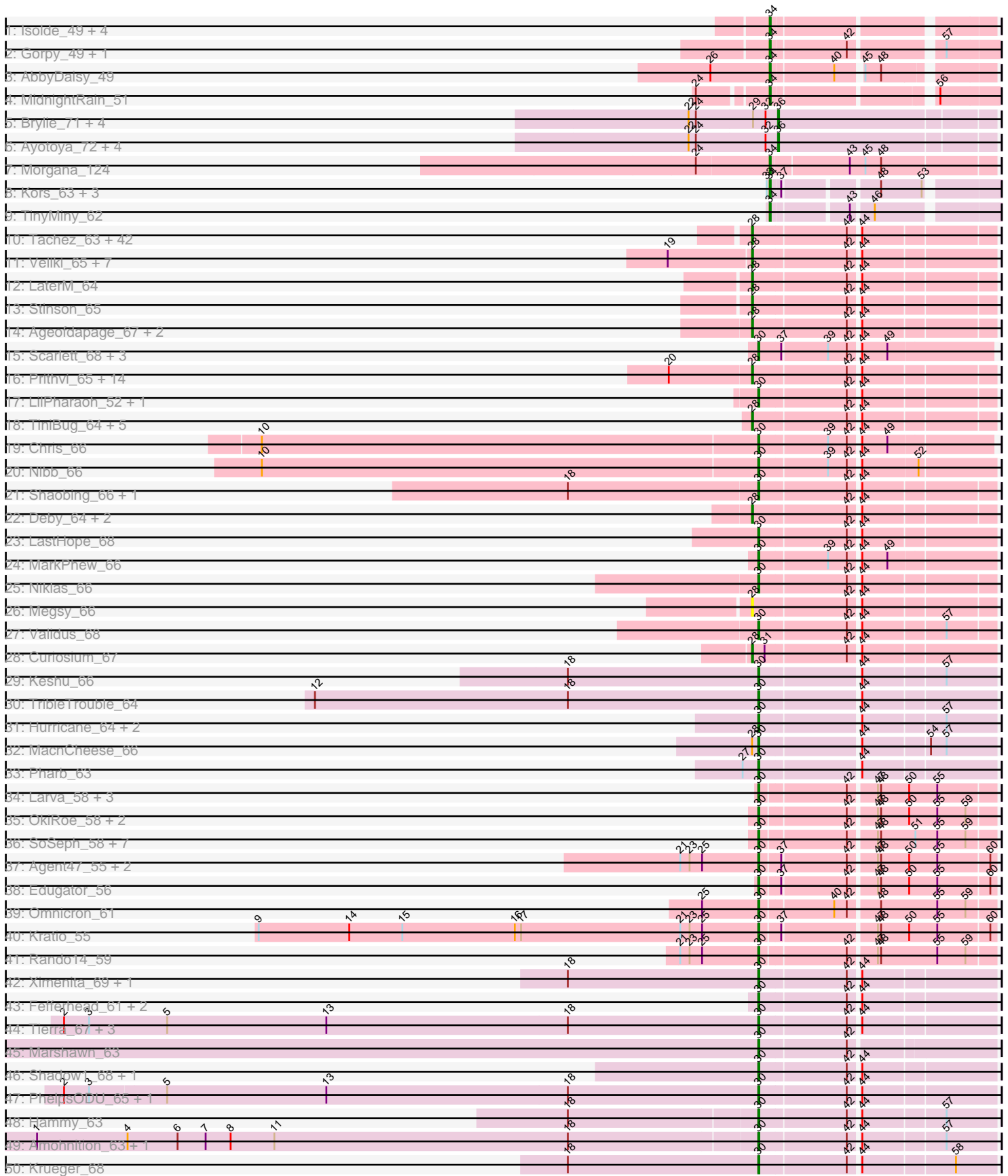
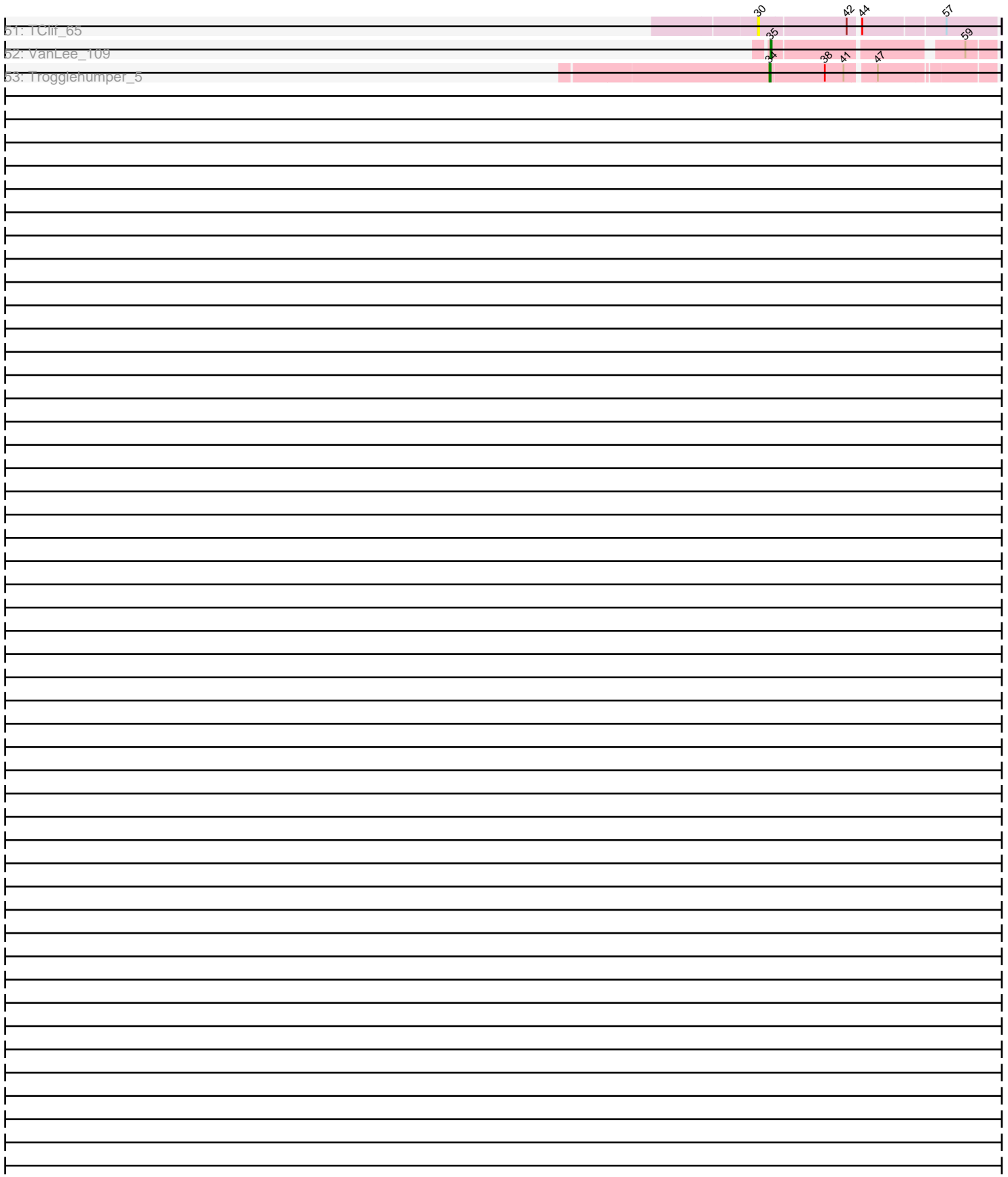


Pham 163379



Pham 163379



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 163379 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163379 has 171 members, 13 are drafts.

Phages represented in each track:

- Track 1 : Isolde_49, Raphaella_50, Tiff81_50, Auxilium_46, YoungHarleezy_50
- Track 2 : Gorpy_49, Sakai_48
- Track 3 : AbbyDaisy_49
- Track 4 : MidnightRain_51
- Track 5 : Brylie_71, WheatThin_71, Nadeem_71, Parada_71, Mulch_71
- Track 6 : Ayotoya_72, DelRio_72, GrandSlam_73, Hamood_73, Chop_73
- Track 7 : Morgana_124
- Track 8 : Kors_63, Sparcetus_62, RikSengupta_62, Ajin_63
- Track 9 : TinyMiny_62
- Track 10 : Tachez_63, BGIlluviae_63, Jarvi_63, Twitch_63, Blizzard_63, Atiba_64, Hyperbowlee_63, Adephagia_63, Zabiza_59, Ramen_64, Homura_63, CaseJules_65, Spock_63, Rosmarinus_63, QuincyRose_62, ShiaSurprise_64, Lunahalos_63, Boiii_63, Apocalypse_66, Durfee_63, Piatt_63, Sulley_63, Joy99_63, Tiri_64, Peel_63, ActinUp_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, HedwigODU_63, CREW_63, BEEST_63
- Track 11 : Veliki_65, JAWS_64, Guanica15_68, Efra2_69, BaghaKamala_63, Zavala_66, Yunkel11_68, Mynx_65
- Track 12 : LaterM_64
- Track 13 : Stinson_65
- Track 14 : Ageofdapage_67, Emerson_65, Padpat_66
- Track 15 : Scarlett_68, KiSi_68, Oscar_67, LeMond_67
- Track 16 : Prithvi_65, Devera_71, Rapunzel97_65, BarrelRoll_64, Pokerus_63, TruffulaTree_64, YoureAdopted_63, TaiwanKao_66, Murucutumbu_65, Slimphazie_64, CrimD_65, Dole_69, LindNT_63, Illumine_69, TreyKay_65
- 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 : Nibb_66
- Track 21 : Shaobing_66, Peanam_66
- Track 22 : Deby_64, CheetoDust_63, Jayhawk_65
- Track 23 : LastHope_68
- Track 24 : MarkPhew_66
- Track 25 : Niklas_66
- Track 26 : Megsy_66

- Track 27 : Validus_68
- Track 28 : Curiosium_67
- Track 29 : Keshu_66
- Track 30 : TribbleTrouble_64
- Track 31 : Hurricane_64, Pixie_63, ShedlockHolmes_65
- Track 32 : MacnCheese_66
- Track 33 : Pharb_63
- Track 34 : Larva_58, AlleyCat_59, Psycho_57, Dadosky_59
- Track 35 : OkiRoe_58, Miryou_62, Gengar_57
- Track 36 : SoSeph_58, Heftyboy_58, Leston_57, Waterfoul_59, Feyre_60, Guillsminger_58, Paola_57, Thyatira_60
- Track 37 : Agent47_55, Collard_55, InvictusManeo_55
- Track 38 : Edugator_56
- Track 39 : Omnicron_61
- Track 40 : Kratio_55
- Track 41 : Rando14_59
- Track 42 : Ximenita_69, Syra333_67
- Track 43 : Fefferhead_61, Amgine_62, Ellie_59
- Track 44 : Tierra_67, Cain_67, Bryler_67, Phrank_67
- Track 45 : Marshawn_63
- Track 46 : Shadow1_68, Sunflower1121_69
- Track 47 : PhelpsODU_65, Unicorn_65
- Track 48 : Hammy_63
- Track 49 : Amohnition_63, DARTH_P_63
- Track 50 : Krueger_68
- Track 51 : TClif_65
- Track 52 : VanLee_109
- Track 53 : 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 28, it was called in 78 of the 158 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, 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, TiniBug_64, Tiri_64, Topper_63, TreyKay_65, TruffulaTree_64, Twitch_63, Urkel_64, Veliki_65, YoureAdopted_63, Yunkel11_68, Zabiza_59, 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, Agent47_55, Ajin_63, AlleyCat_59, Amgine_62, Amohnition_63, Auxilium_46, Ayotoya_72, Bryler_67, Brylie_71, Cain_67, Chop_73, Chris_66, Collard_55, Dadosky_59, DarthP_63, DelRio_72, Edugator_56, Ellie_59, Fefferhead_61, Feyre_60, Gengar_57, Gorpy_49, GrandSlam_73, Guillsminger_58, Hammy_63, Hamood_73, Heftyboy_58, Hurricane_64, InvictusManeo_55, Isolde_49, Keshu_66, KiSi_68, Kors_63, Kratio_55, Krueger_68, Larva_58, LastHope_68, LeMond_67, Leston_57, LilPharaoh_52, MarkPhew_66, Marshawn_63, MidnightRain_51, Miryou_62, Morgana_124, Mulch_71, Nadeem_71, Nibb_66, Niklas_66, OkiRoe_58, Omnicron_61, Oscar_67, Paola_57, Parada_71, Peanam_66, Pharb_63, PhelpsODU_65, Phrank_67, Pixie_63, Psycho_57, Rando14_59, Raphaella_50, RikSengupta_62, Sakai_48, Scarlett_68, SgtBeansprout_52, Shadow1_68, Shaobing_66, ShedlockHolmes_65, SoSeph_58, Sparcetus_62, Sunflower1121_69, Syra333_67, TClif_65, Thyatira_60, Tierra_67, Tiff81_50, TinyMiny_62, TribbleTrouble_64, Trogglehumper_5, Unicorn_65, Validus_68, VanLee_109, Waterfoul_59, WheatThin_71, Ximenita_69, YoungHarleezy_50,

Summary by start number:

Start 28:

- Found in 83 of 171 (48.5%) of genes in pham
- Manual Annotations of this start: 78 of 158
- Called 98.8% of time when present
- Phage (with cluster) where this start called: ActinUp_63 (K1), Adephagia_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), 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), 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_59 (K1), Zavala_66 (K1),

Start 30:

- Found in 62 of 171 (36.3%) of genes in pham
- Manual Annotations of this start: 59 of 158
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agent47_55 (K5), AlleyCat_59 (K5), Amgine_62 (K6), Amohnition_63 (K6), Bryler_67 (K6), Cain_67 (K6), Chris_66 (K1),

Collard_55 (K5), Dadosky_59 (K5), DarthP_63 (K6), 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), Miryou_62 (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), 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_65 (K6), Thyatira_60 (K5), Tierra_67 (K6), TribbleTrouble_64 (K3), Unicorn_65 (K6), Validus_68 (K1), Waterfoul_59 (K5), Ximenita_69 (K6),

Start 34:

- Found in 16 of 171 (9.4%) of genes in pham
- Manual Annotations of this start: 11 of 158
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbyDaisy_49 (AY), Ajin_63 (EF), Auxilium_46 (AY), Gorpy_49 (AY), Isolde_49 (AY), Kors_63 (EF), MidnightRain_51 (AY), Morgana_124 (DZ), Raphaella_50 (AY), RikSengupta_62 (EF), Sakai_48 (AY), Sparcetus_62 (EF), Tiff81_50 (AY), TinyMiny_62 (EF), Trogglehumper_5 (singleton), YoungHarleezy_50 (AY),

Start 35:

- Found in 1 of 171 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 158
- Called 100.0% of time when present
- Phage (with cluster) where this start called: VanLee_109 (singleton),

Start 36:

- Found in 10 of 171 (5.8%) of genes in pham
- Manual Annotations of this start: 9 of 158
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ayotoya_72 (DI), Bryllie_71 (DI), Chop_73 (DI), DelRio_72 (DI), GrandSlam_73 (DI), Hamood_73 (DI), Mulch_71 (DI), Nadeem_71 (DI), Parada_71 (DI), WheatThin_71 (DI),

Summary by clusters:

There are 9 clusters represented in this pham: singleton, DI, EF, K3, K1, DZ, K6, K5, AY,

Info for manual annotations of cluster AY:

- Start number 34 was manually annotated 6 times for cluster AY.

Info for manual annotations of cluster DI:

- Start number 36 was manually annotated 9 times for cluster DI.

Info for manual annotations of cluster DZ:

- Start number 34 was manually annotated 1 time for cluster DZ.

Info for manual annotations of cluster EF:

- Start number 34 was manually annotated 3 times for cluster EF.

Info for manual annotations of cluster K1:

- Start number 28 was manually annotated 78 times for cluster K1.
- Start number 30 was manually annotated 14 times for cluster K1.

Info for manual annotations of cluster K3:

- Start number 30 was manually annotated 7 times for cluster K3.

Info for manual annotations of cluster K5:

- Start number 30 was manually annotated 20 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 30 was manually annotated 18 times for cluster K6.

Gene Information:

Gene: AbbyDaisy_49 Start: 31179, Stop: 31364, Start Num: 34

Candidate Starts for AbbyDaisy_49:

(26, 31122), (Start: 34 @31179 has 11 MA's), (40, 31236), (45, 31257), (48, 31272),

Gene: ActinUp_63 Start: 42440, Stop: 42655, Start Num: 28

Candidate Starts for ActinUp_63:

(Start: 28 @42440 has 78 MA's), (42, 42527), (44, 42536),

Gene: Adephagia_63 Start: 42477, Stop: 42692, Start Num: 28

Candidate Starts for Adephagia_63:

(Start: 28 @42477 has 78 MA's), (42, 42564), (44, 42573),

Gene: Adonis_63 Start: 42712, Stop: 42927, Start Num: 28

Candidate Starts for Adonis_63:

(Start: 28 @42712 has 78 MA's), (42, 42799), (44, 42808),

Gene: Agent47_55 Start: 39612, Stop: 39824, Start Num: 30

Candidate Starts for Agent47_55:

(21, 39537), (23, 39546), (25, 39558), (Start: 30 @39612 has 59 MA's), (37, 39630), (42, 39690), (47, 39714), (48, 39717), (50, 39744), (55, 39771), (60, 39819),

Gene: Ageofdapage_67 Start: 43868, Stop: 44083, Start Num: 28

Candidate Starts for Ageofdapage_67:

(Start: 28 @43868 has 78 MA's), (42, 43955), (44, 43964),

Gene: Ajin_63 Start: 42356, Stop: 42547, Start Num: 34

Candidate Starts for Ajin_63:

(33, 42353), (Start: 34 @42356 has 11 MA's), (37, 42365), (48, 42446), (53, 42485),

Gene: AlleyCat_59 Start: 39910, Stop: 40122, Start Num: 30

Candidate Starts for AlleyCat_59:

(Start: 30 @39910 has 59 MA's), (42, 39988), (47, 40012), (48, 40015), (50, 40042), (55, 40069),

Gene: Amgine_62 Start: 43547, Stop: 43759, Start Num: 30

Candidate Starts for Amgine_62:
(Start: 30 @43547 has 59 MA's), (42, 43628), (44, 43637),

Gene: Amohnition_63 Start: 43082, Stop: 43294, Start Num: 30
Candidate Starts for Amohnition_63:
(1, 42395), (4, 42482), (6, 42530), (7, 42557), (8, 42581), (11, 42623), (18, 42905), (Start: 30 @43082 has 59 MA's), (42, 43163), (44, 43172), (57, 43247),

Gene: Anaya_66 Start: 43420, Stop: 43638, Start Num: 28
Candidate Starts for Anaya_66:
(Start: 28 @43420 has 78 MA's), (42, 43507), (44, 43516),

Gene: Angelica_63 Start: 42629, Stop: 42844, Start Num: 28
Candidate Starts for Angelica_63:
(Start: 28 @42629 has 78 MA's), (42, 42716), (44, 42725),

Gene: Apocalypse_66 Start: 43395, Stop: 43610, Start Num: 28
Candidate Starts for Apocalypse_66:
(Start: 28 @43395 has 78 MA's), (42, 43482), (44, 43491),

Gene: Asayake_63 Start: 42792, Stop: 43007, Start Num: 28
Candidate Starts for Asayake_63:
(Start: 28 @42792 has 78 MA's), (42, 42879), (44, 42888),

Gene: Atiba_64 Start: 42440, Stop: 42655, Start Num: 28
Candidate Starts for Atiba_64:
(Start: 28 @42440 has 78 MA's), (42, 42527), (44, 42536),

Gene: Auxilium_46 Start: 28442, Stop: 28633, Start Num: 34
Candidate Starts for Auxilium_46:
(Start: 34 @28442 has 11 MA's),

Gene: Ayotoya_72 Start: 48939, Stop: 49139, Start Num: 36
Candidate Starts for Ayotoya_72:
(22, 48855), (24, 48861), (32, 48927), (Start: 36 @48939 has 9 MA's),

Gene: BEEST_63 Start: 42792, Stop: 43007, Start Num: 28
Candidate Starts for BEEST_63:
(Start: 28 @42792 has 78 MA's), (42, 42879), (44, 42888),

Gene: BGlluviae_63 Start: 42595, Stop: 42810, Start Num: 28
Candidate Starts for BGlluviae_63:
(Start: 28 @42595 has 78 MA's), (42, 42682), (44, 42691),

Gene: BaghaKamala_63 Start: 42253, Stop: 42471, Start Num: 28
Candidate Starts for BaghaKamala_63:
(19, 42175), (Start: 28 @42253 has 78 MA's), (42, 42340), (44, 42349),

Gene: BarrelRoll_64 Start: 42877, Stop: 43092, Start Num: 28
Candidate Starts for BarrelRoll_64:
(20, 42799), (Start: 28 @42877 has 78 MA's), (42, 42964), (44, 42973),

Gene: Beezoo_65 Start: 43389, Stop: 43604, Start Num: 28

Candidate Starts for Beezoo_65:
(Start: 28 @43389 has 78 MA's), (42, 43476), (44, 43485),

Gene: Bella96_64 Start: 43173, Stop: 43388, Start Num: 28
Candidate Starts for Bella96_64:
(Start: 28 @43173 has 78 MA's), (42, 43260), (44, 43269),

Gene: Belladonna_63 Start: 42595, Stop: 42810, Start Num: 28
Candidate Starts for Belladonna_63:
(Start: 28 @42595 has 78 MA's), (42, 42682), (44, 42691),

Gene: Blizzard_63 Start: 42792, Stop: 43007, Start Num: 28
Candidate Starts for Blizzard_63:
(Start: 28 @42792 has 78 MA's), (42, 42879), (44, 42888),

Gene: Boiiii_63 Start: 42794, Stop: 43009, Start Num: 28
Candidate Starts for Boiiii_63:
(Start: 28 @42794 has 78 MA's), (42, 42881), (44, 42890),

Gene: Bryler_67 Start: 42423, Stop: 42635, Start Num: 30
Candidate Starts for Bryler_67:
(2, 41757), (3, 41781), (5, 41856), (13, 42009), (18, 42240), (Start: 30 @42423 has 59 MA's), (42, 42504), (44, 42513),

Gene: Brylie_71 Start: 47955, Stop: 48155, Start Num: 36
Candidate Starts for Brylie_71:
(22, 47871), (24, 47877), (29, 47931), (32, 47943), (Start: 36 @47955 has 9 MA's),

Gene: CREW_63 Start: 42595, Stop: 42810, Start Num: 28
Candidate Starts for CREW_63:
(Start: 28 @42595 has 78 MA's), (42, 42682), (44, 42691),

Gene: Cain_67 Start: 42411, Stop: 42623, Start Num: 30
Candidate Starts for Cain_67:
(2, 41745), (3, 41769), (5, 41844), (13, 41997), (18, 42228), (Start: 30 @42411 has 59 MA's), (42, 42492), (44, 42501),

Gene: Capricorn_63 Start: 42595, Stop: 42810, Start Num: 28
Candidate Starts for Capricorn_63:
(Start: 28 @42595 has 78 MA's), (42, 42682), (44, 42691),

Gene: CaseJules_65 Start: 42792, Stop: 43007, Start Num: 28
Candidate Starts for CaseJules_65:
(Start: 28 @42792 has 78 MA's), (42, 42879), (44, 42888),

Gene: CheetoDust_63 Start: 42300, Stop: 42518, Start Num: 28
Candidate Starts for CheetoDust_63:
(Start: 28 @42300 has 78 MA's), (42, 42387), (44, 42396),

Gene: Chop_73 Start: 49004, Stop: 49204, Start Num: 36
Candidate Starts for Chop_73:
(22, 48920), (24, 48926), (32, 48992), (Start: 36 @49004 has 9 MA's),

Gene: Chris_66 Start: 43655, Stop: 43864, Start Num: 30
Candidate Starts for Chris_66:
(10, 43181), (Start: 30 @43655 has 59 MA's), (39, 43718), (42, 43736), (44, 43745), (49, 43769),

Gene: Collard_55 Start: 39573, Stop: 39785, Start Num: 30
Candidate Starts for Collard_55:
(21, 39498), (23, 39507), (25, 39519), (Start: 30 @39573 has 59 MA's), (37, 39591), (42, 39651), (47, 39675), (48, 39678), (50, 39705), (55, 39732), (60, 39780),

Gene: CrimD_65 Start: 43416, Stop: 43631, Start Num: 28
Candidate Starts for CrimD_65:
(20, 43338), (Start: 28 @43416 has 78 MA's), (42, 43503), (44, 43512),

Gene: Curiosium_67 Start: 42105, Stop: 42323, Start Num: 28
Candidate Starts for Curiosium_67:
(Start: 28 @42105 has 78 MA's), (31, 42117), (42, 42192), (44, 42201),

Gene: Dadosky_59 Start: 39912, Stop: 40124, Start Num: 30
Candidate Starts for Dadosky_59:
(Start: 30 @39912 has 59 MA's), (42, 39990), (47, 40014), (48, 40017), (50, 40044), (55, 40071),

Gene: Dalmuri_63 Start: 42595, Stop: 42810, Start Num: 28
Candidate Starts for Dalmuri_63:
(Start: 28 @42595 has 78 MA's), (42, 42682), (44, 42691),

Gene: DarthP_63 Start: 42936, Stop: 43148, Start Num: 30
Candidate Starts for DarthP_63:
(1, 42249), (4, 42336), (6, 42384), (7, 42411), (8, 42435), (11, 42477), (18, 42759), (Start: 30 @42936 has 59 MA's), (42, 43017), (44, 43026), (57, 43101),

Gene: Deby_64 Start: 43078, Stop: 43293, Start Num: 28
Candidate Starts for Deby_64:
(Start: 28 @43078 has 78 MA's), (42, 43165), (44, 43174),

Gene: DelRio_72 Start: 49046, Stop: 49246, Start Num: 36
Candidate Starts for DelRio_72:
(22, 48962), (24, 48968), (32, 49034), (Start: 36 @49046 has 9 MA's),

Gene: Devera_71 Start: 44431, Stop: 44646, Start Num: 28
Candidate Starts for Devera_71:
(20, 44353), (Start: 28 @44431 has 78 MA's), (42, 44518), (44, 44527),

Gene: Dole_69 Start: 44434, Stop: 44649, Start Num: 28
Candidate Starts for Dole_69:
(20, 44356), (Start: 28 @44434 has 78 MA's), (42, 44521), (44, 44530),

Gene: DrHayes_64 Start: 43328, Stop: 43543, Start Num: 28
Candidate Starts for DrHayes_64:
(Start: 28 @43328 has 78 MA's), (42, 43415), (44, 43424),

Gene: Durfee_63 Start: 42792, Stop: 43007, Start Num: 28
Candidate Starts for Durfee_63:
(Start: 28 @42792 has 78 MA's), (42, 42879), (44, 42888),

Gene: Edugator_56 Start: 41333, Stop: 41545, Start Num: 30

Candidate Starts for Edugator_56:

(Start: 30 @41333 has 59 MA's), (37, 41351), (42, 41411), (47, 41435), (48, 41438), (50, 41465), (55, 41492), (60, 41540),

Gene: Efra2_69 Start: 43158, Stop: 43376, Start Num: 28

Candidate Starts for Efra2_69:

(19, 43080), (Start: 28 @43158 has 78 MA's), (42, 43245), (44, 43254),

Gene: Ellie_59 Start: 42407, Stop: 42619, Start Num: 30

Candidate Starts for Ellie_59:

(Start: 30 @42407 has 59 MA's), (42, 42488), (44, 42497),

Gene: Emerson_65 Start: 42909, Stop: 43127, Start Num: 28

Candidate Starts for Emerson_65:

(Start: 28 @42909 has 78 MA's), (42, 42996), (44, 43005),

Gene: Fefferhead_61 Start: 42316, Stop: 42528, Start Num: 30

Candidate Starts for Fefferhead_61:

(Start: 30 @42316 has 59 MA's), (42, 42397), (44, 42406),

Gene: Feyre_60 Start: 43292, Stop: 43504, Start Num: 30

Candidate Starts for Feyre_60:

(Start: 30 @43292 has 59 MA's), (42, 43370), (47, 43394), (48, 43397), (51, 43430), (55, 43451), (59, 43478),

Gene: Ganymede_64 Start: 42817, Stop: 43032, Start Num: 28

Candidate Starts for Ganymede_64:

(Start: 28 @42817 has 78 MA's), (42, 42904), (44, 42913),

Gene: Gengar_57 Start: 41311, Stop: 41523, Start Num: 30

Candidate Starts for Gengar_57:

(Start: 30 @41311 has 59 MA's), (42, 41389), (47, 41413), (48, 41416), (50, 41443), (55, 41470), (59, 41497),

Gene: Geraldini_66 Start: 43474, Stop: 43689, Start Num: 28

Candidate Starts for Geraldini_66:

(Start: 28 @43474 has 78 MA's), (42, 43561), (44, 43570),

Gene: Gorpy_49 Start: 31480, Stop: 31674, Start Num: 34

Candidate Starts for Gorpy_49:

(Start: 34 @31480 has 11 MA's), (42, 31549), (57, 31627),

Gene: GrandSlam_73 Start: 49004, Stop: 49204, Start Num: 36

Candidate Starts for GrandSlam_73:

(22, 48920), (24, 48926), (32, 48992), (Start: 36 @49004 has 9 MA's),

Gene: Guanica15_68 Start: 42899, Stop: 43117, Start Num: 28

Candidate Starts for Guanica15_68:

(19, 42821), (Start: 28 @42899 has 78 MA's), (42, 42986), (44, 42995),

Gene: Guillsminger_58 Start: 41282, Stop: 41494, Start Num: 30

Candidate Starts for Guillsminger_58:

(Start: 30 @41282 has 59 MA's), (42, 41360), (47, 41384), (48, 41387), (51, 41420), (55, 41441), (59, 41468),

Gene: Hammy_63 Start: 42924, Stop: 43136, Start Num: 30

Candidate Starts for Hammy_63:

(18, 42747), (Start: 30 @42924 has 59 MA's), (42, 43005), (44, 43014), (57, 43089),

Gene: Hamood_73 Start: 49004, Stop: 49204, Start Num: 36

Candidate Starts for Hamood_73:

(22, 48920), (24, 48926), (32, 48992), (Start: 36 @49004 has 9 MA's),

Gene: HedwigODU_63 Start: 42440, Stop: 42655, Start Num: 28

Candidate Starts for HedwigODU_63:

(Start: 28 @42440 has 78 MA's), (42, 42527), (44, 42536),

Gene: Heftyboy_58 Start: 41654, Stop: 41866, Start Num: 30

Candidate Starts for Heftyboy_58:

(Start: 30 @41654 has 59 MA's), (42, 41732), (47, 41756), (48, 41759), (51, 41792), (55, 41813), (59, 41840),

Gene: Homura_63 Start: 42595, Stop: 42810, Start Num: 28

Candidate Starts for Homura_63:

(Start: 28 @42595 has 78 MA's), (42, 42682), (44, 42691),

Gene: Hurricane_64 Start: 42910, Stop: 43122, Start Num: 30

Candidate Starts for Hurricane_64:

(Start: 30 @42910 has 59 MA's), (44, 43000), (57, 43075),

Gene: Hyperbowlee_63 Start: 42792, Stop: 43007, Start Num: 28

Candidate Starts for Hyperbowlee_63:

(Start: 28 @42792 has 78 MA's), (42, 42879), (44, 42888),

Gene: Illumine_69 Start: 44433, Stop: 44648, Start Num: 28

Candidate Starts for Illumine_69:

(20, 44355), (Start: 28 @44433 has 78 MA's), (42, 44520), (44, 44529),

Gene: Inky_63 Start: 42595, Stop: 42810, Start Num: 28

Candidate Starts for Inky_63:

(Start: 28 @42595 has 78 MA's), (42, 42682), (44, 42691),

Gene: InvictusManeo_55 Start: 39616, Stop: 39828, Start Num: 30

Candidate Starts for InvictusManeo_55:

(21, 39541), (23, 39550), (25, 39562), (Start: 30 @39616 has 59 MA's), (37, 39634), (42, 39694), (47, 39718), (48, 39721), (50, 39748), (55, 39775), (60, 39823),

Gene: Isolde_49 Start: 30525, Stop: 30716, Start Num: 34

Candidate Starts for Isolde_49:

(Start: 34 @30525 has 11 MA's),

Gene: JAWS_64 Start: 42868, Stop: 43086, Start Num: 28

Candidate Starts for JAWS_64:

(19, 42790), (Start: 28 @42868 has 78 MA's), (42, 42955), (44, 42964),

Gene: Jarvi_63 Start: 42595, Stop: 42810, Start Num: 28

Candidate Starts for Jarvi_63:

(Start: 28 @42595 has 78 MA's), (42, 42682), (44, 42691),

Gene: Jayhawk_65 Start: 42937, Stop: 43152, Start Num: 28

Candidate Starts for Jayhawk_65:

(Start: 28 @42937 has 78 MA's), (42, 43024), (44, 43033),

Gene: Jeckyll_63 Start: 42595, Stop: 42810, Start Num: 28

Candidate Starts for Jeckyll_63:

(Start: 28 @42595 has 78 MA's), (42, 42682), (44, 42691),

Gene: Joy99_63 Start: 42524, Stop: 42739, Start Num: 28

Candidate Starts for Joy99_63:

(Start: 28 @42524 has 78 MA's), (42, 42611), (44, 42620),

Gene: Keshu_66 Start: 43008, Stop: 43220, Start Num: 30

Candidate Starts for Keshu_66:

(18, 42825), (Start: 30 @43008 has 59 MA's), (44, 43098), (57, 43173),

Gene: KiSi_68 Start: 43636, Stop: 43845, Start Num: 30

Candidate Starts for KiSi_68:

(Start: 30 @43636 has 59 MA's), (37, 43657), (39, 43699), (42, 43717), (44, 43726), (49, 43750),

Gene: Kors_63 Start: 42441, Stop: 42632, Start Num: 34

Candidate Starts for Kors_63:

(33, 42438), (Start: 34 @42441 has 11 MA's), (37, 42450), (48, 42531), (53, 42570),

Gene: Kratio_55 Start: 39352, Stop: 39564, Start Num: 30

Candidate Starts for Kratio_55:

(9, 38872), (14, 38959), (15, 39010), (16, 39118), (17, 39124), (21, 39277), (23, 39286), (25, 39298),
(Start: 30 @39352 has 59 MA's), (37, 39370), (47, 39454), (48, 39457), (50, 39484), (55, 39511), (60, 39559),

Gene: Krueger_68 Start: 42699, Stop: 42911, Start Num: 30

Candidate Starts for Krueger_68:

(18, 42516), (Start: 30 @42699 has 59 MA's), (42, 42780), (44, 42789), (58, 42873),

Gene: Larva_58 Start: 40784, Stop: 40996, Start Num: 30

Candidate Starts for Larva_58:

(Start: 30 @40784 has 59 MA's), (42, 40862), (47, 40886), (48, 40889), (50, 40916), (55, 40943),

Gene: LastHope_68 Start: 42025, Stop: 42237, Start Num: 30

Candidate Starts for LastHope_68:

(Start: 30 @42025 has 59 MA's), (42, 42106), (44, 42115),

Gene: LaterM_64 Start: 43287, Stop: 43502, Start Num: 28

Candidate Starts for LaterM_64:

(Start: 28 @43287 has 78 MA's), (42, 43374), (44, 43383),

Gene: LeMond_67 Start: 43270, Stop: 43479, Start Num: 30

Candidate Starts for LeMond_67:

(Start: 30 @43270 has 59 MA's), (37, 43291), (39, 43333), (42, 43351), (44, 43360), (49, 43384),

Gene: Leston_57 Start: 41411, Stop: 41623, Start Num: 30

Candidate Starts for Leston_57:

(Start: 30 @41411 has 59 MA's), (42, 41489), (47, 41513), (48, 41516), (51, 41549), (55, 41570), (59, 41597),

Gene: LilPharaoh_52 Start: 39482, Stop: 39691, Start Num: 30

Candidate Starts for LilPharaoh_52:

(Start: 30 @39482 has 59 MA's), (42, 39563), (44, 39572),

Gene: LindNT_63 Start: 43082, Stop: 43297, Start Num: 28

Candidate Starts for LindNT_63:

(20, 43004), (Start: 28 @43082 has 78 MA's), (42, 43169), (44, 43178),

Gene: Lunahalos_63 Start: 42595, Stop: 42810, Start Num: 28

Candidate Starts for Lunahalos_63:

(Start: 28 @42595 has 78 MA's), (42, 42682), (44, 42691),

Gene: MacnCheese_66 Start: 43527, Stop: 43739, Start Num: 30

Candidate Starts for MacnCheese_66:

(Start: 28 @43521 has 78 MA's), (Start: 30 @43527 has 59 MA's), (44, 43617), (54, 43677), (57, 43692),

Gene: MarkPhew_66 Start: 42770, Stop: 42982, Start Num: 30

Candidate Starts for MarkPhew_66:

(Start: 30 @42770 has 59 MA's), (39, 42833), (42, 42851), (44, 42860), (49, 42884),

Gene: Marshawn_63 Start: 43120, Stop: 43332, Start Num: 30

Candidate Starts for Marshawn_63:

(Start: 30 @43120 has 59 MA's), (42, 43201),

Gene: MeaningOfLife_64 Start: 43347, Stop: 43562, Start Num: 28

Candidate Starts for MeaningOfLife_64:

(Start: 28 @43347 has 78 MA's), (42, 43434), (44, 43443),

Gene: Megsy_66 Start: 43003, Stop: 43218, Start Num: 28

Candidate Starts for Megsy_66:

(Start: 28 @43003 has 78 MA's), (42, 43090), (44, 43099),

Gene: MidnightRain_51 Start: 31618, Stop: 31809, Start Num: 34

Candidate Starts for MidnightRain_51:

(24, 31558), (Start: 34 @31618 has 11 MA's), (56, 31756),

Gene: Miryou_62 Start: 44008, Stop: 44220, Start Num: 30

Candidate Starts for Miryou_62:

(Start: 30 @44008 has 59 MA's), (42, 44086), (47, 44110), (48, 44113), (50, 44140), (55, 44167), (59, 44194),

Gene: Morgana_124 Start: 67243, Stop: 67037, Start Num: 34

Candidate Starts for Morgana_124:

(24, 67312), (Start: 34 @67243 has 11 MA's), (43, 67171), (45, 67156), (48, 67141),

Gene: Mulch_71 Start: 47994, Stop: 48194, Start Num: 36
Candidate Starts for Mulch_71:
(22, 47910), (24, 47916), (29, 47970), (32, 47982), (Start: 36 @47994 has 9 MA's),

Gene: Murucutumbu_65 Start: 43862, Stop: 44077, Start Num: 28
Candidate Starts for Murucutumbu_65:
(20, 43784), (Start: 28 @43862 has 78 MA's), (42, 43949), (44, 43958),

Gene: Mynx_65 Start: 43204, Stop: 43422, Start Num: 28
Candidate Starts for Mynx_65:
(19, 43126), (Start: 28 @43204 has 78 MA's), (42, 43291), (44, 43300),

Gene: Nadeem_71 Start: 47982, Stop: 48182, Start Num: 36
Candidate Starts for Nadeem_71:
(22, 47898), (24, 47904), (29, 47958), (32, 47970), (Start: 36 @47982 has 9 MA's),

Gene: Nibb_66 Start: 42981, Stop: 43193, Start Num: 30
Candidate Starts for Nibb_66:
(10, 42507), (Start: 30 @42981 has 59 MA's), (39, 43044), (42, 43062), (44, 43071), (52, 43122),

Gene: Niklas_66 Start: 43145, Stop: 43354, Start Num: 30
Candidate Starts for Niklas_66:
(Start: 30 @43145 has 59 MA's), (42, 43226), (44, 43235),

Gene: OkiRoe_58 Start: 41679, Stop: 41891, Start Num: 30
Candidate Starts for OkiRoe_58:
(Start: 30 @41679 has 59 MA's), (42, 41757), (47, 41781), (48, 41784), (50, 41811), (55, 41838), (59, 41865),

Gene: Omnicron_61 Start: 41791, Stop: 42003, Start Num: 30
Candidate Starts for Omnicron_61:
(25, 41737), (Start: 30 @41791 has 59 MA's), (40, 41857), (42, 41869), (48, 41896), (55, 41950), (59, 41977),

Gene: Oscar_67 Start: 43187, Stop: 43396, Start Num: 30
Candidate Starts for Oscar_67:
(Start: 30 @43187 has 59 MA's), (37, 43208), (39, 43250), (42, 43268), (44, 43277), (49, 43301),

Gene: Padfoot_63 Start: 42792, Stop: 43007, Start Num: 28
Candidate Starts for Padfoot_63:
(Start: 28 @42792 has 78 MA's), (42, 42879), (44, 42888),

Gene: Padpat_66 Start: 42909, Stop: 43127, Start Num: 28
Candidate Starts for Padpat_66:
(Start: 28 @42909 has 78 MA's), (42, 42996), (44, 43005),

Gene: Paola_57 Start: 41282, Stop: 41494, Start Num: 30
Candidate Starts for Paola_57:
(Start: 30 @41282 has 59 MA's), (42, 41360), (47, 41384), (48, 41387), (51, 41420), (55, 41441), (59, 41468),

Gene: Parada_71 Start: 47994, Stop: 48194, Start Num: 36
Candidate Starts for Parada_71:

(22, 47910), (24, 47916), (29, 47970), (32, 47982), (Start: 36 @47994 has 9 MA's),

Gene: Peanam_66 Start: 43103, Stop: 43312, Start Num: 30

Candidate Starts for Peanam_66:

(18, 42923), (Start: 30 @43103 has 59 MA's), (42, 43184), (44, 43193),

Gene: Peel_63 Start: 42597, Stop: 42812, Start Num: 28

Candidate Starts for Peel_63:

(Start: 28 @42597 has 78 MA's), (42, 42684), (44, 42693),

Gene: Pharb_63 Start: 42257, Stop: 42469, Start Num: 30

Candidate Starts for Pharb_63:

(27, 42242), (Start: 30 @42257 has 59 MA's), (44, 42347),

Gene: PhelpsODU_65 Start: 42337, Stop: 42549, Start Num: 30

Candidate Starts for PhelpsODU_65:

(2, 41674), (3, 41698), (5, 41770), (13, 41923), (18, 42154), (Start: 30 @42337 has 59 MA's), (42, 42418), (44, 42427),

Gene: Phrank_67 Start: 42401, Stop: 42613, Start Num: 30

Candidate Starts for Phrank_67:

(2, 41735), (3, 41759), (5, 41834), (13, 41987), (18, 42218), (Start: 30 @42401 has 59 MA's), (42, 42482), (44, 42491),

Gene: Piatt_63 Start: 42792, Stop: 43007, Start Num: 28

Candidate Starts for Piatt_63:

(Start: 28 @42792 has 78 MA's), (42, 42879), (44, 42888),

Gene: Pixie_63 Start: 42430, Stop: 42642, Start Num: 30

Candidate Starts for Pixie_63:

(Start: 30 @42430 has 59 MA's), (44, 42520), (57, 42595),

Gene: Pokerus_63 Start: 42937, Stop: 43152, Start Num: 28

Candidate Starts for Pokerus_63:

(20, 42859), (Start: 28 @42937 has 78 MA's), (42, 43024), (44, 43033),

Gene: Prithvi_65 Start: 43082, Stop: 43297, Start Num: 28

Candidate Starts for Prithvi_65:

(20, 43004), (Start: 28 @43082 has 78 MA's), (42, 43169), (44, 43178),

Gene: Psycho_57 Start: 39909, Stop: 40121, Start Num: 30

Candidate Starts for Psycho_57:

(Start: 30 @39909 has 59 MA's), (42, 39987), (47, 40011), (48, 40014), (50, 40041), (55, 40068),

Gene: QuincyRose_62 Start: 42817, Stop: 43032, Start Num: 28

Candidate Starts for QuincyRose_62:

(Start: 28 @42817 has 78 MA's), (42, 42904), (44, 42913),

Gene: Ramen_64 Start: 42442, Stop: 42657, Start Num: 28

Candidate Starts for Ramen_64:

(Start: 28 @42442 has 78 MA's), (42, 42529), (44, 42538),

Gene: Rando14_59 Start: 39518, Stop: 39730, Start Num: 30

Candidate Starts for Rando14_59:

(21, 39443), (23, 39452), (25, 39464), (Start: 30 @39518 has 59 MA's), (42, 39596), (47, 39620), (48, 39623), (55, 39677), (59, 39704),

Gene: Raphaella_50 Start: 30457, Stop: 30648, Start Num: 34

Candidate Starts for Raphaella_50:

(Start: 34 @30457 has 11 MA's),

Gene: Rapunzel97_65 Start: 42892, Stop: 43107, Start Num: 28

Candidate Starts for Rapunzel97_65:

(20, 42814), (Start: 28 @42892 has 78 MA's), (42, 42979), (44, 42988),

Gene: RikSengupta_62 Start: 42469, Stop: 42660, Start Num: 34

Candidate Starts for RikSengupta_62:

(33, 42466), (Start: 34 @42469 has 11 MA's), (37, 42478), (48, 42559), (53, 42598),

Gene: Rosmarinus_63 Start: 42583, Stop: 42798, Start Num: 28

Candidate Starts for Rosmarinus_63:

(Start: 28 @42583 has 78 MA's), (42, 42670), (44, 42679),

Gene: Sakai_48 Start: 30191, Stop: 30385, Start Num: 34

Candidate Starts for Sakai_48:

(Start: 34 @30191 has 11 MA's), (42, 30260), (57, 30338),

Gene: SamuelLPlaqson_64 Start: 43328, Stop: 43543, Start Num: 28

Candidate Starts for SamuelLPlaqson_64:

(Start: 28 @43328 has 78 MA's), (42, 43415), (44, 43424),

Gene: Scarlett_68 Start: 43514, Stop: 43726, Start Num: 30

Candidate Starts for Scarlett_68:

(Start: 30 @43514 has 59 MA's), (37, 43535), (39, 43577), (42, 43595), (44, 43604), (49, 43628),

Gene: SgtBeansprout_52 Start: 39754, Stop: 39963, Start Num: 30

Candidate Starts for SgtBeansprout_52:

(Start: 30 @39754 has 59 MA's), (42, 39835), (44, 39844),

Gene: Shadow1_68 Start: 42852, Stop: 43064, Start Num: 30

Candidate Starts for Shadow1_68:

(Start: 30 @42852 has 59 MA's), (42, 42933), (44, 42942),

Gene: Shaobing_66 Start: 43121, Stop: 43330, Start Num: 30

Candidate Starts for Shaobing_66:

(18, 42941), (Start: 30 @43121 has 59 MA's), (42, 43202), (44, 43211),

Gene: ShedlockHolmes_65 Start: 42949, Stop: 43161, Start Num: 30

Candidate Starts for ShedlockHolmes_65:

(Start: 30 @42949 has 59 MA's), (44, 43039), (57, 43114),

Gene: ShiaSurprise_64 Start: 42792, Stop: 43007, Start Num: 28

Candidate Starts for ShiaSurprise_64:

(Start: 28 @42792 has 78 MA's), (42, 42879), (44, 42888),

Gene: Slimphazie_64 Start: 42892, Stop: 43107, Start Num: 28

Candidate Starts for Slimphazie_64:
(20, 42814), (Start: 28 @42892 has 78 MA's), (42, 42979), (44, 42988),

Gene: SoSeph_58 Start: 41654, Stop: 41866, Start Num: 30
Candidate Starts for SoSeph_58:
(Start: 30 @41654 has 59 MA's), (42, 41732), (47, 41756), (48, 41759), (51, 41792), (55, 41813), (59, 41840),

Gene: Sparcetus_62 Start: 42346, Stop: 42537, Start Num: 34
Candidate Starts for Sparcetus_62:
(33, 42343), (Start: 34 @42346 has 11 MA's), (37, 42355), (48, 42436), (53, 42475),

Gene: Spock_63 Start: 42596, Stop: 42811, Start Num: 28
Candidate Starts for Spock_63:
(Start: 28 @42596 has 78 MA's), (42, 42683), (44, 42692),

Gene: Stinson_65 Start: 43220, Stop: 43435, Start Num: 28
Candidate Starts for Stinson_65:
(Start: 28 @43220 has 78 MA's), (42, 43307), (44, 43316),

Gene: Sulley_63 Start: 42656, Stop: 42871, Start Num: 28
Candidate Starts for Sulley_63:
(Start: 28 @42656 has 78 MA's), (42, 42743), (44, 42752),

Gene: Sunflower1121_69 Start: 42998, Stop: 43210, Start Num: 30
Candidate Starts for Sunflower1121_69:
(Start: 30 @42998 has 59 MA's), (42, 43079), (44, 43088),

Gene: Syra333_67 Start: 42711, Stop: 42923, Start Num: 30
Candidate Starts for Syra333_67:
(18, 42528), (Start: 30 @42711 has 59 MA's), (42, 42792), (44, 42801),

Gene: TClif_65 Start: 42546, Stop: 42758, Start Num: 30
Candidate Starts for TClif_65:
(Start: 30 @42546 has 59 MA's), (42, 42627), (44, 42636), (57, 42711),

Gene: Tachez_63 Start: 42440, Stop: 42655, Start Num: 28
Candidate Starts for Tachez_63:
(Start: 28 @42440 has 78 MA's), (42, 42527), (44, 42536),

Gene: TaiwanKao_66 Start: 43144, Stop: 43359, Start Num: 28
Candidate Starts for TaiwanKao_66:
(20, 43066), (Start: 28 @43144 has 78 MA's), (42, 43231), (44, 43240),

Gene: Thyatira_60 Start: 43612, Stop: 43824, Start Num: 30
Candidate Starts for Thyatira_60:
(Start: 30 @43612 has 59 MA's), (42, 43690), (47, 43714), (48, 43717), (51, 43750), (55, 43771), (59, 43798),

Gene: Tierra_67 Start: 43212, Stop: 43424, Start Num: 30
Candidate Starts for Tierra_67:
(2, 42546), (3, 42570), (5, 42645), (13, 42798), (18, 43029), (Start: 30 @43212 has 59 MA's), (42, 43293), (44, 43302),

Gene: Tiff81_50 Start: 28970, Stop: 29161, Start Num: 34
Candidate Starts for Tiff81_50:
(Start: 34 @28970 has 11 MA's),

Gene: TiniBug_64 Start: 43324, Stop: 43539, Start Num: 28
Candidate Starts for TiniBug_64:
(Start: 28 @43324 has 78 MA's), (42, 43411), (44, 43420),

Gene: TinyMiny_62 Start: 42368, Stop: 42559, Start Num: 34
Candidate Starts for TinyMiny_62:
(Start: 34 @42368 has 11 MA's), (43, 42434), (46, 42452),

Gene: Tiri_64 Start: 42728, Stop: 42943, Start Num: 28
Candidate Starts for Tiri_64:
(Start: 28 @42728 has 78 MA's), (42, 42815), (44, 42824),

Gene: Topper_63 Start: 42595, Stop: 42810, Start Num: 28
Candidate Starts for Topper_63:
(Start: 28 @42595 has 78 MA's), (42, 42682), (44, 42691),

Gene: TreyKay_65 Start: 43082, Stop: 43297, Start Num: 28
Candidate Starts for TreyKay_65:
(20, 43004), (Start: 28 @43082 has 78 MA's), (42, 43169), (44, 43178),

Gene: TribbleTrouble_64 Start: 43429, Stop: 43641, Start Num: 30
Candidate Starts for TribbleTrouble_64:
(12, 43003), (18, 43246), (Start: 30 @43429 has 59 MA's), (44, 43519),

Gene: Trogglehumper_5 Start: 2263, Stop: 2457, Start Num: 34
Candidate Starts for Trogglehumper_5:
(Start: 34 @2263 has 11 MA's), (38, 2314), (41, 2332), (47, 2356),

Gene: TruffulaTree_64 Start: 42888, Stop: 43103, Start Num: 28
Candidate Starts for TruffulaTree_64:
(20, 42810), (Start: 28 @42888 has 78 MA's), (42, 42975), (44, 42984),

Gene: Twitch_63 Start: 42597, Stop: 42812, Start Num: 28
Candidate Starts for Twitch_63:
(Start: 28 @42597 has 78 MA's), (42, 42684), (44, 42693),

Gene: Unicorn_65 Start: 42337, Stop: 42549, Start Num: 30
Candidate Starts for Unicorn_65:
(2, 41674), (3, 41698), (5, 41770), (13, 41923), (18, 42154), (Start: 30 @42337 has 59 MA's), (42, 42418), (44, 42427),

Gene: Urkel_64 Start: 43328, Stop: 43543, Start Num: 28
Candidate Starts for Urkel_64:
(Start: 28 @43328 has 78 MA's), (42, 43415), (44, 43424),

Gene: Validus_68 Start: 43466, Stop: 43675, Start Num: 30
Candidate Starts for Validus_68:
(Start: 30 @43466 has 59 MA's), (42, 43547), (44, 43556), (57, 43631),

Gene: VanLee_109 Start: 57771, Stop: 57962, Start Num: 35

Candidate Starts for VanLee_109:

(Start: 35 @57771 has 1 MA's), (59, 57936),

Gene: Veliki_65 Start: 42859, Stop: 43077, Start Num: 28

Candidate Starts for Veliki_65:

(19, 42781), (Start: 28 @42859 has 78 MA's), (42, 42946), (44, 42955),

Gene: Waterfoul_59 Start: 41716, Stop: 41928, Start Num: 30

Candidate Starts for Waterfoul_59:

(Start: 30 @41716 has 59 MA's), (42, 41794), (47, 41818), (48, 41821), (51, 41854), (55, 41875), (59, 41902),

Gene: WheatThin_71 Start: 47982, Stop: 48182, Start Num: 36

Candidate Starts for WheatThin_71:

(22, 47898), (24, 47904), (29, 47958), (32, 47970), (Start: 36 @47982 has 9 MA's),

Gene: Ximenita_69 Start: 43037, Stop: 43249, Start Num: 30

Candidate Starts for Ximenita_69:

(18, 42854), (Start: 30 @43037 has 59 MA's), (42, 43118), (44, 43127),

Gene: YoungHarleezy_50 Start: 31023, Stop: 31214, Start Num: 34

Candidate Starts for YoungHarleezy_50:

(Start: 34 @31023 has 11 MA's),

Gene: YoureAdopted_63 Start: 43008, Stop: 43223, Start Num: 28

Candidate Starts for YoureAdopted_63:

(20, 42930), (Start: 28 @43008 has 78 MA's), (42, 43095), (44, 43104),

Gene: Yunkel11_68 Start: 42904, Stop: 43122, Start Num: 28

Candidate Starts for Yunkel11_68:

(19, 42826), (Start: 28 @42904 has 78 MA's), (42, 42991), (44, 43000),

Gene: Zabiza_59 Start: 38745, Stop: 38960, Start Num: 28

Candidate Starts for Zabiza_59:

(Start: 28 @38745 has 78 MA's), (42, 38832), (44, 38841),

Gene: Zavala_66 Start: 43164, Stop: 43382, Start Num: 28

Candidate Starts for Zavala_66:

(19, 43086), (Start: 28 @43164 has 78 MA's), (42, 43251), (44, 43260),