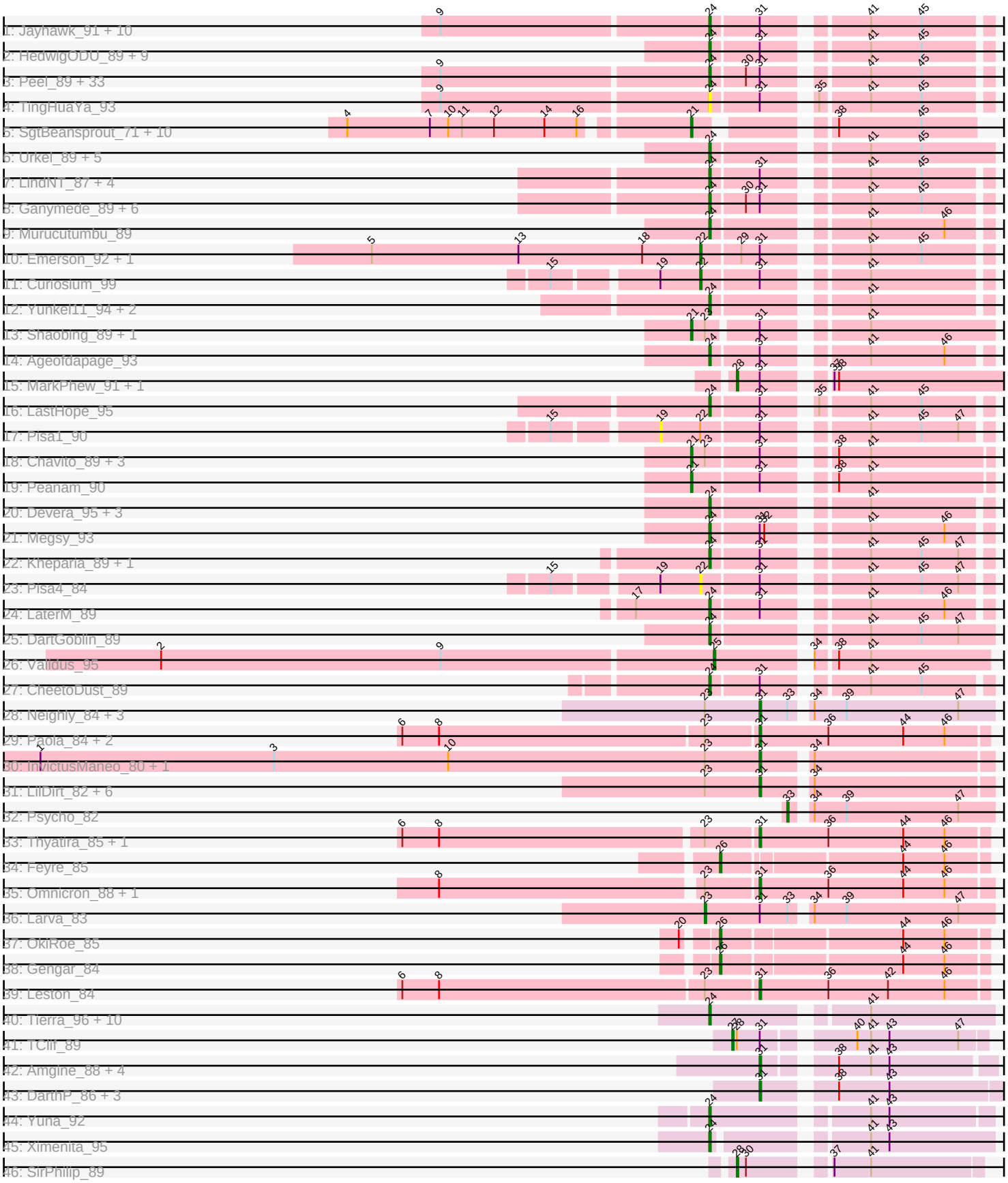
Pham 347319


1: Jayhawk_91 + 10
2: HedwigODU_89 + 9
3: Peel_89 + 33
4: TingHuaYa_93
5: SgtBeansprout_71 + 10
6: Urkel_89 + 5
7: LindNT_87 + 4
8: Ganymede_89 + 6
9: Murucutumbu_89
10: Emerson_92 + 1
11: Curiosium_99
12: Yunkel11_94 + 2
13: Shaobing_89 + 1
14: Ageofdapage_93
15: MarkPhew_91 + 1
16: LastHope_95
17: Pisa1_90
18: Chavito_89 + 3
19: Peanam_90
20: Devera_95 + 3
21: Megsy_93
22: Kheparia_89 + 1
23: Pisa4_84
24: LaterM_89
25: DartGoblin_89
26: Validus_95
27: CheetoDust_89
28: Neighly_84 + 3
29: Paola_84 + 2
30: InvictusManeo_80 + 1
31: LilDirt_82 + 6
32: Psycho_82
33: Thyatira_85 + 1
34: Feyre_85
35: Omnicron_88 + 1
36: Larva_83
37: OkiRoe_85
38: Gengar_84
39: Leston_84
40: Tierra_96 + 10
41: TCliff_89
42: Amgine_88 + 4
43: DarthP_86 + 3
44: Yuna_92
45: Ximenita_95
46: SirPhilip_89

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 347319 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347319 has 166 members, 11 are drafts.

Phages represented in each track:
• Track 1 : Jayhawk_91, TreyKay_91, Anaya_92, CrimD_89, Rapunzel97_91, AlishaPH_82, BarrelRoll_89, TruffulaTree_91, Prithvi_91, Slimphazie_91, Adonis_89
• Track 2 : HedwigODU_89, Adephagia_88, Clipper_93, TaiwanKao_90, JAWS_88, MacKat_85, ActinUp_90, BGlluviae_88, Zabiza_85, Veliki_90
• Track 3 : Peel_89, Pokerus_89, BEEST_89, ShiaSurprise_90, Homura_88, CallaLilly_89, Lunahalos_89, Capricorn_89, MeaningOfLife_91, Tachez_89, Twitch_89, CaseJules_91, Durfee_89, Rosmarinus_89, Topper_89, Dalmuri_89, Hyperbowlee_88, Jarvi_89, Piatt_88, Jeckyll_89, Llorens_89, Padfoot_89, CREW_88, Lokum_89, Boiiii_89, Asayake_89, Joy99_90, BaghaKamala_88, Mynx_90, Spock_89, Inky_89, Atiba_90, Blizzard_89, Belladonna_89
• Track 4 : TingHuaYa_93
• Track 5 : SgtBeansprout_71, Nikao_73, Torres_73, Nutello_70, Trice_70, LilPharaoh_71, Enkosi_72, Mdavu_71, Biglebops_70, Amelie_70, Teejan_72
• Track 6 : Urkel_89, SamuelLPlaqson_89, DrHayes_89, Bella96_90, Anma_88, TiniBug_88
• Track 7 : LindNT_87, Deby_89, Angelica_86, Sulley_86, Tiri_89
• Track 8 : Ganymede_89, Beezoo_92, QuincyRose_87, Ramen_90, Apocalypse_91, YoureAdopted_88, Zavala_91
• Track 9 : Murucutumbu_89
• Track 10 : Emerson_92, Padpat_93
• Track 11 : Curiosium_99
• Track 12 : Yunkel11_94, Guanica15_95, Efra2_96
• Track 13 : Shaobing_89, Niklas_90
• Track 14 : Ageofdapage_93
• Track 15 : MarkPhew_91, Nibb_91
• Track 16 : LastHope_95
• Track 17 : Pisa1_90
• Track 18 : Chavito_89, Richo_89, McMater_89, Dartin_89
• Track 19 : Peanam_90
• Track 20 : Devera_95, Illumine_93, Dole_92, Stinson_90
• Track 21 : Megsy_93
• Track 22 : Kheparia_89, Bern_90
• Track 23 : Pisa4_84
• Track 24 : LaterM_89
• Track 25 : DartGoblin_89
• Track 26 : Validus_95
• Track 27 : CheetoDust_89

• Track 28 : Neighly_84, Dadosky_84, Kratio_84, AlleyCat_84
• Track 29 : Paola_84, Miryou_86, Guillsminger_85
• Track 30 : InvictusManeo_80, Agent47_82
• Track 31 : LilDirt_82, Collard_81, DoubleChamp_80, Heftyboy_83, ViviJ_89, BananenDer11_83, SoSeph_83
• Track 32 : Psycho_82
• Track 33 : Thyatira_85, Waterfoul_84
• Track 34 : Feyre_85
• Track 35 : Omnicron_88, Rando14_85
• Track 36 : Larva_83
• Track 37 : OkiRoe_85
• Track 38 : Gengar_84
• Track 39 : Leston_84
• Track 40 : Tierra_96, PhelpsODU_86, Cain_96, Bryler_88, Shadow1_93, Sunflower1121_93, Phrank_96, Tigress9_93, Syra333_92, Krueger_93, Unicorn_96
• Track 41 : TClif_89
• Track 42 : Amgine_88, Applecrisp_86, Ellie_87, Lavahound_87, Fefferhead_89
• Track 43 : DarthP_86, Hammy_86, Amohnition_86, November_85
• Track 44 : Yuna_92
• Track 45 : Ximenita_95
• Track 46 : SirPhilip_89

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

The start number called the most often in the published annotations is 24, it was called in 99 of the 155 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ActinUp_90, Adephagia_88, Adonis_89, Ageofdapage_93, AlishaPH_82, Anaya_92, Angelica_86, Anma_88, Apocalypse_91, Asayake_89, Atiba_90, BEEST_89, BGlluviae_88, BaghaKamala_88, BarrelRoll_89, Beezoo_92, Bella96_90, Belladonna_89, Bern_90, Blizzard_89, Boiiii_89, Bryler_88, CREW_88, Cain_96, CallaLilly_89, Capricorn_89, CaseJules_91, CheetoDust_89, Clipper_93, CrimD_89, Dalmuri_89, DartGoblin_89, Deby_89, Devera_95, Dole_92, DrHayes_89, Durfee_89, Efra2_96, Ganymede_89, Guanica15_95, HedwigODU_89, Homura_88, Hyperbowlee_88, Illumine_93, Inky_89, JAWS_88, Jarvi_89, Jayhawk_91, Jeckyll_89, Joy99_90, Kheparia_89, Krueger_93, LastHope_95, LaterM_89, LindNT_87, Llorens_89, Lokum_89, Lunahalos_89, MacKat_85, MeaningOfLife_91, Megsy_93, Murucutumbu_89, Mynx_90, Padfoot_89, Peel_89, PhelpsODU_86, Phrank_96, Piatt_88, Pokerus_89, Prithvi_91, QuincyRose_87, Ramen_90, Rapunzel97_91, Rosmarinus_89, SamuelLPlaqson_89, Shadow1_93, ShiaSurprise_90, Slimphazie_91, Spock_89, Stinson_90, Sulley_86, Sunflower1121_93, Syra333_92, Tachez_89, TaiwanKao_90, Tierra_96, Tigress9_93, TingHuaYa_93, TiniBug_88, Tiri_89, Topper_89, TreyKay_91, TruffulaTree_91, Twitch_89, Unicorn_96, Urkel_89, Veliki_90, Ximenita_95, YoureAdopted_88, Yuna_92, Yunkel11_94, Zabiza_85, Zavala_91,

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

Genes that do not have the "Most Annotated" start:
• Agent47_82, AlleyCat_84, Amelie_70, Amgine_88, Amohnition_86, Applecrisp_86, BananenDer11_83, Biglebops_70, Chavito_89, Collard_81, Curiosium_99, Dadosky_84, DarthP_86, Dartin_89, DoubleChamp_80, Ellie_87, Emerson_92, Enkosi_72, Fefferhead_89, Feyre_85, Gengar_84, Guillsminger_85, Hammy_86, Heftyboy_83, InvictusManeo_80, Kratio_84, Larva_83, Lavahound_87, Leston_84, LilDirt_82, LilPharaoh_71, MarkPhew_91, McMater_89, Mdavu_71, Miryou_86, Neighly_84, Nibb_91, Nikao_73, Niklas_90, November_85, Nutello_70, OkiRoe_85, Omnicron_88, Padpat_93, Paola_84, Peanam_90, Pisa1_90, Pisa4_84, Psycho_82, Rando14_85, Richo_89, SgtBeansprout_71, Shaobing_89, SirPhilip_89, SoSeph_83, TClif_89, Teejan_72, Thyatira_85, Torres_73, Trice_70, Validus_95, ViviJ_89, Waterfoul_84,

Summary by start number:

Start 19:
• Found in 3 of 166 (1.8%) of genes in pham
• No Manual Annotations of this start.
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Pisa1_90 (K1),

Start 21:
• Found in 18 of 166 (10.8%) of genes in pham
• Manual Annotations of this start: 15 of 155
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Amelie_70 (K1), Biglebops_70 (K1), Chavito_89 (K1), Dartin_89 (K1), Enkosi_72 (K1), LilPharaoh_71 (K1), McMater_89 (K1), Mdavu_71 (K1), Nikao_73 (K1), Niklas_90 (K1), Nutello_70 (K1), Peanam_90 (K1), Richo_89 (K1), SgtBeansprout_71 (K1), Shaobing_89 (K1), Teejan_72 (K1), Torres_73 (K1), Trice_70 (K1),

Start 22:
• Found in 5 of 166 (3.0%) of genes in pham
• Manual Annotations of this start: 3 of 155
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Curiosium_99 (K1), Emerson_92 (K1), Padpat_93 (K1), Pisa4_84 (K1),

Start 23:
• Found in 28 of 166 (16.9%) of genes in pham
• Manual Annotations of this start: 1 of 155
• Called 3.6% of time when present
• Phage (with cluster) where this start called: Larva_83 (K5),

Start 24:
• Found in 103 of 166 (62.0%) of genes in pham
• Manual Annotations of this start: 99 of 155
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ActinUp_90 (K1), Adephagia_88 (K1), Adonis_89 (K1), Ageofdapage_93 (K1), AlishaPH_82 (K1), Anaya_92 (K1), Angelica_86 (K1), Anma_88 (K1), Apocalypse_91 (K1), Asayake_89 (K1), Atiba_90 (K1), BEEST_89 (K1), BGlluviae_88 (K1), BaghaKamala_88 (K1), BarrelRoll_89 (K1), Beezoo_92 (K1), Bella96_90 (K1), Belladonna_89 (K1), Bern_90 (K1), Blizzard_89

(K1), Boiiii_89 (K1), Bryler_88 (K6), CREW_88 (K1), Cain_96 (K6), CallaLilly_89 (K1), Capricorn_89 (K1), CaseJules_91 (K1), CheetoDust_89 (K1), Clipper_93 (K1), CrimD_89 (K1), Dalmuri_89 (K1), DartGoblin_89 (K1), Deby_89 (K1), Devera_95 (K1), Dole_92 (K1), DrHayes_89 (K1), Durfee_89 (K1), Efra2_96 (K1), Ganymede_89 (K1), Guanica15_95 (K1), HedwigODU_89 (K1), Homura_88 (K1), Hyperbowlee_88 (K1), Illumine_93 (K1), Inky_89 (K1), JAWS_88 (K1), Jarvi_89 (K1), Jayhawk_91 (K1), Jeckyll_89 (K1), Joy99_90 (K1), Kheparia_89 (K1), Krueger_93 (K6), LastHope_95 (K1), LaterM_89 (K1), LindNT_87 (K1), Llorens_89 (K1), Lokum_89 (K1), Lunahalos_89 (K1), MacKat_85 (K1), MeaningOfLife_91 (K1), Megsy_93 (K1), Murucutumbu_89 (K1), Mynx_90 (K1), Padfoot_89 (K1), Peel_89 (K1), PhelpsODU_86 (K6), Phrank_96 (K6), Piatt_88 (K1), Pokerus_89 (K1), Prithvi_91 (K1), QuincyRose_87 (K1), Ramen_90 (K1), Rapunzel97_91 (K1), Rosmarinus_89 (K1), SamuelLPlaqson_89 (K1), Shadow1_93 (K6), ShiaSurprise_90 (K1), Slimphazie_91 (K1), Spock_89 (K1), Stinson_90 (K1), Sulley_86 (K1), Sunflower1121_93 (K6), Syra333_92 (K6), Tachez_89 (K1), TaiwanKao_90 (K1), Tierra_96 (K6), Tigress9_93 (K6), TingHuaYa_93 (K1), TiniBug_88 (K1), Tiri_89 (K1), Topper_89 (K1), TreyKay_91 (K1), TruffulaTree_91 (K1), Twitch_89 (K1), Unicorn_96 (K6), Urkel_89 (K1), Veliki_90 (K1), Ximenita_95 (K6), YoureAdopted_88 (K1), Yuna_92 (K6), Yunkel11_94 (K1), Zabiza_85 (K1), Zavala_91 (K1),

Start 25:
• Found in 1 of 166 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 155
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Validus_95 (K1),

Start 26:
• Found in 3 of 166 (1.8%) of genes in pham
• Manual Annotations of this start: 3 of 155
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Feyre_85 (K5), Gengar_84 (K5), OkiRoe_85 (K5),

Start 27:
• Found in 1 of 166 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 155
• Called 100.0% of time when present
• Phage (with cluster) where this start called: TClif_89 (K6),

Start 28:
• Found in 4 of 166 (2.4%) of genes in pham
• Manual Annotations of this start: 3 of 155
• Called 75.0% of time when present
• Phage (with cluster) where this start called: MarkPhew_91 (K1), Nibb_91 (K1), SirPhilip_89 (K6),

Start 31:
• Found in 121 of 166 (72.9%) of genes in pham
• Manual Annotations of this start: 28 of 155
• Called 24.8% of time when present
• Phage (with cluster) where this start called: Agent47_82 (K5), AlleyCat_84 (K5), Amgine_88 (K6), Amohnition_86 (K6), Applecrisp_86 (K6), BananenDer11_83 (K5), Collard_81 (K5), Dadosky_84 (K5), DarthP_86 (K6), DoubleChamp_80 (K5), Ellie_87

(K6), Fefferhead_89 (K6), Guillsminger_85 (K5), Hammy_86 (K6), Heftyboy_83 (K5), InvictusManeo_80 (K5), Kratio_84 (K5), Lavahound_87 (K6), Leston_84 (K5), LilDirt_82 (K5), Miryou_86 (K5), Neighly_84 (K3), November_85 (K6), Omnicron_88 (K5), Paola_84 (K5), Rando14_85 (K5), SoSeph_83 (K5), Thyatira_85 (K5), ViviJ_89 (K5), Waterfoul_84 (K5),

Start 33:
• Found in 6 of 166 (3.6%) of genes in pham
• Manual Annotations of this start: 1 of 155
• Called 16.7% of time when present
• Phage (with cluster) where this start called: Psycho_82 (K5),

Summary by clusters:

There are 4 clusters represented in this pham: K3, K1, K6, K5,

Info for manual annotations of cluster K1:
•Start number 21 was manually annotated 15 times for cluster K1.
•Start number 22 was manually annotated 3 times for cluster K1.
•Start number 24 was manually annotated 86 times for cluster K1.
•Start number 25 was manually annotated 1 time for cluster K1.
•Start number 28 was manually annotated 2 times for cluster K1.

Info for manual annotations of cluster K5:
•Start number 23 was manually annotated 1 time for cluster K5.
•Start number 26 was manually annotated 3 times for cluster K5.
•Start number 31 was manually annotated 19 times for cluster K5.
•Start number 33 was manually annotated 1 time for cluster K5.

Info for manual annotations of cluster K6:
•Start number 24 was manually annotated 13 times for cluster K6.
•Start number 27 was manually annotated 1 time for cluster K6.
•Start number 28 was manually annotated 1 time for cluster K6.
•Start number 31 was manually annotated 9 times for cluster K6.

Gene Information:

Gene: ActinUp_90 Start: 56657, Stop: 56818, Start Num: 24
Candidate Starts for ActinUp_90:
(Start: 24 @56657 has 99 MA's), (Start: 31 @56687 has 28 MA's), (41, 56744), (45, 56777),

Gene: Adephagia_88 Start: 56500, Stop: 56661, Start Num: 24
Candidate Starts for Adephagia_88:
(Start: 24 @56500 has 99 MA's), (Start: 31 @56530 has 28 MA's), (41, 56587), (45, 56620),

Gene: Adonis_89 Start: 56698, Stop: 56859, Start Num: 24
Candidate Starts for Adonis_89:
(9, 56527), (Start: 24 @56698 has 99 MA's), (Start: 31 @56728 has 28 MA's), (41, 56785), (45, 56818),

Gene: Agent47_82 Start: 53328, Stop: 53468, Start Num: 31

Candidate Starts for Agent47_82:
(1, 52857), (3, 53010), (10, 53124), (Start: 23 @53292 has 1 MA's), (Start: 31 @53328 has 28 MA's), (34, 53355),

Gene: Ageofdapage_93 Start: 57508, Stop: 57669, Start Num: 24
Candidate Starts for Ageofdapage_93:
(Start: 24 @57508 has 99 MA's), (Start: 31 @57538 has 28 MA's), (41, 57595), (46, 57643),

Gene: AlishaPH_82 Start: 53889, Stop: 54050, Start Num: 24
Candidate Starts for AlishaPH_82:
(9, 53718), (Start: 24 @53889 has 99 MA's), (Start: 31 @53919 has 28 MA's), (41, 53976), (45, 54009),

Gene: AlleyCat_84 Start: 54468, Stop: 54611, Start Num: 31
Candidate Starts for AlleyCat_84:
(Start: 23 @54432 has 1 MA's), (Start: 31 @54468 has 28 MA's), (Start: 33 @54486 has 1 MA's), (34, 54495), (39, 54516), (47, 54588),

Gene: Amelie_70 Start: 52418, Stop: 52576, Start Num: 21
Candidate Starts for Amelie_70:
(4, 52208), (7, 52262), (10, 52274), (11, 52283), (12, 52304), (14, 52337), (16, 52358), (Start: 21 @52418 has 15 MA's), (38, 52487), (45, 52541),

Gene: Amgine_88 Start: 57933, Stop: 58067, Start Num: 31
Candidate Starts for Amgine_88:
(Start: 31 @57933 has 28 MA's), (38, 57969), (41, 57990), (43, 58002),

Gene: Amohnition_86 Start: 56925, Stop: 57068, Start Num: 31
Candidate Starts for Amohnition_86:
(Start: 31 @56925 has 28 MA's), (38, 56964), (43, 56997),

Gene: Anaya_92 Start: 57721, Stop: 57882, Start Num: 24
Candidate Starts for Anaya_92:
(9, 57550), (Start: 24 @57721 has 99 MA's), (Start: 31 @57751 has 28 MA's), (41, 57808), (45, 57841),

Gene: Angelica_86 Start: 55917, Stop: 56078, Start Num: 24
Candidate Starts for Angelica_86:
(Start: 24 @55917 has 99 MA's), (Start: 31 @55947 has 28 MA's), (41, 56004), (45, 56037),

Gene: Anma_88 Start: 56880, Stop: 57047, Start Num: 24
Candidate Starts for Anma_88:
(Start: 24 @56880 has 99 MA's), (41, 56967), (45, 57000),

Gene: Apocalypse_91 Start: 56863, Stop: 57024, Start Num: 24
Candidate Starts for Apocalypse_91:
(Start: 24 @56863 has 99 MA's), (30, 56884), (Start: 31 @56893 has 28 MA's), (41, 56950), (45, 56983),

Gene: Applecrisp_86 Start: 57113, Stop: 57247, Start Num: 31
Candidate Starts for Applecrisp_86:
(Start: 31 @57113 has 28 MA's), (38, 57149), (41, 57170), (43, 57182),

Gene: Asayake_89 Start: 56818, Stop: 56979, Start Num: 24
Candidate Starts for Asayake_89:

(9, 56647), (Start: 24 @56818 has 99 MA's), (30, 56839), (Start: 31 @56848 has 28 MA's), (41, 56905), (45, 56938),

Gene: Atiba_90 Start: 56466, Stop: 56627, Start Num: 24
Candidate Starts for Atiba_90:
(9, 56295), (Start: 24 @56466 has 99 MA's), (30, 56487), (Start: 31 @56496 has 28 MA's), (41, 56553), (45, 56586),

Gene: BEEST_89 Start: 56818, Stop: 56979, Start Num: 24
Candidate Starts for BEEST_89:
(9, 56647), (Start: 24 @56818 has 99 MA's), (30, 56839), (Start: 31 @56848 has 28 MA's), (41, 56905), (45, 56938),

Gene: BGlluviae_88 Start: 56198, Stop: 56359, Start Num: 24
Candidate Starts for BGlluviae_88:
(Start: 24 @56198 has 99 MA's), (Start: 31 @56228 has 28 MA's), (41, 56285), (45, 56318),

Gene: BaghaKamala_88 Start: 56046, Stop: 56207, Start Num: 24
Candidate Starts for BaghaKamala_88:
(9, 55875), (Start: 24 @56046 has 99 MA's), (30, 56067), (Start: 31 @56076 has 28 MA's), (41, 56133), (45, 56166),

Gene: BananenDer11_83 Start: 53578, Stop: 53718, Start Num: 31
Candidate Starts for BananenDer11_83:
(Start: 23 @53542 has 1 MA's), (Start: 31 @53578 has 28 MA's), (34, 53605),

Gene: BarrelRoll_89 Start: 56574, Stop: 56735, Start Num: 24
Candidate Starts for BarrelRoll_89:
(9, 56403), (Start: 24 @56574 has 99 MA's), (Start: 31 @56604 has 28 MA's), (41, 56661), (45, 56694),

Gene: Beezoo_92 Start: 57404, Stop: 57565, Start Num: 24
Candidate Starts for Beezoo_92:
(Start: 24 @57404 has 99 MA's), (30, 57425), (Start: 31 @57434 has 28 MA's), (41, 57491), (45, 57524),

Gene: Bella96_90 Start: 57068, Stop: 57235, Start Num: 24
Candidate Starts for Bella96_90:
(Start: 24 @57068 has 99 MA's), (41, 57155), (45, 57188),

Gene: Belladonna_89 Start: 56621, Stop: 56782, Start Num: 24
Candidate Starts for Belladonna_89:
(9, 56450), (Start: 24 @56621 has 99 MA's), (30, 56642), (Start: 31 @56651 has 28 MA's), (41, 56708), (45, 56741),

Gene: Bern_90 Start: 55076, Stop: 55237, Start Num: 24
Candidate Starts for Bern_90:
(Start: 24 @55076 has 99 MA's), (Start: 31 @55106 has 28 MA's), (41, 55163), (45, 55196), (47, 55220),

Gene: Biglebops_70 Start: 52433, Stop: 52591, Start Num: 21
Candidate Starts for Biglebops_70:
(4, 52223), (7, 52277), (10, 52289), (11, 52298), (12, 52319), (14, 52352), (16, 52373), (Start: 21 @52433 has 15 MA's), (38, 52502), (45, 52556),

Gene: Blizzard_89 Start: 56818, Stop: 56979, Start Num: 24
Candidate Starts for Blizzard_89:
(9, 56647), (Start: 24 @56818 has 99 MA's), (30, 56839), (Start: 31 @56848 has 28 MA's), (41, 56905), (45, 56938),

Gene: Boiiii_89 Start: 56820, Stop: 56981, Start Num: 24
Candidate Starts for Boiiii_89:
(9, 56649), (Start: 24 @56820 has 99 MA's), (30, 56841), (Start: 31 @56850 has 28 MA's), (41, 56907), (45, 56940),

Gene: Bryler_88 Start: 54748, Stop: 54918, Start Num: 24
Candidate Starts for Bryler_88:
(Start: 24 @54748 has 99 MA's), (41, 54838),

Gene: CREW_88 Start: 56621, Stop: 56782, Start Num: 24
Candidate Starts for CREW_88:
(9, 56450), (Start: 24 @56621 has 99 MA's), (30, 56642), (Start: 31 @56651 has 28 MA's), (41, 56708), (45, 56741),

Gene: Cain_96 Start: 57895, Stop: 58065, Start Num: 24
Candidate Starts for Cain_96:
(Start: 24 @57895 has 99 MA's), (41, 57985),

Gene: CallaLilly_89 Start: 56544, Stop: 56705, Start Num: 24
Candidate Starts for CallaLilly_89:
(9, 56373), (Start: 24 @56544 has 99 MA's), (30, 56565), (Start: 31 @56574 has 28 MA's), (41, 56631), (45, 56664),

Gene: Capricorn_89 Start: 56621, Stop: 56782, Start Num: 24
Candidate Starts for Capricorn_89:
(9, 56450), (Start: 24 @56621 has 99 MA's), (30, 56642), (Start: 31 @56651 has 28 MA's), (41, 56708), (45, 56741),

Gene: CaseJules_91 Start: 56818, Stop: 56979, Start Num: 24
Candidate Starts for CaseJules_91:
(9, 56647), (Start: 24 @56818 has 99 MA's), (30, 56839), (Start: 31 @56848 has 28 MA's), (41, 56905), (45, 56938),

Gene: Chavito_89 Start: 57982, Stop: 58158, Start Num: 21
Candidate Starts for Chavito_89:
(Start: 21 @57982 has 15 MA's), (Start: 23 @57991 has 1 MA's), (Start: 31 @58024 has 28 MA's), (38, 58060), (41, 58081),

Gene: CheetoDust_89 Start: 56016, Stop: 56177, Start Num: 24
Candidate Starts for CheetoDust_89:
(Start: 24 @56016 has 99 MA's), (Start: 31 @56046 has 28 MA's), (41, 56103), (45, 56136),

Gene: Clipper_93 Start: 57298, Stop: 57459, Start Num: 24
Candidate Starts for Clipper_93:
(Start: 24 @57298 has 99 MA's), (Start: 31 @57328 has 28 MA's), (41, 57385), (45, 57418),

Gene: Collard_81 Start: 53578, Stop: 53718, Start Num: 31

Candidate Starts for Collard_81:
(Start: 23 @53542 has 1 MA's), (Start: 31 @53578 has 28 MA's), (34, 53605),

Gene: CrimD_89 Start: 56666, Stop: 56827, Start Num: 24
Candidate Starts for CrimD_89:
(9, 56495), (Start: 24 @56666 has 99 MA's), (Start: 31 @56696 has 28 MA's), (41, 56753), (45, 56786),

Gene: Curiosium_99 Start: 58643, Stop: 58810, Start Num: 22
Candidate Starts for Curiosium_99:
(15, 58559), (19, 58619), (Start: 22 @58643 has 3 MA's), (Start: 31 @58679 has 28 MA's), (41, 58736),

Gene: Dadosky_84 Start: 54469, Stop: 54612, Start Num: 31
Candidate Starts for Dadosky_84:
(Start: 23 @54433 has 1 MA's), (Start: 31 @54469 has 28 MA's), (Start: 33 @54487 has 1 MA's), (34, 54496), (39, 54517), (47, 54589),

Gene: Dalmuri_89 Start: 56621, Stop: 56782, Start Num: 24
Candidate Starts for Dalmuri_89:
(9, 56450), (Start: 24 @56621 has 99 MA's), (30, 56642), (Start: 31 @56651 has 28 MA's), (41, 56708), (45, 56741),

Gene: DartGoblin_89 Start: 56728, Stop: 56895, Start Num: 24
Candidate Starts for DartGoblin_89:
(Start: 24 @56728 has 99 MA's), (41, 56815), (45, 56848), (47, 56872),

Gene: DarthP_86 Start: 56778, Stop: 56921, Start Num: 31
Candidate Starts for DarthP_86:
(Start: 31 @56778 has 28 MA's), (38, 56817), (43, 56850),

Gene: Dartin_89 Start: 57624, Stop: 57800, Start Num: 21
Candidate Starts for Dartin_89:
(Start: 21 @57624 has 15 MA's), (Start: 23 @57633 has 1 MA's), (Start: 31 @57666 has 28 MA's), (38, 57702), (41, 57723),

Gene: Deby_89 Start: 57192, Stop: 57353, Start Num: 24
Candidate Starts for Deby_89:
(Start: 24 @57192 has 99 MA's), (Start: 31 @57222 has 28 MA's), (41, 57279), (45, 57312),

Gene: Devera_95 Start: 57498, Stop: 57659, Start Num: 24
Candidate Starts for Devera_95:
(Start: 24 @57498 has 99 MA's), (41, 57585),

Gene: Dole_92 Start: 57501, Stop: 57662, Start Num: 24
Candidate Starts for Dole_92:
(Start: 24 @57501 has 99 MA's), (41, 57588),

Gene: DoubleChamp_80 Start: 53578, Stop: 53718, Start Num: 31
Candidate Starts for DoubleChamp_80:
(Start: 23 @53542 has 1 MA's), (Start: 31 @53578 has 28 MA's), (34, 53605),

Gene: DrHayes_89 Start: 56880, Stop: 57047, Start Num: 24
Candidate Starts for DrHayes_89:
(Start: 24 @56880 has 99 MA's), (41, 56967), (45, 57000),

Gene: Durfee_89 Start: 56818, Stop: 56979, Start Num: 24
Candidate Starts for Durfee_89:
(9, 56647), (Start: 24 @56818 has 99 MA's), (30, 56839), (Start: 31 @56848 has 28 MA's), (41, 56905), (45, 56938),

Gene: Efra2_96 Start: 57967, Stop: 58128, Start Num: 24
Candidate Starts for Efra2_96:
(Start: 24 @57967 has 99 MA's), (41, 58054),

Gene: Ellie_87 Start: 57103, Stop: 57237, Start Num: 31
Candidate Starts for Ellie_87:
(Start: 31 @57103 has 28 MA's), (38, 57139), (41, 57160), (43, 57172),

Gene: Emerson_92 Start: 57216, Stop: 57383, Start Num: 22
Candidate Starts for Emerson_92:
(5, 57003), (13, 57099), (18, 57180), (Start: 22 @57216 has 3 MA's), (29, 57240), (Start: 31 @57252 has 28 MA's), (41, 57309), (45, 57342),

Gene: Enkosi_72 Start: 55031, Stop: 55189, Start Num: 21
Candidate Starts for Enkosi_72:
(4, 54821), (7, 54875), (10, 54887), (11, 54896), (12, 54917), (14, 54950), (16, 54971), (Start: 21 @55031 has 15 MA's), (38, 55100), (45, 55154),

Gene: Fefferhead_89 Start: 56894, Stop: 57028, Start Num: 31
Candidate Starts for Fefferhead_89:
(Start: 31 @56894 has 28 MA's), (38, 56930), (41, 56951), (43, 56963),

Gene: Feyre_85 Start: 56970, Stop: 57128, Start Num: 26
Candidate Starts for Feyre_85:
(Start: 26 @56970 has 3 MA's), (44, 57075), (46, 57102),

Gene: Ganymede_89 Start: 56630, Stop: 56791, Start Num: 24
Candidate Starts for Ganymede_89:
(Start: 24 @56630 has 99 MA's), (30, 56651), (Start: 31 @56660 has 28 MA's), (41, 56717), (45, 56750),

Gene: Gengar_84 Start: 55837, Stop: 55998, Start Num: 26
Candidate Starts for Gengar_84:
(Start: 26 @55837 has 3 MA's), (44, 55945), (46, 55972),

Gene: Guanica15_95 Start: 57656, Stop: 57817, Start Num: 24
Candidate Starts for Guanica15_95:
(Start: 24 @57656 has 99 MA's), (41, 57743),

Gene: Guillsminger_85 Start: 55691, Stop: 55837, Start Num: 31
Candidate Starts for Guillsminger_85:
(6, 55463), (8, 55487), (Start: 23 @55658 has 1 MA's), (Start: 31 @55691 has 28 MA's), (36, 55736), (44, 55784), (46, 55811),

Gene: Hammy_86 Start: 56768, Stop: 56911, Start Num: 31
Candidate Starts for Hammy_86:
(Start: 31 @56768 has 28 MA's), (38, 56807), (43, 56840),

Gene: HedwigODU_89 Start: 56657, Stop: 56818, Start Num: 24
Candidate Starts for HedwigODU_89:
(Start: 24 @56657 has 99 MA's), (Start: 31 @56687 has 28 MA's), (41, 56744), (45, 56777),

Gene: Heftyboy_83 Start: 55305, Stop: 55445, Start Num: 31
Candidate Starts for Heftyboy_83:
(Start: 23 @55269 has 1 MA's), (Start: 31 @55305 has 28 MA's), (34, 55332),

Gene: Homura_88 Start: 56621, Stop: 56782, Start Num: 24
Candidate Starts for Homura_88:
(9, 56450), (Start: 24 @56621 has 99 MA's), (30, 56642), (Start: 31 @56651 has 28 MA's), (41, 56708), (45, 56741),

Gene: Hyperbowlee_88 Start: 56818, Stop: 56979, Start Num: 24
Candidate Starts for Hyperbowlee_88:
(9, 56647), (Start: 24 @56818 has 99 MA's), (30, 56839), (Start: 31 @56848 has 28 MA's), (41, 56905), (45, 56938),

Gene: Illumine_93 Start: 57500, Stop: 57661, Start Num: 24
Candidate Starts for Illumine_93:
(Start: 24 @57500 has 99 MA's), (41, 57587),

Gene: Inky_89 Start: 56621, Stop: 56782, Start Num: 24
Candidate Starts for Inky_89:
(9, 56450), (Start: 24 @56621 has 99 MA's), (30, 56642), (Start: 31 @56651 has 28 MA's), (41, 56708), (45, 56741),

Gene: InvictusManeo_80 Start: 53332, Stop: 53472, Start Num: 31
Candidate Starts for InvictusManeo_80:
(1, 52861), (3, 53014), (10, 53128), (Start: 23 @53296 has 1 MA's), (Start: 31 @53332 has 28 MA's), (34, 53359),

Gene: JAWS_88 Start: 56604, Stop: 56765, Start Num: 24
Candidate Starts for JAWS_88:
(Start: 24 @56604 has 99 MA's), (Start: 31 @56634 has 28 MA's), (41, 56691), (45, 56724),

Gene: Jarvi_89 Start: 56621, Stop: 56782, Start Num: 24
Candidate Starts for Jarvi_89:
(9, 56450), (Start: 24 @56621 has 99 MA's), (30, 56642), (Start: 31 @56651 has 28 MA's), (41, 56708), (45, 56741),

Gene: Jayhawk_91 Start: 56634, Stop: 56795, Start Num: 24
Candidate Starts for Jayhawk_91:
(9, 56463), (Start: 24 @56634 has 99 MA's), (Start: 31 @56664 has 28 MA's), (41, 56721), (45, 56754),

Gene: Jeckyll_89 Start: 56621, Stop: 56782, Start Num: 24
Candidate Starts for Jeckyll_89:
(9, 56450), (Start: 24 @56621 has 99 MA's), (30, 56642), (Start: 31 @56651 has 28 MA's), (41, 56708), (45, 56741),

Gene: Joy99_90 Start: 56750, Stop: 56911, Start Num: 24
Candidate Starts for Joy99_90:

(9, 56579), (Start: 24 @56750 has 99 MA's), (30, 56771), (Start: 31 @56780 has 28 MA's), (41, 56837), (45, 56870),

Gene: Kheparia_89 Start: 53637, Stop: 53798, Start Num: 24
Candidate Starts for Kheparia_89:
(Start: 24 @53637 has 99 MA's), (Start: 31 @53667 has 28 MA's), (41, 53724), (45, 53757), (47, 53781),

Gene: Kratio_84 Start: 54363, Stop: 54506, Start Num: 31
Candidate Starts for Kratio_84:
(Start: 23 @54327 has 1 MA's), (Start: 31 @54363 has 28 MA's), (Start: 33 @54381 has 1 MA's), (34, 54390), (39, 54411), (47, 54483),

Gene: Krueger_93 Start: 57088, Stop: 57258, Start Num: 24
Candidate Starts for Krueger_93:
(Start: 24 @57088 has 99 MA's), (41, 57178),

Gene: Larva_83 Start: 55305, Stop: 55484, Start Num: 23
Candidate Starts for Larva_83:
(Start: 23 @55305 has 1 MA's), (Start: 31 @55341 has 28 MA's), (Start: 33 @55359 has 1 MA's), (34, 55368), (39, 55389), (47, 55461),

Gene: LastHope_95 Start: 57401, Stop: 57562, Start Num: 24
Candidate Starts for LastHope_95:
(Start: 24 @57401 has 99 MA's), (Start: 31 @57431 has 28 MA's), (35, 57458), (41, 57488), (45, 57521),

Gene: LaterM_89 Start: 57037, Stop: 57198, Start Num: 24
Candidate Starts for LaterM_89:
(17, 56989), (Start: 24 @57037 has 99 MA's), (Start: 31 @57067 has 28 MA's), (41, 57124), (46, 57172),

Gene: Lavahound_87 Start: 58063, Stop: 58197, Start Num: 31
Candidate Starts for Lavahound_87:
(Start: 31 @58063 has 28 MA's), (38, 58099), (41, 58120), (43, 58132),

Gene: Leston_84 Start: 55808, Stop: 55954, Start Num: 31
Candidate Starts for Leston_84:
(6, 55580), (8, 55604), (Start: 23 @55775 has 1 MA's), (Start: 31 @55808 has 28 MA's), (36, 55853), (42, 55892), (46, 55928),

Gene: LilDirt_82 Start: 53379, Stop: 53519, Start Num: 31
Candidate Starts for LilDirt_82:
(Start: 23 @53343 has 1 MA's), (Start: 31 @53379 has 28 MA's), (34, 53406),

Gene: LilPharaoh_71 Start: 52146, Stop: 52304, Start Num: 21
Candidate Starts for LilPharaoh_71:
(4, 51936), (7, 51990), (10, 52002), (11, 52011), (12, 52032), (14, 52065), (16, 52086), (Start: 21 @52146 has 15 MA's), (38, 52215), (45, 52269),

Gene: LindNT_87 Start: 56732, Stop: 56893, Start Num: 24
Candidate Starts for LindNT_87:
(Start: 24 @56732 has 99 MA's), (Start: 31 @56762 has 28 MA's), (41, 56819), (45, 56852),

Gene: Llorens_89 Start: 56621, Stop: 56782, Start Num: 24
Candidate Starts for Llorens_89:
(9, 56450), (Start: 24 @56621 has 99 MA's), (30, 56642), (Start: 31 @56651 has 28 MA's), (41, 56708), (45, 56741),

Gene: Lokum_89 Start: 56601, Stop: 56762, Start Num: 24
Candidate Starts for Lokum_89:
(9, 56430), (Start: 24 @56601 has 99 MA's), (30, 56622), (Start: 31 @56631 has 28 MA's), (41, 56688), (45, 56721),

Gene: Lunahalos_89 Start: 56621, Stop: 56782, Start Num: 24
Candidate Starts for Lunahalos_89:
(9, 56450), (Start: 24 @56621 has 99 MA's), (30, 56642), (Start: 31 @56651 has 28 MA's), (41, 56708), (45, 56741),

Gene: MacKat_85 Start: 52182, Stop: 52343, Start Num: 24
Candidate Starts for MacKat_85:
(Start: 24 @52182 has 99 MA's), (Start: 31 @52212 has 28 MA's), (41, 52269), (45, 52302),

Gene: MarkPhew_91 Start: 56993, Stop: 57151, Start Num: 28
Candidate Starts for MarkPhew_91:
(Start: 28 @56993 has 3 MA's), (Start: 31 @57008 has 28 MA's), (37, 57041), (38, 57044),

Gene: McMater_89 Start: 57624, Stop: 57800, Start Num: 21
Candidate Starts for McMater_89:
(Start: 21 @57624 has 15 MA's), (Start: 23 @57633 has 1 MA's), (Start: 31 @57666 has 28 MA's), (38, 57702), (41, 57723),

Gene: Mdavu_71 Start: 52422, Stop: 52580, Start Num: 21
Candidate Starts for Mdavu_71:
(4, 52212), (7, 52266), (10, 52278), (11, 52287), (12, 52308), (14, 52341), (16, 52362), (Start: 21 @52422 has 15 MA's), (38, 52491), (45, 52545),

Gene: MeaningOfLife_91 Start: 57306, Stop: 57467, Start Num: 24
Candidate Starts for MeaningOfLife_91:
(9, 57135), (Start: 24 @57306 has 99 MA's), (30, 57327), (Start: 31 @57336 has 28 MA's), (41, 57393), (45, 57426),

Gene: Megsy_93 Start: 56961, Stop: 57122, Start Num: 24
Candidate Starts for Megsy_93:
(Start: 24 @56961 has 99 MA's), (Start: 31 @56991 has 28 MA's), (32, 56994), (41, 57048), (46, 57096),

Gene: Miryou_86 Start: 57666, Stop: 57812, Start Num: 31
Candidate Starts for Miryou_86:
(6, 57438), (8, 57462), (Start: 23 @57633 has 1 MA's), (Start: 31 @57666 has 28 MA's), (36, 57711), (44, 57759), (46, 57786),

Gene: Murucutumbu_89 Start: 57519, Stop: 57680, Start Num: 24
Candidate Starts for Murucutumbu_89:
(Start: 24 @57519 has 99 MA's), (41, 57606), (46, 57654),

Gene: Mynx_90 Start: 56929, Stop: 57090, Start Num: 24
Candidate Starts for Mynx_90:
(9, 56758), (Start: 24 @56929 has 99 MA's), (30, 56950), (Start: 31 @56959 has 28 MA's), (41, 57016), (45, 57049),

Gene: Neighly_84 Start: 55340, Stop: 55483, Start Num: 31
Candidate Starts for Neighly_84:
(Start: 23 @55304 has 1 MA's), (Start: 31 @55340 has 28 MA's), (Start: 33 @55358 has 1 MA's), (34, 55367), (39, 55388), (47, 55460),

Gene: Nibb_91 Start: 56666, Stop: 56824, Start Num: 28
Candidate Starts for Nibb_91:
(Start: 28 @56666 has 3 MA's), (Start: 31 @56681 has 28 MA's), (37, 56714), (38, 56717),

Gene: Nikao_73 Start: 55031, Stop: 55189, Start Num: 21
Candidate Starts for Nikao_73:
(4, 54821), (7, 54875), (10, 54887), (11, 54896), (12, 54917), (14, 54950), (16, 54971), (Start: 21 @55031 has 15 MA's), (38, 55100), (45, 55154),

Gene: Niklas_90 Start: 57664, Stop: 57840, Start Num: 21
Candidate Starts for Niklas_90:
(Start: 21 @57664 has 15 MA's), (Start: 23 @57673 has 1 MA's), (Start: 31 @57703 has 28 MA's), (41, 57760),

Gene: November_85 Start: 56842, Stop: 57006, Start Num: 31
Candidate Starts for November_85:
(Start: 31 @56842 has 28 MA's), (38, 56881), (43, 56914),

Gene: Nutello_70 Start: 52418, Stop: 52576, Start Num: 21
Candidate Starts for Nutello_70:
(4, 52208), (7, 52262), (10, 52274), (11, 52283), (12, 52304), (14, 52337), (16, 52358), (Start: 21 @52418 has 15 MA's), (38, 52487), (45, 52541),

Gene: OkiRoe_85 Start: 56800, Stop: 56961, Start Num: 26
Candidate Starts for OkiRoe_85:
(20, 56782), (Start: 26 @56800 has 3 MA's), (44, 56908), (46, 56935),

Gene: Omnicron_88 Start: 57883, Stop: 58032, Start Num: 31
Candidate Starts for Omnicron_88:
(8, 57685), (Start: 23 @57850 has 1 MA's), (Start: 31 @57883 has 28 MA's), (36, 57928), (44, 57976), (46, 58003),

Gene: Padfoot_89 Start: 56818, Stop: 56979, Start Num: 24
Candidate Starts for Padfoot_89:
(9, 56647), (Start: 24 @56818 has 99 MA's), (30, 56839), (Start: 31 @56848 has 28 MA's), (41, 56905), (45, 56938),

Gene: Padpat_93 Start: 57216, Stop: 57383, Start Num: 22
Candidate Starts for Padpat_93:
(5, 57003), (13, 57099), (18, 57180), (Start: 22 @57216 has 3 MA's), (29, 57240), (Start: 31 @57252 has 28 MA's), (41, 57309), (45, 57342),

Gene: Paola_84 Start: 55691, Stop: 55837, Start Num: 31

Candidate Starts for Paola_84:
(6, 55463), (8, 55487), (Start: 23 @55658 has 1 MA's), (Start: 31 @55691 has 28 MA's), (36, 55736), (44, 55784), (46, 55811),

Gene: Peanam_90 Start: 57643, Stop: 57819, Start Num: 21
Candidate Starts for Peanam_90:
(Start: 21 @57643 has 15 MA's), (Start: 31 @57685 has 28 MA's), (38, 57721), (41, 57742),

Gene: Peel_89 Start: 56623, Stop: 56784, Start Num: 24
Candidate Starts for Peel_89:
(9, 56452), (Start: 24 @56623 has 99 MA's), (30, 56644), (Start: 31 @56653 has 28 MA's), (41, 56710), (45, 56743),

Gene: PhelpsODU_86 Start: 53663, Stop: 53833, Start Num: 24
Candidate Starts for PhelpsODU_86:
(Start: 24 @53663 has 99 MA's), (41, 53753),

Gene: Phrank_96 Start: 57882, Stop: 58046, Start Num: 24
Candidate Starts for Phrank_96:
(Start: 24 @57882 has 99 MA's), (41, 57972),

Gene: Piatt_88 Start: 56818, Stop: 56979, Start Num: 24
Candidate Starts for Piatt_88:
(9, 56647), (Start: 24 @56818 has 99 MA's), (30, 56839), (Start: 31 @56848 has 28 MA's), (41, 56905), (45, 56938),

Gene: Pisa1_90 Start: 57122, Stop: 57313, Start Num: 19
Candidate Starts for Pisa1_90:
(15, 57062), (19, 57122), (Start: 22 @57146 has 3 MA's), (Start: 31 @57182 has 28 MA's), (41, 57239), (45, 57272), (47, 57296),

Gene: Pisa4_84 Start: 52515, Stop: 52682, Start Num: 22
Candidate Starts for Pisa4_84:
(15, 52431), (19, 52491), (Start: 22 @52515 has 3 MA's), (Start: 31 @52551 has 28 MA's), (41, 52608), (45, 52641), (47, 52665),

Gene: Pokerus_89 Start: 56627, Stop: 56788, Start Num: 24
Candidate Starts for Pokerus_89:
(9, 56456), (Start: 24 @56627 has 99 MA's), (30, 56648), (Start: 31 @56657 has 28 MA's), (41, 56714), (45, 56747),

Gene: Prithvi_91 Start: 57030, Stop: 57191, Start Num: 24
Candidate Starts for Prithvi_91:
(9, 56859), (Start: 24 @57030 has 99 MA's), (Start: 31 @57060 has 28 MA's), (41, 57117), (45, 57150),

Gene: Psycho_82 Start: 54484, Stop: 54609, Start Num: 33
Candidate Starts for Psycho_82:
(Start: 33 @54484 has 1 MA's), (34, 54493), (39, 54514), (47, 54586),

Gene: QuincyRose_87 Start: 56630, Stop: 56791, Start Num: 24
Candidate Starts for QuincyRose_87:
(Start: 24 @56630 has 99 MA's), (30, 56651), (Start: 31 @56660 has 28 MA's), (41, 56717), (45, 56750),

Gene: Ramen_90 Start: 56373, Stop: 56534, Start Num: 24
Candidate Starts for Ramen_90:
(Start: 24 @56373 has 99 MA's), (30, 56394), (Start: 31 @56403 has 28 MA's), (41, 56460), (45, 56493),

Gene: Rando14_85 Start: 56294, Stop: 56443, Start Num: 31
Candidate Starts for Rando14_85:
(8, 56096), (Start: 23 @56261 has 1 MA's), (Start: 31 @56294 has 28 MA's), (36, 56339), (44, 56387), (46, 56414),

Gene: Rapunzel97_91 Start: 56589, Stop: 56750, Start Num: 24
Candidate Starts for Rapunzel97_91:
(9, 56418), (Start: 24 @56589 has 99 MA's), (Start: 31 @56619 has 28 MA's), (41, 56676), (45, 56709),

Gene: Richo_89 Start: 57624, Stop: 57800, Start Num: 21
Candidate Starts for Richo_89:
(Start: 21 @57624 has 15 MA's), (Start: 23 @57633 has 1 MA's), (Start: 31 @57666 has 28 MA's), (38, 57702), (41, 57723),

Gene: Rosmarinus_89 Start: 56609, Stop: 56770, Start Num: 24
Candidate Starts for Rosmarinus_89:
(9, 56438), (Start: 24 @56609 has 99 MA's), (30, 56630), (Start: 31 @56639 has 28 MA's), (41, 56696), (45, 56729),

Gene: SamuelLPlaqson_89 Start: 56880, Stop: 57047, Start Num: 24
Candidate Starts for SamuelLPlaqson_89:
(Start: 24 @56880 has 99 MA's), (41, 56967), (45, 57000),

Gene: SgtBeansprout_71 Start: 52418, Stop: 52576, Start Num: 21
Candidate Starts for SgtBeansprout_71:
(4, 52208), (7, 52262), (10, 52274), (11, 52283), (12, 52304), (14, 52337), (16, 52358), (Start: 21 @52418 has 15 MA's), (38, 52487), (45, 52541),

Gene: Shadow1_93 Start: 57228, Stop: 57392, Start Num: 24
Candidate Starts for Shadow1_93:
(Start: 24 @57228 has 99 MA's), (41, 57318),

Gene: Shaobing_89 Start: 57705, Stop: 57881, Start Num: 21
Candidate Starts for Shaobing_89:
(Start: 21 @57705 has 15 MA's), (Start: 23 @57714 has 1 MA's), (Start: 31 @57744 has 28 MA's), (41, 57801),

Gene: ShiaSurprise_90 Start: 56818, Stop: 56979, Start Num: 24
Candidate Starts for ShiaSurprise_90:
(9, 56647), (Start: 24 @56818 has 99 MA's), (30, 56839), (Start: 31 @56848 has 28 MA's), (41, 56905), (45, 56938),

Gene: SirPhilip_89 Start: 56815, Stop: 56958, Start Num: 28
Candidate Starts for SirPhilip_89:
(Start: 28 @56815 has 3 MA's), (30, 56821), (37, 56863), (41, 56887),

Gene: Slimphazie_91 Start: 57045, Stop: 57206, Start Num: 24

Candidate Starts for Slimphazie_91:
(9, 56874), (Start: 24 @57045 has 99 MA's), (Start: 31 @57075 has 28 MA's), (41, 57132), (45, 57165),

Gene: SoSeph_83 Start: 55305, Stop: 55445, Start Num: 31
Candidate Starts for SoSeph_83:
(Start: 23 @55269 has 1 MA's), (Start: 31 @55305 has 28 MA's), (34, 55332),

Gene: Spock_89 Start: 56622, Stop: 56783, Start Num: 24
Candidate Starts for Spock_89:
(9, 56451), (Start: 24 @56622 has 99 MA's), (30, 56643), (Start: 31 @56652 has 28 MA's), (41, 56709), (45, 56742),

Gene: Stinson_90 Start: 56798, Stop: 56959, Start Num: 24
Candidate Starts for Stinson_90:
(Start: 24 @56798 has 99 MA's), (41, 56885),

Gene: Sulley_86 Start: 56193, Stop: 56354, Start Num: 24
Candidate Starts for Sulley_86:
(Start: 24 @56193 has 99 MA's), (Start: 31 @56223 has 28 MA's), (41, 56280), (45, 56313),

Gene: Sunflower1121_93 Start: 56987, Stop: 57151, Start Num: 24
Candidate Starts for Sunflower1121_93:
(Start: 24 @56987 has 99 MA's), (41, 57077),

Gene: Syra333_92 Start: 57044, Stop: 57214, Start Num: 24
Candidate Starts for Syra333_92:
(Start: 24 @57044 has 99 MA's), (41, 57134),

Gene: TClif_89 Start: 56195, Stop: 56344, Start Num: 27
Candidate Starts for TClif_89:
(Start: 27 @56195 has 1 MA's), (Start: 28 @56198 has 3 MA's), (Start: 31 @56213 has 28 MA's), (40, 56261), (41, 56270), (43, 56282), (47, 56327),

Gene: Tachez_89 Start: 56466, Stop: 56627, Start Num: 24
Candidate Starts for Tachez_89:
(9, 56295), (Start: 24 @56466 has 99 MA's), (30, 56487), (Start: 31 @56496 has 28 MA's), (41, 56553), (45, 56586),

Gene: TaiwanKao_90 Start: 56670, Stop: 56831, Start Num: 24
Candidate Starts for TaiwanKao_90:
(Start: 24 @56670 has 99 MA's), (Start: 31 @56700 has 28 MA's), (41, 56757), (45, 56790),

Gene: Teejan_72 Start: 55031, Stop: 55189, Start Num: 21
Candidate Starts for Teejan_72:
(4, 54821), (7, 54875), (10, 54887), (11, 54896), (12, 54917), (14, 54950), (16, 54971), (Start: 21 @55031 has 15 MA's), (38, 55100), (45, 55154),

Gene: Thyatira_85 Start: 57400, Stop: 57546, Start Num: 31
Candidate Starts for Thyatira_85:
(6, 57175), (8, 57199), (Start: 23 @57367 has 1 MA's), (Start: 31 @57400 has 28 MA's), (36, 57445), (44, 57493), (46, 57520),

Gene: Tierra_96 Start: 58508, Stop: 58678, Start Num: 24

Candidate Starts for Tierra_96:
(Start: 24 @58508 has 99 MA's), (41, 58598),

Gene: Tigress9_93 Start: 57416, Stop: 57586, Start Num: 24
Candidate Starts for Tigress9_93:
(Start: 24 @57416 has 99 MA's), (41, 57506),

Gene: TingHuaYa_93 Start: 57729, Stop: 57890, Start Num: 24
Candidate Starts for TingHuaYa_93:
(9, 57558), (Start: 24 @57729 has 99 MA's), (Start: 31 @57759 has 28 MA's), (35, 57786), (41, 57816), (45, 57849),

Gene: TiniBug_88 Start: 56996, Stop: 57163, Start Num: 24
Candidate Starts for TiniBug_88:
(Start: 24 @56996 has 99 MA's), (41, 57083), (45, 57116),

Gene: Tiri_89 Start: 56360, Stop: 56521, Start Num: 24
Candidate Starts for Tiri_89:
(Start: 24 @56360 has 99 MA's), (Start: 31 @56390 has 28 MA's), (41, 56447), (45, 56480),

Gene: Topper_89 Start: 56621, Stop: 56782, Start Num: 24
Candidate Starts for Topper_89:
(9, 56450), (Start: 24 @56621 has 99 MA's), (30, 56642), (Start: 31 @56651 has 28 MA's), (41, 56708), (45, 56741),

Gene: Torres_73 Start: 55032, Stop: 55190, Start Num: 21
Candidate Starts for Torres_73:
(4, 54822), (7, 54876), (10, 54888), (11, 54897), (12, 54918), (14, 54951), (16, 54972), (Start: 21 @55032 has 15 MA's), (38, 55101), (45, 55155),

Gene: TreyKay_91 Start: 57030, Stop: 57191, Start Num: 24
Candidate Starts for TreyKay_91:
(9, 56859), (Start: 24 @57030 has 99 MA's), (Start: 31 @57060 has 28 MA's), (41, 57117), (45, 57150),

Gene: Trice_70 Start: 52419, Stop: 52577, Start Num: 21
Candidate Starts for Trice_70:
(4, 52209), (7, 52263), (10, 52275), (11, 52284), (12, 52305), (14, 52338), (16, 52359), (Start: 21 @52419 has 15 MA's), (38, 52488), (45, 52542),

Gene: TruffulaTree_91 Start: 57011, Stop: 57172, Start Num: 24
Candidate Starts for TruffulaTree_91:
(9, 56840), (Start: 24 @57011 has 99 MA's), (Start: 31 @57041 has 28 MA's), (41, 57098), (45, 57131),

Gene: Twitch_89 Start: 56623, Stop: 56784, Start Num: 24
Candidate Starts for Twitch_89:
(9, 56452), (Start: 24 @56623 has 99 MA's), (30, 56644), (Start: 31 @56653 has 28 MA's), (41, 56710), (45, 56743),

Gene: Unicorn_96 Start: 58291, Stop: 58461, Start Num: 24
Candidate Starts for Unicorn_96:
(Start: 24 @58291 has 99 MA's), (41, 58381),

Gene: Urkel_89 Start: 56880, Stop: 57047, Start Num: 24

Candidate Starts for Urkel_89:
(Start: 24 @56880 has 99 MA's), (41, 56967), (45, 57000),

Gene: Validus_95 Start: 58505, Stop: 58669, Start Num: 25
Candidate Starts for Validus_95:
(2, 58148), (9, 58331), (Start: 25 @58505 has 1 MA's), (34, 58559), (38, 58571), (41, 58592),

Gene: Veliki_90 Start: 56589, Stop: 56750, Start Num: 24
Candidate Starts for Veliki_90:
(Start: 24 @56589 has 99 MA's), (Start: 31 @56619 has 28 MA's), (41, 56676), (45, 56709),

Gene: ViviJ_89 Start: 55667, Stop: 55807, Start Num: 31
Candidate Starts for ViviJ_89:
(Start: 23 @55631 has 1 MA's), (Start: 31 @55667 has 28 MA's), (34, 55694),

Gene: Waterfoul_84 Start: 55470, Stop: 55616, Start Num: 31
Candidate Starts for Waterfoul_84:
(6, 55245), (8, 55269), (Start: 23 @55437 has 1 MA's), (Start: 31 @55470 has 28 MA's), (36, 55515), (44, 55563), (46, 55590),

Gene: Ximenita_95 Start: 57796, Stop: 57960, Start Num: 24
Candidate Starts for Ximenita_95:
(Start: 24 @57796 has 99 MA's), (41, 57880), (43, 57892),

Gene: YoureAdopted_88 Start: 56415, Stop: 56576, Start Num: 24
Candidate Starts for YoureAdopted_88:
(Start: 24 @56415 has 99 MA's), (30, 56436), (Start: 31 @56445 has 28 MA's), (41, 56502), (45, 56535),

Gene: Yuna_92 Start: 58580, Stop: 58747, Start Num: 24
Candidate Starts for Yuna_92:
(Start: 24 @58580 has 99 MA's), (41, 58670), (43, 58682),

Gene: Yunkel11_94 Start: 57232, Stop: 57393, Start Num: 24
Candidate Starts for Yunkel11_94:
(Start: 24 @57232 has 99 MA's), (41, 57319),

Gene: Zabiza_85 Start: 52962, Stop: 53123, Start Num: 24
Candidate Starts for Zabiza_85:
(Start: 24 @52962 has 99 MA's), (Start: 31 @52992 has 28 MA's), (41, 53049), (45, 53082),

Gene: Zavala_91 Start: 56880, Stop: 57041, Start Num: 24
Candidate Starts for Zavala_91:
(Start: 24 @56880 has 99 MA's), (30, 56901), (Start: 31 @56910 has 28 MA's), (41, 56967), (45, 57000),