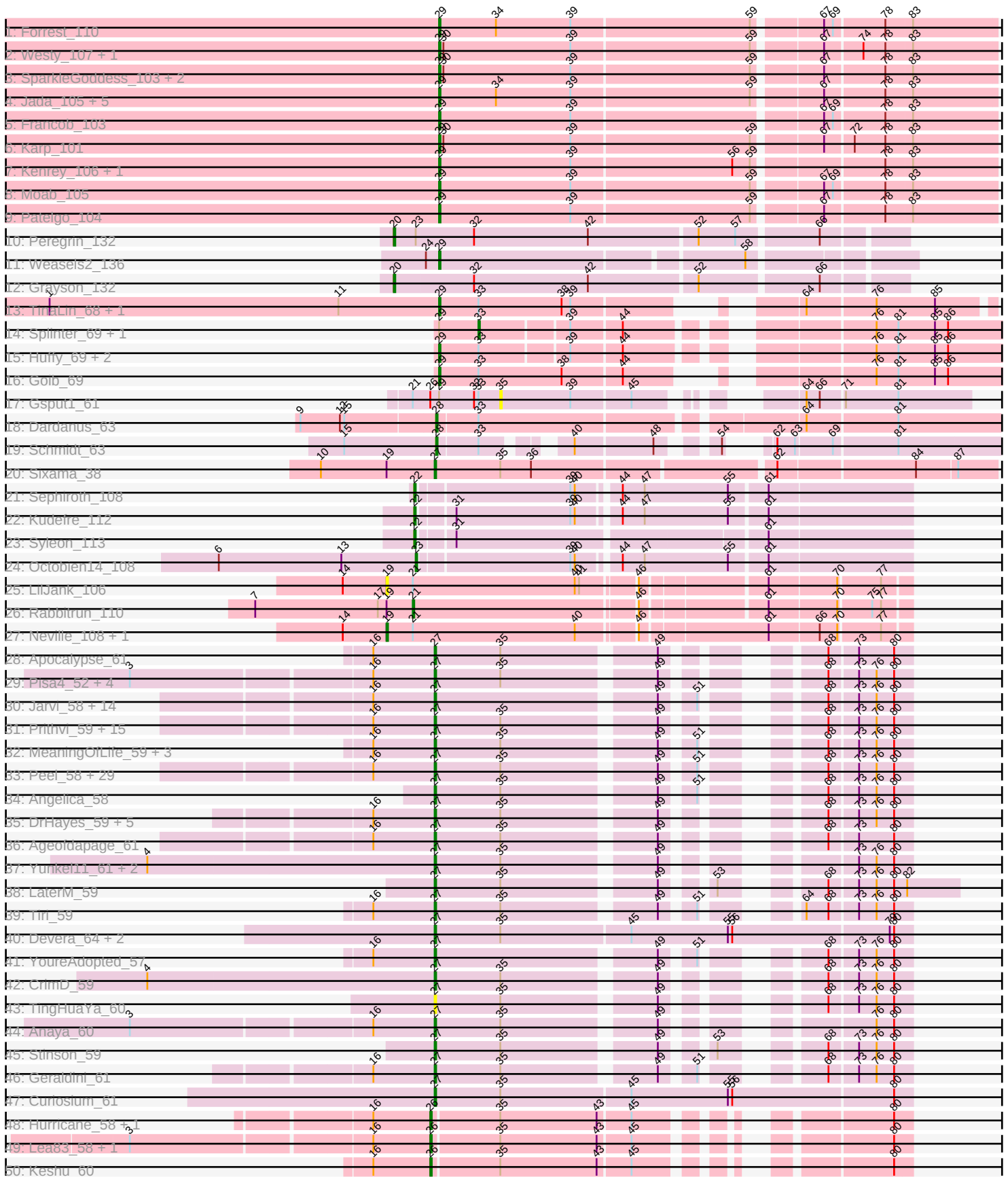




Pham 280172



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 280172 Report

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

Pham number 280172 has 147 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Forrest_110
- Track 2 : Westy_107, Belfort_105
- Track 3 : SparkleGoddess_103, Comrade_102, Stigma_102
- Track 4 : Jada_105, Gilson_105, MeganTheeKilla_103, DeluluLabubu_104, Maupel_105, Emma1919_106
- Track 5 : Francob_103
- Track 6 : Karp_101
- Track 7 : Kenrey_106, Phredrick_104
- Track 8 : Moab_105
- Track 9 : Patelgo_104
- Track 10 : Peregrin_132
- Track 11 : Weasels2_136
- Track 12 : Grayson_132
- Track 13 : TinaLin_68, Banquo_68
- Track 14 : Splinter_69, Vendetta_69
- Track 15 : Huffy_69, DinoDaryn_69, TZGordon_70
- Track 16 : Goib_69
- Track 17 : Gspu1_61
- Track 18 : Dardanus_63
- Track 19 : Schmidt_63
- Track 20 : Sixama_38
- Track 21 : Sephiroth_108
- Track 22 : Kudefre_112
- Track 23 : Syleon_113
- Track 24 : Octobien14_108
- Track 25 : LilJank_106
- Track 26 : Rabbitrun_110
- Track 27 : Neville_108, Trax_110
- Track 28 : Apocalypse_61
- Track 29 : Pisa4_52, Bella96_59, DartGoblin_61, Pisa1_58, Murucutumbu_59
- Track 30 : Jarvi_58, Rosmarinus_58, CREW_58, Topper_58, Dalmuri_58, BGlluvia_58, Jeckyll_58, Joy99_58, Inky_58, Lunahalos_58, Capricorn_58, Belladonna_58, CallaLilly_58, Spock_58, Llorens_58
- Track 31 : Prithvi_59, MacKat_53, Megsy_60, LindNT_57, Zabiza_53, ActinUp_58, Zavala_60, Clipper_61, JAWS_58, TreyKay_59, Veliki_59, TaiwanKao_60, Mynx_59, HedwigODU_58, Sulley_58, Ramen_59
- Track 32 : MeaningOfLife_59, Adonis_58, Deby_58, Jayhawk_59

- Track 33 : Peel_58, TruffulaTree_58, Boiii_58, Hyperbowlee_58, Asayake_58, Bern_59, AlishaPH_58, Atiba_59, BEEST_58, BaghaKamala_57, Padfoot_58, Slimphazie_58, CheetoDust_57, Blizzard_58, Durfee_58, Beezoo_60, Rapunzel97_59, Tachez_58, Homura_58, Padpat_60, BarrelRoll_58, Twitch_58, Emerson_59, Ganymede_59, QuincyRose_57, ShiaSurprise_59, Adephagia_58, Piatt_58, CaseJules_60, Pokerus_57
- Track 34 : Angelica_58
- Track 35 : DrHayes_59, TiniBug_59, Anma_60, Urkel_59, LastHope_61, SamuelLPlaqsom_59
- Track 36 : Ageofdapage_61
- Track 37 : Yunkel11_61, Efra2_62, Guanica15_61
- Track 38 : LaterM_59
- Track 39 : Tiri_59
- Track 40 : Devera_64, Dole_62, Illumine_62
- Track 41 : YoureAdopted_57
- Track 42 : CrimD_59
- Track 43 : TingHuaYa_60
- Track 44 : Anaya_60
- Track 45 : Stinson_59
- Track 46 : Geraldini_61
- Track 47 : Curiosium_61
- Track 48 : Hurricane_58, TBond007_56
- Track 49 : Lea83_58, ShedlockHolmes_59
- Track 50 : Keshu_60
- Track 51 : TribbleTrouble_57
- Track 52 : Pharb_57
- Track 53 : MacnCheese_60
- Track 54 : Pixie_57
- Track 55 : Yuna_63
- Track 56 : SirPhilip_59
- Track 57 : Kumao_82

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 90 of the 137 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp_58, Adephagia_58, Adonis_58, Ageofdapage_61, AlishaPH_58, Anaya_60, Angelica_58, Anma_60, Apocalypse_61, Asayake_58, Atiba_59, BEEST_58, BGlluviae_58, BaghaKamala_57, BarrelRoll_58, Beezoo_60, Bella96_59, Belladonna_58, Bern_59, Blizzard_58, Boiii_58, CREW_58, CallaLilly_58, Capricorn_58, CaseJules_60, CheetoDust_57, Clipper_61, CrimD_59, Curiosium_61, Dalmuri_58, DartGoblin_61, Deby_58, Devera_64, Dole_62, DrHayes_59, Durfee_58, Efra2_62, Emerson_59, Ganymede_59, Geraldini_61, Guanica15_61, HedwigODU_58, Homura_58, Hyperbowlee_58, Illumine_62, Inky_58, JAWS_58, Jarvi_58, Jayhawk_59, Jeckyll_58, Joy99_58, LastHope_61, LaterM_59, LindNT_57, Llorens_58, Lunahalos_58, MacKat_53, MeaningOfLife_59, Megsy_60, Murucutumbu_59, Mynx_59, Padfoot_58, Padpat_60, Peel_58, Piatt_58, Pisa1_58, Pisa4_52, Pokerus_57, Prithvi_59, QuincyRose_57, Ramen_59, Rapunzel97_59,

Rosmarinus_58, SamuelLPlaqson_59, ShiaSurprise_59, SirPhilip_59, Sixama_38, Slimphazie_58, Spock_58, Stinson_59, Sulley_58, Tachez_58, TaiwanKao_60, TingHuaYa_60, TiniBug_59, Tiri_59, Topper_58, TreyKay_59, TruffulaTree_58, Twitch_58, Urkel_59, Veliki_59, YoureAdopted_57, Yunkel11_61, Zabiza_53, Zavala_60,

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

- Yuna_63,

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

- Banquo_68, Belfort_105, Comrade_102, Dardanus_63, DeluluLabubu_104, DinoDaryn_69, Emma1919_106, Forrest_110, Francob_103, Gilson_105, Goib_69, Grayson_132, Gspu1_61, Huffy_69, Hurricane_58, Jada_105, Karp_101, Kenrey_106, Keshu_60, Kudfre_112, Kumao_82, Lea83_58, LilJank_106, MacnCheese_60, Maupel_105, MeganTheeKilla_103, Moab_105, Neville_108, Octobien14_108, Patelgo_104, Peregrin_132, Pharb_57, Phredrick_104, Pixie_57, Rabbitrun_110, Schmidt_63, Sephiroth_108, ShedlockHolmes_59, SparkleGoddess_103, Splinter_69, Stigma_102, Syleon_113, TBond007_56, TZGordon_70, TinaLin_68, Trax_110, TribleTrouble_57, Vendetta_69, Weasels2_136, Westy_107,

Summary by start number:

Start 19:

- Found in 5 of 147 (3.4%) of genes in pham
- Manual Annotations of this start: 2 of 137
- Called 60.0% of time when present
- Phage (with cluster) where this start called: LilJank_106 (DU2), Neville_108 (DU2), Trax_110 (DU2),

Start 20:

- Found in 2 of 147 (1.4%) of genes in pham
- Manual Annotations of this start: 2 of 137
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Grayson_132 (CB), Peregrin_132 (CB),

Start 21:

- Found in 5 of 147 (3.4%) of genes in pham
- Manual Annotations of this start: 1 of 137
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Rabbitrun_110 (DU2),

Start 22:

- Found in 3 of 147 (2.0%) of genes in pham
- Manual Annotations of this start: 3 of 137
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kudfre_112 (DU1), Sephiroth_108 (DU1), Syleon_113 (DU1),

Start 23:

- Found in 2 of 147 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 137
- Called 50.0% of time when present

- Phage (with cluster) where this start called: Octobien14_108 (DU1),

Start 25:

- Found in 1 of 147 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 137
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kumao_82 (singleton),

Start 26:

- Found in 11 of 147 (7.5%) of genes in pham
- Manual Annotations of this start: 10 of 137
- Called 90.9% of time when present
- Phage (with cluster) where this start called: Hurricane_58 (K3), Keshu_60 (K3), Lea83_58 (K3), MacnCheese_60 (K3), Pharb_57 (K3), Pixie_57 (K3), ShedlockHolmes_59 (K3), TBond007_56 (K3), TribbleTrouble_57 (K3), Yuna_63 (K6),

Start 27:

- Found in 97 of 147 (66.0%) of genes in pham
- Manual Annotations of this start: 90 of 137
- Called 99.0% of time when present
- Phage (with cluster) where this start called: ActinUp_58 (K1), Adephagia_58 (K1), Adonis_58 (K1), Ageofdapage_61 (K1), AlishaPH_58 (K1), Anaya_60 (K1), Angelica_58 (K1), Anma_60 (K1), Apocalypse_61 (K1), Asayake_58 (K1), Atiba_59 (K1), BEEST_58 (K1), BGlluviae_58 (K1), BaghaKamala_57 (K1), BarrelRoll_58 (K1), Beezoo_60 (K1), Bella96_59 (K1), Belladonna_58 (K1), Bern_59 (K1), Blizzard_58 (K1), Boiii_58 (K1), CREW_58 (K1), CallaLilly_58 (K1), Capricorn_58 (K1), CaseJules_60 (K1), CheetoDust_57 (K1), Clipper_61 (K1), CrimD_59 (K1), Curiosium_61 (K1), Dalmuri_58 (K1), DartGoblin_61 (K1), Deby_58 (K1), Devera_64 (K1), Dole_62 (K1), DrHayes_59 (K1), Durfee_58 (K1), Efra2_62 (K1), Emerson_59 (K1), Ganymede_59 (K1), Geraldini_61 (K1), Guanica15_61 (K1), HedwigODU_58 (K1), Homura_58 (K1), Hyperbowlee_58 (K1), Illumine_62 (K1), Inky_58 (K1), JAWS_58 (K1), Jarvi_58 (K1), Jayhawk_59 (K1), Jeckyll_58 (K1), Joy99_58 (K1), LastHope_61 (K1), LaterM_59 (K1), LindNT_57 (K1), Llorens_58 (K1), Lunahalos_58 (K1), MacKat_53 (K1), MeaningOfLife_59 (K1), Megsy_60 (K1), Murucutumbu_59 (K1), Mynx_59 (K1), Padfoot_58 (K1), Padpat_60 (K1), Peel_58 (K1), Piatt_58 (K1), Pisa1_58 (K1), Pisa4_52 (K1), Pokerus_57 (K1), Prithvi_59 (K1), QuincyRose_57 (K1), Ramen_59 (K1), Rapunzel97_59 (K1), Rosmarinus_58 (K1), SamuelLPlaqueson_59 (K1), ShiaSurprise_59 (K1), SirPhilip_59 (K6), Sixama_38 (DS), Slimphazie_58 (K1), Spock_58 (K1), Stinson_59 (K1), Sulley_58 (K1), Tachez_58 (K1), TaiwanKao_60 (K1), TingHuaYa_60 (K1), TiniBug_59 (K1), Tiri_59 (K1), Topper_58 (K1), TreyKay_59 (K1), TruffulaTree_58 (K1), Twitch_58 (K1), Urkel_59 (K1), Veliki_59 (K1), YoureAdopted_57 (K1), Yunkel11_61 (K1), Zabiza_53 (K1), Zavala_60 (K1),

Start 28:

- Found in 2 of 147 (1.4%) of genes in pham
- Manual Annotations of this start: 2 of 137
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dardanus_63 (CU3), Schmidt_63 (CU4),

Start 29:

- Found in 28 of 147 (19.0%) of genes in pham
- Manual Annotations of this start: 23 of 137

- Called 89.3% of time when present
- Phage (with cluster) where this start called: Banquo_68 (CU1), Belfort_105 (BK1), Comrade_102 (BK1), DeluluLabubu_104 (BK1), DinoDaryn_69 (CU1), Emma1919_106 (BK1), Forrest_110 (BK1), Francob_103 (BK1), Gilson_105 (BK1), Goib_69 (CU1), Huffy_69 (CU1), Jada_105 (BK1), Karp_101 (BK1), Kenrey_106 (BK1), Maupel_105 (BK1), MeganTheeKilla_103 (BK1), Moab_105 (BK1), Patelgo_104 (BK1), Phredrick_104 (BK1), SparkleGoddess_103 (BK1), Stigma_102 (BK1), TzGordon_70 (CU1), TinaLin_68 (CU1), Weasels2_136 (CB), Westy_107 (BK1),

Start 33:

- Found in 11 of 147 (7.5%) of genes in pham
- Manual Annotations of this start: 2 of 137
- Called 18.2% of time when present
- Phage (with cluster) where this start called: Splinter_69 (CU1), Vendetta_69 (CU1),

Start 35:

- Found in 90 of 147 (61.2%) of genes in pham
- No Manual Annotations of this start.
- Called 1.1% of time when present
- Phage (with cluster) where this start called: Gspu1_61 (CU2),

Summary by clusters:

There are 13 clusters represented in this pham: singleton, CU4, CU3, CU2, CU1, CB, K3, K1, BK1, DU1, DU2, DS, K6,

Info for manual annotations of cluster BK1:

- Start number 29 was manually annotated 16 times for cluster BK1.

Info for manual annotations of cluster CB:

- Start number 20 was manually annotated 2 times for cluster CB.
- Start number 29 was manually annotated 1 time for cluster CB.

Info for manual annotations of cluster CU1:

- Start number 29 was manually annotated 6 times for cluster CU1.
- Start number 33 was manually annotated 2 times for cluster CU1.

Info for manual annotations of cluster CU3:

- Start number 28 was manually annotated 1 time for cluster CU3.

Info for manual annotations of cluster CU4:

- Start number 28 was manually annotated 1 time for cluster CU4.

Info for manual annotations of cluster DS:

- Start number 27 was manually annotated 1 time for cluster DS.

Info for manual annotations of cluster DU1:

- Start number 22 was manually annotated 3 times for cluster DU1.
- Start number 23 was manually annotated 1 time for cluster DU1.

Info for manual annotations of cluster DU2:

- Start number 19 was manually annotated 2 times for cluster DU2.
- Start number 21 was manually annotated 1 time for cluster DU2.

Info for manual annotations of cluster K1:

- Start number 27 was manually annotated 88 times for cluster K1.

Info for manual annotations of cluster K3:

- Start number 26 was manually annotated 9 times for cluster K3.

Info for manual annotations of cluster K6:

- Start number 26 was manually annotated 1 time for cluster K6.
- Start number 27 was manually annotated 1 time for cluster K6.

Gene Information:

Gene: ActinUp_58 Start: 40539, Stop: 40805, Start Num: 27

Candidate Starts for ActinUp_58:

(16, 40497), (Start: 27 @40539 has 90 MA's), (35, 40584), (49, 40680), (68, 40752), (73, 40770), (76, 40782), (80, 40794),

Gene: Adephagia_58 Start: 40540, Stop: 40806, Start Num: 27

Candidate Starts for Adephagia_58:

(16, 40498), (Start: 27 @40540 has 90 MA's), (35, 40585), (49, 40681), (51, 40699), (68, 40753), (73, 40771), (76, 40783), (80, 40795),

Gene: Adonis_58 Start: 40787, Stop: 41053, Start Num: 27

Candidate Starts for Adonis_58:

(16, 40745), (Start: 27 @40787 has 90 MA's), (35, 40832), (49, 40928), (51, 40946), (68, 41000), (73, 41018), (76, 41030), (80, 41042),

Gene: Ageofdapage_61 Start: 41528, Stop: 41794, Start Num: 27

Candidate Starts for Ageofdapage_61:

(16, 41486), (Start: 27 @41528 has 90 MA's), (35, 41573), (49, 41669), (68, 41741), (73, 41759), (80, 41783),

Gene: AlishaPH_58 Start: 40801, Stop: 41067, Start Num: 27

Candidate Starts for AlishaPH_58:

(16, 40759), (Start: 27 @40801 has 90 MA's), (35, 40846), (49, 40942), (51, 40960), (68, 41014), (73, 41032), (76, 41044), (80, 41056),

Gene: Anaya_60 Start: 41056, Stop: 41322, Start Num: 27

Candidate Starts for Anaya_60:

(3, 40858), (16, 41014), (Start: 27 @41056 has 90 MA's), (35, 41101), (49, 41197), (76, 41299), (80, 41311),

Gene: Angelica_58 Start: 40695, Stop: 40961, Start Num: 27

Candidate Starts for Angelica_58:

(Start: 27 @40695 has 90 MA's), (35, 40740), (49, 40836), (51, 40854), (68, 40908), (73, 40926), (76, 40938), (80, 40950),

Gene: Anma_60 Start: 41439, Stop: 41705, Start Num: 27

Candidate Starts for Anma_60:

(16, 41397), (Start: 27 @41439 has 90 MA's), (35, 41484), (49, 41580), (68, 41652), (73, 41670), (76, 41682), (80, 41694),

Gene: Apocalypse_61 Start: 41464, Stop: 41730, Start Num: 27

Candidate Starts for Apocalypse_61:

(16, 41422), (Start: 27 @41464 has 90 MA's), (35, 41509), (49, 41605), (68, 41677), (73, 41695), (80, 41719),

Gene: Asayake_58 Start: 40855, Stop: 41121, Start Num: 27

Candidate Starts for Asayake_58:

(16, 40813), (Start: 27 @40855 has 90 MA's), (35, 40900), (49, 40996), (51, 41014), (68, 41068), (73, 41086), (76, 41098), (80, 41110),

Gene: Atiba_59 Start: 40503, Stop: 40769, Start Num: 27

Candidate Starts for Atiba_59:

(16, 40461), (Start: 27 @40503 has 90 MA's), (35, 40548), (49, 40644), (51, 40662), (68, 40716), (73, 40734), (76, 40746), (80, 40758),

Gene: BEEST_58 Start: 40855, Stop: 41121, Start Num: 27

Candidate Starts for BEEST_58:

(16, 40813), (Start: 27 @40855 has 90 MA's), (35, 40900), (49, 40996), (51, 41014), (68, 41068), (73, 41086), (76, 41098), (80, 41110),

Gene: BGlluviae_58 Start: 40658, Stop: 40924, Start Num: 27

Candidate Starts for BGlluviae_58:

(16, 40616), (Start: 27 @40658 has 90 MA's), (49, 40799), (51, 40817), (68, 40871), (73, 40889), (76, 40901), (80, 40913),

Gene: BaghaKamala_57 Start: 39896, Stop: 40162, Start Num: 27

Candidate Starts for BaghaKamala_57:

(16, 39854), (Start: 27 @39896 has 90 MA's), (35, 39941), (49, 40037), (51, 40055), (68, 40109), (73, 40127), (76, 40139), (80, 40151),

Gene: Banquo_68 Start: 41213, Stop: 41536, Start Num: 29

Candidate Starts for Banquo_68:

(1, 40946), (11, 41144), (Start: 29 @41213 has 23 MA's), (Start: 33 @41240 has 2 MA's), (38, 41297), (39, 41303), (64, 41408), (76, 41453), (85, 41492),

Gene: BarrelRoll_58 Start: 40519, Stop: 40785, Start Num: 27

Candidate Starts for BarrelRoll_58:

(16, 40477), (Start: 27 @40519 has 90 MA's), (35, 40564), (49, 40660), (51, 40678), (68, 40732), (73, 40750), (76, 40762), (80, 40774),

Gene: Beezoo_60 Start: 41503, Stop: 41769, Start Num: 27

Candidate Starts for Beezoo_60:

(16, 41461), (Start: 27 @41503 has 90 MA's), (35, 41548), (49, 41644), (51, 41662), (68, 41716), (73, 41734), (76, 41746), (80, 41758),

Gene: Belfort_105 Start: 69661, Stop: 70026, Start Num: 29

Candidate Starts for Belfort_105:

(Start: 29 @69661 has 23 MA's), (30, 69664), (39, 69751), (59, 69871), (67, 69913), (74, 69937), (78, 69952), (83, 69970),

Gene: Bella96_59 Start: 41284, Stop: 41550, Start Num: 27

Candidate Starts for Bella96_59:

(3, 41086), (16, 41242), (Start: 27 @41284 has 90 MA's), (35, 41329), (49, 41425), (68, 41497), (73, 41515), (76, 41527), (80, 41539),

Gene: Belladonna_58 Start: 40658, Stop: 40924, Start Num: 27

Candidate Starts for Belladonna_58:

(16, 40616), (Start: 27 @40658 has 90 MA's), (49, 40799), (51, 40817), (68, 40871), (73, 40889), (76, 40901), (80, 40913),

Gene: Bern_59 Start: 39486, Stop: 39752, Start Num: 27

Candidate Starts for Bern_59:

(16, 39444), (Start: 27 @39486 has 90 MA's), (35, 39531), (49, 39627), (51, 39645), (68, 39699), (73, 39717), (76, 39729), (80, 39741),

Gene: Blizzard_58 Start: 40855, Stop: 41121, Start Num: 27

Candidate Starts for Blizzard_58:

(16, 40813), (Start: 27 @40855 has 90 MA's), (35, 40900), (49, 40996), (51, 41014), (68, 41068), (73, 41086), (76, 41098), (80, 41110),

Gene: Boiiii_58 Start: 40857, Stop: 41123, Start Num: 27

Candidate Starts for Boiiii_58:

(16, 40815), (Start: 27 @40857 has 90 MA's), (35, 40902), (49, 40998), (51, 41016), (68, 41070), (73, 41088), (76, 41100), (80, 41112),

Gene: CREW_58 Start: 40658, Stop: 40924, Start Num: 27

Candidate Starts for CREW_58:

(16, 40616), (Start: 27 @40658 has 90 MA's), (49, 40799), (51, 40817), (68, 40871), (73, 40889), (76, 40901), (80, 40913),

Gene: CallaLilly_58 Start: 40581, Stop: 40847, Start Num: 27

Candidate Starts for CallaLilly_58:

(16, 40539), (Start: 27 @40581 has 90 MA's), (49, 40722), (51, 40740), (68, 40794), (73, 40812), (76, 40824), (80, 40836),

Gene: Capricorn_58 Start: 40658, Stop: 40924, Start Num: 27

Candidate Starts for Capricorn_58:

(16, 40616), (Start: 27 @40658 has 90 MA's), (49, 40799), (51, 40817), (68, 40871), (73, 40889), (76, 40901), (80, 40913),

Gene: CaseJules_60 Start: 40855, Stop: 41121, Start Num: 27

Candidate Starts for CaseJules_60:

(16, 40813), (Start: 27 @40855 has 90 MA's), (35, 40900), (49, 40996), (51, 41014), (68, 41068), (73, 41086), (76, 41098), (80, 41110),

Gene: CheetoDust_57 Start: 39940, Stop: 40206, Start Num: 27

Candidate Starts for CheetoDust_57:

(16, 39898), (Start: 27 @39940 has 90 MA's), (35, 39985), (49, 40081), (51, 40099), (68, 40153), (73, 40171), (76, 40183), (80, 40195),

Gene: Clipper_61 Start: 41118, Stop: 41384, Start Num: 27

Candidate Starts for Clipper_61:

(16, 41076), (Start: 27 @41118 has 90 MA's), (35, 41163), (49, 41259), (68, 41331), (73, 41349), (76, 41361), (80, 41373),

Gene: Comrade_102 Start: 68978, Stop: 69343, Start Num: 29

Candidate Starts for Comrade_102:

(Start: 29 @68978 has 23 MA's), (30, 68981), (39, 69068), (59, 69188), (67, 69230), (78, 69269), (83, 69287),

Gene: CrimD_59 Start: 41076, Stop: 41342, Start Num: 27

Candidate Starts for CrimD_59:

(4, 40881), (Start: 27 @41076 has 90 MA's), (35, 41121), (49, 41217), (68, 41289), (73, 41307), (76, 41319), (80, 41331),

Gene: Curiosium_61 Start: 39723, Stop: 40043, Start Num: 27

Candidate Starts for Curiosium_61:

(Start: 27 @39723 has 90 MA's), (35, 39768), (45, 39855), (55, 39921), (56, 39924), (80, 40032),

Gene: Dalmuri_58 Start: 40658, Stop: 40924, Start Num: 27

Candidate Starts for Dalmuri_58:

(16, 40616), (Start: 27 @40658 has 90 MA's), (49, 40799), (51, 40817), (68, 40871), (73, 40889), (76, 40901), (80, 40913),

Gene: Dardanus_63 Start: 39624, Stop: 39992, Start Num: 28

Candidate Starts for Dardanus_63:

(9, 39534), (12, 39561), (15, 39564), (Start: 28 @39624 has 2 MA's), (Start: 33 @39651 has 2 MA's), (64, 39855), (81, 39915),

Gene: DartGoblin_61 Start: 41256, Stop: 41522, Start Num: 27

Candidate Starts for DartGoblin_61:

(3, 41058), (16, 41214), (Start: 27 @41256 has 90 MA's), (35, 41301), (49, 41397), (68, 41469), (73, 41487), (76, 41499), (80, 41511),

Gene: Deby_58 Start: 40717, Stop: 40983, Start Num: 27

Candidate Starts for Deby_58:

(16, 40675), (Start: 27 @40717 has 90 MA's), (35, 40762), (49, 40858), (51, 40876), (68, 40930), (73, 40948), (76, 40960), (80, 40972),

Gene: DeluluLabubu_104 Start: 67810, Stop: 68175, Start Num: 29

Candidate Starts for DeluluLabubu_104:

(Start: 29 @67810 has 23 MA's), (34, 67849), (39, 67900), (59, 68020), (67, 68062), (78, 68101), (83, 68119),

Gene: Devera_64 Start: 41616, Stop: 41936, Start Num: 27

Candidate Starts for Devera_64:

(Start: 27 @41616 has 90 MA's), (35, 41661), (45, 41748), (55, 41814), (56, 41817), (79, 41922), (80, 41925),

Gene: DinoDaryn_69 Start: 41479, Stop: 41826, Start Num: 29

Candidate Starts for DinoDaryn_69:

(Start: 29 @41479 has 23 MA's), (Start: 33 @41506 has 2 MA's), (39, 41563), (44, 41596), (76, 41731), (81, 41746), (85, 41770), (86, 41779),

Gene: Dole_62 Start: 41619, Stop: 41939, Start Num: 27

Candidate Starts for Dole_62:

(Start: 27 @41619 has 90 MA's), (35, 41664), (45, 41751), (55, 41817), (56, 41820), (79, 41925), (80, 41928),

Gene: DrHayes_59 Start: 41439, Stop: 41705, Start Num: 27

Candidate Starts for DrHayes_59:

(16, 41397), (Start: 27 @41439 has 90 MA's), (35, 41484), (49, 41580), (68, 41652), (73, 41670), (76, 41682), (80, 41694),

Gene: Durfee_58 Start: 40855, Stop: 41121, Start Num: 27

Candidate Starts for Durfee_58:

(16, 40813), (Start: 27 @40855 has 90 MA's), (35, 40900), (49, 40996), (51, 41014), (68, 41068), (73, 41086), (76, 41098), (80, 41110),

Gene: Efra2_62 Start: 40615, Stop: 40881, Start Num: 27

Candidate Starts for Efra2_62:

(4, 40420), (Start: 27 @40615 has 90 MA's), (35, 40660), (49, 40756), (73, 40846), (76, 40858), (80, 40870),

Gene: Emerson_59 Start: 40536, Stop: 40802, Start Num: 27

Candidate Starts for Emerson_59:

(16, 40494), (Start: 27 @40536 has 90 MA's), (35, 40581), (49, 40677), (51, 40695), (68, 40749), (73, 40767), (76, 40779), (80, 40791),

Gene: Emma1919_106 Start: 68431, Stop: 68796, Start Num: 29

Candidate Starts for Emma1919_106:

(Start: 29 @68431 has 23 MA's), (34, 68470), (39, 68521), (59, 68641), (67, 68683), (78, 68722), (83, 68740),

Gene: Forrest_110 Start: 70740, Stop: 71105, Start Num: 29

Candidate Starts for Forrest_110:

(Start: 29 @70740 has 23 MA's), (34, 70779), (39, 70830), (59, 70950), (67, 70992), (69, 70998), (78, 71031), (83, 71049),

Gene: Francob_103 Start: 68601, Stop: 68966, Start Num: 29

Candidate Starts for Francob_103:

(Start: 29 @68601 has 23 MA's), (39, 68691), (67, 68853), (69, 68859), (78, 68892), (83, 68910),

Gene: Ganymede_59 Start: 40919, Stop: 41185, Start Num: 27

Candidate Starts for Ganymede_59:

(16, 40877), (Start: 27 @40919 has 90 MA's), (35, 40964), (49, 41060), (51, 41078), (68, 41132), (73, 41150), (76, 41162), (80, 41174),

Gene: Geraldini_61 Start: 41585, Stop: 41851, Start Num: 27

Candidate Starts for Geraldini_61:

(16, 41543), (Start: 27 @41585 has 90 MA's), (35, 41630), (49, 41726), (51, 41744), (68, 41798), (73, 41816), (76, 41828), (80, 41840),

Gene: Gilson_105 Start: 68393, Stop: 68758, Start Num: 29

Candidate Starts for Gilson_105:

(Start: 29 @68393 has 23 MA's), (34, 68432), (39, 68483), (59, 68603), (67, 68645), (78, 68684), (83, 68702),

Gene: Goib_69 Start: 42589, Stop: 42924, Start Num: 29

Candidate Starts for Goib_69:

(Start: 29 @42589 has 23 MA's), (Start: 33 @42616 has 2 MA's), (38, 42673), (44, 42712), (76, 42829), (81, 42844), (85, 42868), (86, 42877),

Gene: Grayson_132 Start: 78512, Stop: 78844, Start Num: 20

Candidate Starts for Grayson_132:

(Start: 20 @78512 has 2 MA's), (32, 78566), (42, 78644), (52, 78716), (66, 78791),

Gene: Gspu1_61 Start: 40315, Stop: 40578, Start Num: 35

Candidate Starts for Gspu1_61:

(Start: 21 @40255 has 1 MA's), (Start: 26 @40267 has 10 MA's), (Start: 29 @40273 has 23 MA's), (32, 40297), (Start: 33 @40300 has 2 MA's), (35, 40315), (39, 40363), (45, 40402), (64, 40471), (66, 40480), (71, 40495), (81, 40531),

Gene: Guanica15_61 Start: 40356, Stop: 40622, Start Num: 27

Candidate Starts for Guanica15_61:

(4, 40161), (Start: 27 @40356 has 90 MA's), (35, 40401), (49, 40497), (73, 40587), (76, 40599), (80, 40611),

Gene: HedwigODU_58 Start: 40539, Stop: 40805, Start Num: 27

Candidate Starts for HedwigODU_58:

(16, 40497), (Start: 27 @40539 has 90 MA's), (35, 40584), (49, 40680), (68, 40752), (73, 40770), (76, 40782), (80, 40794),

Gene: Homura_58 Start: 40658, Stop: 40924, Start Num: 27

Candidate Starts for Homura_58:

(16, 40616), (Start: 27 @40658 has 90 MA's), (35, 40703), (49, 40799), (51, 40817), (68, 40871), (73, 40889), (76, 40901), (80, 40913),

Gene: Huff_69 Start: 41479, Stop: 41826, Start Num: 29

Candidate Starts for Huff_69:

(Start: 29 @41479 has 23 MA's), (Start: 33 @41506 has 2 MA's), (39, 41563), (44, 41596), (76, 41731), (81, 41746), (85, 41770), (86, 41779),

Gene: Hurricane_58 Start: 40805, Stop: 41074, Start Num: 26

Candidate Starts for Hurricane_58:

(16, 40766), (Start: 26 @40805 has 10 MA's), (35, 40850), (43, 40916), (45, 40937), (80, 41063),

Gene: Hyperbowlee_58 Start: 40855, Stop: 41121, Start Num: 27

Candidate Starts for Hyperbowlee_58:

(16, 40813), (Start: 27 @40855 has 90 MA's), (35, 40900), (49, 40996), (51, 41014), (68, 41068), (73, 41086), (76, 41098), (80, 41110),

Gene: Illumine_62 Start: 41618, Stop: 41938, Start Num: 27

Candidate Starts for Illumine_62:

(Start: 27 @41618 has 90 MA's), (35, 41663), (45, 41750), (55, 41816), (56, 41819), (79, 41924), (80, 41927),

Gene: Inky_58 Start: 40658, Stop: 40924, Start Num: 27

Candidate Starts for Inky_58:

(16, 40616), (Start: 27 @40658 has 90 MA's), (49, 40799), (51, 40817), (68, 40871), (73, 40889), (76, 40901), (80, 40913),

Gene: JAWS_58 Start: 40525, Stop: 40791, Start Num: 27

Candidate Starts for JAWS_58:

(16, 40483), (Start: 27 @40525 has 90 MA's), (35, 40570), (49, 40666), (68, 40738), (73, 40756), (76, 40768), (80, 40780),

Gene: Jada_105 Start: 68906, Stop: 69271, Start Num: 29

Candidate Starts for Jada_105:

(Start: 29 @68906 has 23 MA's), (34, 68945), (39, 68996), (59, 69116), (67, 69158), (78, 69197), (83, 69215),

Gene: Jarvi_58 Start: 40658, Stop: 40924, Start Num: 27

Candidate Starts for Jarvi_58:

(16, 40616), (Start: 27 @40658 has 90 MA's), (49, 40799), (51, 40817), (68, 40871), (73, 40889), (76, 40901), (80, 40913),

Gene: Jayhawk_59 Start: 40534, Stop: 40800, Start Num: 27

Candidate Starts for Jayhawk_59:

(16, 40492), (Start: 27 @40534 has 90 MA's), (35, 40579), (49, 40675), (51, 40693), (68, 40747), (73, 40765), (76, 40777), (80, 40789),

Gene: Jeckyll_58 Start: 40658, Stop: 40924, Start Num: 27

Candidate Starts for Jeckyll_58:

(16, 40616), (Start: 27 @40658 has 90 MA's), (49, 40799), (51, 40817), (68, 40871), (73, 40889), (76, 40901), (80, 40913),

Gene: Joy99_58 Start: 40587, Stop: 40853, Start Num: 27

Candidate Starts for Joy99_58:

(16, 40545), (Start: 27 @40587 has 90 MA's), (49, 40728), (51, 40746), (68, 40800), (73, 40818), (76, 40830), (80, 40842),

Gene: Karp_101 Start: 68949, Stop: 69314, Start Num: 29

Candidate Starts for Karp_101:

(Start: 29 @68949 has 23 MA's), (30, 68952), (39, 69039), (59, 69159), (67, 69201), (72, 69219), (78, 69240), (83, 69258),

Gene: Kenrey_106 Start: 68621, Stop: 68986, Start Num: 29

Candidate Starts for Kenrey_106:

(Start: 29 @68621 has 23 MA's), (39, 68711), (56, 68819), (59, 68831), (78, 68912), (83, 68930),

Gene: Keshu_60 Start: 40903, Stop: 41172, Start Num: 26

Candidate Starts for Keshu_60:

(16, 40864), (Start: 26 @40903 has 10 MA's), (35, 40948), (43, 41014), (45, 41035), (80, 41161),

Gene: Kudfre_112 Start: 61740, Stop: 62057, Start Num: 22

Candidate Starts for Kudfre_112:

(Start: 22 @61740 has 3 MA's), (31, 61761), (39, 61839), (40, 61842), (44, 61866), (47, 61881), (55, 61938), (61, 61962),

Gene: Kumao_82 Start: 53900, Stop: 54196, Start Num: 25

Candidate Starts for Kumao_82:

(18, 53870), (Start: 25 @53900 has 1 MA's), (50, 54062), (60, 54089), (63, 54113), (65, 54125), (67, 54131), (79, 54173), (80, 54176),

Gene: LastHope_61 Start: 39701, Stop: 39967, Start Num: 27

Candidate Starts for LastHope_61:

(16, 39659), (Start: 27 @39701 has 90 MA's), (35, 39746), (49, 39842), (68, 39914), (73, 39932), (76, 39944), (80, 39956),

Gene: LaterM_59 Start: 41420, Stop: 41719, Start Num: 27

Candidate Starts for LaterM_59:

(Start: 27 @41420 has 90 MA's), (35, 41465), (49, 41561), (53, 41585), (68, 41633), (73, 41651), (76, 41663), (80, 41675), (82, 41684),

Gene: Lea83_58 Start: 40858, Stop: 41127, Start Num: 26

Candidate Starts for Lea83_58:

(3, 40663), (16, 40819), (Start: 26 @40858 has 10 MA's), (35, 40903), (43, 40969), (45, 40990), (80, 41116),

Gene: LilJank_106 Start: 63800, Stop: 64132, Start Num: 19

Candidate Starts for LilJank_106:

(14, 63770), (Start: 19 @63800 has 2 MA's), (Start: 21 @63818 has 1 MA's), (40, 63929), (41, 63932), (46, 63965), (61, 64043), (70, 64088), (77, 64115),

Gene: LindNT_57 Start: 40742, Stop: 41008, Start Num: 27

Candidate Starts for LindNT_57:

(16, 40700), (Start: 27 @40742 has 90 MA's), (35, 40787), (49, 40883), (68, 40955), (73, 40973), (76, 40985), (80, 40997),

Gene: Llorens_58 Start: 40658, Stop: 40924, Start Num: 27

Candidate Starts for Llorens_58:

(16, 40616), (Start: 27 @40658 has 90 MA's), (49, 40799), (51, 40817), (68, 40871), (73, 40889), (76, 40901), (80, 40913),

Gene: Lunahalos_58 Start: 40658, Stop: 40924, Start Num: 27

Candidate Starts for Lunahalos_58:

(16, 40616), (Start: 27 @40658 has 90 MA's), (49, 40799), (51, 40817), (68, 40871), (73, 40889), (76, 40901), (80, 40913),

Gene: MacKat_53 Start: 36002, Stop: 36268, Start Num: 27

Candidate Starts for MacKat_53:

(16, 35960), (Start: 27 @36002 has 90 MA's), (35, 36047), (49, 36143), (68, 36215), (73, 36233), (76, 36245), (80, 36257),

Gene: MacnCheese_60 Start: 41385, Stop: 41663, Start Num: 26

Candidate Starts for MacnCheese_60:

(2, 41154), (3, 41190), (Start: 26 @41385 has 10 MA's), (35, 41430), (42, 41490), (43, 41496), (45, 41517), (83, 41655),

Gene: Maupel_105 Start: 68393, Stop: 68758, Start Num: 29

Candidate Starts for Maupel_105:

(Start: 29 @68393 has 23 MA's), (34, 68432), (39, 68483), (59, 68603), (67, 68645), (78, 68684), (83, 68702),

Gene: MeaningOfLife_59 Start: 41413, Stop: 41679, Start Num: 27

Candidate Starts for MeaningOfLife_59:

(16, 41371), (Start: 27 @41413 has 90 MA's), (35, 41458), (49, 41554), (51, 41572), (68, 41626), (73, 41644), (76, 41656), (80, 41668),

Gene: MeganTheeKilla_103 Start: 67750, Stop: 68115, Start Num: 29

Candidate Starts for MeganTheeKilla_103:

(Start: 29 @67750 has 23 MA's), (34, 67789), (39, 67840), (59, 67960), (67, 68002), (78, 68041), (83, 68059),

Gene: Megsy_60 Start: 40807, Stop: 41073, Start Num: 27

Candidate Starts for Megsy_60:

(16, 40765), (Start: 27 @40807 has 90 MA's), (35, 40852), (49, 40948), (68, 41020), (73, 41038), (76, 41050), (80, 41062),

Gene: Moab_105 Start: 70915, Stop: 71280, Start Num: 29

Candidate Starts for Moab_105:

(Start: 29 @70915 has 23 MA's), (39, 71005), (59, 71125), (67, 71167), (69, 71173), (78, 71206), (83, 71224),

Gene: Murucutumbu_59 Start: 41513, Stop: 41779, Start Num: 27

Candidate Starts for Murucutumbu_59:

(3, 41315), (16, 41471), (Start: 27 @41513 has 90 MA's), (35, 41558), (49, 41654), (68, 41726), (73, 41744), (76, 41756), (80, 41768),

Gene: Mynx_59 Start: 40855, Stop: 41121, Start Num: 27

Candidate Starts for Mynx_59:

(16, 40813), (Start: 27 @40855 has 90 MA's), (35, 40900), (49, 40996), (68, 41068), (73, 41086), (76, 41098), (80, 41110),

Gene: Neville_108 Start: 62420, Stop: 62755, Start Num: 19

Candidate Starts for Neville_108:

(14, 62390), (Start: 19 @62420 has 2 MA's), (Start: 21 @62438 has 1 MA's), (40, 62549), (46, 62585), (61, 62666), (66, 62699), (70, 62711), (77, 62738),

Gene: Octobien14_108 Start: 60532, Stop: 60849, Start Num: 23

Candidate Starts for Octobien14_108:

(6, 60397), (13, 60481), (Start: 23 @60532 has 1 MA's), (39, 60631), (40, 60634), (44, 60658), (47, 60673), (55, 60730), (61, 60754),

Gene: Padfoot_58 Start: 40855, Stop: 41121, Start Num: 27

Candidate Starts for Padfoot_58:

(16, 40813), (Start: 27 @40855 has 90 MA's), (35, 40900), (49, 40996), (51, 41014), (68, 41068), (73, 41086), (76, 41098), (80, 41110),

Gene: Padpat_60 Start: 40536, Stop: 40802, Start Num: 27

Candidate Starts for Padpat_60:

(16, 40494), (Start: 27 @40536 has 90 MA's), (35, 40581), (49, 40677), (51, 40695), (68, 40749), (73, 40767), (76, 40779), (80, 40791),

Gene: Patelgo_104 Start: 70001, Stop: 70366, Start Num: 29

Candidate Starts for Patelgo_104:

(Start: 29 @70001 has 23 MA's), (39, 70091), (59, 70211), (67, 70253), (78, 70292), (83, 70310),

Gene: Peel_58 Start: 40660, Stop: 40926, Start Num: 27

Candidate Starts for Peel_58:

(16, 40618), (Start: 27 @40660 has 90 MA's), (35, 40705), (49, 40801), (51, 40819), (68, 40873), (73, 40891), (76, 40903), (80, 40915),

Gene: Peregrin_132 Start: 78720, Stop: 79052, Start Num: 20

Candidate Starts for Peregrin_132:

(Start: 20 @78720 has 2 MA's), (Start: 23 @78735 has 1 MA's), (32, 78774), (42, 78852), (52, 78924), (57, 78948), (66, 78999),

Gene: Pharb_57 Start: 40007, Stop: 40276, Start Num: 26

Candidate Starts for Pharb_57:

(Start: 26 @40007 has 10 MA's), (43, 40118), (45, 40139), (80, 40265),

Gene: Phredrick_104 Start: 67726, Stop: 68091, Start Num: 29

Candidate Starts for Phredrick_104:

(Start: 29 @67726 has 23 MA's), (39, 67816), (56, 67924), (59, 67936), (78, 68017), (83, 68035),

Gene: Piatt_58 Start: 40855, Stop: 41121, Start Num: 27

Candidate Starts for Piatt_58:

(16, 40813), (Start: 27 @40855 has 90 MA's), (35, 40900), (49, 40996), (51, 41014), (68, 41068), (73, 41086), (76, 41098), (80, 41110),

Gene: Pisa1_58 Start: 41518, Stop: 41784, Start Num: 27

Candidate Starts for Pisa1_58:

(3, 41320), (16, 41476), (Start: 27 @41518 has 90 MA's), (35, 41563), (49, 41659), (68, 41731), (73, 41749), (76, 41761), (80, 41773),

Gene: Pisa4_52 Start: 36887, Stop: 37153, Start Num: 27

Candidate Starts for Pisa4_52:

(3, 36689), (16, 36845), (Start: 27 @36887 has 90 MA's), (35, 36932), (49, 37028), (68, 37100), (73, 37118), (76, 37130), (80, 37142),

Gene: Pixie_57 Start: 40343, Stop: 40612, Start Num: 26

Candidate Starts for Pixie_57:

(16, 40304), (Start: 26 @40343 has 10 MA's), (35, 40388), (43, 40454), (45, 40475), (68, 40559), (80, 40601),

Gene: Pokerus_57 Start: 40585, Stop: 40851, Start Num: 27

Candidate Starts for Pokerus_57:

(16, 40543), (Start: 27 @40585 has 90 MA's), (35, 40630), (49, 40726), (51, 40744), (68, 40798), (73, 40816), (76, 40828), (80, 40840),

Gene: Prithvi_59 Start: 40742, Stop: 41008, Start Num: 27

Candidate Starts for Prithvi_59:

(16, 40700), (Start: 27 @40742 has 90 MA's), (35, 40787), (49, 40883), (68, 40955), (73, 40973), (76, 40985), (80, 40997),

Gene: QuincyRose_57 Start: 40919, Stop: 41185, Start Num: 27

Candidate Starts for QuincyRose_57:

(16, 40877), (Start: 27 @40919 has 90 MA's), (35, 40964), (49, 41060), (51, 41078), (68, 41132), (73, 41150), (76, 41162), (80, 41174),

Gene: Rabbitrun_110 Start: 63382, Stop: 63696, Start Num: 21

Candidate Starts for Rabbitrun_110:

(7, 63274), (17, 63358), (Start: 19 @63364 has 2 MA's), (Start: 21 @63382 has 1 MA's), (46, 63529), (61, 63607), (70, 63652), (75, 63673), (77, 63679),

Gene: Ramen_59 Start: 40541, Stop: 40807, Start Num: 27

Candidate Starts for Ramen_59:

(16, 40499), (Start: 27 @40541 has 90 MA's), (35, 40586), (49, 40682), (68, 40754), (73, 40772), (76, 40784), (80, 40796),

Gene: Rapunzel97_59 Start: 40534, Stop: 40800, Start Num: 27

Candidate Starts for Rapunzel97_59:

(16, 40492), (Start: 27 @40534 has 90 MA's), (35, 40579), (49, 40675), (51, 40693), (68, 40747), (73, 40765), (76, 40777), (80, 40789),

Gene: Rosmarinus_58 Start: 40646, Stop: 40912, Start Num: 27

Candidate Starts for Rosmarinus_58:

(16, 40604), (Start: 27 @40646 has 90 MA's), (49, 40787), (51, 40805), (68, 40859), (73, 40877), (76, 40889), (80, 40901),

Gene: SamuelLPlaqson_59 Start: 41439, Stop: 41705, Start Num: 27

Candidate Starts for SamuelLPlaqson_59:

(16, 41397), (Start: 27 @41439 has 90 MA's), (35, 41484), (49, 41580), (68, 41652), (73, 41670), (76, 41682), (80, 41694),

Gene: Schmidt_63 Start: 39059, Stop: 39370, Start Num: 28

Candidate Starts for Schmidt_63:

(15, 38996), (Start: 28 @39059 has 2 MA's), (Start: 33 @39086 has 2 MA's), (40, 39128), (48, 39179), (54, 39206), (62, 39215), (63, 39227), (69, 39251), (81, 39293),

Gene: Sephiroth_108 Start: 61495, Stop: 61812, Start Num: 22

Candidate Starts for Sephiroth_108:

(Start: 22 @61495 has 3 MA's), (39, 61594), (40, 61597), (44, 61621), (47, 61636), (55, 61693), (61, 61717),

Gene: ShedlockHolmes_59 Start: 40862, Stop: 41131, Start Num: 26

Candidate Starts for ShedlockHolmes_59:

(3, 40667), (16, 40823), (Start: 26 @40862 has 10 MA's), (35, 40907), (43, 40973), (45, 40994), (80, 41120),

Gene: ShiaSurprise_59 Start: 40855, Stop: 41121, Start Num: 27

Candidate Starts for ShiaSurprise_59:

(16, 40813), (Start: 27 @40855 has 90 MA's), (35, 40900), (49, 40996), (51, 41014), (68, 41068), (73, 41086), (76, 41098), (80, 41110),

Gene: SirPhilip_59 Start: 41271, Stop: 41540, Start Num: 27

Candidate Starts for SirPhilip_59:

(3, 41073), (5, 41124), (Start: 27 @41271 has 90 MA's), (35, 41316), (37, 41343), (45, 41403), (80, 41529),

Gene: Sixama_38 Start: 12651, Stop: 12286, Start Num: 27

Candidate Starts for Sixama_38:

(10, 12729), (Start: 19 @12684 has 2 MA's), (Start: 27 @12651 has 90 MA's), (35, 12606), (36, 12585), (62, 12429), (84, 12339), (87, 12312),

Gene: Slimphazie_58 Start: 40534, Stop: 40800, Start Num: 27

Candidate Starts for Slimphazie_58:

(16, 40492), (Start: 27 @40534 has 90 MA's), (35, 40579), (49, 40675), (51, 40693), (68, 40747), (73, 40765), (76, 40777), (80, 40789),

Gene: SparkleGoddess_103 Start: 69278, Stop: 69643, Start Num: 29

Candidate Starts for SparkleGoddess_103:

(Start: 29 @69278 has 23 MA's), (30, 69281), (39, 69368), (59, 69488), (67, 69530), (78, 69569), (83, 69587),

Gene: Splinter_69 Start: 42588, Stop: 42908, Start Num: 33

Candidate Starts for Splinter_69:

(Start: 29 @42561 has 23 MA's), (Start: 33 @42588 has 2 MA's), (39, 42645), (44, 42678), (76, 42813), (81, 42828), (85, 42852), (86, 42861),

Gene: Spock_58 Start: 40659, Stop: 40925, Start Num: 27

Candidate Starts for Spock_58:

(16, 40617), (Start: 27 @40659 has 90 MA's), (49, 40800), (51, 40818), (68, 40872), (73, 40890), (76, 40902), (80, 40914),

Gene: Stigma_102 Start: 69286, Stop: 69651, Start Num: 29

Candidate Starts for Stigma_102:

(Start: 29 @69286 has 23 MA's), (30, 69289), (39, 69376), (59, 69496), (67, 69538), (78, 69577), (83, 69595),

Gene: Stinson_59 Start: 41036, Stop: 41302, Start Num: 27

Candidate Starts for Stinson_59:

(Start: 27 @41036 has 90 MA's), (35, 41081), (49, 41177), (53, 41201), (68, 41249), (73, 41267), (76, 41279), (80, 41291),

Gene: Sulley_58 Start: 40710, Stop: 40976, Start Num: 27

Candidate Starts for Sulley_58:

(16, 40668), (Start: 27 @40710 has 90 MA's), (35, 40755), (49, 40851), (68, 40923), (73, 40941), (76, 40953), (80, 40965),

Gene: Syleon_113 Start: 62277, Stop: 62594, Start Num: 22

Candidate Starts for Syleon_113:

(Start: 22 @62277 has 3 MA's), (31, 62298), (61, 62499),

Gene: TBond007_56 Start: 40342, Stop: 40611, Start Num: 26

Candidate Starts for TBond007_56:

(16, 40303), (Start: 26 @40342 has 10 MA's), (35, 40387), (43, 40453), (45, 40474), (80, 40600),

Gene: TZGordon_70 Start: 41449, Stop: 41796, Start Num: 29

Candidate Starts for TZGordon_70:

(Start: 29 @41449 has 23 MA's), (Start: 33 @41476 has 2 MA's), (39, 41533), (44, 41566), (76, 41701), (81, 41716), (85, 41740), (86, 41749),

Gene: Tachez_58 Start: 40503, Stop: 40769, Start Num: 27

Candidate Starts for Tachez_58:

(16, 40461), (Start: 27 @40503 has 90 MA's), (35, 40548), (49, 40644), (51, 40662), (68, 40716), (73, 40734), (76, 40746), (80, 40758),

Gene: TaiwanKao_60 Start: 40804, Stop: 41070, Start Num: 27

Candidate Starts for TaiwanKao_60:

(16, 40762), (Start: 27 @40804 has 90 MA's), (35, 40849), (49, 40945), (68, 41017), (73, 41035), (76, 41047), (80, 41059),

Gene: TinaLin_68 Start: 41133, Stop: 41456, Start Num: 29

Candidate Starts for TinaLin_68:

(1, 40866), (11, 41064), (Start: 29 @41133 has 23 MA's), (Start: 33 @41160 has 2 MA's), (38, 41217), (39, 41223), (64, 41328), (76, 41373), (85, 41412),

Gene: TingHuaYa_60 Start: 39863, Stop: 40129, Start Num: 27

Candidate Starts for TingHuaYa_60:

(Start: 27 @39863 has 90 MA's), (35, 39908), (49, 40004), (68, 40076), (73, 40094), (76, 40106), (80, 40118),

Gene: TiniBug_59 Start: 41435, Stop: 41701, Start Num: 27

Candidate Starts for TiniBug_59:

(16, 41393), (Start: 27 @41435 has 90 MA's), (35, 41480), (49, 41576), (68, 41648), (73, 41666), (76, 41678), (80, 41690),

Gene: Tiri_59 Start: 40824, Stop: 41090, Start Num: 27

Candidate Starts for Tiri_59:

(16, 40782), (Start: 27 @40824 has 90 MA's), (35, 40869), (49, 40965), (51, 40983), (64, 41022), (68, 41037), (73, 41055), (76, 41067), (80, 41079),

Gene: Topper_58 Start: 40658, Stop: 40924, Start Num: 27

Candidate Starts for Topper_58:

(16, 40616), (Start: 27 @40658 has 90 MA's), (49, 40799), (51, 40817), (68, 40871), (73, 40889), (76, 40901), (80, 40913),

Gene: Trax_110 Start: 63415, Stop: 63750, Start Num: 19

Candidate Starts for Trax_110:

(14, 63385), (Start: 19 @63415 has 2 MA's), (Start: 21 @63433 has 1 MA's), (40, 63544), (46, 63580), (61, 63661), (66, 63694), (70, 63706), (77, 63733),

Gene: TreyKay_59 Start: 40742, Stop: 41008, Start Num: 27

Candidate Starts for TreyKay_59:

(16, 40700), (Start: 27 @40742 has 90 MA's), (35, 40787), (49, 40883), (68, 40955), (73, 40973), (76, 40985), (80, 40997),

Gene: TribbleTrouble_57 Start: 40818, Stop: 41087, Start Num: 26

Candidate Starts for TribbleTrouble_57:

(Start: 26 @40818 has 10 MA's), (35, 40863), (43, 40929), (45, 40950), (80, 41076),

Gene: TruffulaTree_58 Start: 40530, Stop: 40796, Start Num: 27

Candidate Starts for TruffulaTree_58:

(16, 40488), (Start: 27 @40530 has 90 MA's), (35, 40575), (49, 40671), (51, 40689), (68, 40743), (73, 40761), (76, 40773), (80, 40785),

Gene: Twitch_58 Start: 40660, Stop: 40926, Start Num: 27

Candidate Starts for Twitch_58:

(16, 40618), (Start: 27 @40660 has 90 MA's), (35, 40705), (49, 40801), (51, 40819), (68, 40873), (73, 40891), (76, 40903), (80, 40915),

Gene: Urkel_59 Start: 41439, Stop: 41705, Start Num: 27

Candidate Starts for Urkel_59:

(16, 41397), (Start: 27 @41439 has 90 MA's), (35, 41484), (49, 41580), (68, 41652), (73, 41670), (76, 41682), (80, 41694),

Gene: Veliki_59 Start: 40516, Stop: 40782, Start Num: 27

Candidate Starts for Veliki_59:

(16, 40474), (Start: 27 @40516 has 90 MA's), (35, 40561), (49, 40657), (68, 40729), (73, 40747), (76, 40759), (80, 40771),

Gene: Vendetta_69 Start: 42588, Stop: 42908, Start Num: 33

Candidate Starts for Vendetta_69:

(Start: 29 @42561 has 23 MA's), (Start: 33 @42588 has 2 MA's), (39, 42645), (44, 42678), (76, 42813), (81, 42828), (85, 42852), (86, 42861),

Gene: Weasels2_136 Start: 80031, Stop: 80330, Start Num: 29

Candidate Starts for Weasels2_136:

(24, 80022), (Start: 29 @80031 has 23 MA's), (58, 80229),

Gene: Westy_107 Start: 70313, Stop: 70678, Start Num: 29

Candidate Starts for Westy_107:

(Start: 29 @70313 has 23 MA's), (30, 70316), (39, 70403), (59, 70523), (67, 70565), (74, 70589), (78, 70604), (83, 70622),

Gene: YoureAdopted_57 Start: 40659, Stop: 40925, Start Num: 27

Candidate Starts for YoureAdopted_57:

(16, 40617), (Start: 27 @40659 has 90 MA's), (49, 40800), (51, 40818), (68, 40872), (73, 40890), (76, 40902), (80, 40914),

Gene: Yuna_63 Start: 41860, Stop: 42126, Start Num: 26

Candidate Starts for Yuna_63:

(8, 41767), (Start: 26 @41860 has 10 MA's), (Start: 27 @41863 has 90 MA's), (35, 41908), (40, 41959), (45, 41989), (80, 42115),

Gene: Yunkel11_61 Start: 40355, Stop: 40621, Start Num: 27

Candidate Starts for Yunkel11_61:

(4, 40160), (Start: 27 @40355 has 90 MA's), (35, 40400), (49, 40496), (73, 40586), (76, 40598), (80, 40610),

Gene: Zabiza_53 Start: 36844, Stop: 37110, Start Num: 27

Candidate Starts for Zabiza_53:

(16, 36802), (Start: 27 @36844 has 90 MA's), (35, 36889), (49, 36985), (68, 37057), (73, 37075), (76, 37087), (80, 37099),

Gene: Zavala_60 Start: 40815, Stop: 41081, Start Num: 27

Candidate Starts for Zavala_60:

(16, 40773), (Start: 27 @40815 has 90 MA's), (35, 40860), (49, 40956), (68, 41028), (73, 41046), (76, 41058), (80, 41070),