

Pham 290835



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 290835 Report

This analysis was run 03/28/26 on database version 641.

Pham number 290835 has 221 members, 27 are drafts.

Phages represented in each track:

- Track 1 : Kugel_44, Wheeler_43, Naira_43, Fajezeel_44, Greg_44, EnzoK_41, Zephyr_42, Buttons_41, Ohno789_43, Violet_40, Fenn_43, Acme_45, Pippin_44, Ciao_42
- Track 2 : Seabiscuit_43, BeesKnees_42, DreamCatcher_44, Dynamix_42
- Track 3 : JC27_43, Mkhuseli_42, GrecoEtereo_43, Hermia_44, Hami1_37, StrongArm_41, MaryBeth_42, Ashballer_44, Bexan_40, Inyanga_40, Perseus_43, KikiBouba_43, Gyzlar_39, Applejack_38, CartmannCramer_42, GroundGoblin_43, PowerRanger_44, CatBus_43, Papez_44, A6_39, Aeneas_44, Squee_42, Bxb1_39, BK1_39, Sunshine924_43, StewieG_41, HarryOW_41, QTRlifeCrisis_43, Abrogate_420, Noxious_43, DirtDevil_43, Aldrich_43, Mule_40, Iqorha_40, MetalQZJ_41, RidgeCB_42, Whitspit_40, Zeuska_42, Magnar_41, Watermelon_44
- Track 4 : BluSpix_39, Traft412_43, IgnatiusPatJac_41
- Track 5 : Forsytheast_42, Corvo_43, SwissCheese_44, GMonster_40, Bruns_41, Alsfro_46, Moose_42
- Track 6 : ProMouse_41
- Track 7 : Gachnar_43
- Track 8 : ProMouse_42
- Track 9 : ConceptII_44
- Track 10 : Pinto_43, Swole_43, ILeeKay_46, Alvin_41, Marcell_41, Tote_38, Marge_42, Rohr_43, JuliaChild_43, Jerm2_43, Bob3_40, Crispicous1_41, BigMau_43, Lopton_43, Rufus_43, Froghopper_41, Petruccio_42, Molly_43, MPlant7149_41, HermioneGrange_42
- Track 11 : Maroc7_41, Bigfoot_39, CactusRose_40, Raid_43, Pepe_39, Rubeus_42, Solon_42, Ruotula_44
- Track 12 : Atkinbua_43, PascalRango_42, Briton15_43
- Track 13 : KBG_44, Bones_42, BigPaolini_42, Agaliana_39, Graduation_45, Puppet_43, Doom_43, ChristmasHams_39, PacerPaul_43, Eyeball_43, Licorice_45, Francis47_42, Smairt_44
- Track 14 : Tasp14_43, Lamina13_42, Monet_46, Homines_35
- Track 15 : Dussy_44, Abbyshoes_45, Kenmech_46
- Track 16 : McSinger_43
- Track 17 : Bethlehem_41, Nhonho_42, Switzer_42, Hope4ever_43, Manatee_42, Slagathor_42, Barriga_42, Rhynn_41, Anglerfish_42, Rajelicia_41, Arcanine_41, TwoPeat_42
- Track 18 : Marchy_37, Payneful_42
- Track 19 : Carlyle_42
- Track 20 : Ajay_42, AFIS_41, Sumter_40, Kykar_42

- Track 21 : ILeeKay_45
- Track 22 : Euphoria_41, NEHalo_41, Target_43
- Track 23 : McGuire_42, KSSJEB_40
- Track 24 : LunarLander_44
- Track 25 : Ichabod_42
- Track 26 : PattyP_43
- Track 27 : Blue_42
- Track 28 : Gandalf20_43, Killigrew_42, DD5_42, Lockley_42
- Track 29 : Museum_43, Burton_42, Petp2012_43
- Track 30 : Sanya_41, Chanagan_40
- Track 31 : SkiPole_45
- Track 32 : Lesedi_40
- Track 33 : Trouble_43
- Track 34 : Blackflame_42
- Track 35 : Jasper_43, Dreamboat_43
- Track 36 : BarrowTuph_42, PhineBark_41, Levia_39
- Track 37 : Zeeculate_41
- Track 38 : Sandaddy_42, BPBiabs31_43, Mryolo_40, Beatrix_41, Sorpresa_42
- Track 39 : PinkPlastic_40
- Track 40 : SpikeBT_43, Norz_43, TheloniousMonk_43, BaconJack_45, Seanderson_44, Michley_41, GageAP_43
- Track 41 : Peterson_45
- Track 42 : Blesser_41
- Track 43 : Nerujay_44
- Track 44 : Rutherford_44, Paraselene_40, MilleFeuille_38, Marco3_43, Sagefire_44
- Track 45 : Arlo_40
- Track 46 : Dexes_42
- Track 47 : Treddle_44, Edtherson_43, Ringer_43
- Track 48 : Phlippers_41, Gompeii16_42, Wilkins_42, Topgun_42, Bircsak_42
- Track 49 : Pelly_42
- Track 50 : Kanely_43, Altman_44, PherrisBueller_42
- Track 51 : Magnito_40, Turj99_40
- Track 52 : HanShotFirst_41
- Track 53 : LilBib_42
- Track 54 : Cueylyss_43
- Track 55 : Dulcie_41
- Track 56 : Niza_44
- Track 57 : Marsha_42
- Track 58 : Smeagoi_43
- Track 59 : PhrostyMug_42
- Track 60 : Espresso_42
- Track 61 : Teodoridan_40
- Track 62 : MrGordo_41
- Track 63 : STLscum_43

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

The start number called the most often in the published annotations is 13, it was called in 169 of the 194 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- A6_39, AFIS_41, Abbyshoes_45, Abrogate_420, Acme_45, Aeneas_44, Agaliana_39, Ajay_42, Aldrich_43, Alsfro_46, Altman_44, Alvin_41, Applejack_38, Arlo_40, Ashballer_44, BK1_39, BPBiebs31_43, BaconJack_45, BarrowTuph_42, Beatrix_41, Bexan_40, BigMau_43, BigPaolini_42, Bigfoot_39, Bircsak_42, Blackflame_42, Blesser_41, BluSpix_39, Blue_42, Bob3_40, Bones_42, Bruns_41, Burton_42, Buttons_41, Bxb1_39, CactusRose_40, Carlyle_42, CartmannCramer_42, CatBus_43, Chanagan_40, ChristmasHams_39, Ciao_42, ConceptII_44, Corvo_43, Crispicous1_41, DD5_42, Dexes_42, DirtDevil_43, Doom_43, Dreamboat_43, Dulcie_41, Dussy_44, Edtherson_43, EnzoK_41, Espresso_42, Euphoria_41, Eyeball_43, Fajezeel_44, Fenn_43, Forsytheast_42, Francis47_42, Froghopper_41, GMonster_40, Gachnar_43, GageAP_43, Gandalf20_43, Gompeii16_42, Graduation_45, GrecoEtereo_43, Greg_44, GroundGoblin_43, Gyzlar_39, Hami1_37, HanShotFirst_41, HarryOW_41, Hermia_44, HermioneGrange_42, Homines_35, ILeeKay_45, ILeeKay_46, IgnatiusPatJac_41, Inyanga_40, Iqorha_40, JC27_43, Jasper_43, Jerm2_43, JuliaChild_43, KBG_44, Kanely_43, Kenmech_46, KikiBouba_43, Killigrew_42, Kugel_44, Kykar_42, Lamina13_42, Lesedi_40, Levia_39, Licorice_45, LilBib_42, Lockley_42, Lopton_43, LunarLander_44, MPlant7149_41, Magnar_41, Magnito_40, Marcell_41, Marchy_37, Marco3_43, Marge_42, Maroc7_41, MaryBeth_42, McSinger_43, MetalQZJ_41, Michley_41, MilleFeuille_38, Mkhusele_42, Molly_43, Monet_46, Moose_42, MrGordo_41, Mryolo_40, Mule_40, Museum_43, NEHalo_41, Naira_43, Nerujay_44, Niza_44, Norz_43, Noxious_43, Ohno789_43, PacerPaul_43, Papez_44, Paraselene_40, PattyP_43, Payneful_42, Pelly_42, Pepe_39, Perseus_43, Peterson_45, Petp2012_43, Petruccio_42, PherrisBueller_42, PhineBark_41, Phlipppers_41, PhrostyMug_42, PinkPlastic_40, Pinto_43, Pippin_44, PowerRanger_44, ProMouse_41, ProMouse_42, Puppet_43, QTRlifeCrisis_43, Raid_43, RidgeCB_42, Ringer_43, Rohr_43, Rubeus_42, Rufus_43, Ruotula_44, Rutherford_44, STLscum_43, Sagefire_44, Sandaddy_42, Sanya_41, Seanderson_44, SkiPole_45, Smairt_44, Smeagol_43, Solon_42, Sorpresa_42, SpikeBT_43, Squee_42, StewieG_41, StrongArm_41, Sumter_40, Sunshine924_43, SwissCheese_44, Swole_43, Target_43, Tasp14_43, Teodoridan_40, TheloniousMonk_43, Topgun_42, Tote_38, Trafft412_43, Treddle_44, Trouble_43, Turj99_40, Violet_40, Watermelon_44, Wheeler_43, Whitspit_40, Wilkins_42, Zephyr_42, Zeuska_42,

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

- Atkinbua_43, BeesKnees_42, Briton15_43, Cueyllyss_43, DreamCatcher_44, Dynamix_42, PascalRango_42, Seabiscuit_43,

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

- Anglerfish_42, Arcanine_41, Barriga_42, Bethlehem_41, Hope4ever_43, Ichabod_42, KSSJEB_40, Manatee_42, Marsha_42, McGuire_42, Nhonho_42, Rajelicia_41, Rhynn_41, Slagathor_42, Switzer_42, TwoPeat_42, Zeeculate_41,

Summary by start number:

Start 8:

- Found in 16 of 221 (7.2%) of genes in pham
- Manual Annotations of this start: 7 of 194
- Called 43.8% of time when present
- Phage (with cluster) where this start called: Atkinbua_43 (A1), BeesKnees_42 (A1), Briton15_43 (A1), DreamCatcher_44 (A1), Dynamix_42 (A1), PascalRango_42 (A1), Seabiscuit_43 (A1),

Start 9:

- Found in 2 of 221 (0.9%) of genes in pham
- Manual Annotations of this start: 2 of 194
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ichabod_42 (A1), Marsha_42 (A1),

Start 10:

- Found in 2 of 221 (0.9%) of genes in pham
- Manual Annotations of this start: 2 of 194
- Called 100.0% of time when present
- Phage (with cluster) where this start called: KSSJEB_40 (A1), McGuire_42 (A1),

Start 11:

- Found in 1 of 221 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 194
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cueyllyss_43 (A1),

Start 12:

- Found in 12 of 221 (5.4%) of genes in pham
- Manual Annotations of this start: 12 of 194
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anglerfish_42 (A1), Arcanine_41 (A1), Barriga_42 (A1), Bethlehem_41 (A1), Hope4ever_43 (A1), Manatee_42 (A1), Nhonho_42 (A1), Rajelicia_41 (A1), Rhynn_41 (A1), Slagathor_42 (A1), Switzer_42 (A1), TwoPeat_42 (A1),

Start 13:

- Found in 204 of 221 (92.3%) of genes in pham
- Manual Annotations of this start: 169 of 194
- Called 96.1% of time when present
- Phage (with cluster) where this start called: A6_39 (A1), AFIS_41 (A1), Abbyshoes_45 (A1), Abrogate_420 (A1), Acme_45 (A1), Aeneas_44 (A1), Agaliana_39 (A1), Ajay_42 (A1), Aldrich_43 (A1), Alsfro_46 (A1), Altman_44 (A1), Alvin_41 (A1), Applejack_38 (A1), Arlo_40 (A1), Ashballer_44 (A1), BK1_39 (A1), BPBiabs31_43 (A1), BaconJack_45 (A1), BarrowTuph_42 (A1), Beatrix_41 (A1), Bexan_40 (A1), BigMau_43 (A1), BigPaolini_42 (A1), Bigfoot_39 (A1), Bircsak_42 (A1), Blackflame_42 (A1), Blessor_41 (A1), BluSpix_39 (A1), Blue_42 (A1), Bob3_40 (A1), Bones_42 (A1), Bruns_41 (A1), Burton_42 (A1), Buttons_41 (A1), Bxb1_39 (A1), CactusRose_40 (A1), Carlyle_42 (A1), CartmannCramer_42 (A1), CatBus_43 (A1), Chanagan_40 (A1), ChristmasHams_39 (A1), Ciao_42 (A1), ConceptII_44 (A1), Corvo_43 (A1), Crispicous1_41 (A1), DD5_42 (A1), Dexes_42 (A1), DirtDevil_43 (A1), Doom_43 (A1), Dreamboat_43 (A1), Dulcie_41 (A1), Dussy_44 (A1), Edtherson_43 (A1), EnzoK_41 (A1), Espresso_42 (A1), Euphoria_41 (A1), Eyeball_43 (A1), Fajezeel_44 (A1), Fenn_43 (A1), Forsytheast_42 (A1), Francis47_42 (A1), Froghopper_41 (A1), GMonster_40 (A1), Gachnar_43 (A1), GageAP_43 (A1), Gandalf20_43 (A1), Gompeii16_42 (A1), Graduation_45 (A1), GrecoEtereo_43 (A1), Greg_44 (A1), GroundGoblin_43 (A1), Gyzlar_39 (A1), Hami1_37 (A1), HanShotFirst_41 (A1), HarryOW_41 (A1), Hermia_44 (A1), HermioneGrange_42 (A1), Homines_35 (A1), ILeeKay_45 (A1), ILeeKay_46 (A1), IgnatiusPatJac_41 (A1), Inyanga_40 (A1), Iqorha_40 (A1), JC27_43 (A1), Jasper_43 (A1), Jerm2_43 (A1), JuliaChild_43 (A1), KBG_44 (A1), Kanely_43 (A1),

Kenmech_46 (A1), KikiBouba_43 (A1), Killigrew_42 (A1), Kugel_44 (A1), Kykar_42 (A1), Lamina13_42 (A1), Lesedi_40 (A1), Levia_39 (A1), Licorice_45 (A1), LilBib_42 (A1), Lockley_42 (A1), Lopton_43 (A1), LunarLander_44 (A1), MPlant7149_41 (A1), Magnar_41 (A1), Magnito_40 (A1), Marcell_41 (A1), Marchy_37 (A1), Marco3_43 (A1), Marge_42 (A1), Maroc7_41 (A1), MaryBeth_42 (A1), McSinger_43 (A1), MetalQZJ_41 (A1), Michley_41 (A1), MilleFeuille_38 (A1), Mkhuseleli_42 (A1), Molly_43 (A1), Monet_46 (A1), Moose_42 (A1), MrGordo_41 (A1), Mryolo_40 (A1), Mule_40 (A1), Museum_43 (A1), NEHalo_41 (A1), Naira_43 (A1), Nerujay_44 (A1), Niza_44 (A1), Norz_43 (A1), Noxious_43 (A1), Ohno789_43 (A1), PacerPaul_43 (A1), Papez_44 (A1), Paraselene_40 (A1), PattyP_43 (A1), Payneful_42 (A1), Pelly_42 (A1), Pepe_39 (A1), Perseus_43 (A1), Peterson_45 (A1), Petp2012_43 (A1), Petruccio_42 (A1), PherrisBueller_42 (A1), PhineBark_41 (A1), Phlippers_41 (A1), PhrostyMug_42 (A1), PinkPlastic_40 (A1), Pinto_43 (A1), Pippin_44 (A1), PowerRanger_44 (A1), ProMouse_41 (A1), ProMouse_42 (A1), Puppet_43 (A1), QTRLifeCrisis_43 (A1), Raid_43 (A1), RidgeCB_42 (A1), Ringer_43 (A1), Rohr_43 (A1), Rubeus_42 (A1), Rufus_43 (A1), Ruotula_44 (A1), Rutherford_44 (A1), STLscum_43 (A1), Sagefire_44 (A1), Sandaddy_42 (A1), Sanya_41 (A1), Seanderson_44 (A1), SkiPole_45 (A1), Smairt_44 (A1), Smeagol_43 (A1), Solon_42 (A1), Sorpresa_42 (A1), SpikeBT_43 (A1), Squee_42 (A1), StewieG_41 (A1), StrongArm_41 (A1), Sumter_40 (A1), Sunshine924_43 (A1), SwissCheese_44 (A1), Swole_43 (A1), Target_43 (A1), Tasp14_43 (A1), Teodoridan_40 (A1), TheloniousMonk_43 (A1), Topgun_42 (A1), Tote_38 (A1), Traft412_43 (A1), Treddle_44 (A1), Trouble_43 (A1), Turj99_40 (A1), Violet_40 (A1), Watermelon_44 (A1), Wheeler_43 (A1), Whitspit_40 (A1), Wilkins_42 (A1), Zephyr_42 (A1), Zeuska_42 (A1),

Start 15:

- Found in 1 of 221 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 194
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Zeeculate_41 (A1),

Summary by clusters:

There is one cluster represented in this pham: A1

Info for manual annotations of cluster A1:

- Start number 8 was manually annotated 7 times for cluster A1.
- Start number 9 was manually annotated 2 times for cluster A1.
- Start number 10 was manually annotated 2 times for cluster A1.
- Start number 11 was manually annotated 1 time for cluster A1.
- Start number 12 was manually annotated 12 times for cluster A1.
- Start number 13 was manually annotated 169 times for cluster A1.
- Start number 15 was manually annotated 1 time for cluster A1.

Gene Information:

Gene: A6_39 Start: 31351, Stop: 31064, Start Num: 13

Candidate Starts for A6_39:

(Start: 13 @31351 has 169 MA's), (25, 31249), (33, 31165), (36, 31114),

Gene: AFIS_41 Start: 32120, Stop: 31854, Start Num: 13
Candidate Starts for AFIS_41:
(Start: 13 @32120 has 169 MA's), (33, 31955), (36, 31904),

Gene: Abbysshoes_45 Start: 32556, Stop: 32263, Start Num: 13
Candidate Starts for Abbysshoes_45:
(Start: 13 @32556 has 169 MA's), (19, 32496), (33, 32364), (36, 32313),

Gene: Abrogate_420 Start: 32810, Stop: 32541, Start Num: 13
Candidate Starts for Abrogate_420:
(Start: 13 @32810 has 169 MA's), (25, 32726), (33, 32642), (36, 32591),

Gene: Acme_45 Start: 32668, Stop: 32381, Start Num: 13
Candidate Starts for Acme_45:
(Start: 13 @32668 has 169 MA's), (25, 32566), (33, 32482), (36, 32431),

Gene: Aeneas_44 Start: 32342, Stop: 32055, Start Num: 13
Candidate Starts for Aeneas_44:
(Start: 13 @32342 has 169 MA's), (25, 32240), (33, 32156), (36, 32105),

Gene: Agaliana_39 Start: 29400, Stop: 29104, Start Num: 13
Candidate Starts for Agaliana_39:
(Start: 13 @29400 has 169 MA's), (19, 29340), (30, 29250), (32, 29226),

Gene: Ajay_42 Start: 31958, Stop: 31695, Start Num: 13
Candidate Starts for Ajay_42:
(Start: 13 @31958 has 169 MA's), (33, 31796), (36, 31745),

Gene: Aldrich_43 Start: 33154, Stop: 32867, Start Num: 13
Candidate Starts for Aldrich_43:
(Start: 13 @33154 has 169 MA's), (25, 33052), (33, 32968), (36, 32917),

Gene: Alsfro_46 Start: 32728, Stop: 32444, Start Num: 13
Candidate Starts for Alsfro_46:
(Start: 13 @32728 has 169 MA's), (16, 32698), (18, 32680), (28, 32617), (32, 32557), (36, 32494),

Gene: Altman_44 Start: 32975, Stop: 32700, Start Num: 13
Candidate Starts for Altman_44:
(Start: 13 @32975 has 169 MA's), (32, 32813),

Gene: Alvin_41 Start: 32479, Stop: 32210, Start Num: 13
Candidate Starts for Alvin_41:
(Start: 13 @32479 has 169 MA's), (33, 32311), (36, 32260),

Gene: Anglerfish_42 Start: 32229, Stop: 31957, Start Num: 12
Candidate Starts for Anglerfish_42:
(Start: 12 @32229 has 12 MA's), (20, 32184), (33, 32058), (36, 32007),

Gene: Applejack_38 Start: 29040, Stop: 28771, Start Num: 13
Candidate Starts for Applejack_38:
(Start: 13 @29040 has 169 MA's), (25, 28956), (33, 28872), (36, 28821),

Gene: Arcanine_41 Start: 31349, Stop: 31077, Start Num: 12

Candidate Starts for Arcanine_41:

(Start: 12 @31349 has 12 MA's), (20, 31304), (33, 31178), (36, 31127),

Gene: Arlo_40 Start: 31869, Stop: 31585, Start Num: 13

Candidate Starts for Arlo_40:

(Start: 13 @31869 has 169 MA's), (18, 31821), (25, 31770), (33, 31686), (36, 31635),

Gene: Ashballer_44 Start: 33124, Stop: 32837, Start Num: 13

Candidate Starts for Ashballer_44:

(Start: 13 @33124 has 169 MA's), (25, 33022), (33, 32938), (36, 32887),

Gene: Atkinbua_43 Start: 32341, Stop: 32033, Start Num: 8

Candidate Starts for Atkinbua_43:

(Start: 8 @32341 has 7 MA's), (Start: 13 @32308 has 169 MA's), (32, 32146),

Gene: BK1_39 Start: 31351, Stop: 31064, Start Num: 13

Candidate Starts for BK1_39:

(Start: 13 @31351 has 169 MA's), (25, 31249), (33, 31165), (36, 31114),

Gene: BPBiebs31_43 Start: 32462, Stop: 32184, Start Num: 13

Candidate Starts for BPBiebs31_43:

(Start: 13 @32462 has 169 MA's), (18, 32414), (25, 32363), (33, 32285), (36, 32234),

Gene: BaconJack_45 Start: 33097, Stop: 32810, Start Num: 13

Candidate Starts for BaconJack_45:

(Start: 13 @33097 has 169 MA's), (23, 33010), (25, 32995), (33, 32911), (36, 32860),

Gene: Barriga_42 Start: 31831, Stop: 31559, Start Num: 12

Candidate Starts for Barriga_42:

(Start: 12 @31831 has 12 MA's), (20, 31786), (33, 31660), (36, 31609),

Gene: BarrowTuph_42 Start: 32304, Stop: 32014, Start Num: 13

Candidate Starts for BarrowTuph_42:

(Start: 13 @32304 has 169 MA's), (19, 32244), (32, 32127), (36, 32064),

Gene: Beatrix_41 Start: 33308, Stop: 33030, Start Num: 13

Candidate Starts for Beatrix_41:

(Start: 13 @33308 has 169 MA's), (18, 33260), (25, 33209), (33, 33131), (36, 33080),

Gene: BeesKnees_42 Start: 31917, Stop: 31615, Start Num: 8

Candidate Starts for BeesKnees_42:

(Start: 8 @31917 has 7 MA's), (Start: 13 @31884 has 169 MA's), (32, 31728), (36, 31665),

Gene: Bethlehem_41 Start: 32590, Stop: 32318, Start Num: 12

Candidate Starts for Bethlehem_41:

(Start: 12 @32590 has 12 MA's), (20, 32545), (33, 32419), (36, 32368),

Gene: Bexan_40 Start: 32987, Stop: 32718, Start Num: 13

Candidate Starts for Bexan_40:

(Start: 13 @32987 has 169 MA's), (25, 32903), (33, 32819), (36, 32768),

Gene: BigMau_43 Start: 31979, Stop: 31692, Start Num: 13

Candidate Starts for BigMau_43:

(Start: 13 @31979 has 169 MA's), (33, 31793), (36, 31742),

Gene: BigPaolini_42 Start: 30984, Stop: 30688, Start Num: 13

Candidate Starts for BigPaolini_42:

(Start: 13 @30984 has 169 MA's), (19, 30924), (30, 30834), (32, 30810),

Gene: Bigfoot_39 Start: 31627, Stop: 31334, Start Num: 13

Candidate Starts for Bigfoot_39:

(Start: 13 @31627 has 169 MA's), (19, 31567), (33, 31435), (36, 31384),

Gene: Bircsak_42 Start: 32977, Stop: 32699, Start Num: 13

Candidate Starts for Bircsak_42:

(Start: 13 @32977 has 169 MA's), (30, 32845), (32, 32821),

Gene: Blackflame_42 Start: 31679, Stop: 31392, Start Num: 13

Candidate Starts for Blackflame_42:

(Start: 13 @31679 has 169 MA's), (23, 31592), (25, 31577), (32, 31505), (36, 31442),

Gene: Blesser_41 Start: 32354, Stop: 32091, Start Num: 13

Candidate Starts for Blesser_41:

(Start: 13 @32354 has 169 MA's), (21, 32306), (33, 32192), (36, 32141),

Gene: BluSpix_39 Start: 28079, Stop: 27792, Start Num: 13

Candidate Starts for BluSpix_39:

(Start: 13 @28079 has 169 MA's), (25, 27977), (33, 27893), (36, 27842),

Gene: Blue_42 Start: 32763, Stop: 32476, Start Num: 13

Candidate Starts for Blue_42:

(Start: 13 @32763 has 169 MA's), (25, 32661), (33, 32577), (36, 32526),

Gene: Bob3_40 Start: 31329, Stop: 31042, Start Num: 13

Candidate Starts for Bob3_40:

(Start: 13 @31329 has 169 MA's), (33, 31143), (36, 31092),

Gene: Bones_42 Start: 32480, Stop: 32184, Start Num: 13

Candidate Starts for Bones_42:

(Start: 13 @32480 has 169 MA's), (19, 32420), (30, 32330), (32, 32306),

Gene: Briton15_43 Start: 32176, Stop: 31868, Start Num: 8

Candidate Starts for Briton15_43:

(Start: 8 @32176 has 7 MA's), (Start: 13 @32143 has 169 MA's), (32, 31981),

Gene: Bruns_41 Start: 32058, Stop: 31774, Start Num: 13

Candidate Starts for Bruns_41:

(Start: 13 @32058 has 169 MA's), (16, 32028), (18, 32010), (28, 31947), (32, 31887), (36, 31824),

Gene: Burton_42 Start: 31887, Stop: 31612, Start Num: 13

Candidate Starts for Burton_42:

(2, 32100), (Start: 13 @31887 has 169 MA's), (32, 31725), (36, 31662),

Gene: Buttons_41 Start: 30867, Stop: 30580, Start Num: 13

Candidate Starts for Buttons_41:

(Start: 13 @30867 has 169 MA's), (25, 30765), (33, 30681), (36, 30630),

Gene: Bxb1_39 Start: 31929, Stop: 31642, Start Num: 13
Candidate Starts for Bxb1_39:
(Start: 13 @31929 has 169 MA's), (25, 31827), (33, 31743), (36, 31692),

Gene: CactusRose_40 Start: 31757, Stop: 31464, Start Num: 13
Candidate Starts for CactusRose_40:
(Start: 13 @31757 has 169 MA's), (19, 31697), (33, 31565), (36, 31514),

Gene: Carlyle_42 Start: 30593, Stop: 30324, Start Num: 13
Candidate Starts for Carlyle_42:
(Start: 13 @30593 has 169 MA's), (33, 30425), (36, 30374),

Gene: CartmannCramer_42 Start: 34472, Stop: 34185, Start Num: 13
Candidate Starts for CartmannCramer_42:
(Start: 13 @34472 has 169 MA's), (25, 34370), (33, 34286), (36, 34235),

Gene: CatBus_43 Start: 33346, Stop: 33059, Start Num: 13
Candidate Starts for CatBus_43:
(Start: 13 @33346 has 169 MA's), (25, 33244), (33, 33160), (36, 33109),

Gene: Chanagan_40 Start: 31424, Stop: 31164, Start Num: 13
Candidate Starts for Chanagan_40:
(Start: 13 @31424 has 169 MA's), (32, 31277), (36, 31214),

Gene: ChristmasHams_39 Start: 29874, Stop: 29578, Start Num: 13
Candidate Starts for ChristmasHams_39:
(Start: 13 @29874 has 169 MA's), (19, 29814), (30, 29724), (32, 29700),

Gene: Ciao_42 Start: 32124, Stop: 31837, Start Num: 13
Candidate Starts for Ciao_42:
(Start: 13 @32124 has 169 MA's), (25, 32022), (33, 31938), (36, 31887),

Gene: ConceptII_44 Start: 33141, Stop: 32854, Start Num: 13
Candidate Starts for ConceptII_44:
(2, 33354), (Start: 13 @33141 has 169 MA's), (25, 33039), (33, 32955), (36, 32904),

Gene: Corvo_43 Start: 32998, Stop: 32714, Start Num: 13
Candidate Starts for Corvo_43:
(Start: 13 @32998 has 169 MA's), (16, 32968), (18, 32950), (28, 32887), (32, 32827), (36, 32764),

Gene: Crispicous1_41 Start: 31747, Stop: 31478, Start Num: 13
Candidate Starts for Crispicous1_41:
(Start: 13 @31747 has 169 MA's), (33, 31579), (36, 31528),

Gene: Cueyllyss_43 Start: 32715, Stop: 32416, Start Num: 11
Candidate Starts for Cueyllyss_43:
(1, 32931), (Start: 11 @32715 has 1 MA's), (Start: 13 @32706 has 169 MA's), (26, 32604), (30, 32562),
(32, 32538),

Gene: DD5_42 Start: 33007, Stop: 32720, Start Num: 13
Candidate Starts for DD5_42:
(Start: 13 @33007 has 169 MA's), (33, 32821), (36, 32770),

Gene: Dexes_42 Start: 32732, Stop: 32454, Start Num: 13

Candidate Starts for Dexes_42:

(2, 32945), (Start: 13 @32732 has 169 MA's), (17, 32699), (33, 32555), (36, 32504),

Gene: DirtDevil_43 Start: 33154, Stop: 32867, Start Num: 13

Candidate Starts for DirtDevil_43:

(Start: 13 @33154 has 169 MA's), (25, 33052), (33, 32968), (36, 32917),

Gene: Doom_43 Start: 32905, Stop: 32609, Start Num: 13

Candidate Starts for Doom_43:

(Start: 13 @32905 has 169 MA's), (19, 32845), (30, 32755), (32, 32731),

Gene: DreamCatcher_44 Start: 33224, Stop: 32916, Start Num: 8

Candidate Starts for DreamCatcher_44:

(Start: 8 @33224 has 7 MA's), (Start: 13 @33191 has 169 MA's), (32, 33029), (36, 32966),

Gene: Dreamboat_43 Start: 31963, Stop: 31688, Start Num: 13

Candidate Starts for Dreamboat_43:

(Start: 8 @31996 has 7 MA's), (Start: 13 @31963 has 169 MA's), (32, 31801), (34, 31780), (36, 31738),

Gene: Dulcie_41 Start: 31878, Stop: 31591, Start Num: 13

Candidate Starts for Dulcie_41:

(7, 31920), (Start: 13 @31878 has 169 MA's), (25, 31776), (33, 31692), (36, 31641),

Gene: Dussy_44 Start: 32576, Stop: 32283, Start Num: 13

Candidate Starts for Dussy_44:

(Start: 13 @32576 has 169 MA's), (19, 32516), (33, 32384), (36, 32333),

Gene: Dynamix_42 Start: 31903, Stop: 31601, Start Num: 8

Candidate Starts for Dynamix_42:

(Start: 8 @31903 has 7 MA's), (Start: 13 @31870 has 169 MA's), (32, 31714), (36, 31651),

Gene: Edtherson_43 Start: 33072, Stop: 32794, Start Num: 13

Candidate Starts for Edtherson_43:

(3, 33282), (Start: 13 @33072 has 169 MA's), (33, 32895), (36, 32844),

Gene: EnzoK_41 Start: 30176, Stop: 29889, Start Num: 13

Candidate Starts for EnzoK_41:

(Start: 13 @30176 has 169 MA's), (25, 30074), (33, 29990), (36, 29939),

Gene: Espresso_42 Start: 32440, Stop: 32171, Start Num: 13

Candidate Starts for Espresso_42:

(Start: 13 @32440 has 169 MA's), (33, 32272), (36, 32221),

Gene: Euphoria_41 Start: 31928, Stop: 31635, Start Num: 13

Candidate Starts for Euphoria_41:

(Start: 13 @31928 has 169 MA's), (19, 31868), (33, 31736), (36, 31685),

Gene: Eyeball_43 Start: 32382, Stop: 32086, Start Num: 13

Candidate Starts for Eyeball_43:

(Start: 13 @32382 has 169 MA's), (19, 32322), (30, 32232), (32, 32208),

Gene: Fajezeel_44 Start: 32497, Stop: 32210, Start Num: 13
Candidate Starts for Fajezeel_44:
(Start: 13 @32497 has 169 MA's), (25, 32395), (33, 32311), (36, 32260),

Gene: Fenn_43 Start: 33821, Stop: 33534, Start Num: 13
Candidate Starts for Fenn_43:
(Start: 13 @33821 has 169 MA's), (25, 33719), (33, 33635), (36, 33584),

Gene: Forsytheast_42 Start: 32276, Stop: 31992, Start Num: 13
Candidate Starts for Forsytheast_42:
(Start: 13 @32276 has 169 MA's), (16, 32246), (18, 32228), (28, 32165), (32, 32105), (36, 32042),

Gene: Francis47_42 Start: 33244, Stop: 32948, Start Num: 13
Candidate Starts for Francis47_42:
(Start: 13 @33244 has 169 MA's), (19, 33184), (30, 33094), (32, 33070),

Gene: Froghopper_41 Start: 31912, Stop: 31643, Start Num: 13
Candidate Starts for Froghopper_41:
(Start: 13 @31912 has 169 MA's), (33, 31744), (36, 31693),

Gene: GMonster_40 Start: 31221, Stop: 30937, Start Num: 13
Candidate Starts for GMonster_40:
(Start: 13 @31221 has 169 MA's), (16, 31191), (18, 31173), (28, 31110), (32, 31050), (36, 30987),

Gene: Gachnar_43 Start: 31996, Stop: 31709, Start Num: 13
Candidate Starts for Gachnar_43:
(Start: 13 @31996 has 169 MA's), (25, 31894), (33, 31810), (36, 31759),

Gene: GageAP_43 Start: 32207, Stop: 31920, Start Num: 13
Candidate Starts for GageAP_43:
(Start: 13 @32207 has 169 MA's), (23, 32120), (25, 32105), (33, 32021), (36, 31970),

Gene: Gandalf20_43 Start: 32955, Stop: 32689, Start Num: 13
Candidate Starts for Gandalf20_43:
(Start: 13 @32955 has 169 MA's), (33, 32790), (36, 32739),

Gene: Gompeii16_42 Start: 32978, Stop: 32700, Start Num: 13
Candidate Starts for Gompeii16_42:
(Start: 13 @32978 has 169 MA's), (30, 32846), (32, 32822),

Gene: Graduation_45 Start: 33299, Stop: 33003, Start Num: 13
Candidate Starts for Graduation_45:
(Start: 13 @33299 has 169 MA's), (19, 33239), (30, 33149), (32, 33125),

Gene: GrecoEtereo_43 Start: 32600, Stop: 32331, Start Num: 13
Candidate Starts for GrecoEtereo_43:
(Start: 13 @32600 has 169 MA's), (25, 32516), (33, 32432), (36, 32381),

Gene: Greg_44 Start: 32497, Stop: 32210, Start Num: 13
Candidate Starts for Greg_44:
(Start: 13 @32497 has 169 MA's), (25, 32395), (33, 32311), (36, 32260),

Gene: GroundGoblin_43 Start: 33296, Stop: 33009, Start Num: 13

Candidate Starts for GroundGoblin_43:
(Start: 13 @33296 has 169 MA's), (25, 33194), (33, 33110), (36, 33059),

Gene: Gyzlar_39 Start: 30598, Stop: 30311, Start Num: 13
Candidate Starts for Gyzlar_39:
(Start: 13 @30598 has 169 MA's), (25, 30496), (33, 30412), (36, 30361),

Gene: Hami1_37 Start: 27036, Stop: 26749, Start Num: 13
Candidate Starts for Hami1_37:
(Start: 13 @27036 has 169 MA's), (25, 26934), (33, 26850), (36, 26799),

Gene: HanShotFirst_41 Start: 31631, Stop: 31344, Start Num: 13
Candidate Starts for HanShotFirst_41:
(Start: 13 @31631 has 169 MA's), (25, 31529), (27, 31517), (33, 31445), (36, 31394),

Gene: HarryOW_41 Start: 31772, Stop: 31503, Start Num: 13
Candidate Starts for HarryOW_41:
(Start: 13 @31772 has 169 MA's), (25, 31688), (33, 31604), (36, 31553),

Gene: Hermia_44 Start: 33346, Stop: 33059, Start Num: 13
Candidate Starts for Hermia_44:
(Start: 13 @33346 has 169 MA's), (25, 33244), (33, 33160), (36, 33109),

Gene: HermioneGrange_42 Start: 32473, Stop: 32186, Start Num: 13
Candidate Starts for HermioneGrange_42:
(Start: 13 @32473 has 169 MA's), (33, 32287), (36, 32236),

Gene: Homines_35 Start: 28560, Stop: 28273, Start Num: 13
Candidate Starts for Homines_35:
(Start: 13 @28560 has 169 MA's), (23, 28473), (25, 28458), (33, 28374), (36, 28323),

Gene: Hope4ever_43 Start: 32649, Stop: 32377, Start Num: 12
Candidate Starts for Hope4ever_43:
(Start: 12 @32649 has 12 MA's), (20, 32604), (33, 32478), (36, 32427),

Gene: ILeeKay_46 Start: 33003, Stop: 32734, Start Num: 13
Candidate Starts for ILeeKay_46:
(Start: 13 @33003 has 169 MA's), (33, 32835), (36, 32784),

Gene: ILeeKay_45 Start: 32737, Stop: 32453, Start Num: 13
Candidate Starts for ILeeKay_45:
(5, 32788), (Start: 13 @32737 has 169 MA's), (17, 32704), (32, 32575),

Gene: Ichabod_42 Start: 32035, Stop: 31742, Start Num: 9
Candidate Starts for Ichabod_42:
(Start: 9 @32035 has 2 MA's), (33, 31843), (36, 31792),

Gene: IgnatiusPatJac_41 Start: 32024, Stop: 31737, Start Num: 13
Candidate Starts for IgnatiusPatJac_41:
(Start: 13 @32024 has 169 MA's), (25, 31922), (33, 31838), (36, 31787),

Gene: Inyanga_40 Start: 31370, Stop: 31083, Start Num: 13
Candidate Starts for Inyanga_40:

(Start: 13 @31370 has 169 MA's), (25, 31268), (33, 31184), (36, 31133),

Gene: Iqorha_40 Start: 31369, Stop: 31082, Start Num: 13

Candidate Starts for Iqorha_40:

(Start: 13 @31369 has 169 MA's), (25, 31267), (33, 31183), (36, 31132),

Gene: JC27_43 Start: 32694, Stop: 32407, Start Num: 13

Candidate Starts for JC27_43:

(Start: 13 @32694 has 169 MA's), (25, 32592), (33, 32508), (36, 32457),

Gene: Jasper_43 Start: 31849, Stop: 31574, Start Num: 13

Candidate Starts for Jasper_43:

(Start: 8 @31882 has 7 MA's), (Start: 13 @31849 has 169 MA's), (32, 31687), (34, 31666), (36, 31624),

Gene: Jerm2_43 Start: 32728, Stop: 32441, Start Num: 13

Candidate Starts for Jerm2_43:

(Start: 13 @32728 has 169 MA's), (33, 32542), (36, 32491),

Gene: JuliaChild_43 Start: 32464, Stop: 32177, Start Num: 13

Candidate Starts for JuliaChild_43:

(Start: 13 @32464 has 169 MA's), (33, 32278), (36, 32227),

Gene: KBG_44 Start: 33689, Stop: 33393, Start Num: 13

Candidate Starts for KBG_44:

(Start: 13 @33689 has 169 MA's), (19, 33629), (30, 33539), (32, 33515),

Gene: KSSJEB_40 Start: 31672, Stop: 31355, Start Num: 10

Candidate Starts for KSSJEB_40:

(Start: 10 @31672 has 2 MA's), (25, 31540), (33, 31456), (36, 31405),

Gene: Kanely_43 Start: 32751, Stop: 32476, Start Num: 13

Candidate Starts for Kanely_43:

(Start: 13 @32751 has 169 MA's), (32, 32589),

Gene: Kenmech_46 Start: 33702, Stop: 33409, Start Num: 13

Candidate Starts for Kenmech_46:

(Start: 13 @33702 has 169 MA's), (19, 33642), (33, 33510), (36, 33459),

Gene: KikiBouba_43 Start: 33155, Stop: 32868, Start Num: 13

Candidate Starts for KikiBouba_43:

(Start: 13 @33155 has 169 MA's), (25, 33053), (33, 32969), (36, 32918),

Gene: Killigrew_42 Start: 32390, Stop: 32124, Start Num: 13

Candidate Starts for Killigrew_42:

(Start: 13 @32390 has 169 MA's), (33, 32225), (36, 32174),

Gene: Kugel_44 Start: 32894, Stop: 32625, Start Num: 13

Candidate Starts for Kugel_44:

(Start: 13 @32894 has 169 MA's), (25, 32810), (33, 32726), (36, 32675),

Gene: Kykar_42 Start: 32080, Stop: 31793, Start Num: 13

Candidate Starts for Kykar_42:

(Start: 13 @32080 has 169 MA's), (33, 31894), (36, 31843),

Gene: Lamina13_42 Start: 31873, Stop: 31586, Start Num: 13
Candidate Starts for Lamina13_42:
(Start: 13 @31873 has 169 MA's), (23, 31786), (25, 31771), (33, 31687), (36, 31636),

Gene: Lesedi_40 Start: 31735, Stop: 31466, Start Num: 13
Candidate Starts for Lesedi_40:
(Start: 13 @31735 has 169 MA's), (33, 31567), (36, 31516),

Gene: Levia_39 Start: 31925, Stop: 31635, Start Num: 13
Candidate Starts for Levia_39:
(Start: 13 @31925 has 169 MA's), (19, 31865), (32, 31748), (36, 31685),

Gene: Licorice_45 Start: 33580, Stop: 33284, Start Num: 13
Candidate Starts for Licorice_45:
(Start: 13 @33580 has 169 MA's), (19, 33520), (30, 33430), (32, 33406),

Gene: LilBib_42 Start: 32838, Stop: 32551, Start Num: 13
Candidate Starts for LilBib_42:
(Start: 8 @32871 has 7 MA's), (Start: 13 @32838 has 169 MA's), (25, 32736), (33, 32652), (36, 32601),

Gene: Lockley_42 Start: 32169, Stop: 31882, Start Num: 13
Candidate Starts for Lockley_42:
(Start: 13 @32169 has 169 MA's), (33, 31983), (36, 31932),

Gene: Lopton_43 Start: 33670, Stop: 33383, Start Num: 13
Candidate Starts for Lopton_43:
(Start: 13 @33670 has 169 MA's), (33, 33484), (36, 33433),

Gene: LunarLander_44 Start: 32700, Stop: 32410, Start Num: 13
Candidate Starts for LunarLander_44:
(Start: 13 @32700 has 169 MA's), (26, 32598), (30, 32556), (32, 32532),

Gene: MPlant7149_41 Start: 31538, Stop: 31251, Start Num: 13
Candidate Starts for MPlant7149_41:
(Start: 13 @31538 has 169 MA's), (33, 31352), (36, 31301),

Gene: Magnar_41 Start: 32111, Stop: 31824, Start Num: 13
Candidate Starts for Magnar_41:
(Start: 13 @32111 has 169 MA's), (25, 32009), (33, 31925), (36, 31874),

Gene: Magnito_40 Start: 31519, Stop: 31256, Start Num: 13
Candidate Starts for Magnito_40:
(4, 31672), (Start: 13 @31519 has 169 MA's), (32, 31369), (36, 31306),

Gene: Manatee_42 Start: 31549, Stop: 31277, Start Num: 12
Candidate Starts for Manatee_42:
(Start: 12 @31549 has 12 MA's), (20, 31504), (33, 31378), (36, 31327),

Gene: Marcell_41 Start: 32228, Stop: 31941, Start Num: 13
Candidate Starts for Marcell_41:
(Start: 13 @32228 has 169 MA's), (33, 32042), (36, 31991),

Gene: Marchy_37 Start: 28991, Stop: 28716, Start Num: 13

Candidate Starts for Marchy_37:

(Start: 13 @28991 has 169 MA's), (32, 28829), (36, 28766),

Gene: Marco3_43 Start: 32597, Stop: 32304, Start Num: 13

Candidate Starts for Marco3_43:

(Start: 8 @32630 has 7 MA's), (Start: 13 @32597 has 169 MA's), (19, 32537), (32, 32417), (36, 32354),

Gene: Marge_42 Start: 32616, Stop: 32329, Start Num: 13

Candidate Starts for Marge_42:

(Start: 13 @32616 has 169 MA's), (33, 32430), (36, 32379),

Gene: Maroc7_41 Start: 32085, Stop: 31792, Start Num: 13

Candidate Starts for Maroc7_41:

(Start: 13 @32085 has 169 MA's), (19, 32025), (33, 31893), (36, 31842),

Gene: Marsha_42 Start: 33305, Stop: 33012, Start Num: 9

Candidate Starts for Marsha_42:

(Start: 9 @33305 has 2 MA's), (32, 33125), (36, 33062),

Gene: MaryBeth_42 Start: 32218, Stop: 31931, Start Num: 13

Candidate Starts for MaryBeth_42:

(Start: 13 @32218 has 169 MA's), (25, 32116), (33, 32032), (36, 31981),

Gene: McGuire_42 Start: 31890, Stop: 31573, Start Num: 10

Candidate Starts for McGuire_42:

(Start: 10 @31890 has 2 MA's), (25, 31758), (33, 31674), (36, 31623),

Gene: McSinger_43 Start: 32592, Stop: 32317, Start Num: 13

Candidate Starts for McSinger_43:

(4, 32745), (Start: 13 @32592 has 169 MA's), (33, 32418), (36, 32367),

Gene: MetalQZJ_41 Start: 32218, Stop: 31931, Start Num: 13

Candidate Starts for MetalQZJ_41:

(Start: 13 @32218 has 169 MA's), (25, 32116), (33, 32032), (36, 31981),

Gene: Michley_41 Start: 31705, Stop: 31418, Start Num: 13

Candidate Starts for Michley_41:

(Start: 13 @31705 has 169 MA's), (23, 31618), (25, 31603), (33, 31519), (36, 31468),

Gene: MilleFeuille_38 Start: 32219, Stop: 31947, Start Num: 13

Candidate Starts for MilleFeuille_38:

(Start: 8 @32252 has 7 MA's), (Start: 13 @32219 has 169 MA's), (19, 32180), (32, 32060), (36, 31997),

Gene: Mkhuseli_42 Start: 31904, Stop: 31617, Start Num: 13

Candidate Starts for Mkhuseli_42:

(Start: 13 @31904 has 169 MA's), (25, 31802), (33, 31718), (36, 31667),

Gene: Molly_43 Start: 31772, Stop: 31485, Start Num: 13

Candidate Starts for Molly_43:

(Start: 13 @31772 has 169 MA's), (33, 31586), (36, 31535),

Gene: Monet_46 Start: 34034, Stop: 33747, Start Num: 13

Candidate Starts for Monet_46:

(Start: 13 @34034 has 169 MA's), (23, 33947), (25, 33932), (33, 33848), (36, 33797),

Gene: Moose_42 Start: 32276, Stop: 31992, Start Num: 13

Candidate Starts for Moose_42:

(Start: 13 @32276 has 169 MA's), (16, 32246), (18, 32228), (28, 32165), (32, 32105), (36, 32042),

Gene: MrGordo_41 Start: 31553, Stop: 31281, Start Num: 13

Candidate Starts for MrGordo_41:

(Start: 13 @31553 has 169 MA's), (29, 31424), (32, 31394), (35, 31364), (36, 31331),

Gene: Mryolo_40 Start: 31754, Stop: 31476, Start Num: 13

Candidate Starts for Mryolo_40:

(Start: 13 @31754 has 169 MA's), (18, 31706), (25, 31655), (33, 31577), (36, 31526),

Gene: Mule_40 Start: 30066, Stop: 29797, Start Num: 13

Candidate Starts for Mule_40:

(Start: 13 @30066 has 169 MA's), (25, 29982), (33, 29898), (36, 29847),

Gene: Museum_43 Start: 31826, Stop: 31551, Start Num: 13

Candidate Starts for Museum_43:

(2, 32039), (Start: 13 @31826 has 169 MA's), (32, 31664), (36, 31601),

Gene: NEHalo_41 Start: 31803, Stop: 31510, Start Num: 13

Candidate Starts for NEHalo_41:

(Start: 13 @31803 has 169 MA's), (19, 31743), (33, 31611), (36, 31560),

Gene: Naira_43 Start: 33868, Stop: 33581, Start Num: 13

Candidate Starts for Naira_43:

(Start: 13 @33868 has 169 MA's), (25, 33766), (33, 33682), (36, 33631),

Gene: Nerujay_44 Start: 32902, Stop: 32618, Start Num: 13

Candidate Starts for Nerujay_44:

(Start: 13 @32902 has 169 MA's), (17, 32866), (22, 32824), (24, 32809), (33, 32719), (36, 32668),

Gene: Nhonho_42 Start: 32575, Stop: 32303, Start Num: 12

Candidate Starts for Nhonho_42:

(Start: 12 @32575 has 12 MA's), (20, 32530), (33, 32404), (36, 32353),

Gene: Niza_44 Start: 33243, Stop: 32980, Start Num: 13

Candidate Starts for Niza_44:

(Start: 13 @33243 has 169 MA's), (32, 33093), (36, 33030),

Gene: Norz_43 Start: 32715, Stop: 32428, Start Num: 13

Candidate Starts for Norz_43:

(Start: 13 @32715 has 169 MA's), (23, 32628), (25, 32613), (33, 32529), (36, 32478),

Gene: Noxious_43 Start: 33346, Stop: 33059, Start Num: 13

Candidate Starts for Noxious_43:

(Start: 13 @33346 has 169 MA's), (25, 33244), (33, 33160), (36, 33109),

Gene: Ohno789_43 Start: 32978, Stop: 32691, Start Num: 13

Candidate Starts for Ohno789_43:

(Start: 13 @32978 has 169 MA's), (25, 32876), (33, 32792), (36, 32741),

Gene: PacerPaul_43 Start: 32611, Stop: 32315, Start Num: 13

Candidate Starts for PacerPaul_43:

(Start: 13 @32611 has 169 MA's), (19, 32551), (30, 32461), (32, 32437),

Gene: Papez_44 Start: 33929, Stop: 33642, Start Num: 13

Candidate Starts for Papez_44:

(Start: 13 @33929 has 169 MA's), (25, 33827), (33, 33743), (36, 33692),

Gene: Paraselene_40 Start: 32250, Stop: 31978, Start Num: 13

Candidate Starts for Paraselene_40:

(Start: 8 @32283 has 7 MA's), (Start: 13 @32250 has 169 MA's), (19, 32211), (32, 32091), (36, 32028),

Gene: PascalRango_42 Start: 31959, Stop: 31651, Start Num: 8

Candidate Starts for PascalRango_42:

(Start: 8 @31959 has 7 MA's), (Start: 13 @31926 has 169 MA's), (32, 31764),

Gene: PattyP_43 Start: 32119, Stop: 31841, Start Num: 13

Candidate Starts for PattyP_43:

(Start: 13 @32119 has 169 MA's), (32, 31954),

Gene: Payneful_42 Start: 31708, Stop: 31433, Start Num: 13

Candidate Starts for Payneful_42:

(Start: 13 @31708 has 169 MA's), (32, 31546), (36, 31483),

Gene: Pelly_42 Start: 32653, Stop: 32375, Start Num: 13

Candidate Starts for Pelly_42:

(3, 32863), (Start: 13 @32653 has 169 MA's), (17, 32620), (33, 32476), (36, 32425),

Gene: Pepe_39 Start: 30383, Stop: 30090, Start Num: 13

Candidate Starts for Pepe_39:

(Start: 13 @30383 has 169 MA's), (19, 30323), (33, 30191), (36, 30140),

Gene: Perseus_43 Start: 32944, Stop: 32657, Start Num: 13

Candidate Starts for Perseus_43:

(Start: 13 @32944 has 169 MA's), (25, 32842), (33, 32758), (36, 32707),

Gene: Peterson_45 Start: 34507, Stop: 34229, Start Num: 13

Candidate Starts for Peterson_45:

(Start: 13 @34507 has 169 MA's), (33, 34330), (36, 34279),

Gene: Petp2012_43 Start: 32744, Stop: 32469, Start Num: 13

Candidate Starts for Petp2012_43:

(2, 32957), (Start: 13 @32744 has 169 MA's), (32, 32582), (36, 32519),

Gene: Petruccio_42 Start: 32089, Stop: 31823, Start Num: 13

Candidate Starts for Petruccio_42:

(Start: 13 @32089 has 169 MA's), (33, 31924), (36, 31873),

Gene: PherrisBueller_42 Start: 31714, Stop: 31439, Start Num: 13

Candidate Starts for PherrisBueller_42:

(Start: 13 @31714 has 169 MA's), (32, 31552),

Gene: PhineBark_41 Start: 32943, Stop: 32653, Start Num: 13
Candidate Starts for PhineBark_41:
(Start: 13 @32943 has 169 MA's), (19, 32883), (32, 32766), (36, 32703),

Gene: Phlippers_41 Start: 33149, Stop: 32871, Start Num: 13
Candidate Starts for Phlippers_41:
(Start: 13 @33149 has 169 MA's), (30, 33017), (32, 32993),

Gene: PhrostyMug_42 Start: 32222, Stop: 31953, Start Num: 13
Candidate Starts for PhrostyMug_42:
(2, 32435), (Start: 13 @32222 has 169 MA's), (25, 32138), (33, 32054), (36, 32003),

Gene: PinkPlastic_40 Start: 31628, Stop: 31353, Start Num: 13
Candidate Starts for PinkPlastic_40:
(Start: 8 @31661 has 7 MA's), (Start: 13 @31628 has 169 MA's), (32, 31466),

Gene: Pinto_43 Start: 32048, Stop: 31785, Start Num: 13
Candidate Starts for Pinto_43:
(Start: 13 @32048 has 169 MA's), (33, 31886), (36, 31835),

Gene: Pippin_44 Start: 32541, Stop: 32254, Start Num: 13
Candidate Starts for Pippin_44:
(Start: 13 @32541 has 169 MA's), (25, 32439), (33, 32355), (36, 32304),

Gene: PowerRanger_44 Start: 33283, Stop: 32996, Start Num: 13
Candidate Starts for PowerRanger_44:
(Start: 13 @33283 has 169 MA's), (25, 33181), (33, 33097), (36, 33046),

Gene: ProMouse_41 Start: 32226, Stop: 31951, Start Num: 13
Candidate Starts for ProMouse_41:
(6, 32268), (Start: 13 @32226 has 169 MA's), (32, 32064), (36, 32001),

Gene: ProMouse_42 Start: 32459, Stop: 32223, Start Num: 13
Candidate Starts for ProMouse_42:
(Start: 13 @32459 has 169 MA's), (31, 32315),

Gene: Puppet_43 Start: 32652, Stop: 32356, Start Num: 13
Candidate Starts for Puppet_43:
(Start: 13 @32652 has 169 MA's), (19, 32592), (30, 32502), (32, 32478),

Gene: QTRlifeCrisis_43 Start: 33063, Stop: 32776, Start Num: 13
Candidate Starts for QTRlifeCrisis_43:
(Start: 13 @33063 has 169 MA's), (25, 32961), (33, 32877), (36, 32826),

Gene: Raid_43 Start: 32526, Stop: 32233, Start Num: 13
Candidate Starts for Raid_43:
(Start: 13 @32526 has 169 MA's), (19, 32466), (33, 32334), (36, 32283),

Gene: Rajelicia_41 Start: 32011, Stop: 31739, Start Num: 12
Candidate Starts for Rajelicia_41:
(Start: 12 @32011 has 12 MA's), (20, 31966), (33, 31840), (36, 31789),

Gene: Rhynn_41 Start: 32026, Stop: 31754, Start Num: 12
Candidate Starts for Rhynn_41:
(Start: 12 @32026 has 12 MA's), (20, 31981), (33, 31855), (36, 31804),

Gene: RidgeCB_42 Start: 32076, Stop: 31789, Start Num: 13
Candidate Starts for RidgeCB_42:
(Start: 13 @32076 has 169 MA's), (25, 31974), (33, 31890), (36, 31839),

Gene: Ringer_43 Start: 32905, Stop: 32642, Start Num: 13
Candidate Starts for Ringer_43:
(3, 33115), (Start: 13 @32905 has 169 MA's), (33, 32743), (36, 32692),

Gene: Rohr_43 Start: 32774, Stop: 32487, Start Num: 13
Candidate Starts for Rohr_43:
(Start: 13 @32774 has 169 MA's), (33, 32588), (36, 32537),

Gene: Rubeus_42 Start: 30560, Stop: 30267, Start Num: 13
Candidate Starts for Rubeus_42:
(Start: 13 @30560 has 169 MA's), (19, 30500), (33, 30368), (36, 30317),

Gene: Rufus_43 Start: 32397, Stop: 32110, Start Num: 13
Candidate Starts for Rufus_43:
(Start: 13 @32397 has 169 MA's), (33, 32211), (36, 32160),

Gene: Ruotula_44 Start: 33384, Stop: 33091, Start Num: 13
Candidate Starts for Ruotula_44:
(Start: 13 @33384 has 169 MA's), (19, 33324), (33, 33192), (36, 33141),

Gene: Rutherferd_44 Start: 33293, Stop: 33021, Start Num: 13
Candidate Starts for Rutherferd_44:
(Start: 8 @33326 has 7 MA's), (Start: 13 @33293 has 169 MA's), (19, 33254), (32, 33134), (36, 33071),

Gene: STLscum_43 Start: 33104, Stop: 32826, Start Num: 13
Candidate Starts for STLscum_43:
(Start: 13 @33104 has 169 MA's), (18, 33056), (25, 33005), (33, 32927),

Gene: Sagefire_44 Start: 33226, Stop: 32954, Start Num: 13
Candidate Starts for Sagefire_44:
(Start: 8 @33259 has 7 MA's), (Start: 13 @33226 has 169 MA's), (19, 33187), (32, 33067), (36, 33004),

Gene: Sandaddy_42 Start: 32672, Stop: 32394, Start Num: 13
Candidate Starts for Sandaddy_42:
(Start: 13 @32672 has 169 MA's), (18, 32624), (25, 32573), (33, 32495), (36, 32444),

Gene: Sanya_41 Start: 32962, Stop: 32687, Start Num: 13
Candidate Starts for Sanya_41:
(Start: 13 @32962 has 169 MA's), (32, 32800), (36, 32737),

Gene: Seabiscuit_43 Start: 31886, Stop: 31584, Start Num: 8
Candidate Starts for Seabiscuit_43:
(Start: 8 @31886 has 7 MA's), (Start: 13 @31853 has 169 MA's), (32, 31697), (36, 31634),

Gene: Seanderson_44 Start: 33065, Stop: 32796, Start Num: 13

Candidate Starts for Seanderson_44:
(Start: 13 @33065 has 169 MA's), (23, 32996), (25, 32981), (33, 32897), (36, 32846),

Gene: SkiPole_45 Start: 33095, Stop: 32808, Start Num: 13
Candidate Starts for SkiPole_45:
(Start: 13 @33095 has 169 MA's), (16, 33065), (18, 33047), (28, 32984), (32, 32921),

Gene: Slagathor_42 Start: 31936, Stop: 31664, Start Num: 12
Candidate Starts for Slagathor_42:
(Start: 12 @31936 has 12 MA's), (20, 31891), (33, 31765), (36, 31714),

Gene: Smairt_44 Start: 32800, Stop: 32504, Start Num: 13
Candidate Starts for Smairt_44:
(Start: 13 @32800 has 169 MA's), (19, 32740), (30, 32650), (32, 32626),

Gene: Smeagol_43 Start: 33429, Stop: 33124, Start Num: 13
Candidate Starts for Smeagol_43:
(Start: 13 @33429 has 169 MA's),

Gene: Solon_42 Start: 32559, Stop: 32266, Start Num: 13
Candidate Starts for Solon_42:
(Start: 13 @32559 has 169 MA's), (19, 32499), (33, 32367), (36, 32316),

Gene: Sorpresa_42 Start: 32674, Stop: 32396, Start Num: 13
Candidate Starts for Sorpresa_42:
(Start: 13 @32674 has 169 MA's), (18, 32626), (25, 32575), (33, 32497), (36, 32446),

Gene: SpikeBT_43 Start: 32904, Stop: 32617, Start Num: 13
Candidate Starts for SpikeBT_43:
(Start: 13 @32904 has 169 MA's), (23, 32817), (25, 32802), (33, 32718), (36, 32667),

Gene: Squee_42 Start: 32648, Stop: 32391, Start Num: 13
Candidate Starts for Squee_42:
(Start: 13 @32648 has 169 MA's), (25, 32576), (33, 32492), (36, 32441),

Gene: StewieG_41 Start: 30093, Stop: 29824, Start Num: 13
Candidate Starts for StewieG_41:
(Start: 13 @30093 has 169 MA's), (25, 30009), (33, 29925), (36, 29874),

Gene: StrongArm_41 Start: 33115, Stop: 32846, Start Num: 13
Candidate Starts for StrongArm_41:
(Start: 13 @33115 has 169 MA's), (25, 33031), (33, 32947), (36, 32896),

Gene: Sumter_40 Start: 32264, Stop: 31995, Start Num: 13
Candidate Starts for Sumter_40:
(Start: 13 @32264 has 169 MA's), (33, 32096), (36, 32045),

Gene: Sunshine924_43 Start: 31944, Stop: 31675, Start Num: 13
Candidate Starts for Sunshine924_43:
(Start: 13 @31944 has 169 MA's), (25, 31860), (33, 31776), (36, 31725),

Gene: SwissCheese_44 Start: 32776, Stop: 32492, Start Num: 13
Candidate Starts for SwissCheese_44:

(Start: 13 @32776 has 169 MA's), (16, 32746), (18, 32728), (28, 32665), (32, 32605), (36, 32542),

Gene: Switzer_42 Start: 31952, Stop: 31680, Start Num: 12

Candidate Starts for Switzer_42:

(Start: 12 @31952 has 12 MA's), (20, 31907), (33, 31781), (36, 31730),

Gene: Swole_43 Start: 31939, Stop: 31652, Start Num: 13

Candidate Starts for Swole_43:

(Start: 13 @31939 has 169 MA's), (33, 31753), (36, 31702),

Gene: Target_43 Start: 31342, Stop: 31049, Start Num: 13

Candidate Starts for Target_43:

(Start: 13 @31342 has 169 MA's), (19, 31282), (33, 31150), (36, 31099),

Gene: Tasp14_43 Start: 32497, Stop: 32210, Start Num: 13

Candidate Starts for Tasp14_43:

(Start: 13 @32497 has 169 MA's), (23, 32410), (25, 32395), (33, 32311), (36, 32260),

Gene: Teodoridan_40 Start: 31572, Stop: 31282, Start Num: 13

Candidate Starts for Teodoridan_40:

(Start: 13 @31572 has 169 MA's), (19, 31512), (32, 31395), (36, 31332),

Gene: TheloniousMonk_43 Start: 33509, Stop: 33222, Start Num: 13

Candidate Starts for TheloniousMonk_43:

(Start: 13 @33509 has 169 MA's), (23, 33422), (25, 33407), (33, 33323), (36, 33272),

Gene: Topgun_42 Start: 32088, Stop: 31810, Start Num: 13

Candidate Starts for Topgun_42:

(Start: 13 @32088 has 169 MA's), (30, 31956), (32, 31932),

Gene: Tote_38 Start: 29206, Stop: 28919, Start Num: 13

Candidate Starts for Tote_38:

(Start: 13 @29206 has 169 MA's), (33, 29020), (36, 28969),

Gene: Traft412_43 Start: 33023, Stop: 32742, Start Num: 13

Candidate Starts for Traft412_43:

(Start: 13 @33023 has 169 MA's), (25, 32921), (33, 32843), (36, 32792),

Gene: Treddle_44 Start: 33543, Stop: 33265, Start Num: 13

Candidate Starts for Treddle_44:

(3, 33753), (Start: 13 @33543 has 169 MA's), (33, 33366), (36, 33315),

Gene: Trouble_43 Start: 33193, Stop: 32909, Start Num: 13

Candidate Starts for Trouble_43:

(3, 33403), (Start: 13 @33193 has 169 MA's), (23, 33109), (33, 33010), (36, 32959),

Gene: Turj99_40 Start: 31789, Stop: 31526, Start Num: 13

Candidate Starts for Turj99_40:

(4, 31942), (Start: 13 @31789 has 169 MA's), (32, 31639), (36, 31576),

Gene: TwoPeat_42 Start: 32242, Stop: 31970, Start Num: 12

Candidate Starts for TwoPeat_42:

(Start: 12 @32242 has 12 MA's), (20, 32197), (33, 32071), (36, 32020),

Gene: Violet_40 Start: 32375, Stop: 32088, Start Num: 13
Candidate Starts for Violet_40:
(Start: 13 @32375 has 169 MA's), (25, 32273), (33, 32189), (36, 32138),

Gene: Watermelon_44 Start: 32965, Stop: 32696, Start Num: 13
Candidate Starts for Watermelon_44:
(Start: 13 @32965 has 169 MA's), (25, 32881), (33, 32797), (36, 32746),

Gene: Wheeler_43 Start: 32673, Stop: 32386, Start Num: 13
Candidate Starts for Wheeler_43:
(Start: 13 @32673 has 169 MA's), (25, 32571), (33, 32487), (36, 32436),

Gene: Whitspit_40 Start: 30389, Stop: 30120, Start Num: 13
Candidate Starts for Whitspit_40:
(Start: 13 @30389 has 169 MA's), (25, 30305), (33, 30221), (36, 30170),

Gene: Wilkins_42 Start: 32021, Stop: 31743, Start Num: 13
Candidate Starts for Wilkins_42:
(Start: 13 @32021 has 169 MA's), (30, 31889), (32, 31865),

Gene: Zeeculate_41 Start: 32615, Stop: 32361, Start Num: 15
Candidate Starts for Zeeculate_41:
(14, 32621), (Start: 15 @32615 has 1 MA's), (32, 32474), (35, 32444), (36, 32411),

Gene: Zephyr_42 Start: 32359, Stop: 32072, Start Num: 13
Candidate Starts for Zephyr_42:
(Start: 13 @32359 has 169 MA's), (25, 32257), (33, 32173), (36, 32122),

Gene: Zeuska_42 Start: 32583, Stop: 32314, Start Num: 13
Candidate Starts for Zeuska_42:
(Start: 13 @32583 has 169 MA's), (25, 32499), (33, 32415), (36, 32364),