start Num: 36

Candidate Starts for Switzer_77:

(Start: 36 @47661 has 222 MA's), (39, 47625), (52, 47499), (54, 47469),

Gene: Swole_81 Start: 47824, Stop: 47624, Start Num: 36

Candidate Starts for Swole_81:

(Start: 36 @47824 has 222 MA's), (39, 47788), (52, 47662), (54, 47632),

Gene: Target_78 Start: 46294, Stop: 46091, Start Num: 36

Candidate Starts for Target_78:

(27, 46336), (29, 46333), (Start: 36 @46294 has 222 MA's), (39, 46258), (43, 46204), (49, 46147), (52, 46132), (54, 46102),

Gene: Tasp14_78 Start: 47936, Stop: 47733, Start Num: 36

Candidate Starts for Tasp14_78:

(Start: 36 @47936 has 222 MA's), (39, 47900), (52, 47774), (53, 47759), (54, 47744),

Gene: Teodoridan_85 Start: 48171, Stop: 47971, Start Num: 35

Candidate Starts for Teodoridan_85:

(Start: 35 @48171 has 37 MA's), (Start: 37 @48165 has 5 MA's), (41, 48093), (42, 48087), (45, 48051), (51, 48012),

Gene: Teodoridan_76 Start: 45601, Stop: 45398, Start Num: 36

Candidate Starts for Teodoridan_76:

(26, 45664), (Start: 36 @45601 has 222 MA's), (39, 45565), (43, 45511), (52, 45439), (53, 45424), (54, 45409),

Gene: TheloniousMonk_80 Start: 48986, Stop: 48783, Start Num: 36

Candidate Starts for TheloniousMonk_80:

(25, 49046), (Start: 36 @48986 has 222 MA's), (39, 48950), (52, 48824), (54, 48794),

Gene: Thor_94 Start: 51746, Stop: 51552, Start Num: 37

Candidate Starts for Thor_94:

(4, 52037), (5, 52019), (7, 52007), (14, 51896), (16, 51887), (22, 51836), (Start: 37 @51746 has 5 MA's), (47, 51617), (51, 51593),

Gene: Thor_82 Start: 48720, Stop: 48517, Start Num: 36

Candidate Starts for Thor_82:

(Start: 36 @48720 has 222 MA's), (39, 48684), (40, 48660), (52, 48558), (54, 48528),

Gene: Topgun_75 Start: 46114, Stop: 45914, Start Num: 36

Candidate Starts for Topgun_75:

(Start: 36 @46114 has 222 MA's), (39, 46078), (52, 45952), (53, 45937), (54, 45922),

Gene: Topgun_85 Start: 48489, Stop: 48289, Start Num: 35

Candidate Starts for Topgun_85:

(Start: 35 @48489 has 37 MA's), (Start: 37 @48483 has 5 MA's), (41, 48411), (42, 48405), (45, 48369), (51, 48330),

Gene: Tote_76 Start: 45092, Stop: 44892, Start Num: 36

Candidate Starts for Tote_76:

(Start: 36 @45092 has 222 MA's), (39, 45056), (52, 44930), (54, 44900),

Gene: Traft412_78 Start: 48019, Stop: 47816, Start Num: 36

Candidate Starts for Traft412_78:

(Start: 36 @48019 has 222 MA's), (39, 47983), (52, 47857), (54, 47827),

Gene: Treddle_80 Start: 48749, Stop: 48546, Start Num: 36

Candidate Starts for Treddle_80:

(Start: 36 @48749 has 222 MA's), (39, 48713), (52, 48587), (53, 48572), (54, 48557),

Gene: Tripl3t_82 Start: 50461, Stop: 50258, Start Num: 36

Candidate Starts for Tripl3t_82:

(17, 50575), (Start: 36 @50461 has 222 MA's), (39, 50425), (43, 50371), (52, 50299), (54, 50269),

Gene: Trouble_79 Start: 48127, Stop: 47924, Start Num: 36

Candidate Starts for Trouble_79:

(Start: 36 @48127 has 222 MA's), (39, 48091), (43, 48037), (52, 47965), (54, 47935),

Gene: Trouble_85 Start: 49293, Stop: 49072, Start Num: 30

Candidate Starts for Trouble_85:

(Start: 30 @49293 has 5 MA's), (31, 49284),

Gene: Turj99_75 Start: 47479, Stop: 47276, Start Num: 36

Candidate Starts for Turj99_75:

(12, 47641), (Start: 36 @47479 has 222 MA's), (39, 47443), (52, 47317), (53, 47302), (54, 47287),

Gene: TwoPeat_78 Start: 47281, Stop: 47078, Start Num: 36

Candidate Starts for TwoPeat_78:

(Start: 36 @47281 has 222 MA's), (39, 47245), (52, 47119), (54, 47089),

Gene: U2_73 Start: 47866, Stop: 47666, Start Num: 36

Candidate Starts for U2_73:

(Start: 36 @47866 has 222 MA's), (39, 47830), (43, 47776), (52, 47704), (54, 47674),

Gene: U2_81 Start: 50965, Stop: 50765, Start Num: 35

Candidate Starts for U2_81:

(Start: 35 @50965 has 37 MA's), (Start: 37 @50959 has 5 MA's), (41, 50887), (45, 50845), (51, 50806),

Gene: Violet_74 Start: 48089, Stop: 47889, Start Num: 36

Candidate Starts for Violet_74:

(Start: 36 @48089 has 222 MA's), (52, 47927), (54, 47897),

Gene: Watermelon_82 Start: 48995, Stop: 48792, Start Num: 36

Candidate Starts for Watermelon_82:

(Start: 36 @48995 has 222 MA's), (39, 48959), (52, 48833), (54, 48803),

Gene: Wheeler_84 Start: 49724, Stop: 49521, Start Num: 36

Candidate Starts for Wheeler_84:

(Start: 36 @49724 has 222 MA's), (39, 49688), (52, 49562), (53, 49547), (54, 49532),

Gene: Whitspit_74 Start: 46046, Stop: 45831, Start Num: 36

Candidate Starts for Whitspit_74:

(Start: 36 @46046 has 222 MA's), (39, 46010), (52, 45884),

Gene: Wilkins_76 Start: 46044, Stop: 45844, Start Num: 36

Candidate Starts for Wilkins_76:

(Start: 36 @46044 has 222 MA's), (39, 46008), (52, 45882), (53, 45867), (54, 45852),

Gene: Wilkins_86 Start: 48419, Stop: 48219, Start Num: 35

Candidate Starts for Wilkins_86:

(Start: 35 @48419 has 37 MA's), (Start: 37 @48413 has 5 MA's), (41, 48341), (42, 48335), (45, 48299), (51, 48260),

Gene: Zeeculate_89 Start: 52732, Stop: 52541, Start Num: 34

Candidate Starts for Zeeculate_89:

(Start: 34 @52732 has 1 MA's), (Start: 35 @52729 has 37 MA's), (Start: 37 @52723 has 5 MA's), (43, 52636), (47, 52594),

Gene: Zeeculate_75 Start: 47813, Stop: 47610, Start Num: 36

Candidate Starts for Zeeculate_75:

(Start: 36 @47813 has 222 MA's), (39, 47777), (52, 47651), (54, 47621),

Gene: Zephyr_80 Start: 47913, Stop: 47710, Start Num: 36

Candidate Starts for Zephyr_80:

(Start: 36 @47913 has 222 MA's), (39, 47877), (52, 47751), (54, 47721),

Gene: Zephyr_89 Start: 51170, Stop: 50982, Start Num: 35

Candidate Starts for Zephyr_89:

(Start: 34 @51173 has 1 MA's), (Start: 35 @51170 has 37 MA's), (Start: 37 @51164 has 5 MA's), (43, 51077), (47, 51035),

Gene: Zeuska_82 Start: 49482, Stop: 49282, Start Num: 36

Candidate Starts for Zeuska_82:

(Start: 36 @49482 has 222 MA's), (39, 49446), (52, 49320), (54, 49290),