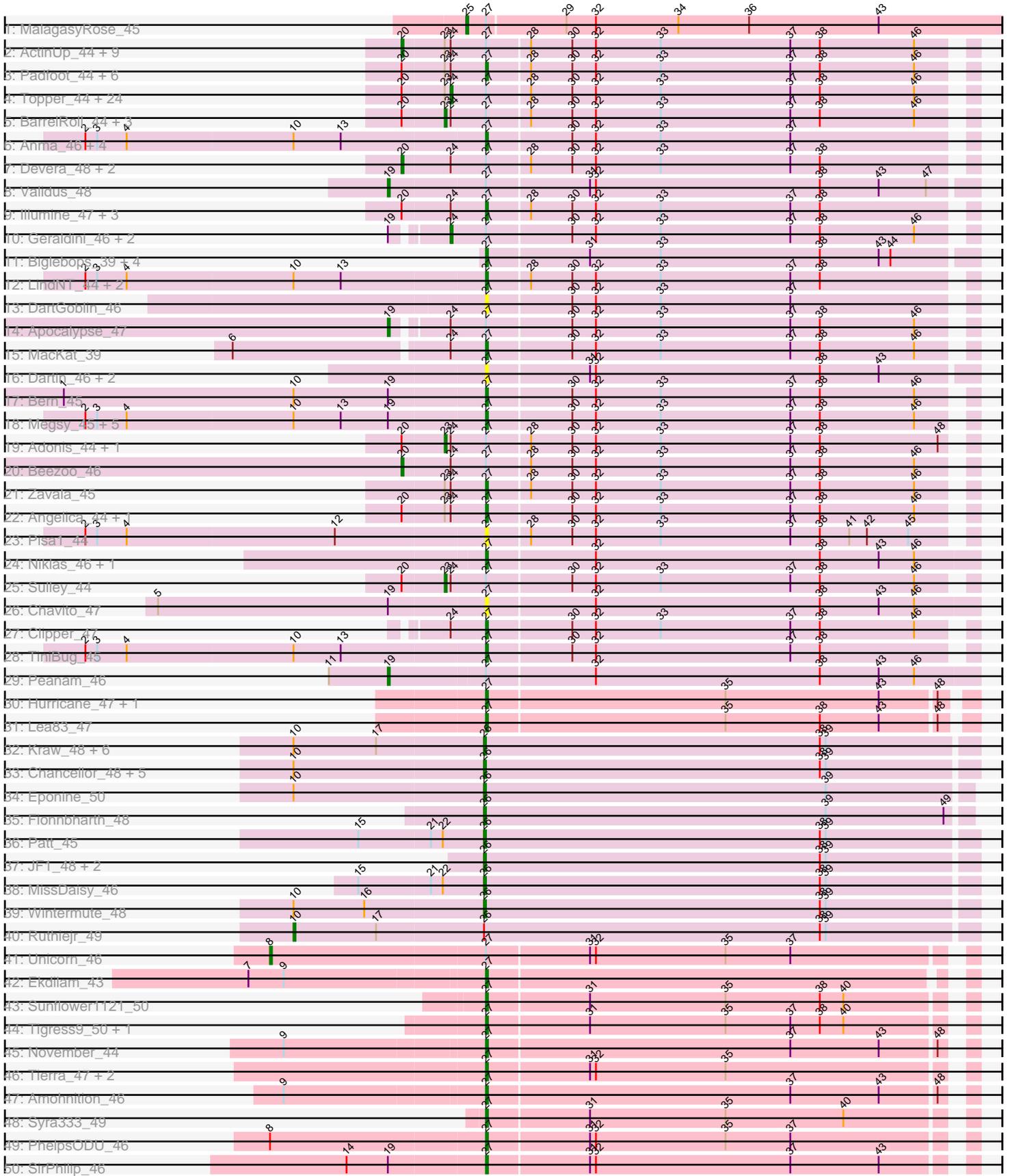
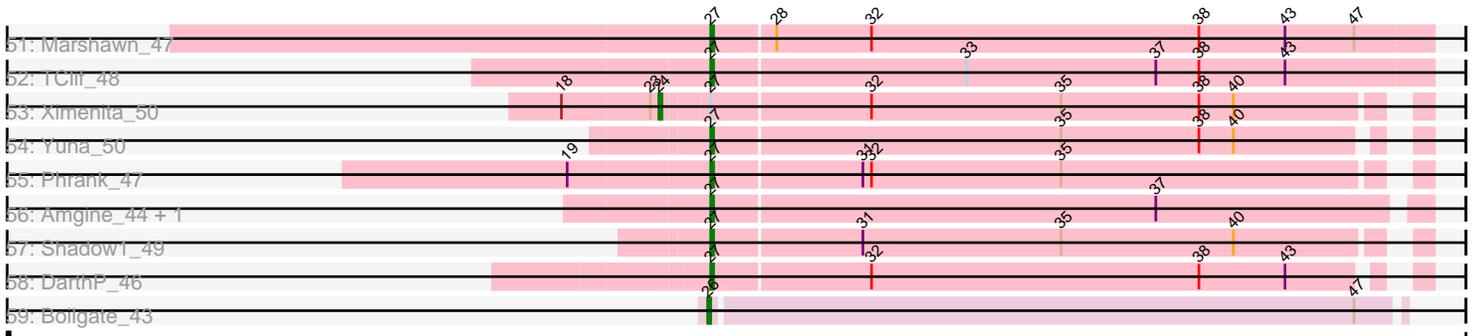


Pham 290922



Pham 290922



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 290922 Report

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

Pham number 290922 has 146 members, 11 are drafts.

Phages represented in each track:

- Track 1 : MalagasyRose_45
- Track 2 : ActinUp_44, Ramen_44, CaseJules_45, Hyperbowlee_44, Joy99_44, Blizzard_44, Atiba_44, Zabiza_39, Durfee_44, Piatt_44
- Track 3 : Padfoot_44, Jayhawk_45, Asayake_44, BEEST_44, Mynx_45, Padpat_45, ShiaSurprise_45
- Track 4 : Topper_44, Llorens_44, Dalmuri_44, Jeckyll_44, Rosmarinus_44, CREW_44, TruffulaTree_44, Boiiii_44, BGIluviae_44, CallaLilly_44, Belladonna_44, Veliki_44, Rapunzel97_44, Homura_44, Inky_44, Spock_44, Lunahalos_44, Capricorn_44, HedwigODU_44, YoureAdopted_43, Emerson_45, Jarvi_44, Twitch_44, Peel_44, Slimphazie_44
- Track 5 : BarrelRoll_44, Adephagia_44, JAWS_44, Tachez_44
- Track 6 : Anma_46, Bella96_45, Urkel_45, SamuelLPlaqson_45, DrHayes_45
- Track 7 : Devera_48, Ageofdapage_46, Murucutumbu_45
- Track 8 : Validus_48
- Track 9 : Illumine_47, LaterM_45, Stinson_45, Dole_47
- Track 10 : Geraldini_46, BaghaKamala_43, Pokerus_43
- Track 11 : Biglebops_39, Amelie_39, Nutello_39, LilPharaoh_39, Mdavu_40
- Track 12 : LindNT_44, Prithvi_45, TreyKay_45
- Track 13 : DartGoblin_46
- Track 14 : Apocalypse_47
- Track 15 : MacKat_39
- Track 16 : Dartin_46, McMater_46, Richo_46
- Track 17 : Bern_45
- Track 18 : Megsy_45, MeaningOfLife_45, Ganymede_45, Tiri_45, QuincyRose_43, CrimD_44
- Track 19 : Adonis_44, Anaya_46
- Track 20 : Beezoo_46
- Track 21 : Zavala_45
- Track 22 : Angelica_44, Deby_44
- Track 23 : Pisa1_44
- Track 24 : Niklas_46, Shaobing_46
- Track 25 : Sulley_44
- Track 26 : Chavito_47
- Track 27 : Clipper_47
- Track 28 : TiniBug_45
- Track 29 : Peanam_46
- Track 30 : Hurricane_47, Keshu_48

- Track 31 : Lea83_47
- Track 32 : Kraw_48, Reptar3000_46, Bobquesha_50, Juliette_50, YasnayaPolyana_48, OmniCritical_47, Malthus_49
- Track 33 : Chancellor_48, Mitti_48, Qhanda_50, Slarp_48, Cheetobro_48, Taquito_48
- Track 34 : Eponine_50
- Track 35 : Fionnbharth_48
- Track 36 : Patt_45
- Track 37 : JF1_48, Y10_47, Y2_47
- Track 38 : MissDaisy_46
- Track 39 : Wintermute_48
- Track 40 : Ruthiejr_49
- Track 41 : Unicorn_46
- Track 42 : Ekdilam_43
- Track 43 : Sunflower1121_50
- Track 44 : Tigress9_50, Krueger_50
- Track 45 : November_44
- Track 46 : Tierra_47, Cain_47, Bryler_47
- Track 47 : Amohnition_46
- Track 48 : Syra333_49
- Track 49 : PhelpsODU_46
- Track 50 : SirPhilip_46
- Track 51 : Marshawn_47
- Track 52 : TClif_48
- Track 53 : Ximenita_50
- Track 54 : Yuna_50
- Track 55 : Phrank_47
- Track 56 : Amgine_44, Lavahound_45
- Track 57 : Shadow1_49
- Track 58 : DarthP_46
- Track 59 : Boilgate_43

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

The start number called the most often in the published annotations is 27, it was called in 59 of the 135 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amelie_39, Amgine_44, Amohnition_46, Angelica_44, Anma_46, Asayake_44, BEEST_44, Bella96_45, Bern_45, Binglebops_39, Bryler_47, Cain_47, Chavito_47, Clipper_47, CrimD_44, DartGoblin_46, DarthP_46, Dartin_46, Deby_44, Dole_47, DrHayes_45, Ekdilam_43, Ganymede_45, Hurricane_47, Illumine_47, Jayhawk_45, Keshu_48, Krueger_50, LaterM_45, Lavahound_45, Lea83_47, LilPharaoh_39, LindNT_44, MacKat_39, Marshawn_47, McMater_46, Mdavu_40, MeaningOfLife_45, Megsy_45, Mynx_45, Niklas_46, November_44, Nutello_39, Padfoot_44, Padpat_45, PhelpsODU_46, Phrank_47, Pisa1_44, Prithvi_45, QuincyRose_43, Richo_46, SamuelLPlaqson_45, Shadow1_49, Shaobing_46, ShiaSurprise_45, SirPhilip_46, Stinson_45, Sunflower1121_50, Syra333_49, TClif_48, Tierra_47, Tigress9_50, TiniBug_45, Tiri_45, TreyKay_45, Urkel_45, Yuna_50, Zavala_45,

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

- ActinUp_44, Adephegia_44, Adonis_44, Ageofdapage_46, Anaya_46, Apocalypse_47, Atiba_44, BGlluviae_44, BaghaKamala_43, BarrelRoll_44, Beezoo_46, Belladonna_44, Blizzard_44, Boiii_44, CREW_44, CallaLilly_44, Capricorn_44, CaseJules_45, Dalmuri_44, Devera_48, Durfee_44, Emerson_45, Geraldini_46, HedwigODU_44, Homura_44, Hyperbowlee_44, Inky_44, JAWS_44, Jarvi_44, Jeckyll_44, Joy99_44, Llorens_44, Lunahalos_44, MalagasyRose_45, Murucutumbu_45, Peanam_46, Peel_44, Piatt_44, Pokerus_43, Ramen_44, Rapunzel97_44, Rosmarinus_44, Slimphazie_44, Spock_44, Sulley_44, Tachez_44, Topper_44, TruffulaTree_44, Twitch_44, Unicorn_46, Validus_48, Veliki_44, Ximenita_50, YoureAdopted_43, Zabiza_39,

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

- Bobquesha_50, Boilgate_43, Chancellor_48, Cheetobro_48, Eponine_50, Fionnbharth_48, JF1_48, Juliette_50, Kraw_48, Malthus_49, MissDaisy_46, Mitti_48, OmniCritical_47, Patt_45, Qhanda_50, Reptar3000_46, Ruthiejr_49, Slarp_48, Taquito_48, Wintermute_48, Y10_47, Y2_47, YasnayaPolyana_48,

Summary by start number:

Start 8:

- Found in 2 of 146 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 135
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Unicorn_46 (K6),

Start 10:

- Found in 32 of 146 (21.9%) of genes in pham
- Manual Annotations of this start: 1 of 135
- Called 3.1% of time when present
- Phage (with cluster) where this start called: Ruthiejr_49 (K4),

Start 19:

- Found in 16 of 146 (11.0%) of genes in pham
- Manual Annotations of this start: 3 of 135
- Called 18.8% of time when present
- Phage (with cluster) where this start called: Apocalypse_47 (K1), Peanam_46 (K1), Validus_48 (K1),

Start 20:

- Found in 59 of 146 (40.4%) of genes in pham
- Manual Annotations of this start: 14 of 135
- Called 23.7% of time when present
- Phage (with cluster) where this start called: ActinUp_44 (K1), Ageofdapage_46 (K1), Atiba_44 (K1), Beezoo_46 (K1), Blizzard_44 (K1), CaseJules_45 (K1), Devera_48 (K1), Durfee_44 (K1), Hyperbowlee_44 (K1), Joy99_44 (K1), Murucutumbu_45 (K1), Piatt_44 (K1), Ramen_44 (K1), Zabiza_39 (K1),

Start 23:

- Found in 53 of 146 (36.3%) of genes in pham
- Manual Annotations of this start: 7 of 135
- Called 13.2% of time when present

- Phage (with cluster) where this start called: Adephagia_44 (K1), Adonis_44 (K1), Anaya_46 (K1), BarrelRoll_44 (K1), JAWS_44 (K1), Sulley_44 (K1), Tachez_44 (K1),

Start 24:

- Found in 67 of 146 (45.9%) of genes in pham
- Manual Annotations of this start: 29 of 135
- Called 43.3% of time when present
- Phage (with cluster) where this start called: BGlluviae_44 (K1), BaghaKamala_43 (K1), Belladonna_44 (K1), Boiii_44 (K1), CREW_44 (K1), CallaLilly_44 (K1), Capricorn_44 (K1), Dalmuri_44 (K1), Emerson_45 (K1), Geraldini_46 (K1), HedwigODU_44 (K1), Homura_44 (K1), Inky_44 (K1), Jarvi_44 (K1), Jeckyll_44 (K1), Llorens_44 (K1), Lunahalos_44 (K1), Peel_44 (K1), Pokerus_43 (K1), Rapunzel97_44 (K1), Rosmarinus_44 (K1), Slimphazie_44 (K1), Spock_44 (K1), Topper_44 (K1), TruffulaTree_44 (K1), Twitch_44 (K1), Veliki_44 (K1), Ximenita_50 (K6), YoureAdopted_43 (K1),

Start 25:

- Found in 1 of 146 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 135
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MalagasyRose_45 (AG),

Start 26:

- Found in 23 of 146 (15.8%) of genes in pham
- Manual Annotations of this start: 20 of 135
- Called 95.7% of time when present
- Phage (with cluster) where this start called: Bobquesha_50 (K4), Boilgate_43 (K8), Chancellor_48 (K4), Cheetobro_48 (K4), Eponine_50 (K4), Fionnbharth_48 (K4), JF1_48 (K4), Juliette_50 (K4), Kraw_48 (K4), Malthus_49 (K4), MissDaisy_46 (K4), Mitti_48 (K4), OmniCritical_47 (K4), Patt_45 (K4), Qhanda_50 (K4), Reptar3000_46 (K4), Slarp_48 (K4), Taquito_48 (K4), Wintermute_48 (K4), Y10_47 (K4), Y2_47 (K4), YasnayaPolyana_48 (K4),

Start 27:

- Found in 123 of 146 (84.2%) of genes in pham
- Manual Annotations of this start: 59 of 135
- Called 55.3% of time when present
- Phage (with cluster) where this start called: Amelie_39 (K1), Amgine_44 (K6), Amohntion_46 (K6), Angelica_44 (K1), Anma_46 (K1), Asayake_44 (K1), BEEST_44 (K1), Bella96_45 (K1), Bern_45 (K1), Binglebops_39 (K1), Bryler_47 (K6), Cain_47 (K6), Chavito_47 (K1), Clipper_47 (K1), CrimD_44 (K1), DartGoblin_46 (K1), DARTH_46 (K6), Dartin_46 (K1), Deby_44 (K1), Dole_47 (K1), DrHayes_45 (K1), Ekdilam_43 (K6), Ganymede_45 (K1), Hurricane_47 (K3), Illumine_47 (K1), Jayhawk_45 (K1), Keshu_48 (K3), Krueger_50 (K6), LaterM_45 (K1), Lavahound_45 (K6), Lea83_47 (K3), LilPharaoh_39 (K1), LindNT_44 (K1), MacKat_39 (K1), Marshawn_47 (K6), McMater_46 (K1), Mdavu_40 (K1), MeaningOfLife_45 (K1), Megsy_45 (K1), Mynx_45 (K1), Niklas_46 (K1), November_44 (K6), Nutello_39 (K1), Padfoot_44 (K1), Padpat_45 (K1), PhelpsODU_46 (K6), Phrank_47 (K6), Pisa1_44 (K1), Prithvi_45 (K1), QuincyRose_43 (K1), Richo_46 (K1), SamuelLPlaqson_45 (K1), Shadow1_49 (K6), Shaobing_46 (K1), ShiaSurprise_45 (K1), SirPhilip_46 (K6), Stinson_45 (K1), Sunflower1121_50 (K6), Syra333_49 (K6), TClif_48 (K6), Tierra_47 (K6), Tigress9_50 (K6), TiniBug_45 (K1), Tiri_45 (K1), TreyKay_45 (K1), Urkel_45 (K1), Yuna_50 (K6), Zavala_45 (K1),

Summary by clusters:

There are 6 clusters represented in this pham: AG, K3, K1, K6, K4, K8,

Info for manual annotations of cluster AG:

- Start number 25 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster K1:

- Start number 19 was manually annotated 3 times for cluster K1.
- Start number 20 was manually annotated 14 times for cluster K1.
- Start number 23 was manually annotated 7 times for cluster K1.
- Start number 24 was manually annotated 28 times for cluster K1.
- Start number 27 was manually annotated 38 times for cluster K1.

Info for manual annotations of cluster K3:

- Start number 27 was manually annotated 3 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 10 was manually annotated 1 time for cluster K4.
- Start number 26 was manually annotated 19 times for cluster K4.

Info for manual annotations of cluster K6:

- Start number 8 was manually annotated 1 time for cluster K6.
- Start number 24 was manually annotated 1 time for cluster K6.
- Start number 27 was manually annotated 18 times for cluster K6.

Info for manual annotations of cluster K8:

- Start number 26 was manually annotated 1 time for cluster K8.

Gene Information:

Gene: ActinUp_44 Start: 35120, Stop: 35401, Start Num: 20

Candidate Starts for ActinUp_44:

(Start: 20 @35120 has 14 MA's), (Start: 23 @35141 has 7 MA's), (Start: 24 @35144 has 29 MA's), (Start: 27 @35162 has 59 MA's), (28, 35183), (30, 35204), (32, 35216), (33, 35249), (37, 35315), (38, 35330), (46, 35378),

Gene: Adephagia_44 Start: 35138, Stop: 35398, Start Num: 23

Candidate Starts for Adephagia_44:

(Start: 20 @35117 has 14 MA's), (Start: 23 @35138 has 7 MA's), (Start: 24 @35141 has 29 MA's), (Start: 27 @35159 has 59 MA's), (28, 35180), (30, 35201), (32, 35213), (33, 35246), (37, 35312), (38, 35327), (46, 35375),

Gene: Adonis_44 Start: 35436, Stop: 35696, Start Num: 23

Candidate Starts for Adonis_44:

(Start: 20 @35415 has 14 MA's), (Start: 23 @35436 has 7 MA's), (Start: 24 @35439 has 29 MA's), (Start: 27 @35457 has 59 MA's), (28, 35478), (30, 35499), (32, 35511), (33, 35544), (37, 35610), (38, 35625), (48, 35685),

Gene: Ageofdapage_46 Start: 36088, Stop: 36369, Start Num: 20

Candidate Starts for Ageofdapage_46:

(Start: 20 @36088 has 14 MA's), (Start: 24 @36112 has 29 MA's), (Start: 27 @36130 has 59 MA's), (28, 36151), (30, 36172), (32, 36184), (33, 36217), (37, 36283), (38, 36298),

Gene: Amelie_39 Start: 34739, Stop: 34984, Start Num: 27

Candidate Starts for Amelie_39:

(Start: 27 @34739 has 59 MA's), (31, 34790), (33, 34826), (38, 34907), (43, 34937), (44, 34943),

Gene: Amgine_44 Start: 36236, Stop: 36478, Start Num: 27

Candidate Starts for Amgine_44:

(Start: 27 @36236 has 59 MA's), (37, 36389),

Gene: Amohnition_46 Start: 36255, Stop: 36491, Start Num: 27

Candidate Starts for Amohnition_46:

(9, 36156), (Start: 27 @36255 has 59 MA's), (37, 36408), (43, 36453), (48, 36480),

Gene: Anaya_46 Start: 35748, Stop: 36008, Start Num: 23

Candidate Starts for Anaya_46:

(Start: 20 @35727 has 14 MA's), (Start: 23 @35748 has 7 MA's), (Start: 24 @35751 has 29 MA's), (Start: 27 @35769 has 59 MA's), (28, 35790), (30, 35811), (32, 35823), (33, 35856), (37, 35922), (38, 35937), (48, 35997),

Gene: Angelica_44 Start: 35389, Stop: 35628, Start Num: 27

Candidate Starts for Angelica_44:

(Start: 20 @35347 has 14 MA's), (Start: 23 @35368 has 7 MA's), (Start: 24 @35371 has 29 MA's), (Start: 27 @35389 has 59 MA's), (30, 35431), (32, 35443), (33, 35476), (37, 35542), (38, 35557), (46, 35605),

Gene: Anma_46 Start: 36056, Stop: 36295, Start Num: 27

Candidate Starts for Anma_46:

(2, 35855), (3, 35861), (4, 35876), (Start: 10 @35960 has 1 MA's), (13, 35984), (Start: 27 @36056 has 59 MA's), (30, 36098), (32, 36110), (33, 36143), (37, 36209),

Gene: Apocalypse_47 Start: 36132, Stop: 36413, Start Num: 19

Candidate Starts for Apocalypse_47:

(Start: 19 @36132 has 3 MA's), (Start: 24 @36156 has 29 MA's), (Start: 27 @36174 has 59 MA's), (30, 36216), (32, 36228), (33, 36261), (37, 36327), (38, 36342), (46, 36390),

Gene: Asayake_44 Start: 35474, Stop: 35713, Start Num: 27

Candidate Starts for Asayake_44:

(Start: 20 @35432 has 14 MA's), (Start: 23 @35453 has 7 MA's), (Start: 24 @35456 has 29 MA's), (Start: 27 @35474 has 59 MA's), (28, 35495), (30, 35516), (32, 35528), (33, 35561), (37, 35627), (38, 35642), (46, 35690),

Gene: Atiba_44 Start: 35080, Stop: 35361, Start Num: 20

Candidate Starts for Atiba_44:

(Start: 20 @35080 has 14 MA's), (Start: 23 @35101 has 7 MA's), (Start: 24 @35104 has 29 MA's), (Start: 27 @35122 has 59 MA's), (28, 35143), (30, 35164), (32, 35176), (33, 35209), (37, 35275), (38, 35290), (46, 35338),

Gene: BEEST_44 Start: 35474, Stop: 35713, Start Num: 27

Candidate Starts for BEEST_44:

(Start: 20 @35432 has 14 MA's), (Start: 23 @35453 has 7 MA's), (Start: 24 @35456 has 29 MA's), (Start: 27 @35474 has 59 MA's), (28, 35495), (30, 35516), (32, 35528), (33, 35561), (37, 35627), (38, 35642), (46, 35690),

Gene: BGlluviae_44 Start: 35259, Stop: 35516, Start Num: 24

Candidate Starts for BGlluviae_44:

(Start: 20 @35235 has 14 MA's), (Start: 23 @35256 has 7 MA's), (Start: 24 @35259 has 29 MA's), (Start: 27 @35277 has 59 MA's), (28, 35298), (30, 35319), (32, 35331), (33, 35364), (37, 35430), (38, 35445), (46, 35493),

Gene: BaghaKamala_43 Start: 34579, Stop: 34836, Start Num: 24

Candidate Starts for BaghaKamala_43:

(Start: 19 @34555 has 3 MA's), (Start: 24 @34579 has 29 MA's), (Start: 27 @34597 has 59 MA's), (30, 34639), (32, 34651), (33, 34684), (37, 34750), (38, 34765), (46, 34813),

Gene: BarrelRoll_44 Start: 35124, Stop: 35384, Start Num: 23

Candidate Starts for BarrelRoll_44:

(Start: 20 @35103 has 14 MA's), (Start: 23 @35124 has 7 MA's), (Start: 24 @35127 has 29 MA's), (Start: 27 @35145 has 59 MA's), (28, 35166), (30, 35187), (32, 35199), (33, 35232), (37, 35298), (38, 35313), (46, 35361),

Gene: Beezoo_46 Start: 36078, Stop: 36359, Start Num: 20

Candidate Starts for Beezoo_46:

(Start: 20 @36078 has 14 MA's), (Start: 24 @36102 has 29 MA's), (Start: 27 @36120 has 59 MA's), (28, 36141), (30, 36162), (32, 36174), (33, 36207), (37, 36273), (38, 36288), (46, 36336),

Gene: Bella96_45 Start: 36011, Stop: 36250, Start Num: 27

Candidate Starts for Bella96_45:

(2, 35810), (3, 35816), (4, 35831), (Start: 10 @35915 has 1 MA's), (13, 35939), (Start: 27 @36011 has 59 MA's), (30, 36053), (32, 36065), (33, 36098), (37, 36164),

Gene: Belladonna_44 Start: 35259, Stop: 35516, Start Num: 24

Candidate Starts for Belladonna_44:

(Start: 20 @35235 has 14 MA's), (Start: 23 @35256 has 7 MA's), (Start: 24 @35259 has 29 MA's), (Start: 27 @35277 has 59 MA's), (28, 35298), (30, 35319), (32, 35331), (33, 35364), (37, 35430), (38, 35445), (46, 35493),

Gene: Bern_45 Start: 34192, Stop: 34431, Start Num: 27

Candidate Starts for Bern_45:

(1, 33979), (Start: 10 @34096 has 1 MA's), (Start: 19 @34144 has 3 MA's), (Start: 27 @34192 has 59 MA's), (30, 34234), (32, 34246), (33, 34279), (37, 34345), (38, 34360), (46, 34408),

Gene: Biglebops_39 Start: 34739, Stop: 34984, Start Num: 27

Candidate Starts for Biglebops_39:

(Start: 27 @34739 has 59 MA's), (31, 34790), (33, 34826), (38, 34907), (43, 34937), (44, 34943),

Gene: Blizzard_44 Start: 35432, Stop: 35713, Start Num: 20

Candidate Starts for Blizzard_44:

(Start: 20 @35432 has 14 MA's), (Start: 23 @35453 has 7 MA's), (Start: 24 @35456 has 29 MA's), (Start: 27 @35474 has 59 MA's), (28, 35495), (30, 35516), (32, 35528), (33, 35561), (37, 35627), (38, 35642), (46, 35690),

Gene: Bobquesha_50 Start: 35544, Stop: 35792, Start Num: 26

Candidate Starts for Bobquesha_50:

(Start: 10 @35448 has 1 MA's), (17, 35490), (Start: 26 @35544 has 20 MA's), (38, 35715), (39, 35718),

Gene: Boiiii_44 Start: 35458, Stop: 35715, Start Num: 24

Candidate Starts for Boiiii_44:

(Start: 20 @35434 has 14 MA's), (Start: 23 @35455 has 7 MA's), (Start: 24 @35458 has 29 MA's),
(Start: 27 @35476 has 59 MA's), (28, 35497), (30, 35518), (32, 35530), (33, 35563), (37, 35629), (38,
35644), (46, 35692),

Gene: Boilgate_43 Start: 36328, Stop: 36564, Start Num: 26

Candidate Starts for Boilgate_43:

(Start: 26 @36328 has 20 MA's), (47, 36550),

Gene: Bryler_47 Start: 35116, Stop: 35352, Start Num: 27

Candidate Starts for Bryler_47:

(Start: 27 @35116 has 59 MA's), (31, 35167), (32, 35170), (35, 35236),

Gene: CREW_44 Start: 35259, Stop: 35516, Start Num: 24

Candidate Starts for CREW_44:

(Start: 20 @35235 has 14 MA's), (Start: 23 @35256 has 7 MA's), (Start: 24 @35259 has 29 MA's),
(Start: 27 @35277 has 59 MA's), (28, 35298), (30, 35319), (32, 35331), (33, 35364), (37, 35430), (38,
35445), (46, 35493),

Gene: Cain_47 Start: 35104, Stop: 35340, Start Num: 27

Candidate Starts for Cain_47:

(Start: 27 @35104 has 59 MA's), (31, 35155), (32, 35158), (35, 35224),

Gene: CallaLilly_44 Start: 35182, Stop: 35439, Start Num: 24

Candidate Starts for CallaLilly_44:

(Start: 20 @35158 has 14 MA's), (Start: 23 @35179 has 7 MA's), (Start: 24 @35182 has 29 MA's),
(Start: 27 @35200 has 59 MA's), (28, 35221), (30, 35242), (32, 35254), (33, 35287), (37, 35353), (38,
35368), (46, 35416),

Gene: Capricorn_44 Start: 35259, Stop: 35516, Start Num: 24

Candidate Starts for Capricorn_44:

(Start: 20 @35235 has 14 MA's), (Start: 23 @35256 has 7 MA's), (Start: 24 @35259 has 29 MA's),
(Start: 27 @35277 has 59 MA's), (28, 35298), (30, 35319), (32, 35331), (33, 35364), (37, 35430), (38,
35445), (46, 35493),

Gene: CaseJules_45 Start: 35432, Stop: 35713, Start Num: 20

Candidate Starts for CaseJules_45:

(Start: 20 @35432 has 14 MA's), (Start: 23 @35453 has 7 MA's), (Start: 24 @35456 has 29 MA's),
(Start: 27 @35474 has 59 MA's), (28, 35495), (30, 35516), (32, 35528), (33, 35561), (37, 35627), (38,
35642), (46, 35690),

Gene: Chancellor_48 Start: 36169, Stop: 36417, Start Num: 26

Candidate Starts for Chancellor_48:

(Start: 10 @36073 has 1 MA's), (Start: 26 @36169 has 20 MA's), (38, 36340), (39, 36343),

Gene: Chavito_47 Start: 36519, Stop: 36767, Start Num: 27

Candidate Starts for Chavito_47:

(5, 36354), (Start: 19 @36471 has 3 MA's), (Start: 27 @36519 has 59 MA's), (32, 36573), (38, 36687),
(43, 36717), (46, 36735),

Gene: Cheetobro_48 Start: 36166, Stop: 36414, Start Num: 26

Candidate Starts for Cheetobro_48:

(Start: 10 @36070 has 1 MA's), (Start: 26 @36166 has 20 MA's), (38, 36337), (39, 36340),

Gene: Clipper_47 Start: 35793, Stop: 36032, Start Num: 27

Candidate Starts for Clipper_47:

(Start: 24 @35775 has 29 MA's), (Start: 27 @35793 has 59 MA's), (30, 35835), (32, 35847), (33, 35880), (37, 35946), (38, 35961), (46, 36009),

Gene: CrimD_44 Start: 35400, Stop: 35639, Start Num: 27

Candidate Starts for CrimD_44:

(2, 35199), (3, 35205), (4, 35220), (Start: 10 @35304 has 1 MA's), (13, 35328), (Start: 19 @35352 has 3 MA's), (Start: 27 @35400 has 59 MA's), (30, 35442), (32, 35454), (33, 35487), (37, 35553), (38, 35568), (46, 35616),

Gene: Dalmuri_44 Start: 35259, Stop: 35516, Start Num: 24

Candidate Starts for Dalmuri_44:

(Start: 20 @35235 has 14 MA's), (Start: 23 @35256 has 7 MA's), (Start: 24 @35259 has 29 MA's), (Start: 27 @35277 has 59 MA's), (28, 35298), (30, 35319), (32, 35331), (33, 35364), (37, 35430), (38, 35445), (46, 35493),

Gene: DartGoblin_46 Start: 36004, Stop: 36243, Start Num: 27

Candidate Starts for DartGoblin_46:

(Start: 27 @36004 has 59 MA's), (30, 36046), (32, 36058), (33, 36091), (37, 36157),

Gene: DarthP_46 Start: 36145, Stop: 36378, Start Num: 27

Candidate Starts for DarthP_46:

(Start: 27 @36145 has 59 MA's), (32, 36199), (38, 36313), (43, 36343),

Gene: Dartin_46 Start: 35860, Stop: 36105, Start Num: 27

Candidate Starts for Dartin_46:

(Start: 27 @35860 has 59 MA's), (31, 35911), (32, 35914), (38, 36028), (43, 36058),

Gene: Deby_44 Start: 35405, Stop: 35644, Start Num: 27

Candidate Starts for Deby_44:

(Start: 20 @35363 has 14 MA's), (Start: 23 @35384 has 7 MA's), (Start: 24 @35387 has 29 MA's), (Start: 27 @35405 has 59 MA's), (30, 35447), (32, 35459), (33, 35492), (37, 35558), (38, 35573), (46, 35621),

Gene: Devera_48 Start: 35896, Stop: 36177, Start Num: 20

Candidate Starts for Devera_48:

(Start: 20 @35896 has 14 MA's), (Start: 24 @35920 has 29 MA's), (Start: 27 @35938 has 59 MA's), (28, 35959), (30, 35980), (32, 35992), (33, 36025), (37, 36091), (38, 36106),

Gene: Dole_47 Start: 35940, Stop: 36179, Start Num: 27

Candidate Starts for Dole_47:

(Start: 20 @35898 has 14 MA's), (Start: 24 @35922 has 29 MA's), (Start: 27 @35940 has 59 MA's), (28, 35961), (30, 35982), (32, 35994), (33, 36027), (37, 36093), (38, 36108),

Gene: DrHayes_45 Start: 36056, Stop: 36295, Start Num: 27

Candidate Starts for DrHayes_45:

(2, 35855), (3, 35861), (4, 35876), (Start: 10 @35960 has 1 MA's), (13, 35984), (Start: 27 @36056 has 59 MA's), (30, 36098), (32, 36110), (33, 36143), (37, 36209),

Gene: Durfee_44 Start: 35432, Stop: 35713, Start Num: 20

Candidate Starts for Durfee_44:

(Start: 20 @35432 has 14 MA's), (Start: 23 @35453 has 7 MA's), (Start: 24 @35456 has 29 MA's), (Start: 27 @35474 has 59 MA's), (28, 35495), (30, 35516), (32, 35528), (33, 35561), (37, 35627), (38, 35642), (46, 35690),

Gene: Ekdilam_43 Start: 35707, Stop: 35940, Start Num: 27

Candidate Starts for Ekdilam_43:

(7, 35590), (9, 35608), (Start: 27 @35707 has 59 MA's),

Gene: Emerson_45 Start: 35135, Stop: 35392, Start Num: 24

Candidate Starts for Emerson_45:

(Start: 20 @35111 has 14 MA's), (Start: 23 @35132 has 7 MA's), (Start: 24 @35135 has 29 MA's), (Start: 27 @35153 has 59 MA's), (28, 35174), (30, 35195), (32, 35207), (33, 35240), (37, 35306), (38, 35321), (46, 35369),

Gene: Eponine_50 Start: 36922, Stop: 37167, Start Num: 26

Candidate Starts for Eponine_50:

(Start: 10 @36826 has 1 MA's), (Start: 26 @36922 has 20 MA's), (39, 37096),

Gene: Fionnbharth_48 Start: 36320, Stop: 36565, Start Num: 26

Candidate Starts for Fionnbharth_48:

(Start: 26 @36320 has 20 MA's), (39, 36494), (49, 36554),

Gene: Ganymede_45 Start: 35592, Stop: 35831, Start Num: 27

Candidate Starts for Ganymede_45:

(2, 35391), (3, 35397), (4, 35412), (Start: 10 @35496 has 1 MA's), (13, 35520), (Start: 19 @35544 has 3 MA's), (Start: 27 @35592 has 59 MA's), (30, 35634), (32, 35646), (33, 35679), (37, 35745), (38, 35760), (46, 35808),

Gene: Geraldini_46 Start: 36191, Stop: 36448, Start Num: 24

Candidate Starts for Geraldini_46:

(Start: 19 @36167 has 3 MA's), (Start: 24 @36191 has 29 MA's), (Start: 27 @36209 has 59 MA's), (30, 36251), (32, 36263), (33, 36296), (37, 36362), (38, 36377), (46, 36425),

Gene: HedwigODU_44 Start: 35144, Stop: 35401, Start Num: 24

Candidate Starts for HedwigODU_44:

(Start: 20 @35120 has 14 MA's), (Start: 23 @35141 has 7 MA's), (Start: 24 @35144 has 29 MA's), (Start: 27 @35162 has 59 MA's), (28, 35183), (30, 35204), (32, 35216), (33, 35249), (37, 35315), (38, 35330), (46, 35378),

Gene: Homura_44 Start: 35259, Stop: 35516, Start Num: 24

Candidate Starts for Homura_44:

(Start: 20 @35235 has 14 MA's), (Start: 23 @35256 has 7 MA's), (Start: 24 @35259 has 29 MA's), (Start: 27 @35277 has 59 MA's), (28, 35298), (30, 35319), (32, 35331), (33, 35364), (37, 35430), (38, 35445), (46, 35493),

Gene: Hurricane_47 Start: 35860, Stop: 36099, Start Num: 27

Candidate Starts for Hurricane_47:

(Start: 27 @35860 has 59 MA's), (35, 35980), (43, 36058), (48, 36085),

Gene: Hyperbowlee_44 Start: 35432, Stop: 35713, Start Num: 20

Candidate Starts for Hyperbowlee_44:

(Start: 20 @35432 has 14 MA's), (Start: 23 @35453 has 7 MA's), (Start: 24 @35456 has 29 MA's),
(Start: 27 @35474 has 59 MA's), (28, 35495), (30, 35516), (32, 35528), (33, 35561), (37, 35627), (38,
35642), (46, 35690),

Gene: Illumine_47 Start: 35940, Stop: 36179, Start Num: 27

Candidate Starts for Illumine_47:

(Start: 20 @35898 has 14 MA's), (Start: 24 @35922 has 29 MA's), (Start: 27 @35940 has 59 MA's),
(28, 35961), (30, 35982), (32, 35994), (33, 36027), (37, 36093), (38, 36108),

Gene: Inky_44 Start: 35259, Stop: 35516, Start Num: 24

Candidate Starts for Inky_44:

(Start: 20 @35235 has 14 MA's), (Start: 23 @35256 has 7 MA's), (Start: 24 @35259 has 29 MA's),
(Start: 27 @35277 has 59 MA's), (28, 35298), (30, 35319), (32, 35331), (33, 35364), (37, 35430), (38,
35445), (46, 35493),

Gene: JAWS_44 Start: 35130, Stop: 35390, Start Num: 23

Candidate Starts for JAWS_44:

(Start: 20 @35109 has 14 MA's), (Start: 23 @35130 has 7 MA's), (Start: 24 @35133 has 29 MA's),
(Start: 27 @35151 has 59 MA's), (28, 35172), (30, 35193), (32, 35205), (33, 35238), (37, 35304), (38,
35319), (46, 35367),

Gene: JF1_48 Start: 36237, Stop: 36485, Start Num: 26

Candidate Starts for JF1_48:

(Start: 26 @36237 has 20 MA's), (38, 36408), (39, 36411),

Gene: Jarvi_44 Start: 35259, Stop: 35516, Start Num: 24

Candidate Starts for Jarvi_44:

(Start: 20 @35235 has 14 MA's), (Start: 23 @35256 has 7 MA's), (Start: 24 @35259 has 29 MA's),
(Start: 27 @35277 has 59 MA's), (28, 35298), (30, 35319), (32, 35331), (33, 35364), (37, 35430), (38,
35445), (46, 35493),

Gene: Jayhawk_45 Start: 35160, Stop: 35399, Start Num: 27

Candidate Starts for Jayhawk_45:

(Start: 20 @35118 has 14 MA's), (Start: 23 @35139 has 7 MA's), (Start: 24 @35142 has 29 MA's),
(Start: 27 @35160 has 59 MA's), (28, 35181), (30, 35202), (32, 35214), (33, 35247), (37, 35313), (38,
35328), (46, 35376),

Gene: Jeckyll_44 Start: 35259, Stop: 35516, Start Num: 24

Candidate Starts for Jeckyll_44:

(Start: 20 @35235 has 14 MA's), (Start: 23 @35256 has 7 MA's), (Start: 24 @35259 has 29 MA's),
(Start: 27 @35277 has 59 MA's), (28, 35298), (30, 35319), (32, 35331), (33, 35364), (37, 35430), (38,
35445), (46, 35493),

Gene: Joy99_44 Start: 35164, Stop: 35445, Start Num: 20

Candidate Starts for Joy99_44:

(Start: 20 @35164 has 14 MA's), (Start: 23 @35185 has 7 MA's), (Start: 24 @35188 has 29 MA's),
(Start: 27 @35206 has 59 MA's), (28, 35227), (30, 35248), (32, 35260), (33, 35293), (37, 35359), (38,
35374), (46, 35422),

Gene: Juliette_50 Start: 36393, Stop: 36641, Start Num: 26

Candidate Starts for Juliette_50:

(Start: 10 @36297 has 1 MA's), (17, 36339), (Start: 26 @36393 has 20 MA's), (38, 36564), (39, 36567),

Gene: Keshu_48 Start: 35918, Stop: 36157, Start Num: 27

Candidate Starts for Keshu_48:

(Start: 27 @35918 has 59 MA's), (35, 36038), (43, 36116), (48, 36143),

Gene: Kraw_48 Start: 36081, Stop: 36329, Start Num: 26

Candidate Starts for Kraw_48:

(Start: 10 @35985 has 1 MA's), (17, 36027), (Start: 26 @36081 has 20 MA's), (38, 36252), (39, 36255),

Gene: Krueger_50 Start: 36110, Stop: 36346, Start Num: 27

Candidate Starts for Krueger_50:

(Start: 27 @36110 has 59 MA's), (31, 36161), (35, 36230), (37, 36263), (38, 36278), (40, 36290),

Gene: LaterM_45 Start: 36054, Stop: 36293, Start Num: 27

Candidate Starts for LaterM_45:

(Start: 20 @36012 has 14 MA's), (Start: 24 @36036 has 29 MA's), (Start: 27 @36054 has 59 MA's), (28, 36075), (30, 36096), (32, 36108), (33, 36141), (37, 36207), (38, 36222),

Gene: Lavahound_45 Start: 36357, Stop: 36599, Start Num: 27

Candidate Starts for Lavahound_45:

(Start: 27 @36357 has 59 MA's), (37, 36510),

Gene: Lea83_47 Start: 35892, Stop: 36131, Start Num: 27

Candidate Starts for Lea83_47:

(Start: 27 @35892 has 59 MA's), (35, 36012), (38, 36060), (43, 36090), (48, 36117),

Gene: LilPharaoh_39 Start: 34467, Stop: 34712, Start Num: 27

Candidate Starts for LilPharaoh_39:

(Start: 27 @34467 has 59 MA's), (31, 34518), (33, 34554), (38, 34635), (43, 34665), (44, 34671),

Gene: LindNT_44 Start: 35343, Stop: 35582, Start Num: 27

Candidate Starts for LindNT_44:

(2, 35142), (3, 35148), (4, 35163), (Start: 10 @35247 has 1 MA's), (13, 35271), (Start: 27 @35343 has 59 MA's), (28, 35364), (30, 35385), (32, 35397), (33, 35430), (37, 35496), (38, 35511),

Gene: Llorens_44 Start: 35259, Stop: 35516, Start Num: 24

Candidate Starts for Llorens_44:

(Start: 20 @35235 has 14 MA's), (Start: 23 @35256 has 7 MA's), (Start: 24 @35259 has 29 MA's), (Start: 27 @35277 has 59 MA's), (28, 35298), (30, 35319), (32, 35331), (33, 35364), (37, 35430), (38, 35445), (46, 35493),

Gene: Lunahalos_44 Start: 35259, Stop: 35516, Start Num: 24

Candidate Starts for Lunahalos_44:

(Start: 20 @35235 has 14 MA's), (Start: 23 @35256 has 7 MA's), (Start: 24 @35259 has 29 MA's), (Start: 27 @35277 has 59 MA's), (28, 35298), (30, 35319), (32, 35331), (33, 35364), (37, 35430), (38, 35445), (46, 35493),

Gene: MacKat_39 Start: 30677, Stop: 30916, Start Num: 27

Candidate Starts for MacKat_39:

(6, 30554), (Start: 24 @30659 has 29 MA's), (Start: 27 @30677 has 59 MA's), (30, 30719), (32, 30731), (33, 30764), (37, 30830), (38, 30845), (46, 30893),

Gene: MalagasyRose_45 Start: 33899, Stop: 34168, Start Num: 25

Candidate Starts for MalagasyRose_45:

(Start: 25 @33899 has 1 MA's), (Start: 27 @33908 has 59 MA's), (29, 33947), (32, 33962), (34, 34004), (36, 34040), (43, 34106),

Gene: Malthus_49 Start: 36081, Stop: 36329, Start Num: 26

Candidate Starts for Malthus_49:

(Start: 10 @35985 has 1 MA's), (17, 36027), (Start: 26 @36081 has 20 MA's), (38, 36252), (39, 36255),

Gene: Marshawn_47 Start: 36184, Stop: 36432, Start Num: 27

Candidate Starts for Marshawn_47:

(Start: 27 @36184 has 59 MA's), (28, 36205), (32, 36238), (38, 36352), (43, 36382), (47, 36406),

Gene: McMater_46 Start: 35860, Stop: 36105, Start Num: 27

Candidate Starts for McMater_46:

(Start: 27 @35860 has 59 MA's), (31, 35911), (32, 35914), (38, 36028), (43, 36058),

Gene: Mdavu_40 Start: 34728, Stop: 34973, Start Num: 27

Candidate Starts for Mdavu_40:

(Start: 27 @34728 has 59 MA's), (31, 34779), (33, 34815), (38, 34896), (43, 34926), (44, 34932),

Gene: MeaningOfLife_45 Start: 36086, Stop: 36325, Start Num: 27

Candidate Starts for MeaningOfLife_45:

(2, 35885), (3, 35891), (4, 35906), (Start: 10 @35990 has 1 MA's), (13, 36014), (Start: 19 @36038 has 3 MA's), (Start: 27 @36086 has 59 MA's), (30, 36128), (32, 36140), (33, 36173), (37, 36239), (38, 36254), (46, 36302),

Gene: Megsy_45 Start: 35402, Stop: 35641, Start Num: 27

Candidate Starts for Megsy_45:

(2, 35201), (3, 35207), (4, 35222), (Start: 10 @35306 has 1 MA's), (13, 35330), (Start: 19 @35354 has 3 MA's), (Start: 27 @35402 has 59 MA's), (30, 35444), (32, 35456), (33, 35489), (37, 35555), (38, 35570), (46, 35618),

Gene: MissDaisy_46 Start: 35556, Stop: 35804, Start Num: 26

Candidate Starts for MissDaisy_46:

(15, 35493), (21, 35529), (22, 35535), (Start: 26 @35556 has 20 MA's), (38, 35727), (39, 35730),

Gene: Mitti_48 Start: 36257, Stop: 36505, Start Num: 26

Candidate Starts for Mitti_48:

(Start: 10 @36161 has 1 MA's), (Start: 26 @36257 has 20 MA's), (38, 36428), (39, 36431),

Gene: Murucutumbu_45 Start: 36105, Stop: 36386, Start Num: 20

Candidate Starts for Murucutumbu_45:

(Start: 20 @36105 has 14 MA's), (Start: 24 @36129 has 29 MA's), (Start: 27 @36147 has 59 MA's), (28, 36168), (30, 36189), (32, 36201), (33, 36234), (37, 36300), (38, 36315),

Gene: Mynx_45 Start: 35478, Stop: 35717, Start Num: 27

Candidate Starts for Mynx_45:

(Start: 20 @35436 has 14 MA's), (Start: 23 @35457 has 7 MA's), (Start: 24 @35460 has 29 MA's), (Start: 27 @35478 has 59 MA's), (28, 35499), (30, 35520), (32, 35532), (33, 35565), (37, 35631), (38, 35646), (46, 35694),

Gene: Niklas_46 Start: 35918, Stop: 36166, Start Num: 27
Candidate Starts for Niklas_46:
(Start: 27 @35918 has 59 MA's), (32, 35972), (38, 36086), (43, 36116), (46, 36134),

Gene: November_44 Start: 35863, Stop: 36099, Start Num: 27
Candidate Starts for November_44:
(9, 35764), (Start: 27 @35863 has 59 MA's), (37, 36016), (43, 36061), (48, 36088),

Gene: Nutello_39 Start: 34739, Stop: 34984, Start Num: 27
Candidate Starts for Nutello_39:
(Start: 27 @34739 has 59 MA's), (31, 34790), (33, 34826), (38, 34907), (43, 34937), (44, 34943),

Gene: OmniCritical_47 Start: 36066, Stop: 36314, Start Num: 26
Candidate Starts for OmniCritical_47:
(Start: 10 @35970 has 1 MA's), (17, 36012), (Start: 26 @36066 has 20 MA's), (38, 36237), (39, 36240),

Gene: Padfoot_44 Start: 35474, Stop: 35713, Start Num: 27
Candidate Starts for Padfoot_44:
(Start: 20 @35432 has 14 MA's), (Start: 23 @35453 has 7 MA's), (Start: 24 @35456 has 29 MA's),
(Start: 27 @35474 has 59 MA's), (28, 35495), (30, 35516), (32, 35528), (33, 35561), (37, 35627), (38,
35642), (46, 35690),

Gene: Padpat_45 Start: 35153, Stop: 35392, Start Num: 27
Candidate Starts for Padpat_45:
(Start: 20 @35111 has 14 MA's), (Start: 23 @35132 has 7 MA's), (Start: 24 @35135 has 29 MA's),
(Start: 27 @35153 has 59 MA's), (28, 35174), (30, 35195), (32, 35207), (33, 35240), (37, 35306), (38,
35321), (46, 35369),

Gene: Patt_45 Start: 35280, Stop: 35528, Start Num: 26
Candidate Starts for Patt_45:
(15, 35217), (21, 35253), (22, 35259), (Start: 26 @35280 has 20 MA's), (38, 35451), (39, 35454),

Gene: Peanam_46 Start: 35828, Stop: 36124, Start Num: 19
Candidate Starts for Peanam_46:
(11, 35798), (Start: 19 @35828 has 3 MA's), (Start: 27 @35876 has 59 MA's), (32, 35930), (38, 36044),
(43, 36074), (46, 36092),

Gene: Peel_44 Start: 35261, Stop: 35518, Start Num: 24
Candidate Starts for Peel_44:
(Start: 20 @35237 has 14 MA's), (Start: 23 @35258 has 7 MA's), (Start: 24 @35261 has 29 MA's),
(Start: 27 @35279 has 59 MA's), (28, 35300), (30, 35321), (32, 35333), (33, 35366), (37, 35432), (38,
35447), (46, 35495),

Gene: PhelpsODU_46 Start: 35137, Stop: 35373, Start Num: 27
Candidate Starts for PhelpsODU_46:
(Start: 8 @35029 has 1 MA's), (Start: 27 @35137 has 59 MA's), (31, 35188), (32, 35191), (35, 35257),
(37, 35290),

Gene: Phrank_47 Start: 35094, Stop: 35330, Start Num: 27
Candidate Starts for Phrank_47:
(Start: 19 @35046 has 3 MA's), (Start: 27 @35094 has 59 MA's), (31, 35145), (32, 35148), (35, 35214),

Gene: Piatt_44 Start: 35432, Stop: 35713, Start Num: 20

Candidate Starts for Piatt_44:

(Start: 20 @35432 has 14 MA's), (Start: 23 @35453 has 7 MA's), (Start: 24 @35456 has 29 MA's), (Start: 27 @35474 has 59 MA's), (28, 35495), (30, 35516), (32, 35528), (33, 35561), (37, 35627), (38, 35642), (46, 35690),

Gene: Pisa1_44 Start: 36447, Stop: 36686, Start Num: 27

Candidate Starts for Pisa1_44:

(2, 36246), (3, 36252), (4, 36267), (12, 36372), (Start: 27 @36447 has 59 MA's), (28, 36468), (30, 36489), (32, 36501), (33, 36534), (37, 36600), (38, 36615), (41, 36630), (42, 36639), (45, 36660),

Gene: Pokerus_43 Start: 35182, Stop: 35439, Start Num: 24

Candidate Starts for Pokerus_43:

(Start: 19 @35158 has 3 MA's), (Start: 24 @35182 has 29 MA's), (Start: 27 @35200 has 59 MA's), (30, 35242), (32, 35254), (33, 35287), (37, 35353), (38, 35368), (46, 35416),

Gene: Prithvi_45 Start: 35343, Stop: 35582, Start Num: 27

Candidate Starts for Prithvi_45:

(2, 35142), (3, 35148), (4, 35163), (Start: 10 @35247 has 1 MA's), (13, 35271), (Start: 27 @35343 has 59 MA's), (28, 35364), (30, 35385), (32, 35397), (33, 35430), (37, 35496), (38, 35511),

Gene: Qhanda_50 Start: 36178, Stop: 36426, Start Num: 26

Candidate Starts for Qhanda_50:

(Start: 10 @36082 has 1 MA's), (Start: 26 @36178 has 20 MA's), (38, 36349), (39, 36352),

Gene: QuincyRose_43 Start: 35592, Stop: 35831, Start Num: 27

Candidate Starts for QuincyRose_43:

(2, 35391), (3, 35397), (4, 35412), (Start: 10 @35496 has 1 MA's), (13, 35520), (Start: 19 @35544 has 3 MA's), (Start: 27 @35592 has 59 MA's), (30, 35634), (32, 35646), (33, 35679), (37, 35745), (38, 35760), (46, 35808),

Gene: Ramen_44 Start: 35122, Stop: 35403, Start Num: 20

Candidate Starts for Ramen_44:

(Start: 20 @35122 has 14 MA's), (Start: 23 @35143 has 7 MA's), (Start: 24 @35146 has 29 MA's), (Start: 27 @35164 has 59 MA's), (28, 35185), (30, 35206), (32, 35218), (33, 35251), (37, 35317), (38, 35332), (46, 35380),

Gene: Rapunzel97_44 Start: 35142, Stop: 35399, Start Num: 24

Candidate Starts for Rapunzel97_44:

(Start: 20 @35118 has 14 MA's), (Start: 23 @35139 has 7 MA's), (Start: 24 @35142 has 29 MA's), (Start: 27 @35160 has 59 MA's), (28, 35181), (30, 35202), (32, 35214), (33, 35247), (37, 35313), (38, 35328), (46, 35376),

Gene: Reptar3000_46 Start: 35271, Stop: 35519, Start Num: 26

Candidate Starts for Reptar3000_46:

(Start: 10 @35175 has 1 MA's), (17, 35217), (Start: 26 @35271 has 20 MA's), (38, 35442), (39, 35445),

Gene: Richo_46 Start: 35860, Stop: 36105, Start Num: 27

Candidate Starts for Richo_46:

(Start: 27 @35860 has 59 MA's), (31, 35911), (32, 35914), (38, 36028), (43, 36058),

Gene: Rosmarinus_44 Start: 35247, Stop: 35504, Start Num: 24

Candidate Starts for Rosmarinus_44:

(Start: 20 @35223 has 14 MA's), (Start: 23 @35244 has 7 MA's), (Start: 24 @35247 has 29 MA's), (Start: 27 @35265 has 59 MA's), (28, 35286), (30, 35307), (32, 35319), (33, 35352), (37, 35418), (38, 35433), (46, 35481),

Gene: Ruthiejr_49 Start: 36035, Stop: 36379, Start Num: 10

Candidate Starts for Ruthiejr_49:

(Start: 10 @36035 has 1 MA's), (17, 36077), (Start: 26 @36131 has 20 MA's), (38, 36302), (39, 36305),

Gene: SamuelLPlaqson_45 Start: 36056, Stop: 36295, Start Num: 27

Candidate Starts for SamuelLPlaqson_45:

(2, 35855), (3, 35861), (4, 35876), (Start: 10 @35960 has 1 MA's), (13, 35984), (Start: 27 @36056 has 59 MA's), (30, 36098), (32, 36110), (33, 36143), (37, 36209),

Gene: Shadow1_49 Start: 36255, Stop: 36491, Start Num: 27

Candidate Starts for Shadow1_49:

(Start: 27 @36255 has 59 MA's), (31, 36306), (35, 36375), (40, 36435),

Gene: Shaobing_46 Start: 35893, Stop: 36141, Start Num: 27

Candidate Starts for Shaobing_46:

(Start: 27 @35893 has 59 MA's), (32, 35947), (38, 36061), (43, 36091), (46, 36109),

Gene: ShiaSurprise_45 Start: 35474, Stop: 35713, Start Num: 27

Candidate Starts for ShiaSurprise_45:

(Start: 20 @35432 has 14 MA's), (Start: 23 @35453 has 7 MA's), (Start: 24 @35456 has 29 MA's), (Start: 27 @35474 has 59 MA's), (28, 35495), (30, 35516), (32, 35528), (33, 35561), (37, 35627), (38, 35642), (46, 35690),

Gene: SirPhilip_46 Start: 36474, Stop: 36710, Start Num: 27

Candidate Starts for SirPhilip_46:

(14, 36405), (Start: 19 @36426 has 3 MA's), (Start: 27 @36474 has 59 MA's), (31, 36525), (32, 36528), (37, 36627), (43, 36672),

Gene: Slarp_48 Start: 36169, Stop: 36417, Start Num: 26

Candidate Starts for Slarp_48:

(Start: 10 @36073 has 1 MA's), (Start: 26 @36169 has 20 MA's), (38, 36340), (39, 36343),

Gene: Slimphazie_44 Start: 35142, Stop: 35399, Start Num: 24

Candidate Starts for Slimphazie_44:

(Start: 20 @35118 has 14 MA's), (Start: 23 @35139 has 7 MA's), (Start: 24 @35142 has 29 MA's), (Start: 27 @35160 has 59 MA's), (28, 35181), (30, 35202), (32, 35214), (33, 35247), (37, 35313), (38, 35328), (46, 35376),

Gene: Spock_44 Start: 35260, Stop: 35517, Start Num: 24

Candidate Starts for Spock_44:

(Start: 20 @35236 has 14 MA's), (Start: 23 @35257 has 7 MA's), (Start: 24 @35260 has 29 MA's), (Start: 27 @35278 has 59 MA's), (28, 35299), (30, 35320), (32, 35332), (33, 35365), (37, 35431), (38, 35446), (46, 35494),

Gene: Stinson_45 Start: 35667, Stop: 35906, Start Num: 27

Candidate Starts for Stinson_45:

(Start: 20 @35625 has 14 MA's), (Start: 24 @35649 has 29 MA's), (Start: 27 @35667 has 59 MA's), (28, 35688), (30, 35709), (32, 35721), (33, 35754), (37, 35820), (38, 35835),

Gene: Sulley_44 Start: 35383, Stop: 35643, Start Num: 23

Candidate Starts for Sulley_44:

(Start: 20 @35362 has 14 MA's), (Start: 23 @35383 has 7 MA's), (Start: 24 @35386 has 29 MA's), (Start: 27 @35404 has 59 MA's), (30, 35446), (32, 35458), (33, 35491), (37, 35557), (38, 35572), (46, 35620),

Gene: Sunflower1121_50 Start: 36356, Stop: 36592, Start Num: 27

Candidate Starts for Sunflower1121_50:

(Start: 27 @36356 has 59 MA's), (31, 36407), (35, 36476), (38, 36524), (40, 36536),

Gene: Syra333_49 Start: 36023, Stop: 36259, Start Num: 27

Candidate Starts for Syra333_49:

(Start: 27 @36023 has 59 MA's), (31, 36074), (35, 36143), (40, 36203),

Gene: TClif_48 Start: 36322, Stop: 36570, Start Num: 27

Candidate Starts for TClif_48:

(Start: 27 @36322 has 59 MA's), (33, 36409), (37, 36475), (38, 36490), (43, 36520),

Gene: Tachez_44 Start: 35101, Stop: 35361, Start Num: 23

Candidate Starts for Tachez_44:

(Start: 20 @35080 has 14 MA's), (Start: 23 @35101 has 7 MA's), (Start: 24 @35104 has 29 MA's), (Start: 27 @35122 has 59 MA's), (28, 35143), (30, 35164), (32, 35176), (33, 35209), (37, 35275), (38, 35290), (46, 35338),

Gene: Taquito_48 Start: 36416, Stop: 36664, Start Num: 26

Candidate Starts for Taquito_48:

(Start: 10 @36320 has 1 MA's), (Start: 26 @36416 has 20 MA's), (38, 36587), (39, 36590),

Gene: Tierra_47 Start: 35905, Stop: 36141, Start Num: 27

Candidate Starts for Tierra_47:

(Start: 27 @35905 has 59 MA's), (31, 35956), (32, 35959), (35, 36025),

Gene: Tigress9_50 Start: 36110, Stop: 36346, Start Num: 27

Candidate Starts for Tigress9_50:

(Start: 27 @36110 has 59 MA's), (31, 36161), (35, 36230), (37, 36263), (38, 36278), (40, 36290),

Gene: TiniBug_45 Start: 36052, Stop: 36291, Start Num: 27

Candidate Starts for TiniBug_45:

(2, 35851), (3, 35857), (4, 35872), (Start: 10 @35956 has 1 MA's), (13, 35980), (Start: 27 @36052 has 59 MA's), (30, 36094), (32, 36106), (37, 36205), (38, 36220),

Gene: Tiri_45 Start: 35452, Stop: 35691, Start Num: 27

Candidate Starts for Tiri_45:

(2, 35251), (3, 35257), (4, 35272), (Start: 10 @35356 has 1 MA's), (13, 35380), (Start: 19 @35404 has 3 MA's), (Start: 27 @35452 has 59 MA's), (30, 35494), (32, 35506), (33, 35539), (37, 35605), (38, 35620), (46, 35668),

Gene: Topper_44 Start: 35259, Stop: 35516, Start Num: 24

Candidate Starts for Topper_44:

(Start: 20 @35235 has 14 MA's), (Start: 23 @35256 has 7 MA's), (Start: 24 @35259 has 29 MA's), (Start: 27 @35277 has 59 MA's), (28, 35298), (30, 35319), (32, 35331), (33, 35364), (37, 35430), (38, 35445), (46, 35493),

Gene: TreyKay_45 Start: 35343, Stop: 35582, Start Num: 27

Candidate Starts for TreyKay_45:

(2, 35142), (3, 35148), (4, 35163), (Start: 10 @35247 has 1 MA's), (13, 35271), (Start: 27 @35343 has 59 MA's), (28, 35364), (30, 35385), (32, 35397), (33, 35430), (37, 35496), (38, 35511),

Gene: TruffulaTree_44 Start: 35138, Stop: 35395, Start Num: 24

Candidate Starts for TruffulaTree_44:

(Start: 20 @35114 has 14 MA's), (Start: 23 @35135 has 7 MA's), (Start: 24 @35138 has 29 MA's), (Start: 27 @35156 has 59 MA's), (28, 35177), (30, 35198), (32, 35210), (33, 35243), (37, 35309), (38, 35324), (46, 35372),

Gene: Twitch_44 Start: 35261, Stop: 35518, Start Num: 24

Candidate Starts for Twitch_44:

(Start: 20 @35237 has 14 MA's), (Start: 23 @35258 has 7 MA's), (Start: 24 @35261 has 29 MA's), (Start: 27 @35279 has 59 MA's), (28, 35300), (30, 35321), (32, 35333), (33, 35366), (37, 35432), (38, 35447), (46, 35495),

Gene: Unicorn_46 Start: 35029, Stop: 35373, Start Num: 8

Candidate Starts for Unicorn_46:

(Start: 8 @35029 has 1 MA's), (Start: 27 @35137 has 59 MA's), (31, 35188), (32, 35191), (35, 35257), (37, 35290),

Gene: Urkel_45 Start: 36056, Stop: 36295, Start Num: 27

Candidate Starts for Urkel_45:

(2, 35855), (3, 35861), (4, 35876), (Start: 10 @35960 has 1 MA's), (13, 35984), (Start: 27 @36056 has 59 MA's), (30, 36098), (32, 36110), (33, 36143), (37, 36209),

Gene: Validus_48 Start: 35897, Stop: 36190, Start Num: 19

Candidate Starts for Validus_48:

(Start: 19 @35897 has 3 MA's), (Start: 27 @35945 has 59 MA's), (31, 35996), (32, 35999), (38, 36113), (43, 36143), (47, 36167),

Gene: Veliki_44 Start: 35178, Stop: 35435, Start Num: 24

Candidate Starts for Veliki_44:

(Start: 20 @35154 has 14 MA's), (Start: 23 @35175 has 7 MA's), (Start: 24 @35178 has 29 MA's), (Start: 27 @35196 has 59 MA's), (28, 35217), (30, 35238), (32, 35250), (33, 35283), (37, 35349), (38, 35364), (46, 35412),

Gene: Wintermute_48 Start: 36318, Stop: 36566, Start Num: 26

Candidate Starts for Wintermute_48:

(Start: 10 @36222 has 1 MA's), (16, 36258), (Start: 26 @36318 has 20 MA's), (38, 36489), (39, 36492),

Gene: Ximenita_50 Start: 36194, Stop: 36445, Start Num: 24

Candidate Starts for Ximenita_50:

(18, 36161), (Start: 23 @36191 has 7 MA's), (Start: 24 @36194 has 29 MA's), (Start: 27 @36209 has 59 MA's), (32, 36263), (35, 36329), (38, 36377), (40, 36389),

Gene: Y10_47 Start: 36237, Stop: 36485, Start Num: 26

Candidate Starts for Y10_47:

(Start: 26 @36237 has 20 MA's), (38, 36408), (39, 36411),

Gene: Y2_47 Start: 36237, Stop: 36485, Start Num: 26

Candidate Starts for Y2_47:

(Start: 26 @36237 has 20 MA's), (38, 36408), (39, 36411),

Gene: YasnayaPolyana_48 Start: 36168, Stop: 36416, Start Num: 26

Candidate Starts for YasnayaPolyana_48:

(Start: 10 @36072 has 1 MA's), (17, 36114), (Start: 26 @36168 has 20 MA's), (38, 36339), (39, 36342),

Gene: YoureAdopted_43 Start: 35343, Stop: 35600, Start Num: 24

Candidate Starts for YoureAdopted_43:

(Start: 20 @35319 has 14 MA's), (Start: 23 @35340 has 7 MA's), (Start: 24 @35343 has 29 MA's),
(Start: 27 @35361 has 59 MA's), (28, 35382), (30, 35403), (32, 35415), (33, 35448), (37, 35514), (38,
35529), (46, 35577),

Gene: Yuna_50 Start: 36971, Stop: 37204, Start Num: 27

Candidate Starts for Yuna_50:

(Start: 27 @36971 has 59 MA's), (35, 37091), (38, 37139), (40, 37151),

Gene: Zabiza_39 Start: 31425, Stop: 31706, Start Num: 20

Candidate Starts for Zabiza_39:

(Start: 20 @31425 has 14 MA's), (Start: 23 @31446 has 7 MA's), (Start: 24 @31449 has 29 MA's),
(Start: 27 @31467 has 59 MA's), (28, 31488), (30, 31509), (32, 31521), (33, 31554), (37, 31620), (38,
31635), (46, 31683),

Gene: Zavala_45 Start: 35438, Stop: 35677, Start Num: 27

Candidate Starts for Zavala_45:

(Start: 23 @35417 has 7 MA's), (Start: 24 @35420 has 29 MA's), (Start: 27 @35438 has 59 MA's), (28,
35459), (30, 35480), (32, 35492), (33, 35525), (37, 35591), (38, 35606), (46, 35654),