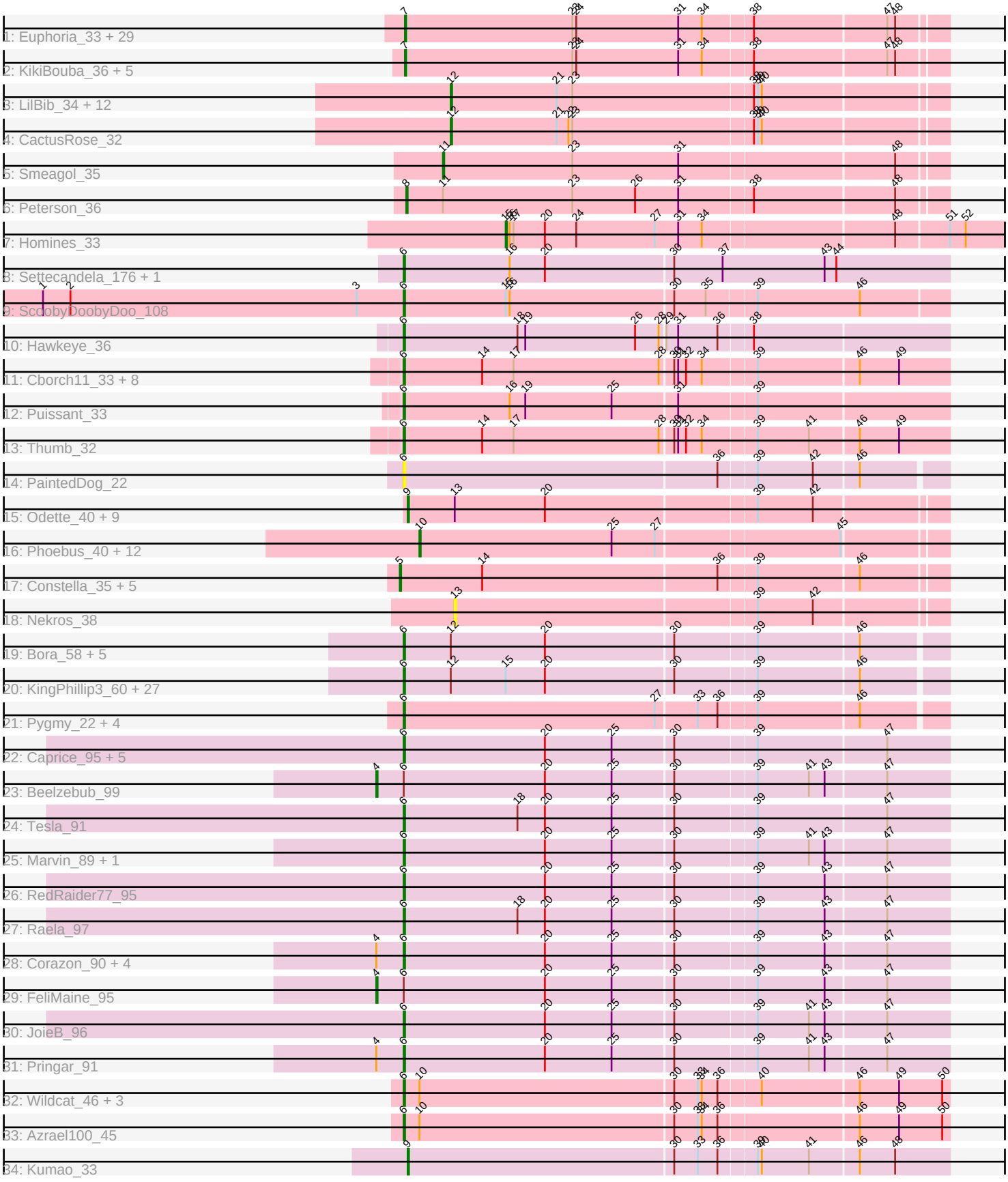
Pham 347324


1: Euphoria_33 + 29
2: KikiBouba_36 + 5
3: LilBib_34 + 12
4: CactusRose_32
5: Smeagol_35
6: Peterson_36
7: Homines_33
8: Settecandela_176 + 1
9: ScoobyDoobyDoo_108
10: Hawkeye_36
11: Cborch11_33 + 8
12: Puissant_33
13: Thumb_32
14: PaintedDog_22
15: Odette_40 + 9
16: Phoebus_40 + 12
17: Constella_35 + 5
18: Nekros_38
19: Bora_58 + 5
20: KingPhillip3_60 + 27
21: Pygmy_22 + 4
22: Caprice_95 + 5
23: Beelzebub_99
24: Tesla_91
25: Marvin_89 + 1
26: RedRaider77_95
27: Raela_97
28: Corazon_90 + 4
29: FeliMaine_95
30: JoieB_96
31: Pringar_91
32: Wildcat_46 + 3
33: Azrael100_45
34: Kumao_33

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 347324 Report

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

Pham number 347324 has 164 members, 13 are drafts.

Phages represented in each track:
• Track 1 : Euphoria_33, Jasper_34, MetalQZJ_33, Eyeball_33, Graduation_35, SwissCheese_35, PherrisBueller_34, Kenmech_36, Forsytheast_33, BaconJack_36, ILeeKay_35, Bones_33, RidgeCB_33, MaryBeth_33, LunarLander_34, Bruns_32, Dreamboat_34, Violet_32, Puppet_33, Hope4ever_33, Tripl3t_34, Licorice_35, Abbyshoes_35, Dussy_34, Corvo_34, Cueylyss_33, GrecoEtereo_35, Moose_33, Papez_35, Beatrix_33
• Track 2 : KikiBouba_36, DirtDevil_35, Hermia_36, CatBus_35, Noxious_36, Aldrich_35
• Track 3 : LilBib_34, Smairt_34, IgnatiusPatJac_33, HanShotFirst_33, ProMouse_34, PowerRanger_35, Wilkins_33, Topgun_33, Dexes_34, HarryOW_34, JC27_35, Pelly_34, Phlippers_32
• Track 4 : CactusRose_32
• Track 5 : Smeagol_35
• Track 6 : Peterson_36
• Track 7 : Homines_33
• Track 8 : Settecandela_176, Phrappuccino_176
• Track 9 : ScoobyDoobyDoo_108
• Track 10 : Hawkeye_36
• Track 11 : Cborch11_33, Phreeze_32, Beckerton_32, BobtimousPrime_34, Oaker_32, Megatron06_34, Konstantine_37, Nish23_33, Damien_32
• Track 12 : Puissant_33
• Track 13 : Thumb_32
• Track 14 : PaintedDog_22
• Track 15 : Odette_40, Dove_38, Rearden_35, Yeet_39, Schatzie_38, NihilNomen_40, Hughesyang_39, Bombitas_37, Ejimix_41, Pound_42
• Track 16 : Phoebus_40, JuicyJay_43, Halley_41, ThreeRngTarjay_39, HokkenD_36, Klein_41, Bagrid_40, Beem_41, Kalah2_41, Dallas_42, Zelink_42, Redno2_39, EricMillard_41
• Track 17 : Constella_35, Hidrated_41, Bobby_42, Marleymoo_45, Xiaokay_38, Thibault_37
• Track 18 : Nekros_38
• Track 19 : Bora_58, Winget_61, Zakhe101_60, Firecracker_61, Dylan_60, Corndog_63
• Track 20 : KingPhillip3_60, Imara_60, YoyoKar_58, Krili_59, SchoolBus_60, Vagabond_60, Schuy_61, YungJamal_65, Blessica_61, JangDynasty_60, Alkhayr_60, Wogge42_59, Shida_60, FoulBall_60, Catdawg_60, NiebruSaylor_59, TelAviv_57, Vorrps_60, Ryadel_64, Ashwin_62, Wildflower_60, Murai_61,

Smooch_63, Familton_61, Mori_60, MadKillah_61, Zebo_60, Idergollasper_60
• Track 21 : Pygmy_22, Island3_23, Bogie_22, Brujita_23, Shipwreck_22
• Track 22 : Caprice_95, MosMoris_91, Poise_96, Blackbeetle_96, Gattaca_94, GoongGoong_96
• Track 23 : Beelzebub_99
• Track 24 : Tesla_91
• Track 25 : Marvin_89, VasuNzinga_93
• Track 26 : RedRaider77_95
• Track 27 : Raela_97
• Track 28 : Corazon_90, LittleLaf_93, Lilbit_91, Clarkson_96, Huphlepuff_97
• Track 29 : FeliMaine_95
• Track 30 : JoieB_96
• Track 31 : Pringar_91
• Track 32 : Wildcat_46, MaryV_46, EniyanLRS_43, Cosmo_46
• Track 33 : Azrael100_45
• Track 34 : Kumao_33

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

The start number called the most often in the published annotations is 6, it was called in 74 of the 151 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Alkhayr_60, Ashwin_62, Azrael100_45, Beckerton_32, Blackbeetle_96, Blessica_61, BobtimousPrime_34, Bogie_22, Bora_58, Brujita_23, Caprice_95, Catdawg_60, Cborch11_33, Clarkson_96, Corazon_90, Corndog_63, Cosmo_46, Damien_32, Dylan_60, EniyanLRS_43, Familton_61, Firecracker_61, FoulBall_60, Gattaca_94, GoongGoong_96, Hawkeye_36, Huphlepuff_97, Idergollasper_60, Imara_60, Island3_23, JangDynasty_60, JoieB_96, KingPhillip3_60, Konstantine_37, Krili_59, Lilbit_91, LittleLaf_93, MadKillah_61, Marvin_89, MaryV_46, Megatron06_34, Mori_60, MosMoris_91, Murai_61, NiebruSaylor_59, Nish23_33, Oaker_32, PaintedDog_22, Phrappuccino_176, Phreeze_32, Poise_96, Pringar_91, Puissant_33, Pygmy_22, Raela_97, RedRaider77_95, Ryadel_64, SchoolBus_60, Schuy_61, ScoobyDoobyDoo_108, Settecandela_176, Shida_60, Shipwreck_22, Smooch_63, TelAviv_57, Tesla_91, Thumb_32, Vagabond_60, VasuNzinga_93, Vorrps_60, Wildcat_46, Wildflower_60, Winget_61, Wogge42_59, YoyoKar_58, YungJamal_65, Zakhe101_60, Zebo_60,

Genes that have the "Most Annotated" start but do not call it:
• Beelzebub_99, FeliMaine_95,

Genes that do not have the "Most Annotated" start:
• Abbyshoes_35, Aldrich_35, BaconJack_36, Bagrid_40, Beatrix_33, Beem_41, Bobby_42, Bombitas_37, Bones_33, Bruns_32, CactusRose_32, CatBus_35, Constella_35, Corvo_34, Cueylyss_33, Dallas_42, Dexes_34, DirtDevil_35, Dove_38, Dreamboat_34, Dussy_34, Ejimix_41, EricMillard_41, Euphoria_33, Eyeball_33, Forsytheast_33, Graduation_35, GrecoEtereo_35, Halley_41, HanShotFirst_33, HarryOW_34, Hermia_36, Hidrated_41, HokkenD_36, Homines_33, Hope4ever_33, Hughesyang_39, ILeeKay_35, IgnatiusPatJac_33, JC27_35, Jasper_34, JuicyJay_43, Kalah2_41, Kenmech_36, KikiBouba_36, Klein_41, Kumao_33,

Licorice_35, LilBib_34, LunarLander_34, Marleymoo_45, MaryBeth_33, MetalQZJ_33, Moose_33, Nekros_38, NihilNomen_40, Noxious_36, Odette_40, Papez_35, Pelly_34, Peterson_36, PherrisBueller_34, Phlippers_32, Phoebus_40, Pound_42, PowerRanger_35, ProMouse_34, Puppet_33, Rearden_35, Redno2_39, RidgeCB_33, Schatzie_38, Smairt_34, Smeagol_35, SwissCheese_35, Thibault_37, ThreeRngTarjay_39, Topgun_33, Tripl3t_34, Violet_32, Wilkins_33, Xiaokay_38, Yeet_39, Zelink_42,

Summary by start number:

Start 4:
• Found in 8 of 164 (4.9%) of genes in pham
• Manual Annotations of this start: 2 of 151
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Beelzebub_99 (S), FeliMaine_95 (S),

Start 5:
• Found in 6 of 164 (3.7%) of genes in pham
• Manual Annotations of this start: 4 of 151
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bobby_42 (J), Constella_35 (J), Hidrated_41 (J), Marleymoo_45 (J), Thibault_37 (J), Xiaokay_38 (J),

Start 6:
• Found in 80 of 164 (48.8%) of genes in pham
• Manual Annotations of this start: 74 of 151
• Called 97.5% of time when present
• Phage (with cluster) where this start called: Alkhayr_60 (O), Ashwin_62 (O), Azrael100_45 (V), Beckerton_32 (H1), Blackbeetle_96 (S), Blessica_61 (O), BobtimousPrime_34 (H1), Bogie_22 (P1), Bora_58 (O), Brujita_23 (I1), Caprice_95 (S), Catdawg_60 (O), Cborch11_33 (H1), Clarkson_96 (S), Corazon_90 (S), Corndog_63 (O), Cosmo_46 (V), Damien_32 (H1), Dylan_60 (O), EniyanLRS_43 (V), Familton_61 (O), Firecracker_61 (O), FoulBall_60 (O), Gattaca_94 (S), GoongGoong_96 (S), Hawkeye_36 (D2), Huphlepuff_97 (S), Idergollasper_60 (O), Imara_60 (O), Island3_23 (I1), JangDynasty_60 (O), JoieB_96 (S), KingPhillip3_60 (O), Konstantine_37 (H1), Krili_59 (O), Lilbit_91 (S), LittleLaf_93 (S), MadKillah_61 (O), Marvin_89 (S), MaryV_46 (V), Megatron06_34 (H1), Mori_60 (O), MosMoris_91 (S), Murai_61 (O), NiebruSaylor_59 (O), Nish23_33 (H1), Oaker_32 (H1), PaintedDog_22 (I1), Phrappuccino_176 (AA), Phreeze_32 (H1), Poise_96 (S), Pringar_91 (S), Puissant_33 (H1), Pygmy_22 (P1), Raela_97 (S), RedRaider77_95 (S), Ryadel_64 (O), SchoolBus_60 (O), Schuy_61 (O), ScoobyDoobyDoo_108 (C2), Settecandela_176 (AA), Shida_60 (O), Shipwreck_22 (P1), Smooch_63 (O), TelAviv_57 (O), Tesla_91 (S), Thumb_32 (H1), Vagabond_60 (O), VasuNzinga_93 (S), Vorrps_60 (O), Wildcat_46 (V), Wildflower_60 (O), Winget_61 (O), Wogge42_59 (O), YoyoKar_58 (O), YungJamal_65 (O), Zakhe101_60 (O), Zebo_60 (O),

Start 7:
• Found in 36 of 164 (22.0%) of genes in pham
• Manual Annotations of this start: 34 of 151
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Abbyshoes_35 (A1), Aldrich_35 (A1), BaconJack_36 (A1), Beatrix_33 (A1), Bones_33 (A1), Bruns_32 (A1), CatBus_35 (A1), Corvo_34 (A1), Cueylyss_33 (A1), DirtDevil_35 (A1), Dreamboat_34 (A1),

Dussy_34 (A1), Euphoria_33 (A1), Eyeball_33 (A1), Forsytheast_33 (A1), Graduation_35 (A1), GrecoEtereo_35 (A1), Hermia_36 (A1), Hope4ever_33 (A1), ILeeKay_35 (A1), Jasper_34 (A1), Kenmech_36 (A1), KikiBouba_36 (A1), Licorice_35 (A1), LunarLander_34 (A1), MaryBeth_33 (A1), MetalQZJ_33 (A1), Moose_33 (A1), Noxious_36 (A1), Papez_35 (A1), PherrisBueller_34 (A1), Puppet_33 (A1), RidgeCB_33 (A1), SwissCheese_35 (A1), Tripl3t_34 (A1), Violet_32 (A1),

Start 8:
• Found in 1 of 164 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 151
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Peterson_36 (A1),

Start 9:
• Found in 11 of 164 (6.7%) of genes in pham
• Manual Annotations of this start: 9 of 151
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bombitas_37 (J), Dove_38 (J), Ejimix_41 (J), Hughesyang_39 (J), Kumao_33 (singleton), NihilNomen_40 (J), Odette_40 (J), Pound_42 (J), Rearden_35 (J), Schatzie_38 (J), Yeet_39 (J),

Start 10:
• Found in 18 of 164 (11.0%) of genes in pham
• Manual Annotations of this start: 12 of 151
• Called 72.2% of time when present
• Phage (with cluster) where this start called: Bagrid_40 (J), Beem_41 (J), Dallas_42 (J), EricMillard_41 (J), Halley_41 (J), HokkenD_36 (J), JuicyJay_43 (J), Kalah2_41 (J), Klein_41 (J), Phoebus_40 (J), Redno2_39 (J), ThreeRngTarjay_39 (J), Zelink_42 (J),

Start 11:
• Found in 2 of 164 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 151
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Smeagol_35 (A1),

Start 12:
• Found in 48 of 164 (29.3%) of genes in pham
• Manual Annotations of this start: 13 of 151
• Called 29.2% of time when present
• Phage (with cluster) where this start called: CactusRose_32 (A1), Dexes_34 (A1), HanShotFirst_33 (A1), HarryOW_34 (A1), IgnatiusPatJac_33 (A1), JC27_35 (A1), LilBib_34 (A1), Pelly_34 (A1), Phlippers_32 (A1), PowerRanger_35 (A1), ProMouse_34 (A1), Smairt_34 (A1), Topgun_33 (A1), Wilkins_33 (A1),

Start 13:
• Found in 11 of 164 (6.7%) of genes in pham
• No Manual Annotations of this start.
• Called 9.1% of time when present
• Phage (with cluster) where this start called: Nekros_38 (J),

Start 15:
• Found in 30 of 164 (18.3%) of genes in pham

• Manual Annotations of this start: 1 of 151
• Called 3.3% of time when present
• Phage (with cluster) where this start called: Homines_33 (A1),

Summary by clusters:

There are 12 clusters represented in this pham: AA, singleton, H1, I1, J, O, A1, S, P1, V, C2, D2,

Info for manual annotations of cluster A1:
•Start number 7 was manually annotated 34 times for cluster A1.
•Start number 8 was manually annotated 1 time for cluster A1.
•Start number 11 was manually annotated 1 time for cluster A1.
•Start number 12 was manually annotated 13 times for cluster A1.
•Start number 15 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster AA:
•Start number 6 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster C2:
•Start number 6 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster D2:
•Start number 6 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster H1:
•Start number 6 was manually annotated 10 times for cluster H1.

Info for manual annotations of cluster I1:
•Start number 6 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster J:
•Start number 5 was manually annotated 4 times for cluster J.
•Start number 9 was manually annotated 8 times for cluster J.
•Start number 10 was manually annotated 12 times for cluster J.

Info for manual annotations of cluster O:
•Start number 6 was manually annotated 32 times for cluster O.

Info for manual annotations of cluster P1:
•Start number 6 was manually annotated 3 times for cluster P1.

Info for manual annotations of cluster S:
•Start number 4 was manually annotated 2 times for cluster S.
•Start number 6 was manually annotated 18 times for cluster S.

Info for manual annotations of cluster V:
•Start number 6 was manually annotated 5 times for cluster V.

Gene Information:

Gene: Abbyshoes_35 Start: 27637, Stop: 28038, Start Num: 7
Candidate Starts for Abbyshoes_35:
(Start: 7 @27637 has 34 MA's), (23, 27763), (24, 27766), (31, 27844), (34, 27862), (38, 27898), (47, 27997), (48, 28003),

Gene: Aldrich_35 Start: 28762, Stop: 29163, Start Num: 7
Candidate Starts for Aldrich_35:
(Start: 7 @28762 has 34 MA's), (23, 28888), (24, 28891), (31, 28969), (34, 28987), (38, 29023), (47, 29122), (48, 29128),

Gene: Alkhayr_60 Start: 39815, Stop: 40216, Start Num: 6
Candidate Starts for Alkhayr_60:
(Start: 6 @39815 has 74 MA's), (Start: 12 @39851 has 13 MA's), (Start: 15 @39893 has 1 MA's), (20, 39923), (30, 40019), (39, 40079), (46, 40154),

Gene: Ashwin_62 Start: 40585, Stop: 40986, Start Num: 6
Candidate Starts for Ashwin_62:
(Start: 6 @40585 has 74 MA's), (Start: 12 @40621 has 13 MA's), (Start: 15 @40663 has 1 MA's), (20, 40693), (30, 40789), (39, 40849), (46, 40924),

Gene: Azrael100_45 Start: 35022, Stop: 35429, Start Num: 6
Candidate Starts for Azrael100_45:
(Start: 6 @35022 has 74 MA's), (Start: 10 @35034 has 12 MA's), (30, 35226), (33, 35244), (34, 35247), (36, 35259), (46, 35361), (49, 35391), (50, 35424),

Gene: BaconJack_36 Start: 27957, Stop: 28358, Start Num: 7
Candidate Starts for BaconJack_36:
(Start: 7 @27957 has 34 MA's), (23, 28083), (24, 28086), (31, 28164), (34, 28182), (38, 28218), (47, 28317), (48, 28323),

Gene: Bagrid_40 Start: 33113, Stop: 33502, Start Num: 10
Candidate Starts for Bagrid_40:
(Start: 10 @33113 has 12 MA's), (25, 33260), (27, 33293), (45, 33428),

Gene: Beatrix_33 Start: 28872, Stop: 29273, Start Num: 7
Candidate Starts for Beatrix_33:
(Start: 7 @28872 has 34 MA's), (23, 28998), (24, 29001), (31, 29079), (34, 29097), (38, 29133), (47, 29232), (48, 29238),

Gene: Beckerton_32 Start: 31246, Stop: 31653, Start Num: 6
Candidate Starts for Beckerton_32:
(Start: 6 @31246 has 74 MA's), (14, 31306), (17, 31330), (28, 31441), (30, 31450), (31, 31453), (32, 31459), (34, 31471), (39, 31510), (46, 31585), (49, 31615),

Gene: Beelzebub_99 Start: 55639, Stop: 56067, Start Num: 4
Candidate Starts for Beelzebub_99:
(Start: 4 @55639 has 2 MA's), (Start: 6 @55660 has 74 MA's), (20, 55768), (25, 55819), (30, 55864), (39, 55924), (41, 55963), (43, 55975), (47, 56020),

Gene: Beem_41 Start: 33679, Stop: 34068, Start Num: 10
Candidate Starts for Beem_41:
(Start: 10 @33679 has 12 MA's), (25, 33826), (27, 33859), (45, 33994),

Gene: Blackbeetle_96 Start: 55161, Stop: 55568, Start Num: 6
Candidate Starts for Blackbeetle_96:
(Start: 6 @55161 has 74 MA's), (20, 55269), (25, 55320), (30, 55365), (39, 55425), (47, 55521),

Gene: Blessica_61 Start: 40414, Stop: 40815, Start Num: 6
Candidate Starts for Blessica_61:
(Start: 6 @40414 has 74 MA's), (Start: 12 @40450 has 13 MA's), (Start: 15 @40492 has 1 MA's), (20, 40522), (30, 40618), (39, 40678), (46, 40753),

Gene: Bobby_42 Start: 34506, Stop: 34910, Start Num: 5
Candidate Starts for Bobby_42:
(Start: 5 @34506 has 4 MA's), (14, 34569), (36, 34746), (39, 34773), (46, 34848),

Gene: BobtimousPrime_34 Start: 31166, Stop: 31573, Start Num: 6
Candidate Starts for BobtimousPrime_34:
(Start: 6 @31166 has 74 MA's), (14, 31226), (17, 31250), (28, 31361), (30, 31370), (31, 31373), (32, 31379), (34, 31391), (39, 31430), (46, 31505), (49, 31535),

Gene: Bogie_22 Start: 22761, Stop: 23162, Start Num: 6
Candidate Starts for Bogie_22:
(Start: 6 @22761 has 74 MA's), (27, 22953), (33, 22983), (36, 22998), (39, 23025), (46, 23100),

Gene: Bombitas_37 Start: 32684, Stop: 33082, Start Num: 9
Candidate Starts for Bombitas_37:
(Start: 9 @32684 has 9 MA's), (13, 32720), (20, 32789), (39, 32945), (42, 32987),

Gene: Bones_33 Start: 27330, Stop: 27731, Start Num: 7
Candidate Starts for Bones_33:
(Start: 7 @27330 has 34 MA's), (23, 27456), (24, 27459), (31, 27537), (34, 27555), (38, 27591), (47, 27690), (48, 27696),

Gene: Bora_58 Start: 39771, Stop: 40172, Start Num: 6
Candidate Starts for Bora_58:
(Start: 6 @39771 has 74 MA's), (Start: 12 @39807 has 13 MA's), (20, 39879), (30, 39975), (39, 40035), (46, 40110),

Gene: Brujita_23 Start: 23116, Stop: 23517, Start Num: 6
Candidate Starts for Brujita_23:
(Start: 6 @23116 has 74 MA's), (27, 23308), (33, 23338), (36, 23353), (39, 23380), (46, 23455),

Gene: Bruns_32 Start: 27352, Stop: 27753, Start Num: 7
Candidate Starts for Bruns_32:
(Start: 7 @27352 has 34 MA's), (23, 27478), (24, 27481), (31, 27559), (34, 27577), (38, 27613), (47, 27712), (48, 27718),

Gene: CactusRose_32 Start: 27357, Stop: 27725, Start Num: 12
Candidate Starts for CactusRose_32:
(Start: 12 @27357 has 13 MA's), (21, 27438), (22, 27447), (23, 27450), (38, 27585), (39, 27588), (40, 27591),

Gene: Caprice_95 Start: 55099, Stop: 55506, Start Num: 6
Candidate Starts for Caprice_95:
(Start: 6 @55099 has 74 MA's), (20, 55207), (25, 55258), (30, 55303), (39, 55363), (47, 55459),

Gene: CatBus_35 Start: 28954, Stop: 29355, Start Num: 7
Candidate Starts for CatBus_35:
(Start: 7 @28954 has 34 MA's), (23, 29080), (24, 29083), (31, 29161), (34, 29179), (38, 29215), (47, 29314), (48, 29320),

Gene: Catdawg_60 Start: 40150, Stop: 40551, Start Num: 6
Candidate Starts for Catdawg_60:
(Start: 6 @40150 has 74 MA's), (Start: 12 @40186 has 13 MA's), (Start: 15 @40228 has 1 MA's), (20, 40258), (30, 40354), (39, 40414), (46, 40489),

Gene: Cborch11_33 Start: 30711, Stop: 31118, Start Num: 6
Candidate Starts for Cborch11_33:
(Start: 6 @30711 has 74 MA's), (14, 30771), (17, 30795), (28, 30906), (30, 30915), (31, 30918), (32, 30924), (34, 30936), (39, 30975), (46, 31050), (49, 31080),

Gene: Clarkson_96 Start: 55340, Stop: 55747, Start Num: 6
Candidate Starts for Clarkson_96:
(Start: 4 @55319 has 2 MA's), (Start: 6 @55340 has 74 MA's), (20, 55448), (25, 55499), (30, 55544), (39, 55604), (43, 55655), (47, 55700),

Gene: Constella_35 Start: 32452, Stop: 32856, Start Num: 5
Candidate Starts for Constella_35:
(Start: 5 @32452 has 4 MA's), (14, 32515), (36, 32692), (39, 32719), (46, 32794),

Gene: Corazon_90 Start: 55534, Stop: 55941, Start Num: 6
Candidate Starts for Corazon_90:
(Start: 4 @55513 has 2 MA's), (Start: 6 @55534 has 74 MA's), (20, 55642), (25, 55693), (30, 55738), (39, 55798), (43, 55849), (47, 55894),

Gene: Corndog_63 Start: 41144, Stop: 41545, Start Num: 6
Candidate Starts for Corndog_63:
(Start: 6 @41144 has 74 MA's), (Start: 12 @41180 has 13 MA's), (20, 41252), (30, 41348), (39, 41408), (46, 41483),

Gene: Corvo_34 Start: 28389, Stop: 28790, Start Num: 7
Candidate Starts for Corvo_34:
(Start: 7 @28389 has 34 MA's), (23, 28515), (24, 28518), (31, 28596), (34, 28614), (38, 28650), (47, 28749), (48, 28755),

Gene: Cosmo_46 Start: 35023, Stop: 35430, Start Num: 6
Candidate Starts for Cosmo_46:
(Start: 6 @35023 has 74 MA's), (Start: 10 @35035 has 12 MA's), (30, 35227), (33, 35245), (34, 35248), (36, 35260), (40, 35290), (46, 35362), (49, 35392), (50, 35425),

Gene: Cueylyss_33 Start: 27563, Stop: 27964, Start Num: 7
Candidate Starts for Cueylyss_33:
(Start: 7 @27563 has 34 MA's), (23, 27689), (24, 27692), (31, 27770), (34, 27788), (38, 27824), (47, 27923), (48, 27929),

Gene: Dallas_42 Start: 33204, Stop: 33593, Start Num: 10
Candidate Starts for Dallas_42:
(Start: 10 @33204 has 12 MA's), (25, 33351), (27, 33384), (45, 33519),

Gene: Damien_32 Start: 30712, Stop: 31119, Start Num: 6
Candidate Starts for Damien_32:
(Start: 6 @30712 has 74 MA's), (14, 30772), (17, 30796), (28, 30907), (30, 30916), (31, 30919), (32, 30925), (34, 30937), (39, 30976), (46, 31051), (49, 31081),

Gene: Dexes_34 Start: 28150, Stop: 28518, Start Num: 12
Candidate Starts for Dexes_34:
(Start: 12 @28150 has 13 MA's), (21, 28231), (23, 28243), (38, 28378), (39, 28381), (40, 28384),

Gene: DirtDevil_35 Start: 28762, Stop: 29163, Start Num: 7
Candidate Starts for DirtDevil_35:
(Start: 7 @28762 has 34 MA's), (23, 28888), (24, 28891), (31, 28969), (34, 28987), (38, 29023), (47, 29122), (48, 29128),

Gene: Dove_38 Start: 32683, Stop: 33081, Start Num: 9
Candidate Starts for Dove_38:
(Start: 9 @32683 has 9 MA's), (13, 32719), (20, 32788), (39, 32944), (42, 32986),

Gene: Dreamboat_34 Start: 27395, Stop: 27796, Start Num: 7
Candidate Starts for Dreamboat_34:
(Start: 7 @27395 has 34 MA's), (23, 27521), (24, 27524), (31, 27602), (34, 27620), (38, 27656), (47, 27755), (48, 27761),

Gene: Dussy_34 Start: 27657, Stop: 28058, Start Num: 7
Candidate Starts for Dussy_34:
(Start: 7 @27657 has 34 MA's), (23, 27783), (24, 27786), (31, 27864), (34, 27882), (38, 27918), (47, 28017), (48, 28023),

Gene: Dylan_60 Start: 40195, Stop: 40596, Start Num: 6
Candidate Starts for Dylan_60:
(Start: 6 @40195 has 74 MA's), (Start: 12 @40231 has 13 MA's), (20, 40303), (30, 40399), (39, 40459), (46, 40534),

Gene: Ejimix_41 Start: 34413, Stop: 34811, Start Num: 9
Candidate Starts for Ejimix_41:
(Start: 9 @34413 has 9 MA's), (13, 34449), (20, 34518), (39, 34674), (42, 34716),

Gene: EniyanLRS_43 Start: 34721, Stop: 35128, Start Num: 6
Candidate Starts for EniyanLRS_43:
(Start: 6 @34721 has 74 MA's), (Start: 10 @34733 has 12 MA's), (30, 34925), (33, 34943), (34, 34946), (36, 34958), (40, 34988), (46, 35060), (49, 35090), (50, 35123),

Gene: EricMillard_41 Start: 33965, Stop: 34354, Start Num: 10
Candidate Starts for EricMillard_41:
(Start: 10 @33965 has 12 MA's), (25, 34112), (27, 34145), (45, 34280),

Gene: Euphoria_33 Start: 27428, Stop: 27829, Start Num: 7
Candidate Starts for Euphoria_33:
(Start: 7 @27428 has 34 MA's), (23, 27554), (24, 27557), (31, 27635), (34, 27653), (38, 27689), (47, 27788), (48, 27794),

Gene: Eyeball_33 Start: 27233, Stop: 27634, Start Num: 7

Candidate Starts for Eyeball_33:
(Start: 7 @27233 has 34 MA's), (23, 27359), (24, 27362), (31, 27440), (34, 27458), (38, 27494), (47, 27593), (48, 27599),

Gene: Familton_61 Start: 40107, Stop: 40508, Start Num: 6
Candidate Starts for Familton_61:
(Start: 6 @40107 has 74 MA's), (Start: 12 @40143 has 13 MA's), (Start: 15 @40185 has 1 MA's), (20, 40215), (30, 40311), (39, 40371), (46, 40446),

Gene: FeliMaine_95 Start: 55561, Stop: 55989, Start Num: 4
Candidate Starts for FeliMaine_95:
(Start: 4 @55561 has 2 MA's), (Start: 6 @55582 has 74 MA's), (20, 55690), (25, 55741), (30, 55786), (39, 55846), (43, 55897), (47, 55942),

Gene: Firecracker_61 Start: 40297, Stop: 40698, Start Num: 6
Candidate Starts for Firecracker_61:
(Start: 6 @40297 has 74 MA's), (Start: 12 @40333 has 13 MA's), (20, 40405), (30, 40501), (39, 40561), (46, 40636),

Gene: Forsytheast_33 Start: 27667, Stop: 28068, Start Num: 7
Candidate Starts for Forsytheast_33:
(Start: 7 @27667 has 34 MA's), (23, 27793), (24, 27796), (31, 27874), (34, 27892), (38, 27928), (47, 28027), (48, 28033),

Gene: FoulBall_60 Start: 40101, Stop: 40502, Start Num: 6
Candidate Starts for FoulBall_60:
(Start: 6 @40101 has 74 MA's), (Start: 12 @40137 has 13 MA's), (Start: 15 @40179 has 1 MA's), (20, 40209), (30, 40305), (39, 40365), (46, 40440),

Gene: Gattaca_94 Start: 55573, Stop: 55980, Start Num: 6
Candidate Starts for Gattaca_94:
(Start: 6 @55573 has 74 MA's), (20, 55681), (25, 55732), (30, 55777), (39, 55837), (47, 55933),

Gene: GoongGoong_96 Start: 55379, Stop: 55786, Start Num: 6
Candidate Starts for GoongGoong_96:
(Start: 6 @55379 has 74 MA's), (20, 55487), (25, 55538), (30, 55583), (39, 55643), (47, 55739),

Gene: Graduation_35 Start: 28150, Stop: 28551, Start Num: 7
Candidate Starts for Graduation_35:
(Start: 7 @28150 has 34 MA's), (23, 28276), (24, 28279), (31, 28357), (34, 28375), (38, 28411), (47, 28510), (48, 28516),

Gene: GrecoEtereo_35 Start: 28237, Stop: 28638, Start Num: 7
Candidate Starts for GrecoEtereo_35:
(Start: 7 @28237 has 34 MA's), (23, 28363), (24, 28366), (31, 28444), (34, 28462), (38, 28498), (47, 28597), (48, 28603),

Gene: Halley_41 Start: 33678, Stop: 34067, Start Num: 10
Candidate Starts for Halley_41:
(Start: 10 @33678 has 12 MA's), (25, 33825), (27, 33858), (45, 33993),

Gene: HanShotFirst_33 Start: 27403, Stop: 27771, Start Num: 12
Candidate Starts for HanShotFirst_33:

(Start: 12 @27403 has 13 MA's), (21, 27484), (23, 27496), (38, 27631), (39, 27634), (40, 27637),

Gene: HarryOW_34 Start: 27857, Stop: 28225, Start Num: 12
Candidate Starts for HarryOW_34:
(Start: 12 @27857 has 13 MA's), (21, 27938), (23, 27950), (38, 28085), (39, 28088), (40, 28091),

Gene: Hawkeye_36 Start: 29723, Stop: 30130, Start Num: 6
Candidate Starts for Hawkeye_36:
(Start: 6 @29723 has 74 MA's), (18, 29810), (19, 29816), (26, 29900), (28, 29918), (29, 29921), (31, 29930), (36, 29960), (38, 29984),

Gene: Hermia_36 Start: 28954, Stop: 29355, Start Num: 7
Candidate Starts for Hermia_36:
(Start: 7 @28954 has 34 MA's), (23, 29080), (24, 29083), (31, 29161), (34, 29179), (38, 29215), (47, 29314), (48, 29320),

Gene: Hidrated_41 Start: 35707, Stop: 36111, Start Num: 5
Candidate Starts for Hidrated_41:
(Start: 5 @35707 has 4 MA's), (14, 35770), (36, 35947), (39, 35974), (46, 36049),

Gene: HokkenD_36 Start: 33227, Stop: 33616, Start Num: 10
Candidate Starts for HokkenD_36:
(Start: 10 @33227 has 12 MA's), (25, 33374), (27, 33407), (45, 33542),

Gene: Homines_33 Start: 27796, Stop: 28203, Start Num: 15
Candidate Starts for Homines_33:
(Start: 15 @27796 has 1 MA's), (16, 27799), (17, 27802), (20, 27826), (24, 27850), (27, 27910), (31, 27928), (34, 27946), (48, 28087), (51, 28126), (52, 28138),

Gene: Hope4ever_33 Start: 27840, Stop: 28241, Start Num: 7
Candidate Starts for Hope4ever_33:
(Start: 7 @27840 has 34 MA's), (23, 27966), (24, 27969), (31, 28047), (34, 28065), (38, 28101), (47, 28200), (48, 28206),

Gene: Hughesyang_39 Start: 33556, Stop: 33954, Start Num: 9
Candidate Starts for Hughesyang_39:
(Start: 9 @33556 has 9 MA's), (13, 33592), (20, 33661), (39, 33817), (42, 33859),

Gene: Huphlepuff_97 Start: 55145, Stop: 55552, Start Num: 6
Candidate Starts for Huphlepuff_97:
(Start: 4 @55124 has 2 MA's), (Start: 6 @55145 has 74 MA's), (20, 55253), (25, 55304), (30, 55349), (39, 55409), (43, 55460), (47, 55505),

Gene: ILeeKay_35 Start: 27604, Stop: 28005, Start Num: 7
Candidate Starts for ILeeKay_35:
(Start: 7 @27604 has 34 MA's), (23, 27730), (24, 27733), (31, 27811), (34, 27829), (38, 27865), (47, 27964), (48, 27970),

Gene: Idergollasper_60 Start: 40101, Stop: 40502, Start Num: 6
Candidate Starts for Idergollasper_60:
(Start: 6 @40101 has 74 MA's), (Start: 12 @40137 has 13 MA's), (Start: 15 @40179 has 1 MA's), (20, 40209), (30, 40305), (39, 40365), (46, 40440),

Gene: IgnatiusPatJac_33 Start: 27718, Stop: 28086, Start Num: 12
Candidate Starts for IgnatiusPatJac_33:
(Start: 12 @27718 has 13 MA's), (21, 27799), (23, 27811), (38, 27946), (39, 27949), (40, 27952),

Gene: Imara_60 Start: 39901, Stop: 40302, Start Num: 6
Candidate Starts for Imara_60:
(Start: 6 @39901 has 74 MA's), (Start: 12 @39937 has 13 MA's), (Start: 15 @39979 has 1 MA's), (20, 40009), (30, 40105), (39, 40165), (46, 40240),

Gene: Island3_23 Start: 23116, Stop: 23517, Start Num: 6
Candidate Starts for Island3_23:
(Start: 6 @23116 has 74 MA's), (27, 23308), (33, 23338), (36, 23353), (39, 23380), (46, 23455),

Gene: JC27_35 Start: 28372, Stop: 28740, Start Num: 12
Candidate Starts for JC27_35:
(Start: 12 @28372 has 13 MA's), (21, 28453), (23, 28465), (38, 28600), (39, 28603), (40, 28606),

Gene: JangDynasty_60 Start: 40187, Stop: 40588, Start Num: 6
Candidate Starts for JangDynasty_60:
(Start: 6 @40187 has 74 MA's), (Start: 12 @40223 has 13 MA's), (Start: 15 @40265 has 1 MA's), (20, 40295), (30, 40391), (39, 40451), (46, 40526),

Gene: Jasper_34 Start: 27281, Stop: 27682, Start Num: 7
Candidate Starts for Jasper_34:
(Start: 7 @27281 has 34 MA's), (23, 27407), (24, 27410), (31, 27488), (34, 27506), (38, 27542), (47, 27641), (48, 27647),

Gene: JoieB_96 Start: 55748, Stop: 56155, Start Num: 6
Candidate Starts for JoieB_96:
(Start: 6 @55748 has 74 MA's), (20, 55856), (25, 55907), (30, 55952), (39, 56012), (41, 56051), (43, 56063), (47, 56108),

Gene: JuicyJay_43 Start: 35428, Stop: 35817, Start Num: 10
Candidate Starts for JuicyJay_43:
(Start: 10 @35428 has 12 MA's), (25, 35575), (27, 35608), (45, 35743),

Gene: Kalah2_41 Start: 34015, Stop: 34404, Start Num: 10
Candidate Starts for Kalah2_41:
(Start: 10 @34015 has 12 MA's), (25, 34162), (27, 34195), (45, 34330),

Gene: Kenmech_36 Start: 28744, Stop: 29145, Start Num: 7
Candidate Starts for Kenmech_36:
(Start: 7 @28744 has 34 MA's), (23, 28870), (24, 28873), (31, 28951), (34, 28969), (38, 29005), (47, 29104), (48, 29110),

Gene: KikiBouba_36 Start: 28763, Stop: 29164, Start Num: 7
Candidate Starts for KikiBouba_36:
(Start: 7 @28763 has 34 MA's), (23, 28889), (24, 28892), (31, 28970), (34, 28988), (38, 29024), (47, 29123), (48, 29129),

Gene: KingPhillip3_60 Start: 40116, Stop: 40517, Start Num: 6
Candidate Starts for KingPhillip3_60:

(Start: 6 @40116 has 74 MA's), (Start: 12 @40152 has 13 MA's), (Start: 15 @40194 has 1 MA's), (20, 40224), (30, 40320), (39, 40380), (46, 40455),

Gene: Klein_41 Start: 33239, Stop: 33628, Start Num: 10
Candidate Starts for Klein_41:
(Start: 10 @33239 has 12 MA's), (25, 33386), (27, 33419), (45, 33554),

Gene: Konstantine_37 Start: 31913, Stop: 32320, Start Num: 6
Candidate Starts for Konstantine_37:
(Start: 6 @31913 has 74 MA's), (14, 31973), (17, 31997), (28, 32108), (30, 32117), (31, 32120), (32, 32126), (34, 32138), (39, 32177), (46, 32252), (49, 32282),

Gene: Krili_59 Start: 39611, Stop: 40012, Start Num: 6
Candidate Starts for Krili_59:
(Start: 6 @39611 has 74 MA's), (Start: 12 @39647 has 13 MA's), (Start: 15 @39689 has 1 MA's), (20, 39719), (30, 39815), (39, 39875), (46, 39950),

Gene: Kumao_33 Start: 30358, Stop: 30762, Start Num: 9
Candidate Starts for Kumao_33:
(Start: 9 @30358 has 9 MA's), (30, 30559), (33, 30577), (36, 30592), (39, 30619), (40, 30622), (41, 30658), (46, 30694), (48, 30721),

Gene: Licorice_35 Start: 28435, Stop: 28836, Start Num: 7
Candidate Starts for Licorice_35:
(Start: 7 @28435 has 34 MA's), (23, 28561), (24, 28564), (31, 28642), (34, 28660), (38, 28696), (47, 28795), (48, 28801),

Gene: LilBib_34 Start: 28680, Stop: 29048, Start Num: 12
Candidate Starts for LilBib_34:
(Start: 12 @28680 has 13 MA's), (21, 28761), (23, 28773), (38, 28908), (39, 28911), (40, 28914),

Gene: Lilbit_91 Start: 55705, Stop: 56112, Start Num: 6
Candidate Starts for Lilbit_91:
(Start: 4 @55684 has 2 MA's), (Start: 6 @55705 has 74 MA's), (20, 55813), (25, 55864), (30, 55909), (39, 55969), (43, 56020), (47, 56065),

Gene: LittleLaf_93 Start: 55434, Stop: 55841, Start Num: 6
Candidate Starts for LittleLaf_93:
(Start: 4 @55413 has 2 MA's), (Start: 6 @55434 has 74 MA's), (20, 55542), (25, 55593), (30, 55638), (39, 55698), (43, 55749), (47, 55794),

Gene: LunarLander_34 Start: 27551, Stop: 27952, Start Num: 7
Candidate Starts for LunarLander_34:
(Start: 7 @27551 has 34 MA's), (23, 27677), (24, 27680), (31, 27758), (34, 27776), (38, 27812), (47, 27911), (48, 27917),

Gene: MadKillah_61 Start: 39880, Stop: 40281, Start Num: 6
Candidate Starts for MadKillah_61:
(Start: 6 @39880 has 74 MA's), (Start: 12 @39916 has 13 MA's), (Start: 15 @39958 has 1 MA's), (20, 39988), (30, 40084), (39, 40144), (46, 40219),

Gene: Marleymoo_45 Start: 36252, Stop: 36656, Start Num: 5
Candidate Starts for Marleymoo_45:

(Start: 5 @36252 has 4 MA's), (14, 36315), (36, 36492), (39, 36519), (46, 36594),

Gene: Marvin_89 Start: 55227, Stop: 55634, Start Num: 6
Candidate Starts for Marvin_89:
(Start: 6 @55227 has 74 MA's), (20, 55335), (25, 55386), (30, 55431), (39, 55491), (41, 55530), (43, 55542), (47, 55587),

Gene: MaryBeth_33 Start: 27595, Stop: 27996, Start Num: 7
Candidate Starts for MaryBeth_33:
(Start: 7 @27595 has 34 MA's), (23, 27721), (24, 27724), (31, 27802), (34, 27820), (38, 27856), (47, 27955), (48, 27961),

Gene: MaryV_46 Start: 35008, Stop: 35415, Start Num: 6
Candidate Starts for MaryV_46:
(Start: 6 @35008 has 74 MA's), (Start: 10 @35020 has 12 MA's), (30, 35212), (33, 35230), (34, 35233), (36, 35245), (40, 35275), (46, 35347), (49, 35377), (50, 35410),

Gene: Megatron06_34 Start: 31245, Stop: 31652, Start Num: 6
Candidate Starts for Megatron06_34:
(Start: 6 @31245 has 74 MA's), (14, 31305), (17, 31329), (28, 31440), (30, 31449), (31, 31452), (32, 31458), (34, 31470), (39, 31509), (46, 31584), (49, 31614),

Gene: MetalQZJ_33 Start: 27595, Stop: 27996, Start Num: 7
Candidate Starts for MetalQZJ_33:
(Start: 7 @27595 has 34 MA's), (23, 27721), (24, 27724), (31, 27802), (34, 27820), (38, 27856), (47, 27955), (48, 27961),

Gene: Moose_33 Start: 27667, Stop: 28068, Start Num: 7
Candidate Starts for Moose_33:
(Start: 7 @27667 has 34 MA's), (23, 27793), (24, 27796), (31, 27874), (34, 27892), (38, 27928), (47, 28027), (48, 28033),

Gene: Mori_60 Start: 40142, Stop: 40543, Start Num: 6
Candidate Starts for Mori_60:
(Start: 6 @40142 has 74 MA's), (Start: 12 @40178 has 13 MA's), (Start: 15 @40220 has 1 MA's), (20, 40250), (30, 40346), (39, 40406), (46, 40481),

Gene: MosMoris_91 Start: 55579, Stop: 55986, Start Num: 6
Candidate Starts for MosMoris_91:
(Start: 6 @55579 has 74 MA's), (20, 55687), (25, 55738), (30, 55783), (39, 55843), (47, 55939),

Gene: Murai_61 Start: 40323, Stop: 40724, Start Num: 6
Candidate Starts for Murai_61:
(Start: 6 @40323 has 74 MA's), (Start: 12 @40359 has 13 MA's), (Start: 15 @40401 has 1 MA's), (20, 40431), (30, 40527), (39, 40587), (46, 40662),

Gene: Nekros_38 Start: 33219, Stop: 33581, Start Num: 13
Candidate Starts for Nekros_38:
(13, 33219), (39, 33444), (42, 33486),

Gene: NiebruSaylor_59 Start: 39530, Stop: 39931, Start Num: 6
Candidate Starts for NiebruSaylor_59:

(Start: 6 @39530 has 74 MA's), (Start: 12 @39566 has 13 MA's), (Start: 15 @39608 has 1 MA's), (20, 39638), (30, 39734), (39, 39794), (46, 39869),

Gene: NihilNomen_40 Start: 33704, Stop: 34102, Start Num: 9
Candidate Starts for NihilNomen_40:
(Start: 9 @33704 has 9 MA's), (13, 33740), (20, 33809), (39, 33965), (42, 34007),

Gene: Nish23_33 Start: 30711, Stop: 31118, Start Num: 6
Candidate Starts for Nish23_33:
(Start: 6 @30711 has 74 MA's), (14, 30771), (17, 30795), (28, 30906), (30, 30915), (31, 30918), (32, 30924), (34, 30936), (39, 30975), (46, 31050), (49, 31080),

Gene: Noxious_36 Start: 28954, Stop: 29355, Start Num: 7
Candidate Starts for Noxious_36:
(Start: 7 @28954 has 34 MA's), (23, 29080), (24, 29083), (31, 29161), (34, 29179), (38, 29215), (47, 29314), (48, 29320),

Gene: Oaker_32 Start: 30969, Stop: 31376, Start Num: 6
Candidate Starts for Oaker_32:
(Start: 6 @30969 has 74 MA's), (14, 31029), (17, 31053), (28, 31164), (30, 31173), (31, 31176), (32, 31182), (34, 31194), (39, 31233), (46, 31308), (49, 31338),

Gene: Odette_40 Start: 32937, Stop: 33335, Start Num: 9
Candidate Starts for Odette_40:
(Start: 9 @32937 has 9 MA's), (13, 32973), (20, 33042), (39, 33198), (42, 33240),

Gene: PaintedDog_22 Start: 22562, Stop: 22963, Start Num: 6
Candidate Starts for PaintedDog_22:
(Start: 6 @22562 has 74 MA's), (36, 22799), (39, 22826), (42, 22868), (46, 22901),

Gene: Papez_35 Start: 29148, Stop: 29549, Start Num: 7
Candidate Starts for Papez_35:
(Start: 7 @29148 has 34 MA's), (23, 29274), (24, 29277), (31, 29355), (34, 29373), (38, 29409), (47, 29508), (48, 29514),

Gene: Pelly_34 Start: 28171, Stop: 28539, Start Num: 12
Candidate Starts for Pelly_34:
(Start: 12 @28171 has 13 MA's), (21, 28252), (23, 28264), (38, 28399), (39, 28402), (40, 28405),

Gene: Peterson_36 Start: 29362, Stop: 29763, Start Num: 8
Candidate Starts for Peterson_36:
(Start: 8 @29362 has 1 MA's), (Start: 11 @29389 has 1 MA's), (23, 29488), (26, 29536), (31, 29569), (38, 29623), (48, 29728),

Gene: PherrisBueller_34 Start: 27304, Stop: 27705, Start Num: 7
Candidate Starts for PherrisBueller_34:
(Start: 7 @27304 has 34 MA's), (23, 27430), (24, 27433), (31, 27511), (34, 27529), (38, 27565), (47, 27664), (48, 27670),

Gene: Phlippers_32 Start: 28552, Stop: 28920, Start Num: 12
Candidate Starts for Phlippers_32:
(Start: 12 @28552 has 13 MA's), (21, 28633), (23, 28645), (38, 28780), (39, 28783), (40, 28786),

Gene: Phoebus_40 Start: 33965, Stop: 34354, Start Num: 10
Candidate Starts for Phoebus_40:
(Start: 10 @33965 has 12 MA's), (25, 34112), (27, 34145), (45, 34280),

Gene: Phrappuccino_176 Start: 115819, Stop: 116232, Start Num: 6
Candidate Starts for Phrappuccino_176:
(Start: 6 @115819 has 74 MA's), (16, 115900), (20, 115927), (30, 116023), (37, 116059), (43, 116137), (44, 116146),

Gene: Phreeze_32 Start: 30712, Stop: 31119, Start Num: 6
Candidate Starts for Phreeze_32:
(Start: 6 @30712 has 74 MA's), (14, 30772), (17, 30796), (28, 30907), (30, 30916), (31, 30919), (32, 30925), (34, 30937), (39, 30976), (46, 31051), (49, 31081),

Gene: Poise_96 Start: 55161, Stop: 55568, Start Num: 6
Candidate Starts for Poise_96:
(Start: 6 @55161 has 74 MA's), (20, 55269), (25, 55320), (30, 55365), (39, 55425), (47, 55521),

Gene: Pound_42 Start: 34935, Stop: 35333, Start Num: 9
Candidate Starts for Pound_42:
(Start: 9 @34935 has 9 MA's), (13, 34971), (20, 35040), (39, 35196), (42, 35238),

Gene: PowerRanger_35 Start: 28987, Stop: 29355, Start Num: 12
Candidate Starts for PowerRanger_35:
(Start: 12 @28987 has 13 MA's), (21, 29068), (23, 29080), (38, 29215), (39, 29218), (40, 29221),

Gene: Pringar_91 Start: 54946, Stop: 55353, Start Num: 6
Candidate Starts for Pringar_91:
(Start: 4 @54925 has 2 MA's), (Start: 6 @54946 has 74 MA's), (20, 55054), (25, 55105), (30, 55150), (39, 55210), (41, 55249), (43, 55261), (47, 55306),

Gene: ProMouse_34 Start: 27975, Stop: 28343, Start Num: 12
Candidate Starts for ProMouse_34:
(Start: 12 @27975 has 13 MA's), (21, 28056), (23, 28068), (38, 28203), (39, 28206), (40, 28209),

Gene: Puissant_33 Start: 31180, Stop: 31587, Start Num: 6
Candidate Starts for Puissant_33:
(Start: 6 @31180 has 74 MA's), (16, 31261), (19, 31273), (25, 31339), (31, 31387), (39, 31444),

Gene: Puppet_33 Start: 27502, Stop: 27903, Start Num: 7
Candidate Starts for Puppet_33:
(Start: 7 @27502 has 34 MA's), (23, 27628), (24, 27631), (31, 27709), (34, 27727), (38, 27763), (47, 27862), (48, 27868),

Gene: Pygmy_22 Start: 22761, Stop: 23162, Start Num: 6
Candidate Starts for Pygmy_22:
(Start: 6 @22761 has 74 MA's), (27, 22953), (33, 22983), (36, 22998), (39, 23025), (46, 23100),

Gene: Raela_97 Start: 55712, Stop: 56119, Start Num: 6
Candidate Starts for Raela_97:
(Start: 6 @55712 has 74 MA's), (18, 55799), (20, 55820), (25, 55871), (30, 55916), (39, 55976), (43, 56027), (47, 56072),

Gene: Rearden_35 Start: 29956, Stop: 30354, Start Num: 9
Candidate Starts for Rearden_35:
(Start: 9 @29956 has 9 MA's), (13, 29992), (20, 30061), (39, 30217), (42, 30259),

Gene: RedRaider77_95 Start: 55106, Stop: 55513, Start Num: 6
Candidate Starts for RedRaider77_95:
(Start: 6 @55106 has 74 MA's), (20, 55214), (25, 55265), (30, 55310), (39, 55370), (43, 55421), (47, 55466),

Gene: Redno2_39 Start: 33428, Stop: 33817, Start Num: 10
Candidate Starts for Redno2_39:
(Start: 10 @33428 has 12 MA's), (25, 33575), (27, 33608), (45, 33743),

Gene: RidgeCB_33 Start: 27235, Stop: 27636, Start Num: 7
Candidate Starts for RidgeCB_33:
(Start: 7 @27235 has 34 MA's), (23, 27361), (24, 27364), (31, 27442), (34, 27460), (38, 27496), (47, 27595), (48, 27601),

Gene: Ryadel_64 Start: 40911, Stop: 41312, Start Num: 6
Candidate Starts for Ryadel_64:
(Start: 6 @40911 has 74 MA's), (Start: 12 @40947 has 13 MA's), (Start: 15 @40989 has 1 MA's), (20, 41019), (30, 41115), (39, 41175), (46, 41250),

Gene: Schatzie_38 Start: 32685, Stop: 33083, Start Num: 9
Candidate Starts for Schatzie_38:
(Start: 9 @32685 has 9 MA's), (13, 32721), (20, 32790), (39, 32946), (42, 32988),

Gene: SchoolBus_60 Start: 40095, Stop: 40496, Start Num: 6
Candidate Starts for SchoolBus_60:
(Start: 6 @40095 has 74 MA's), (Start: 12 @40131 has 13 MA's), (Start: 15 @40173 has 1 MA's), (20, 40203), (30, 40299), (39, 40359), (46, 40434),

Gene: Schuy_61 Start: 39886, Stop: 40287, Start Num: 6
Candidate Starts for Schuy_61:
(Start: 6 @39886 has 74 MA's), (Start: 12 @39922 has 13 MA's), (Start: 15 @39964 has 1 MA's), (20, 39994), (30, 40090), (39, 40150), (46, 40225),

Gene: ScoobyDoobyDoo_108 Start: 59606, Stop: 60013, Start Num: 6
Candidate Starts for ScoobyDoobyDoo_108:
(1, 59330), (2, 59351), (3, 59570), (Start: 6 @59606 has 74 MA's), (Start: 15 @59684 has 1 MA's), (16, 59687), (30, 59810), (35, 59834), (39, 59870), (46, 59948),

Gene: Settecandela_176 Start: 115819, Stop: 116232, Start Num: 6
Candidate Starts for Settecandela_176:
(Start: 6 @115819 has 74 MA's), (16, 115900), (20, 115927), (30, 116023), (37, 116059), (43, 116137), (44, 116146),

Gene: Shida_60 Start: 39793, Stop: 40194, Start Num: 6
Candidate Starts for Shida_60:
(Start: 6 @39793 has 74 MA's), (Start: 12 @39829 has 13 MA's), (Start: 15 @39871 has 1 MA's), (20, 39901), (30, 39997), (39, 40057), (46, 40132),

Gene: Shipwreck_22 Start: 22739, Stop: 23140, Start Num: 6

Candidate Starts for Shipwreck_22:
(Start: 6 @22739 has 74 MA's), (27, 22931), (33, 22961), (36, 22976), (39, 23003), (46, 23078),

Gene: Smairt_34 Start: 28184, Stop: 28552, Start Num: 12
Candidate Starts for Smairt_34:
(Start: 12 @28184 has 13 MA's), (21, 28265), (23, 28277), (38, 28412), (39, 28415), (40, 28418),

Gene: Smeagol_35 Start: 28818, Stop: 29192, Start Num: 11
Candidate Starts for Smeagol_35:
(Start: 11 @28818 has 1 MA's), (23, 28917), (31, 28998), (48, 29157),

Gene: Smooch_63 Start: 41815, Stop: 42216, Start Num: 6
Candidate Starts for Smooch_63:
(Start: 6 @41815 has 74 MA's), (Start: 12 @41851 has 13 MA's), (Start: 15 @41893 has 1 MA's), (20, 41923), (30, 42019), (39, 42079), (46, 42154),

Gene: SwissCheese_35 Start: 28167, Stop: 28568, Start Num: 7
Candidate Starts for SwissCheese_35:
(Start: 7 @28167 has 34 MA's), (23, 28293), (24, 28296), (31, 28374), (34, 28392), (38, 28428), (47, 28527), (48, 28533),

Gene: TelAviv_57 Start: 40068, Stop: 40469, Start Num: 6
Candidate Starts for TelAviv_57:
(Start: 6 @40068 has 74 MA's), (Start: 12 @40104 has 13 MA's), (Start: 15 @40146 has 1 MA's), (20, 40176), (30, 40272), (39, 40332), (46, 40407),

Gene: Tesla_91 Start: 54955, Stop: 55362, Start Num: 6
Candidate Starts for Tesla_91:
(Start: 6 @54955 has 74 MA's), (18, 55042), (20, 55063), (25, 55114), (30, 55159), (39, 55219), (47, 55315),

Gene: Thibault_37 Start: 33811, Stop: 34215, Start Num: 5
Candidate Starts for Thibault_37:
(Start: 5 @33811 has 4 MA's), (14, 33874), (36, 34051), (39, 34078), (46, 34153),

Gene: ThreeRngTarjay_39 Start: 33815, Stop: 34204, Start Num: 10
Candidate Starts for ThreeRngTarjay_39:
(Start: 10 @33815 has 12 MA's), (25, 33962), (27, 33995), (45, 34130),

Gene: Thumb_32 Start: 30709, Stop: 31116, Start Num: 6
Candidate Starts for Thumb_32:
(Start: 6 @30709 has 74 MA's), (14, 30769), (17, 30793), (28, 30904), (30, 30913), (31, 30916), (32, 30922), (34, 30934), (39, 30973), (41, 31012), (46, 31048), (49, 31078),

Gene: Topgun_33 Start: 27344, Stop: 27712, Start Num: 12
Candidate Starts for Topgun_33:
(Start: 12 @27344 has 13 MA's), (21, 27425), (23, 27437), (38, 27572), (39, 27575), (40, 27578),

Gene: Tripl3t_34 Start: 28311, Stop: 28712, Start Num: 7
Candidate Starts for Tripl3t_34:
(Start: 7 @28311 has 34 MA's), (23, 28437), (24, 28440), (31, 28518), (34, 28536), (38, 28572), (47, 28671), (48, 28677),

Gene: Vagabond_60 Start: 39931, Stop: 40332, Start Num: 6
Candidate Starts for Vagabond_60:
(Start: 6 @39931 has 74 MA's), (Start: 12 @39967 has 13 MA's), (Start: 15 @40009 has 1 MA's), (20, 40039), (30, 40135), (39, 40195), (46, 40270),

Gene: VasuNzinga_93 Start: 55038, Stop: 55445, Start Num: 6
Candidate Starts for VasuNzinga_93:
(Start: 6 @55038 has 74 MA's), (20, 55146), (25, 55197), (30, 55242), (39, 55302), (41, 55341), (43, 55353), (47, 55398),

Gene: Violet_32 Start: 27984, Stop: 28385, Start Num: 7
Candidate Starts for Violet_32:
(Start: 7 @27984 has 34 MA's), (23, 28110), (24, 28113), (31, 28191), (34, 28209), (38, 28245), (47, 28344), (48, 28350),

Gene: Vorrps_60 Start: 40143, Stop: 40544, Start Num: 6
Candidate Starts for Vorrps_60:
(Start: 6 @40143 has 74 MA's), (Start: 12 @40179 has 13 MA's), (Start: 15 @40221 has 1 MA's), (20, 40251), (30, 40347), (39, 40407), (46, 40482),

Gene: Wildcat_46 Start: 35018, Stop: 35425, Start Num: 6
Candidate Starts for Wildcat_46:
(Start: 6 @35018 has 74 MA's), (Start: 10 @35030 has 12 MA's), (30, 35222), (33, 35240), (34, 35243), (36, 35255), (40, 35285), (46, 35357), (49, 35387), (50, 35420),

Gene: Wildflower_60 Start: 39655, Stop: 40056, Start Num: 6
Candidate Starts for Wildflower_60:
(Start: 6 @39655 has 74 MA's), (Start: 12 @39691 has 13 MA's), (Start: 15 @39733 has 1 MA's), (20, 39763), (30, 39859), (39, 39919), (46, 39994),

Gene: Wilkins_33 Start: 27275, Stop: 27643, Start Num: 12
Candidate Starts for Wilkins_33:
(Start: 12 @27275 has 13 MA's), (21, 27356), (23, 27368), (38, 27503), (39, 27506), (40, 27509),

Gene: Winget_61 Start: 40361, Stop: 40762, Start Num: 6
Candidate Starts for Winget_61:
(Start: 6 @40361 has 74 MA's), (Start: 12 @40397 has 13 MA's), (20, 40469), (30, 40565), (39, 40625), (46, 40700),

Gene: Wogge42_59 Start: 39802, Stop: 40203, Start Num: 6
Candidate Starts for Wogge42_59:
(Start: 6 @39802 has 74 MA's), (Start: 12 @39838 has 13 MA's), (Start: 15 @39880 has 1 MA's), (20, 39910), (30, 40006), (39, 40066), (46, 40141),

Gene: Xiaokay_38 Start: 33215, Stop: 33619, Start Num: 5
Candidate Starts for Xiaokay_38:
(Start: 5 @33215 has 4 MA's), (14, 33278), (36, 33455), (39, 33482), (46, 33557),

Gene: Yeet_39 Start: 32930, Stop: 33328, Start Num: 9
Candidate Starts for Yeet_39:
(Start: 9 @32930 has 9 MA's), (13, 32966), (20, 33035), (39, 33191), (42, 33233),

Gene: YoyoKar_58 Start: 39645, Stop: 40046, Start Num: 6

Candidate Starts for YoyoKar_58:
(Start: 6 @39645 has 74 MA's), (Start: 12 @39681 has 13 MA's), (Start: 15 @39723 has 1 MA's), (20, 39753), (30, 39849), (39, 39909), (46, 39984),

Gene: YungJamal_65 Start: 41553, Stop: 41954, Start Num: 6
Candidate Starts for YungJamal_65:
(Start: 6 @41553 has 74 MA's), (Start: 12 @41589 has 13 MA's), (Start: 15 @41631 has 1 MA's), (20, 41661), (30, 41757), (39, 41817), (46, 41892),

Gene: Zakhe101_60 Start: 40199, Stop: 40600, Start Num: 6
Candidate Starts for Zakhe101_60:
(Start: 6 @40199 has 74 MA's), (Start: 12 @40235 has 13 MA's), (20, 40307), (30, 40403), (39, 40463), (46, 40538),

Gene: Zebo_60 Start: 40104, Stop: 40505, Start Num: 6
Candidate Starts for Zebo_60:
(Start: 6 @40104 has 74 MA's), (Start: 12 @40140 has 13 MA's), (Start: 15 @40182 has 1 MA's), (20, 40212), (30, 40308), (39, 40368), (46, 40443),

Gene: Zelink_42 Start: 34759, Stop: 35148, Start Num: 10
Candidate Starts for Zelink_42:
(Start: 10 @34759 has 12 MA's), (25, 34906), (27, 34939), (45, 35074),