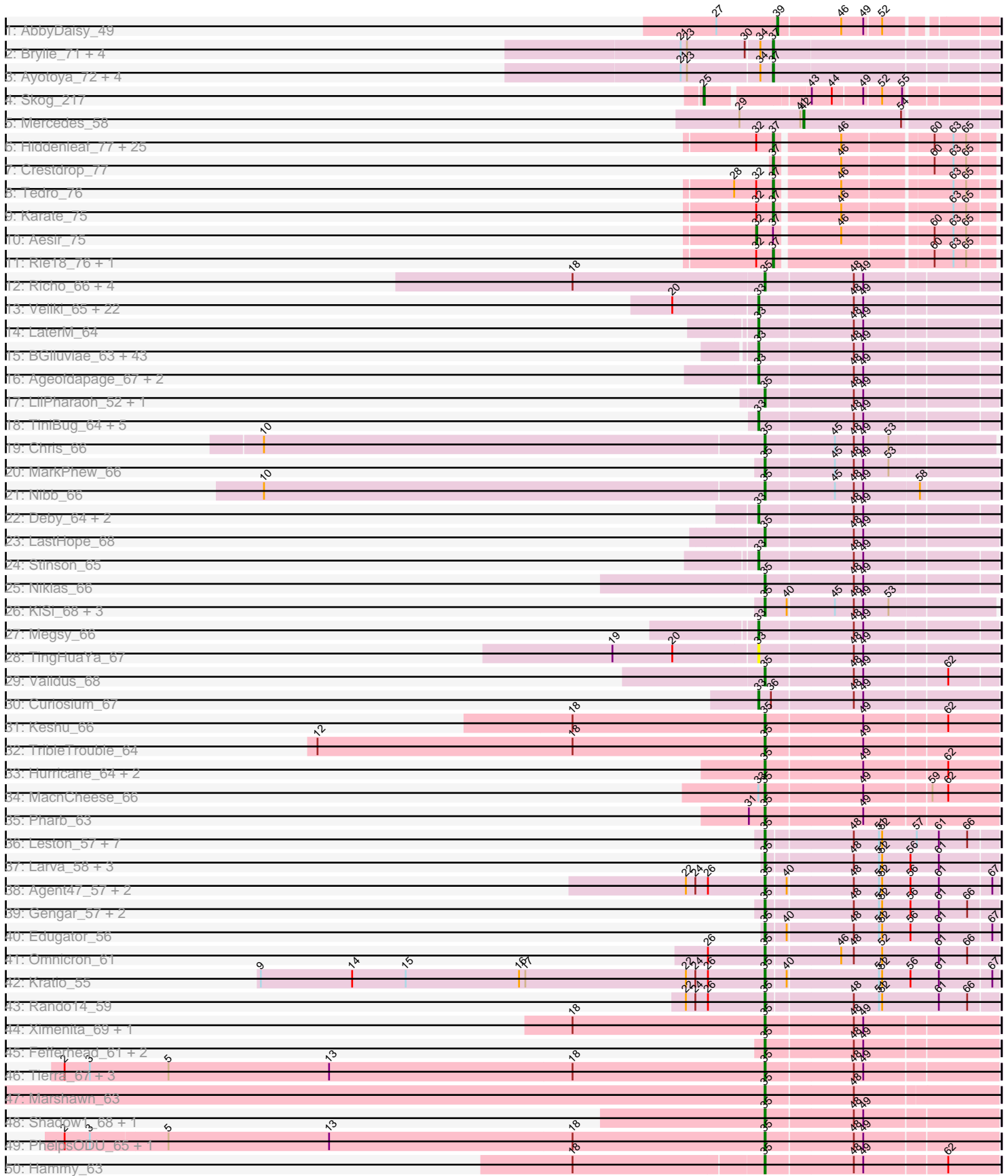


Pham 193746



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 193746 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193746 has 195 members, 6 are drafts.

Phages represented in each track:

- Track 1 : AbbyDaisy_49
- Track 2 : Brylie_71, WheatThin_71, Nadeem_71, Parada_71, Mulch_71
- Track 3 : Ayotoya_72, GrandSlam_73, DelRio_72, Hamood_73, Chop_73
- Track 4 : Skog_217
- Track 5 : Mercedes_58
- Track 6 : Hiddenleaf_77, JingleBells_76, PhunaPhoke_76, AnnaSerena_76, OverHedge_75, Potty_75, NarutoRun_76, Cybele_76, MortySmith_74, Pharpay_75, Krampus_76, JDawG_75, Neptune_76, Chivey_77, Erudite_75, Gilda_76, FreddieHg_77, CoolCookie_75, DannyDe_77, Haunter_77, Poultruss_75, Snakehole_77, Dauntless_75, Kate_76, Anakin_76, Rachella_76
- Track 7 : Crestdrop_77
- Track 8 : Tedro_76
- Track 9 : Karate_75
- Track 10 : Aesir_75
- Track 11 : Rie18_76, Hager_78
- Track 12 : Richo_66, Dartin_66, Shaobing_66, McMater_66, Peanam_66
- Track 13 : Veliki_65, JAWS_64, Prithvi_65, Devera_71, Guanica15_68, Efra2_69, Rapunzel97_65, BarrelRoll_64, Pokerus_63, TruffulaTree_64, YoureAdopted_63, LindNT_63, BaghaKamala_63, TaiwanKao_66, Murucutumbu_65, CrimD_65, Dole_69, Zavala_66, Yunkel11_68, Mynx_65, Illumine_69, Slimphazie_64, TreyKay_65
- Track 14 : LaterM_64
- Track 15 : BGlluviae_63, Jarvi_63, Twitch_63, Blizzard_63, Atiba_64, Hyperbowlee_63, Llorens_63, Adephagia_63, Ramen_64, Zabiza_58, Homura_63, Tachez_63, CaseJules_65, Spock_63, Rosmarinus_63, QuincyRose_62, ShiaSurprise_64, Lunahalos_63, Boiiii_63, Apocalypse_66, Durfee_63, Piatt_63, Sulley_63, Joy99_63, Tiri_64, Peel_63, ActinUp_63, HedwigODU_63, Belladonna_63, Adonis_63, Beezoo_65, Padfoot_63, Topper_63, Angelica_63, Dalmuri_63, Geraldini_66, Inky_63, Asayake_63, Jeckyll_63, Capricorn_63, MeaningOfLife_64, Ganymede_64, CREW_63, BEEST_63
- Track 16 : Ageofdapage_67, Emerson_65, Padpat_66
- Track 17 : LilPharaoh_52, SgtBeansprout_52
- Track 18 : TiniBug_64, DrHayes_64, Urkel_64, SamuelLPlaqson_64, Bella96_64, Anaya_66
- Track 19 : Chris_66
- Track 20 : MarkPhew_66
- Track 21 : Nibb_66

- Track 22 : Deby_64, CheetoDust_63, Jayhawk_65
- Track 23 : LastHope_68
- Track 24 : Stinson_65
- Track 25 : Niklas_66
- Track 26 : KiSi_68, Oscar_67, LeMond_67, Scarlett_68
- Track 27 : Megsy_66
- Track 28 : TingHuaYa_67
- Track 29 : Validus_68
- Track 30 : Curiosium_67
- Track 31 : Keshu_66
- Track 32 : TribbleTrouble_64
- Track 33 : Hurricane_64, Pixie_63, ShedlockHolmes_65
- Track 34 : MacnCheese_66
- Track 35 : Pharb_63
- Track 36 : Leston_57, Heftyboy_58, Guillsminger_58, Waterfoul_59, Feyre_60, Paola_57, SoSeph_58, Thyatira_60
- Track 37 : Larva_58, AlleyCat_59, Psycho_57, Dadosky_59
- Track 38 : Agent47_57, Collard_55, InvictusManeo_55
- Track 39 : Gengar_57, OkiRoe_58, Miryou_61
- Track 40 : Edugator_56
- Track 41 : Omnicron_61
- Track 42 : Kratio_55
- Track 43 : Rando14_59
- Track 44 : Ximenita_69, Syra333_67
- Track 45 : Fefferhead_61, Amgine_62, Ellie_59
- Track 46 : Tierra_67, Cain_67, Bryler_67, Phrank_67
- Track 47 : Marshawn_63
- Track 48 : Shadow1_68, Sunflower1121_69
- Track 49 : PhelpsODU_65, Unicorn_65
- Track 50 : Hammy_63
- Track 51 : Amohnition_63, DARTH_P_63
- Track 52 : Krueger_68
- Track 53 : TClif_64
- Track 54 : Trogglehumper_5

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

The start number called the most often in the published annotations is 33, it was called in 82 of the 189 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp_63, Adephegia_63, Adonis_63, Ageofdapage_67, Anaya_66, Angelica_63, Apocalypse_66, Asayake_63, Atiba_64, BEEST_63, BGIlluviae_63, BaghaKamala_63, BarrelRoll_64, Beezoo_65, Bella96_64, Belladonna_63, Blizzard_63, Boiiii_63, CREW_63, Capricorn_63, CaseJules_65, CheetoDust_63, CrimD_65, Curiosium_67, Dalmuri_63, Deby_64, Devera_71, Dole_69, DrHayes_64, Durfee_63, Efra2_69, Emerson_65, Ganymede_64, Geraldini_66, Guanica15_68, HedwigODU_63, Homura_63, Hyperbowlee_63, Illumine_69, Inky_63, JAWS_64, Jarvi_63, Jayhawk_65, Jeckyll_63, Joy99_63, LaterM_64, LindNT_63, Llorens_63, Lunahalos_63, MeaningOfLife_64, Megsy_66, Murucutumbu_65, Mynx_65,

Padfoot_63, Padpat_66, Peel_63, Piatt_63, Pokerus_63, Prithvi_65, QuincyRose_62, Ramen_64, Rapunzel97_65, Rosmarinus_63, SamuelLPlaqson_64, ShiaSurprise_64, Slimphazie_64, Spock_63, Stinson_65, Sulley_63, Tachez_63, TaiwanKao_66, TingHuaYa_67, TiniBug_64, Tiri_64, Topper_63, TreyKay_65, TruffulaTree_64, Twitch_63, Urkel_64, Veliki_65, YoureAdopted_63, Yunkel11_68, Zabiza_58, Zavala_66,

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

- MacnCheese_66,

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

- AbbyDaisy_49, Aesir_75, Agent47_57, AlleyCat_59, Amgine_62, Amohndition_63, Anakin_76, AnnaSerena_76, Ayotoya_72, Bryler_67, Brylie_71, Cain_67, Chivey_77, Chop_73, Chris_66, Collard_55, CoolCookie_75, Crestdrop_77, Cybele_76, Dadosky_59, DannyDe_77, DarthP_63, Dartin_66, Dauntless_75, DelRio_72, Edugator_56, Ellie_59, Erudite_75, Fefferhead_61, Feyre_60, FreddieHg_77, Gengar_57, Gilda_76, GrandSlam_73, Guillsminger_58, Hager_78, Hammy_63, Hamood_73, Haunter_77, Heftyboy_58, Hiddenleaf_77, Hurricane_64, InvictusManeo_55, JDawG_75, JingleBells_76, Karate_75, Kate_76, Keshu_66, KiSi_68, Krampus_76, Kratio_55, Krueger_68, Larva_58, LastHope_68, LeMond_67, Leston_57, LilPharaoh_52, MarkPhew_66, Marshawn_63, McMater_66, Mercedes_58, Miryou_61, MortySmith_74, Mulch_71, Nadeem_71, NarutoRun_76, Neptune_76, Nibb_66, Niklas_66, OkiRoe_58, Omnicron_61, Oscar_67, OverHedge_75, Paola_57, Parada_71, Peanam_66, Pharb_63, Pharpay_75, PhelpsODU_65, Phrank_67, PhunaPhoke_76, Pixie_63, Potty_75, Poultruss_75, Psycho_57, Rachella_76, Rando14_59, Richo_66, Rie18_76, Scarlett_68, SgtBeansprout_52, Shadow1_68, Shaobing_66, ShedlockHolmes_65, Skog_217, Snakehole_77, SoSeph_58, Sunflower1121_69, Syra333_67, TClif_64, Tedro_76, Thyatira_60, Tierra_67, TribbleTrouble_64, Trogglehumper_5, Unicorn_65, Validus_68, Waterfoul_59, WheatThin_71, Ximenita_69,

Summary by start number:

Start 25:

- Found in 1 of 195 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Skog_217 (DO),

Start 32:

- Found in 31 of 195 (15.9%) of genes in pham
- Manual Annotations of this start: 1 of 189
- Called 3.2% of time when present
- Phage (with cluster) where this start called: Aesir_75 (EF),

Start 33:

- Found in 85 of 195 (43.6%) of genes in pham
- Manual Annotations of this start: 82 of 189
- Called 98.8% of time when present
- Phage (with cluster) where this start called: ActinUp_63 (K1), Adephegia_63 (K1), Adonis_63 (K1), Ageofdapage_67 (K1), Anaya_66 (K1), Angelica_63 (K1), Apocalypse_66 (K1), Asayake_63 (K1), Atiba_64 (K1), BEEST_63 (K1), BGIlluvia_63 (K1), BaghaKamala_63 (K1), BarrelRoll_64 (K1), Beezoo_65 (K1),

Bella96_64 (K1), Belladonna_63 (K1), Blizzard_63 (K1), Boiiii_63 (K1), CREW_63 (K1), Capricorn_63 (K1), CaseJules_65 (K1), CheetoDust_63 (K1), CrimD_65 (K1), Curiosium_67 (K1), Dalmuri_63 (K1), Deby_64 (K1), Devera_71 (K1), Dole_69 (K1), DrHayes_64 (K1), Durfee_63 (K1), Efra2_69 (K1), Emerson_65 (K1), Ganymede_64 (K1), Geraldini_66 (K1), Guanica15_68 (K1), HedwigODU_63 (K1), Homura_63 (K1), Hyperbowlee_63 (K1), Illumine_69 (K1), Inky_63 (K1), JAWS_64 (K1), Jarvi_63 (K1), Jayhawk_65 (K1), Jeckyll_63 (K1), Joy99_63 (K1), LaterM_64 (K1), LindNT_63 (K1), Llorens_63 (K1), Lunahalos_63 (K1), MeaningOfLife_64 (K1), Megsy_66 (K1), Murucutumbu_65 (K1), Mynx_65 (K1), Padfoot_63 (K1), Padpat_66 (K1), Peel_63 (K1), Piatt_63 (K1), Pokerus_63 (K1), Prithvi_65 (K1), QuincyRose_62 (K1), Ramen_64 (K1), Rapunzel97_65 (K1), Rosmarinus_63 (K1), SamuelLPlaqson_64 (K1), ShiaSurprise_64 (K1), Slimphazie_64 (K1), Spock_63 (K1), Stinson_65 (K1), Sulley_63 (K1), Tachez_63 (K1), TaiwanKao_66 (K1), TingHuaYa_67 (K1), TiniBug_64 (K1), Tiri_64 (K1), Topper_63 (K1), TreyKay_65 (K1), TruffulaTree_64 (K1), Twitch_63 (K1), Urkel_64 (K1), Veliki_65 (K1), YoureAdopted_63 (K1), Yunkel11_68 (K1), Zabiza_58 (K1), Zavala_66 (K1),

Start 35:

- Found in 65 of 195 (33.3%) of genes in pham
- Manual Annotations of this start: 62 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agent47_57 (K5), AlleyCat_59 (K5), Amgine_62 (K6), Amohntion_63 (K6), Bryler_67 (K6), Cain_67 (K6), Chris_66 (K1), Collard_55 (K5), Dadosky_59 (K5), DarthP_63 (K6), Dartin_66 (K1), Edugator_56 (K5), Ellie_59 (K6), Fefferhead_61 (K6), Feyre_60 (K5), Gengar_57 (K5), Guillsminger_58 (K5), Hammy_63 (K6), Heftyboy_58 (K5), Hurricane_64 (K3), InvictusManeo_55 (K5), Keshu_66 (K3), KiSi_68 (K1), Kratio_55 (K5), Krueger_68 (K6), Larva_58 (K5), LastHope_68 (K1), LeMond_67 (K1), Leston_57 (K5), LilPharaoh_52 (K1), MacnCheese_66 (K3), MarkPheW_66 (K1), Marshawn_63 (K6), McMater_66 (K1), Miryou_61 (K5), Nibb_66 (K1), Niklas_66 (K1), OkiRoe_58 (K5), Omnicron_61 (K5), Oscar_67 (K1), Paola_57 (K5), Peanam_66 (K1), Pharb_63 (K3), PhelpsODU_65 (K6), Phrank_67 (K6), Pixie_63 (K3), Psycho_57 (K5), Rando14_59 (K5), Richo_66 (K1), Scarlett_68 (K1), SgtBeansprout_52 (K1), Shadow1_68 (K6), Shaobing_66 (K1), ShedlockHolmes_65 (K3), SoSeph_58 (K5), Sunflower1121_69 (K6), Syra333_67 (K6), TClif_64 (K6), Thyatira_60 (K5), Tierra_67 (K6), TripleTrouble_64 (K3), Unicorn_65 (K6), Validus_68 (K1), Waterfoul_59 (K5), Ximenita_69 (K6),

Start 37:

- Found in 42 of 195 (21.5%) of genes in pham
- Manual Annotations of this start: 40 of 189
- Called 97.6% of time when present
- Phage (with cluster) where this start called: Anakin_76 (EF), AnnaSerena_76 (EF), Ayotoya_72 (DI), Brylie_71 (DI), Chivey_77 (EF), Chop_73 (DI), CoolCookie_75 (EF), Crestdrop_77 (EF), Cybele_76 (EF), DannyDe_77 (EF), Dauntless_75 (EF), DelRio_72 (DI), Erudite_75 (EF), FreddieHg_77 (EF), Gilda_76 (EF), GrandSlam_73 (DI), Hager_78 (EF), Hamood_73 (DI), Haunter_77 (EF), Hiddenleaf_77 (EF), JDawG_75 (EF), JingleBells_76 (EF), Karate_75 (EF), Kate_76 (EF), Krampus_76 (EF), MortySmith_74 (EF), Mulch_71 (DI), Nadeem_71 (DI), NarutoRun_76 (EF), Neptune_76 (EF), OverHedge_75 (EF), Parada_71 (DI), Pharpay_75 (EF), PhunaPhoke_76 (EF), Potty_75 (EF), Poultruss_75 (EF), Rachella_76 (EF), Rie18_76 (EF), Snakehole_77 (EF), Tedro_76 (EF), WheatThin_71 (DI),

Start 38:

- Found in 1 of 195 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Trogglehumper_5 (singleton),

Start 39:

- Found in 1 of 195 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbyDaisy_49 (AY),

Start 42:

- Found in 1 of 195 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mercedes_58 (EA),

Summary by clusters:

There are 10 clusters represented in this pham: DO, singleton, DI, EF, EA, K3, K1, K6, K5, AY,

Info for manual annotations of cluster AY:

- Start number 39 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster DI:

- Start number 37 was manually annotated 10 times for cluster DI.

Info for manual annotations of cluster DO:

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

Info for manual annotations of cluster EA:

- Start number 42 was manually annotated 1 time for cluster EA.

Info for manual annotations of cluster EF:

- Start number 32 was manually annotated 1 time for cluster EF.
- Start number 37 was manually annotated 30 times for cluster EF.

Info for manual annotations of cluster K1:

- Start number 33 was manually annotated 82 times for cluster K1.
- Start number 35 was manually annotated 14 times for cluster K1.

Info for manual annotations of cluster K3:

- Start number 35 was manually annotated 7 times for cluster K3.

Info for manual annotations of cluster K5:

- Start number 35 was manually annotated 22 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 35 was manually annotated 19 times for cluster K6.

Gene Information:

Gene: AbbyDaisy_49 Start: 31179, Stop: 31364, Start Num: 39

Candidate Starts for AbbyDaisy_49:

(27, 31122), (Start: 39 @31179 has 1 MA's), (46, 31236), (49, 31257), (52, 31272),

Gene: ActinUp_63 Start: 42440, Stop: 42655, Start Num: 33

Candidate Starts for ActinUp_63:

(Start: 33 @42440 has 82 MA's), (48, 42527), (49, 42536),

Gene: Adephagia_63 Start: 42477, Stop: 42692, Start Num: 33

Candidate Starts for Adephagia_63:

(Start: 33 @42477 has 82 MA's), (48, 42564), (49, 42573),

Gene: Adonis_63 Start: 42712, Stop: 42927, Start Num: 33

Candidate Starts for Adonis_63:

(Start: 33 @42712 has 82 MA's), (48, 42799), (49, 42808),

Gene: Aesir_75 Start: 52985, Stop: 53188, Start Num: 32

Candidate Starts for Aesir_75:

(Start: 32 @52985 has 1 MA's), (Start: 37 @53000 has 40 MA's), (46, 53057), (60, 53135), (63, 53153), (65, 53165),

Gene: Agent47_57 Start: 39612, Stop: 39824, Start Num: 35

Candidate Starts for Agent47_57:

(22, 39537), (24, 39546), (26, 39558), (Start: 35 @39612 has 62 MA's), (40, 39630), (48, 39690), (51, 39714), (52, 39717), (56, 39744), (61, 39771), (67, 39819),

Gene: Ageofdapage_67 Start: 43868, Stop: 44083, Start Num: 33

Candidate Starts for Ageofdapage_67:

(Start: 33 @43868 has 82 MA's), (48, 43955), (49, 43964),

Gene: AlleyCat_59 Start: 39910, Stop: 40122, Start Num: 35

Candidate Starts for AlleyCat_59:

(Start: 35 @39910 has 62 MA's), (48, 39988), (51, 40012), (52, 40015), (56, 40042), (61, 40069),

Gene: Amgine_62 Start: 43547, Stop: 43759, Start Num: 35

Candidate Starts for Amgine_62:

(Start: 35 @43547 has 62 MA's), (48, 43628), (49, 43637),

Gene: Amohnition_63 Start: 43082, Stop: 43294, Start Num: 35

Candidate Starts for Amohnition_63:

(1, 42395), (4, 42482), (6, 42530), (7, 42557), (8, 42581), (11, 42623), (18, 42905), (Start: 35 @43082 has 62 MA's), (48, 43163), (49, 43172), (62, 43247),

Gene: Anakin_76 Start: 53365, Stop: 53553, Start Num: 37

Candidate Starts for Anakin_76:

(Start: 32 @53350 has 1 MA's), (Start: 37 @53365 has 40 MA's), (46, 53422), (60, 53500), (63, 53518), (65, 53530),

Gene: Anaya_66 Start: 43420, Stop: 43638, Start Num: 33

Candidate Starts for Anaya_66:

(Start: 33 @43420 has 82 MA's), (48, 43507), (49, 43516),

Gene: Angelica_63 Start: 42629, Stop: 42844, Start Num: 33
Candidate Starts for Angelica_63:
(Start: 33 @42629 has 82 MA's), (48, 42716), (49, 42725),

Gene: AnnaSerena_76 Start: 53399, Stop: 53587, Start Num: 37
Candidate Starts for AnnaSerena_76:
(Start: 32 @53384 has 1 MA's), (Start: 37 @53399 has 40 MA's), (46, 53456), (60, 53534), (63, 53552), (65, 53564),

Gene: Apocalypse_66 Start: 43395, Stop: 43610, Start Num: 33
Candidate Starts for Apocalypse_66:
(Start: 33 @43395 has 82 MA's), (48, 43482), (49, 43491),

Gene: Asayake_63 Start: 42792, Stop: 43007, Start Num: 33
Candidate Starts for Asayake_63:
(Start: 33 @42792 has 82 MA's), (48, 42879), (49, 42888),

Gene: Atiba_64 Start: 42440, Stop: 42655, Start Num: 33
Candidate Starts for Atiba_64:
(Start: 33 @42440 has 82 MA's), (48, 42527), (49, 42536),

Gene: Ayotoya_72 Start: 48939, Stop: 49139, Start Num: 37
Candidate Starts for Ayotoya_72:
(21, 48855), (23, 48861), (34, 48927), (Start: 37 @48939 has 40 MA's),

Gene: BEEST_63 Start: 42792, Stop: 43007, Start Num: 33
Candidate Starts for BEEST_63:
(Start: 33 @42792 has 82 MA's), (48, 42879), (49, 42888),

Gene: BGlluviae_63 Start: 42595, Stop: 42810, Start Num: 33
Candidate Starts for BGlluviae_63:
(Start: 33 @42595 has 82 MA's), (48, 42682), (49, 42691),

Gene: BaghaKamala_63 Start: 42253, Stop: 42471, Start Num: 33
Candidate Starts for BaghaKamala_63:
(20, 42175), (Start: 33 @42253 has 82 MA's), (48, 42340), (49, 42349),

Gene: BarrelRoll_64 Start: 42877, Stop: 43092, Start Num: 33
Candidate Starts for BarrelRoll_64:
(20, 42799), (Start: 33 @42877 has 82 MA's), (48, 42964), (49, 42973),

Gene: Beezoo_65 Start: 43389, Stop: 43604, Start Num: 33
Candidate Starts for Beezoo_65:
(Start: 33 @43389 has 82 MA's), (48, 43476), (49, 43485),

Gene: Bella96_64 Start: 43173, Stop: 43388, Start Num: 33
Candidate Starts for Bella96_64:
(Start: 33 @43173 has 82 MA's), (48, 43260), (49, 43269),

Gene: Belladonna_63 Start: 42595, Stop: 42810, Start Num: 33
Candidate Starts for Belladonna_63:
(Start: 33 @42595 has 82 MA's), (48, 42682), (49, 42691),

Gene: Blizzard_63 Start: 42792, Stop: 43007, Start Num: 33

Candidate Starts for Blizzard_63:

(Start: 33 @42792 has 82 MA's), (48, 42879), (49, 42888),

Gene: Boiiii_63 Start: 42794, Stop: 43009, Start Num: 33

Candidate Starts for Boiiii_63:

(Start: 33 @42794 has 82 MA's), (48, 42881), (49, 42890),

Gene: Bryler_67 Start: 42423, Stop: 42635, Start Num: 35

Candidate Starts for Bryler_67:

(2, 41757), (3, 41781), (5, 41856), (13, 42009), (18, 42240), (Start: 35 @42423 has 62 MA's), (48, 42504), (49, 42513),

Gene: Brylie_71 Start: 47955, Stop: 48155, Start Num: 37

Candidate Starts for Brylie_71:

(21, 47871), (23, 47877), (30, 47931), (34, 47943), (Start: 37 @47955 has 40 MA's),

Gene: CREW_63 Start: 42595, Stop: 42810, Start Num: 33

Candidate Starts for CREW_63:

(Start: 33 @42595 has 82 MA's), (48, 42682), (49, 42691),

Gene: Cain_67 Start: 42411, Stop: 42623, Start Num: 35

Candidate Starts for Cain_67:

(2, 41745), (3, 41769), (5, 41844), (13, 41997), (18, 42228), (Start: 35 @42411 has 62 MA's), (48, 42492), (49, 42501),

Gene: Capricorn_63 Start: 42595, Stop: 42810, Start Num: 33

Candidate Starts for Capricorn_63:

(Start: 33 @42595 has 82 MA's), (48, 42682), (49, 42691),

Gene: CaseJules_65 Start: 42792, Stop: 43007, Start Num: 33

Candidate Starts for CaseJules_65:

(Start: 33 @42792 has 82 MA's), (48, 42879), (49, 42888),

Gene: CheetoDust_63 Start: 42300, Stop: 42518, Start Num: 33

Candidate Starts for CheetoDust_63:

(Start: 33 @42300 has 82 MA's), (48, 42387), (49, 42396),

Gene: Chivey_77 Start: 52802, Stop: 52990, Start Num: 37

Candidate Starts for Chivey_77:

(Start: 32 @52787 has 1 MA's), (Start: 37 @52802 has 40 MA's), (46, 52859), (60, 52937), (63, 52955), (65, 52967),

Gene: Chop_73 Start: 49004, Stop: 49204, Start Num: 37

Candidate Starts for Chop_73:

(21, 48920), (23, 48926), (34, 48992), (Start: 37 @49004 has 40 MA's),

Gene: Chris_66 Start: 43655, Stop: 43864, Start Num: 35

Candidate Starts for Chris_66:

(10, 43181), (Start: 35 @43655 has 62 MA's), (45, 43718), (48, 43736), (49, 43745), (53, 43769),

Gene: Collard_55 Start: 39573, Stop: 39785, Start Num: 35

Candidate Starts for Collard_55:

(22, 39498), (24, 39507), (26, 39519), (Start: 35 @39573 has 62 MA's), (40, 39591), (48, 39651), (51, 39675), (52, 39678), (56, 39705), (61, 39732), (67, 39780),

Gene: CoolCookie_75 Start: 53498, Stop: 53686, Start Num: 37

Candidate Starts for CoolCookie_75:

(Start: 32 @53483 has 1 MA's), (Start: 37 @53498 has 40 MA's), (46, 53555), (60, 53633), (63, 53651), (65, 53663),

Gene: Crestdrop_77 Start: 53319, Stop: 53507, Start Num: 37

Candidate Starts for Crestdrop_77:

(Start: 37 @53319 has 40 MA's), (46, 53376), (60, 53454), (63, 53472), (65, 53484),

Gene: CrimD_65 Start: 43416, Stop: 43631, Start Num: 33

Candidate Starts for CrimD_65:

(20, 43338), (Start: 33 @43416 has 82 MA's), (48, 43503), (49, 43512),

Gene: Curiosium_67 Start: 42105, Stop: 42323, Start Num: 33

Candidate Starts for Curiosium_67:

(Start: 33 @42105 has 82 MA's), (36, 42117), (48, 42192), (49, 42201),

Gene: Cybele_76 Start: 53395, Stop: 53583, Start Num: 37

Candidate Starts for Cybele_76:

(Start: 32 @53380 has 1 MA's), (Start: 37 @53395 has 40 MA's), (46, 53452), (60, 53530), (63, 53548), (65, 53560),

Gene: Dadosky_59 Start: 39912, Stop: 40124, Start Num: 35

Candidate Starts for Dadosky_59:

(Start: 35 @39912 has 62 MA's), (48, 39990), (51, 40014), (52, 40017), (56, 40044), (61, 40071),

Gene: Dalmuri_63 Start: 42595, Stop: 42810, Start Num: 33

Candidate Starts for Dalmuri_63:

(Start: 33 @42595 has 82 MA's), (48, 42682), (49, 42691),

Gene: DannyDe_77 Start: 52804, Stop: 52992, Start Num: 37

Candidate Starts for DannyDe_77:

(Start: 32 @52789 has 1 MA's), (Start: 37 @52804 has 40 MA's), (46, 52861), (60, 52939), (63, 52957), (65, 52969),

Gene: DarthP_63 Start: 42936, Stop: 43148, Start Num: 35

Candidate Starts for DarthP_63:

(1, 42249), (4, 42336), (6, 42384), (7, 42411), (8, 42435), (11, 42477), (18, 42759), (Start: 35 @42936 has 62 MA's), (48, 43017), (49, 43026), (62, 43101),

Gene: Dartin_66 Start: 43084, Stop: 43293, Start Num: 35

Candidate Starts for Dartin_66:

(18, 42904), (Start: 35 @43084 has 62 MA's), (48, 43165), (49, 43174),

Gene: Dauntless_75 Start: 53031, Stop: 53219, Start Num: 37

Candidate Starts for Dauntless_75:

(Start: 32 @53016 has 1 MA's), (Start: 37 @53031 has 40 MA's), (46, 53088), (60, 53166), (63, 53184), (65, 53196),

Gene: Deby_64 Start: 43078, Stop: 43293, Start Num: 33
Candidate Starts for Deby_64:
(Start: 33 @43078 has 82 MA's), (48, 43165), (49, 43174),

Gene: DelRio_72 Start: 49046, Stop: 49246, Start Num: 37
Candidate Starts for DelRio_72:
(21, 48962), (23, 48968), (34, 49034), (Start: 37 @49046 has 40 MA's),

Gene: Devera_71 Start: 44431, Stop: 44646, Start Num: 33
Candidate Starts for Devera_71:
(20, 44353), (Start: 33 @44431 has 82 MA's), (48, 44518), (49, 44527),

Gene: Dole_69 Start: 44434, Stop: 44649, Start Num: 33
Candidate Starts for Dole_69:
(20, 44356), (Start: 33 @44434 has 82 MA's), (48, 44521), (49, 44530),

Gene: DrHayes_64 Start: 43328, Stop: 43543, Start Num: 33
Candidate Starts for DrHayes_64:
(Start: 33 @43328 has 82 MA's), (48, 43415), (49, 43424),

Gene: Durfee_63 Start: 42792, Stop: 43007, Start Num: 33
Candidate Starts for Durfee_63:
(Start: 33 @42792 has 82 MA's), (48, 42879), (49, 42888),

Gene: Edugator_56 Start: 41333, Stop: 41545, Start Num: 35
Candidate Starts for Edugator_56:
(Start: 35 @41333 has 62 MA's), (40, 41351), (48, 41411), (51, 41435), (52, 41438), (56, 41465), (61, 41492), (67, 41540),

Gene: Efra2_69 Start: 43158, Stop: 43376, Start Num: 33
Candidate Starts for Efra2_69:
(20, 43080), (Start: 33 @43158 has 82 MA's), (48, 43245), (49, 43254),

Gene: Ellie_59 Start: 42407, Stop: 42619, Start Num: 35
Candidate Starts for Ellie_59:
(Start: 35 @42407 has 62 MA's), (48, 42488), (49, 42497),

Gene: Emerson_65 Start: 42909, Stop: 43127, Start Num: 33
Candidate Starts for Emerson_65:
(Start: 33 @42909 has 82 MA's), (48, 42996), (49, 43005),

Gene: Erudite_75 Start: 53031, Stop: 53219, Start Num: 37
Candidate Starts for Erudite_75:
(Start: 32 @53016 has 1 MA's), (Start: 37 @53031 has 40 MA's), (46, 53088), (60, 53166), (63, 53184), (65, 53196),

Gene: Fefferhead_61 Start: 42316, Stop: 42528, Start Num: 35
Candidate Starts for Fefferhead_61:
(Start: 35 @42316 has 62 MA's), (48, 42397), (49, 42406),

Gene: Feyre_60 Start: 43292, Stop: 43504, Start Num: 35
Candidate Starts for Feyre_60:

(Start: 35 @43292 has 62 MA's), (48, 43370), (51, 43394), (52, 43397), (57, 43430), (61, 43451), (66, 43478),

Gene: FreddieHg_77 Start: 52819, Stop: 53007, Start Num: 37

Candidate Starts for FreddieHg_77:

(Start: 32 @52804 has 1 MA's), (Start: 37 @52819 has 40 MA's), (46, 52876), (60, 52954), (63, 52972), (65, 52984),

Gene: Ganymede_64 Start: 42817, Stop: 43032, Start Num: 33

Candidate Starts for Ganymede_64:

(Start: 33 @42817 has 82 MA's), (48, 42904), (49, 42913),

Gene: Gengar_57 Start: 41311, Stop: 41523, Start Num: 35

Candidate Starts for Gengar_57:

(Start: 35 @41311 has 62 MA's), (48, 41389), (51, 41413), (52, 41416), (56, 41443), (61, 41470), (66, 41497),

Gene: Geraldini_66 Start: 43474, Stop: 43689, Start Num: 33

Candidate Starts for Geraldini_66:

(Start: 33 @43474 has 82 MA's), (48, 43561), (49, 43570),

Gene: Gilda_76 Start: 53387, Stop: 53575, Start Num: 37

Candidate Starts for Gilda_76:

(Start: 32 @53372 has 1 MA's), (Start: 37 @53387 has 40 MA's), (46, 53444), (60, 53522), (63, 53540), (65, 53552),

Gene: GrandSlam_73 Start: 49004, Stop: 49204, Start Num: 37

Candidate Starts for GrandSlam_73:

(21, 48920), (23, 48926), (34, 48992), (Start: 37 @49004 has 40 MA's),

Gene: Guanica15_68 Start: 42899, Stop: 43117, Start Num: 33

Candidate Starts for Guanica15_68:

(20, 42821), (Start: 33 @42899 has 82 MA's), (48, 42986), (49, 42995),

Gene: Guillsminger_58 Start: 41282, Stop: 41494, Start Num: 35

Candidate Starts for Guillsminger_58:

(Start: 35 @41282 has 62 MA's), (48, 41360), (51, 41384), (52, 41387), (57, 41420), (61, 41441), (66, 41468),

Gene: Hager_78 Start: 52853, Stop: 53041, Start Num: 37

Candidate Starts for Hager_78:

(Start: 32 @52838 has 1 MA's), (Start: 37 @52853 has 40 MA's), (60, 52988), (63, 53006), (65, 53018),

Gene: Hammy_63 Start: 42924, Stop: 43136, Start Num: 35

Candidate Starts for Hammy_63:

(18, 42747), (Start: 35 @42924 has 62 MA's), (48, 43005), (49, 43014), (62, 43089),

Gene: Hamood_73 Start: 49004, Stop: 49204, Start Num: 37

Candidate Starts for Hamood_73:

(21, 48920), (23, 48926), (34, 48992), (Start: 37 @49004 has 40 MA's),

Gene: Haunter_77 Start: 52808, Stop: 52996, Start Num: 37

Candidate Starts for Haunter_77:

(Start: 32 @52793 has 1 MA's), (Start: 37 @52808 has 40 MA's), (46, 52865), (60, 52943), (63, 52961), (65, 52973),

Gene: HedwigODU_63 Start: 42440, Stop: 42655, Start Num: 33

Candidate Starts for HedwigODU_63:

(Start: 33 @42440 has 82 MA's), (48, 42527), (49, 42536),

Gene: Heftyboy_58 Start: 41654, Stop: 41866, Start Num: 35

Candidate Starts for Heftyboy_58:

(Start: 35 @41654 has 62 MA's), (48, 41732), (51, 41756), (52, 41759), (57, 41792), (61, 41813), (66, 41840),

Gene: Hiddenleaf_77 Start: 52802, Stop: 52990, Start Num: 37

Candidate Starts for Hiddenleaf_77:

(Start: 32 @52787 has 1 MA's), (Start: 37 @52802 has 40 MA's), (46, 52859), (60, 52937), (63, 52955), (65, 52967),

Gene: Homura_63 Start: 42595, Stop: 42810, Start Num: 33

Candidate Starts for Homura_63:

(Start: 33 @42595 has 82 MA's), (48, 42682), (49, 42691),

Gene: Hurricane_64 Start: 42910, Stop: 43122, Start Num: 35

Candidate Starts for Hurricane_64:

(Start: 35 @42910 has 62 MA's), (49, 43000), (62, 43075),

Gene: Hyperbowlee_63 Start: 42792, Stop: 43007, Start Num: 33

Candidate Starts for Hyperbowlee_63:

(Start: 33 @42792 has 82 MA's), (48, 42879), (49, 42888),

Gene: Illumine_69 Start: 44433, Stop: 44648, Start Num: 33

Candidate Starts for Illumine_69:

(20, 44355), (Start: 33 @44433 has 82 MA's), (48, 44520), (49, 44529),

Gene: Inky_63 Start: 42595, Stop: 42810, Start Num: 33

Candidate Starts for Inky_63:

(Start: 33 @42595 has 82 MA's), (48, 42682), (49, 42691),

Gene: InvictusManeo_55 Start: 39616, Stop: 39828, Start Num: 35

Candidate Starts for InvictusManeo_55:

(22, 39541), (24, 39550), (26, 39562), (Start: 35 @39616 has 62 MA's), (40, 39634), (48, 39694), (51, 39718), (52, 39721), (56, 39748), (61, 39775), (67, 39823),

Gene: JAWS_64 Start: 42868, Stop: 43086, Start Num: 33

Candidate Starts for JAWS_64:

(20, 42790), (Start: 33 @42868 has 82 MA's), (48, 42955), (49, 42964),

Gene: JDawG_75 Start: 52995, Stop: 53183, Start Num: 37

Candidate Starts for JDawG_75:

(Start: 32 @52980 has 1 MA's), (Start: 37 @52995 has 40 MA's), (46, 53052), (60, 53130), (63, 53148), (65, 53160),

Gene: Jarvi_63 Start: 42595, Stop: 42810, Start Num: 33

Candidate Starts for Jarvi_63:
(Start: 33 @42595 has 82 MA's), (48, 42682), (49, 42691),

Gene: Jayhawk_65 Start: 42937, Stop: 43152, Start Num: 33
Candidate Starts for Jayhawk_65:
(Start: 33 @42937 has 82 MA's), (48, 43024), (49, 43033),

Gene: Jeckyll_63 Start: 42595, Stop: 42810, Start Num: 33
Candidate Starts for Jeckyll_63:
(Start: 33 @42595 has 82 MA's), (48, 42682), (49, 42691),

Gene: JingleBells_76 Start: 52907, Stop: 53095, Start Num: 37
Candidate Starts for JingleBells_76:
(Start: 32 @52892 has 1 MA's), (Start: 37 @52907 has 40 MA's), (46, 52964), (60, 53042), (63, 53060), (65, 53072),

Gene: Joy99_63 Start: 42524, Stop: 42739, Start Num: 33
Candidate Starts for Joy99_63:
(Start: 33 @42524 has 82 MA's), (48, 42611), (49, 42620),

Gene: Karate_75 Start: 53099, Stop: 53287, Start Num: 37
Candidate Starts for Karate_75:
(Start: 32 @53084 has 1 MA's), (Start: 37 @53099 has 40 MA's), (46, 53156), (63, 53252), (65, 53264),

Gene: Kate_76 Start: 53310, Stop: 53498, Start Num: 37
Candidate Starts for Kate_76:
(Start: 32 @53295 has 1 MA's), (Start: 37 @53310 has 40 MA's), (46, 53367), (60, 53445), (63, 53463), (65, 53475),

Gene: Keshu_66 Start: 43008, Stop: 43220, Start Num: 35
Candidate Starts for Keshu_66:
(18, 42825), (Start: 35 @43008 has 62 MA's), (49, 43098), (62, 43173),

Gene: KiSi_68 Start: 43636, Stop: 43845, Start Num: 35
Candidate Starts for KiSi_68:
(Start: 35 @43636 has 62 MA's), (40, 43657), (45, 43699), (48, 43717), (49, 43726), (53, 43750),

Gene: Krampus_76 Start: 53400, Stop: 53588, Start Num: 37
Candidate Starts for Krampus_76:
(Start: 32 @53385 has 1 MA's), (Start: 37 @53400 has 40 MA's), (46, 53457), (60, 53535), (63, 53553), (65, 53565),

Gene: Kratio_55 Start: 39352, Stop: 39564, Start Num: 35
Candidate Starts for Kratio_55:
(9, 38872), (14, 38959), (15, 39010), (16, 39118), (17, 39124), (22, 39277), (24, 39286), (26, 39298),
(Start: 35 @39352 has 62 MA's), (40, 39370), (51, 39454), (52, 39457), (56, 39484), (61, 39511), (67, 39559),

Gene: Krueger_68 Start: 42699, Stop: 42911, Start Num: 35
Candidate Starts for Krueger_68:
(18, 42516), (Start: 35 @42699 has 62 MA's), (48, 42780), (49, 42789), (64, 42873),

Gene: Larva_58 Start: 40784, Stop: 40996, Start Num: 35
Candidate Starts for Larva_58:
(Start: 35 @40784 has 62 MA's), (48, 40862), (51, 40886), (52, 40889), (56, 40916), (61, 40943),

Gene: LastHope_68 Start: 42025, Stop: 42237, Start Num: 35
Candidate Starts for LastHope_68:
(Start: 35 @42025 has 62 MA's), (48, 42106), (49, 42115),

Gene: LaterM_64 Start: 43287, Stop: 43502, Start Num: 33
Candidate Starts for LaterM_64:
(Start: 33 @43287 has 82 MA's), (48, 43374), (49, 43383),

Gene: LeMond_67 Start: 43270, Stop: 43479, Start Num: 35
Candidate Starts for LeMond_67:
(Start: 35 @43270 has 62 MA's), (40, 43291), (45, 43333), (48, 43351), (49, 43360), (53, 43384),

Gene: Leston_57 Start: 41411, Stop: 41623, Start Num: 35
Candidate Starts for Leston_57:
(Start: 35 @41411 has 62 MA's), (48, 41489), (51, 41513), (52, 41516), (57, 41549), (61, 41570), (66, 41597),

Gene: LilPharaoh_52 Start: 39482, Stop: 39691, Start Num: 35
Candidate Starts for LilPharaoh_52:
(Start: 35 @39482 has 62 MA's), (48, 39563), (49, 39572),

Gene: LindNT_63 Start: 43082, Stop: 43297, Start Num: 33
Candidate Starts for LindNT_63:
(20, 43004), (Start: 33 @43082 has 82 MA's), (48, 43169), (49, 43178),

Gene: Llorens_63 Start: 42595, Stop: 42810, Start Num: 33
Candidate Starts for Llorens_63:
(Start: 33 @42595 has 82 MA's), (48, 42682), (49, 42691),

Gene: Lunahalos_63 Start: 42595, Stop: 42810, Start Num: 33
Candidate Starts for Lunahalos_63:
(Start: 33 @42595 has 82 MA's), (48, 42682), (49, 42691),

Gene: MacnCheese_66 Start: 43527, Stop: 43739, Start Num: 35
Candidate Starts for MacnCheese_66:
(Start: 33 @43521 has 82 MA's), (Start: 35 @43527 has 62 MA's), (49, 43617), (59, 43677), (62, 43692),

Gene: MarkPhew_66 Start: 42770, Stop: 42982, Start Num: 35
Candidate Starts for MarkPhew_66:
(Start: 35 @42770 has 62 MA's), (45, 42833), (48, 42851), (49, 42860), (53, 42884),

Gene: Marshawn_63 Start: 43120, Stop: 43332, Start Num: 35
Candidate Starts for Marshawn_63:
(Start: 35 @43120 has 62 MA's), (48, 43201),

Gene: McMater_66 Start: 43084, Stop: 43293, Start Num: 35
Candidate Starts for McMater_66:
(18, 42904), (Start: 35 @43084 has 62 MA's), (48, 43165), (49, 43174),

Gene: MeaningOfLife_64 Start: 43347, Stop: 43562, Start Num: 33

Candidate Starts for MeaningOfLife_64:

(Start: 33 @43347 has 82 MA's), (48, 43434), (49, 43443),

Gene: Megsy_66 Start: 43003, Stop: 43218, Start Num: 33

Candidate Starts for Megsy_66:

(Start: 33 @43003 has 82 MA's), (48, 43090), (49, 43099),

Gene: Mercedes_58 Start: 39826, Stop: 40002, Start Num: 42

Candidate Starts for Mercedes_58:

(29, 39766), (41, 39823), (Start: 42 @39826 has 1 MA's), (54, 39919),

Gene: Miryou_61 Start: 44008, Stop: 44220, Start Num: 35

Candidate Starts for Miryou_61:

(Start: 35 @44008 has 62 MA's), (48, 44086), (51, 44110), (52, 44113), (56, 44140), (61, 44167), (66, 44194),

Gene: MortySmith_74 Start: 52505, Stop: 52693, Start Num: 37

Candidate Starts for MortySmith_74:

(Start: 32 @52490 has 1 MA's), (Start: 37 @52505 has 40 MA's), (46, 52562), (60, 52640), (63, 52658), (65, 52670),

Gene: Mulch_71 Start: 47994, Stop: 48194, Start Num: 37

Candidate Starts for Mulch_71:

(21, 47910), (23, 47916), (30, 47970), (34, 47982), (Start: 37 @47994 has 40 MA's),

Gene: Murucutumbu_65 Start: 43862, Stop: 44077, Start Num: 33

Candidate Starts for Murucutumbu_65:

(20, 43784), (Start: 33 @43862 has 82 MA's), (48, 43949), (49, 43958),

Gene: Mynx_65 Start: 43204, Stop: 43422, Start Num: 33

Candidate Starts for Mynx_65:

(20, 43126), (Start: 33 @43204 has 82 MA's), (48, 43291), (49, 43300),

Gene: Nadeem_71 Start: 47982, Stop: 48182, Start Num: 37

Candidate Starts for Nadeem_71:

(21, 47898), (23, 47904), (30, 47958), (34, 47970), (Start: 37 @47982 has 40 MA's),

Gene: NarutoRun_76 Start: 53365, Stop: 53553, Start Num: 37

Candidate Starts for NarutoRun_76:

(Start: 32 @53350 has 1 MA's), (Start: 37 @53365 has 40 MA's), (46, 53422), (60, 53500), (63, 53518), (65, 53530),

Gene: Neptune_76 Start: 53395, Stop: 53583, Start Num: 37

Candidate Starts for Neptune_76:

(Start: 32 @53380 has 1 MA's), (Start: 37 @53395 has 40 MA's), (46, 53452), (60, 53530), (63, 53548), (65, 53560),

Gene: Nibb_66 Start: 42981, Stop: 43193, Start Num: 35

Candidate Starts for Nibb_66:

(10, 42507), (Start: 35 @42981 has 62 MA's), (45, 43044), (48, 43062), (49, 43071), (58, 43122),

Gene: Niklas_66 Start: 43145, Stop: 43354, Start Num: 35

Candidate Starts for Niklas_66:

(Start: 35 @43145 has 62 MA's), (48, 43226), (49, 43235),

Gene: OkiRoe_58 Start: 41679, Stop: 41891, Start Num: 35

Candidate Starts for OkiRoe_58:

(Start: 35 @41679 has 62 MA's), (48, 41757), (51, 41781), (52, 41784), (56, 41811), (61, 41838), (66, 41865),

Gene: Omnicron_61 Start: 41791, Stop: 42003, Start Num: 35

Candidate Starts for Omnicron_61:

(26, 41737), (Start: 35 @41791 has 62 MA's), (46, 41857), (48, 41869), (52, 41896), (61, 41950), (66, 41977),

Gene: Oscar_67 Start: 43187, Stop: 43396, Start Num: 35

Candidate Starts for Oscar_67:

(Start: 35 @43187 has 62 MA's), (40, 43208), (45, 43250), (48, 43268), (49, 43277), (53, 43301),

Gene: OverHedge_75 Start: 53261, Stop: 53449, Start Num: 37

Candidate Starts for OverHedge_75:

(Start: 32 @53246 has 1 MA's), (Start: 37 @53261 has 40 MA's), (46, 53318), (60, 53396), (63, 53414), (65, 53426),

Gene: Padfoot_63 Start: 42792, Stop: 43007, Start Num: 33

Candidate Starts for Padfoot_63:

(Start: 33 @42792 has 82 MA's), (48, 42879), (49, 42888),

Gene: Padpat_66 Start: 42909, Stop: 43127, Start Num: 33

Candidate Starts for Padpat_66:

(Start: 33 @42909 has 82 MA's), (48, 42996), (49, 43005),

Gene: Paola_57 Start: 41282, Stop: 41494, Start Num: 35

Candidate Starts for Paola_57:

(Start: 35 @41282 has 62 MA's), (48, 41360), (51, 41384), (52, 41387), (57, 41420), (61, 41441), (66, 41468),

Gene: Parada_71 Start: 47994, Stop: 48194, Start Num: 37

Candidate Starts for Parada_71:

(21, 47910), (23, 47916), (30, 47970), (34, 47982), (Start: 37 @47994 has 40 MA's),

Gene: Peanam_66 Start: 43103, Stop: 43312, Start Num: 35

Candidate Starts for Peanam_66:

(18, 42923), (Start: 35 @43103 has 62 MA's), (48, 43184), (49, 43193),

Gene: Peel_63 Start: 42597, Stop: 42812, Start Num: 33

Candidate Starts for Peel_63:

(Start: 33 @42597 has 82 MA's), (48, 42684), (49, 42693),

Gene: Pharb_63 Start: 42257, Stop: 42469, Start Num: 35

Candidate Starts for Pharb_63:

(31, 42242), (Start: 35 @42257 has 62 MA's), (49, 42347),

Gene: Pharpay_75 Start: 53410, Stop: 53598, Start Num: 37

Candidate Starts for Pharpay_75:

(Start: 32 @53395 has 1 MA's), (Start: 37 @53410 has 40 MA's), (46, 53467), (60, 53545), (63, 53563), (65, 53575),

Gene: PhelpsODU_65 Start: 42337, Stop: 42549, Start Num: 35

Candidate Starts for PhelpsODU_65:

(2, 41674), (3, 41698), (5, 41770), (13, 41923), (18, 42154), (Start: 35 @42337 has 62 MA's), (48, 42418), (49, 42427),

Gene: Phrank_67 Start: 42401, Stop: 42613, Start Num: 35

Candidate Starts for Phrank_67:

(2, 41735), (3, 41759), (5, 41834), (13, 41987), (18, 42218), (Start: 35 @42401 has 62 MA's), (48, 42482), (49, 42491),

Gene: PhunaPhoke_76 Start: 53380, Stop: 53568, Start Num: 37

Candidate Starts for PhunaPhoke_76:

(Start: 32 @53365 has 1 MA's), (Start: 37 @53380 has 40 MA's), (46, 53437), (60, 53515), (63, 53533), (65, 53545),

Gene: Piatt_63 Start: 42792, Stop: 43007, Start Num: 33

Candidate Starts for Piatt_63:

(Start: 33 @42792 has 82 MA's), (48, 42879), (49, 42888),

Gene: Pixie_63 Start: 42430, Stop: 42642, Start Num: 35

Candidate Starts for Pixie_63:

(Start: 35 @42430 has 62 MA's), (49, 42520), (62, 42595),

Gene: Pokerus_63 Start: 42937, Stop: 43152, Start Num: 33

Candidate Starts for Pokerus_63:

(20, 42859), (Start: 33 @42937 has 82 MA's), (48, 43024), (49, 43033),

Gene: Potty_75 Start: 53310, Stop: 53498, Start Num: 37

Candidate Starts for Potty_75:

(Start: 32 @53295 has 1 MA's), (Start: 37 @53310 has 40 MA's), (46, 53367), (60, 53445), (63, 53463), (65, 53475),

Gene: Poultruss_75 Start: 53607, Stop: 53795, Start Num: 37

Candidate Starts for Poultruss_75:

(Start: 32 @53592 has 1 MA's), (Start: 37 @53607 has 40 MA's), (46, 53664), (60, 53742), (63, 53760), (65, 53772),

Gene: Prithvi_65 Start: 43082, Stop: 43297, Start Num: 33

Candidate Starts for Prithvi_65:

(20, 43004), (Start: 33 @43082 has 82 MA's), (48, 43169), (49, 43178),

Gene: Psycho_57 Start: 39909, Stop: 40121, Start Num: 35

Candidate Starts for Psycho_57:

(Start: 35 @39909 has 62 MA's), (48, 39987), (51, 40011), (52, 40014), (56, 40041), (61, 40068),

Gene: QuincyRose_62 Start: 42817, Stop: 43032, Start Num: 33

Candidate Starts for QuincyRose_62:

(Start: 33 @42817 has 82 MA's), (48, 42904), (49, 42913),

Gene: Rachella_76 Start: 53391, Stop: 53579, Start Num: 37
Candidate Starts for Rachella_76:
(Start: 32 @53376 has 1 MA's), (Start: 37 @53391 has 40 MA's), (46, 53448), (60, 53526), (63, 53544), (65, 53556),

Gene: Ramen_64 Start: 42442, Stop: 42657, Start Num: 33
Candidate Starts for Ramen_64:
(Start: 33 @42442 has 82 MA's), (48, 42529), (49, 42538),

Gene: Rando14_59 Start: 39518, Stop: 39730, Start Num: 35
Candidate Starts for Rando14_59:
(22, 39443), (24, 39452), (26, 39464), (Start: 35 @39518 has 62 MA's), (48, 39596), (51, 39620), (52, 39623), (61, 39677), (66, 39704),

Gene: Rapunzel97_65 Start: 42892, Stop: 43107, Start Num: 33
Candidate Starts for Rapunzel97_65:
(20, 42814), (Start: 33 @42892 has 82 MA's), (48, 42979), (49, 42988),

Gene: Richo_66 Start: 43084, Stop: 43293, Start Num: 35
Candidate Starts for Richo_66:
(18, 42904), (Start: 35 @43084 has 62 MA's), (48, 43165), (49, 43174),

Gene: Rie18_76 Start: 53133, Stop: 53321, Start Num: 37
Candidate Starts for Rie18_76:
(Start: 32 @53118 has 1 MA's), (Start: 37 @53133 has 40 MA's), (60, 53268), (63, 53286), (65, 53298),

Gene: Rosmarinus_63 Start: 42583, Stop: 42798, Start Num: 33
Candidate Starts for Rosmarinus_63:
(Start: 33 @42583 has 82 MA's), (48, 42670), (49, 42679),

Gene: SamuelLPlaqson_64 Start: 43328, Stop: 43543, Start Num: 33
Candidate Starts for SamuelLPlaqson_64:
(Start: 33 @43328 has 82 MA's), (48, 43415), (49, 43424),

Gene: Scarlett_68 Start: 43514, Stop: 43726, Start Num: 35
Candidate Starts for Scarlett_68:
(Start: 35 @43514 has 62 MA's), (40, 43535), (45, 43577), (48, 43595), (49, 43604), (53, 43628),

Gene: SgtBeansprout_52 Start: 39754, Stop: 39963, Start Num: 35
Candidate Starts for SgtBeansprout_52:
(Start: 35 @39754 has 62 MA's), (48, 39835), (49, 39844),

Gene: Shadow1_68 Start: 42852, Stop: 43064, Start Num: 35
Candidate Starts for Shadow1_68:
(Start: 35 @42852 has 62 MA's), (48, 42933), (49, 42942),

Gene: Shaobing_66 Start: 43121, Stop: 43330, Start Num: 35
Candidate Starts for Shaobing_66:
(18, 42941), (Start: 35 @43121 has 62 MA's), (48, 43202), (49, 43211),

Gene: ShedlockHolmes_65 Start: 42949, Stop: 43161, Start Num: 35
Candidate Starts for ShedlockHolmes_65:

(Start: 35 @42949 has 62 MA's), (49, 43039), (62, 43114),

Gene: ShiaSurprise_64 Start: 42792, Stop: 43007, Start Num: 33

Candidate Starts for ShiaSurprise_64:

(Start: 33 @42792 has 82 MA's), (48, 42879), (49, 42888),

Gene: Skog_217 Start: 141536, Stop: 141781, Start Num: 25

Candidate Starts for Skog_217:

(Start: 25 @141536 has 1 MA's), (43, 141623), (44, 141641), (49, 141668), (52, 141683), (55, 141701),

Gene: Slimphazie_64 Start: 42892, Stop: 43107, Start Num: 33

Candidate Starts for Slimphazie_64:

(20, 42814), (Start: 33 @42892 has 82 MA's), (48, 42979), (49, 42988),

Gene: Snakehole_77 Start: 52751, Stop: 52939, Start Num: 37

Candidate Starts for Snakehole_77:

(Start: 32 @52736 has 1 MA's), (Start: 37 @52751 has 40 MA's), (46, 52808), (60, 52886), (63, 52904), (65, 52916),

Gene: SoSeph_58 Start: 41654, Stop: 41866, Start Num: 35

Candidate Starts for SoSeph_58:

(Start: 35 @41654 has 62 MA's), (48, 41732), (51, 41756), (52, 41759), (57, 41792), (61, 41813), (66, 41840),

Gene: Spock_63 Start: 42596, Stop: 42811, Start Num: 33

Candidate Starts for Spock_63:

(Start: 33 @42596 has 82 MA's), (48, 42683), (49, 42692),

Gene: Stinson_65 Start: 43220, Stop: 43435, Start Num: 33

Candidate Starts for Stinson_65:

(Start: 33 @43220 has 82 MA's), (48, 43307), (49, 43316),

Gene: Sulley_63 Start: 42656, Stop: 42871, Start Num: 33

Candidate Starts for Sulley_63:

(Start: 33 @42656 has 82 MA's), (48, 42743), (49, 42752),

Gene: Sunflower1121_69 Start: 42998, Stop: 43210, Start Num: 35

Candidate Starts for Sunflower1121_69:

(Start: 35 @42998 has 62 MA's), (48, 43079), (49, 43088),

Gene: Syra333_67 Start: 42711, Stop: 42923, Start Num: 35

Candidate Starts for Syra333_67:

(18, 42528), (Start: 35 @42711 has 62 MA's), (48, 42792), (49, 42801),

Gene: TClif_64 Start: 42546, Stop: 42758, Start Num: 35

Candidate Starts for TClif_64:

(Start: 35 @42546 has 62 MA's), (48, 42627), (49, 42636), (62, 42711),

Gene: Tachez_63 Start: 42440, Stop: 42655, Start Num: 33

Candidate Starts for Tachez_63:

(Start: 33 @42440 has 82 MA's), (48, 42527), (49, 42536),

Gene: TaiwanKao_66 Start: 43144, Stop: 43359, Start Num: 33
Candidate Starts for TaiwanKao_66:
(20, 43066), (Start: 33 @43144 has 82 MA's), (48, 43231), (49, 43240),

Gene: Tedro_76 Start: 52895, Stop: 53083, Start Num: 37
Candidate Starts for Tedro_76:
(28, 52859), (Start: 32 @52880 has 1 MA's), (Start: 37 @52895 has 40 MA's), (46, 52952), (63, 53048), (65, 53060),

Gene: Thyatira_60 Start: 43612, Stop: 43824, Start Num: 35
Candidate Starts for Thyatira_60:
(Start: 35 @43612 has 62 MA's), (48, 43690), (51, 43714), (52, 43717), (57, 43750), (61, 43771), (66, 43798),

Gene: Tierra_67 Start: 43212, Stop: 43424, Start Num: 35
Candidate Starts for Tierra_67:
(2, 42546), (3, 42570), (5, 42645), (13, 42798), (18, 43029), (Start: 35 @43212 has 62 MA's), (48, 43293), (49, 43302),

Gene: TingHuaYa_67 Start: 42388, Stop: 42606, Start Num: 33
Candidate Starts for TingHuaYa_67:
(19, 42253), (20, 42310), (Start: 33 @42388 has 82 MA's), (48, 42475), (49, 42484),

Gene: TiniBug_64 Start: 43324, Stop: 43539, Start Num: 33
Candidate Starts for TiniBug_64:
(Start: 33 @43324 has 82 MA's), (48, 43411), (49, 43420),

Gene: Tiri_64 Start: 42728, Stop: 42943, Start Num: 33
Candidate Starts for Tiri_64:
(Start: 33 @42728 has 82 MA's), (48, 42815), (49, 42824),

Gene: Topper_63 Start: 42595, Stop: 42810, Start Num: 33
Candidate Starts for Topper_63:
(Start: 33 @42595 has 82 MA's), (48, 42682), (49, 42691),

Gene: TreyKay_65 Start: 43082, Stop: 43297, Start Num: 33
Candidate Starts for TreyKay_65:
(20, 43004), (Start: 33 @43082 has 82 MA's), (48, 43169), (49, 43178),

Gene: TribbleTrouble_64 Start: 43429, Stop: 43641, Start Num: 35
Candidate Starts for TribbleTrouble_64:
(12, 43003), (18, 43246), (Start: 35 @43429 has 62 MA's), (49, 43519),

Gene: Trogglehumper_5 Start: 2263, Stop: 2457, Start Num: 38
Candidate Starts for Trogglehumper_5:
(Start: 38 @2263 has 1 MA's), (44, 2314), (47, 2332), (50, 2356),

Gene: TruffulaTree_64 Start: 42888, Stop: 43103, Start Num: 33
Candidate Starts for TruffulaTree_64:
(20, 42810), (Start: 33 @42888 has 82 MA's), (48, 42975), (49, 42984),

Gene: Twitch_63 Start: 42597, Stop: 42812, Start Num: 33
Candidate Starts for Twitch_63:

(Start: 33 @42597 has 82 MA's), (48, 42684), (49, 42693),

Gene: Unicorn_65 Start: 42337, Stop: 42549, Start Num: 35

Candidate Starts for Unicorn_65:

(2, 41674), (3, 41698), (5, 41770), (13, 41923), (18, 42154), (Start: 35 @42337 has 62 MA's), (48, 42418), (49, 42427),

Gene: Urkel_64 Start: 43328, Stop: 43543, Start Num: 33

Candidate Starts for Urkel_64:

(Start: 33 @43328 has 82 MA's), (48, 43415), (49, 43424),

Gene: Validus_68 Start: 43466, Stop: 43675, Start Num: 35

Candidate Starts for Validus_68:

(Start: 35 @43466 has 62 MA's), (48, 43547), (49, 43556), (62, 43631),

Gene: Veliki_65 Start: 42859, Stop: 43077, Start Num: 33

Candidate Starts for Veliki_65:

(20, 42781), (Start: 33 @42859 has 82 MA's), (48, 42946), (49, 42955),

Gene: Waterfoul_59 Start: 41716, Stop: 41928, Start Num: 35

Candidate Starts for Waterfoul_59:

(Start: 35 @41716 has 62 MA's), (48, 41794), (51, 41818), (52, 41821), (57, 41854), (61, 41875), (66, 41902),

Gene: WheatThin_71 Start: 47982, Stop: 48182, Start Num: 37

Candidate Starts for WheatThin_71:

(21, 47898), (23, 47904), (30, 47958), (34, 47970), (Start: 37 @47982 has 40 MA's),

Gene: Ximenita_69 Start: 43037, Stop: 43249, Start Num: 35

Candidate Starts for Ximenita_69:

(18, 42854), (Start: 35 @43037 has 62 MA's), (48, 43118), (49, 43127),

Gene: YoureAdopted_63 Start: 43008, Stop: 43223, Start Num: 33

Candidate Starts for YoureAdopted_63:

(20, 42930), (Start: 33 @43008 has 82 MA's), (48, 43095), (49, 43104),

Gene: Yunkel11_68 Start: 42904, Stop: 43122, Start Num: 33

Candidate Starts for Yunkel11_68:

(20, 42826), (Start: 33 @42904 has 82 MA's), (48, 42991), (49, 43000),

Gene: Zabiza_58 Start: 38745, Stop: 38960, Start Num: 33

Candidate Starts for Zabiza_58:

(Start: 33 @38745 has 82 MA's), (48, 38832), (49, 38841),

Gene: Zavala_66 Start: 43164, Stop: 43382, Start Num: 33

Candidate Starts for Zavala_66:

(20, 43086), (Start: 33 @43164 has 82 MA's), (48, 43251), (49, 43260),