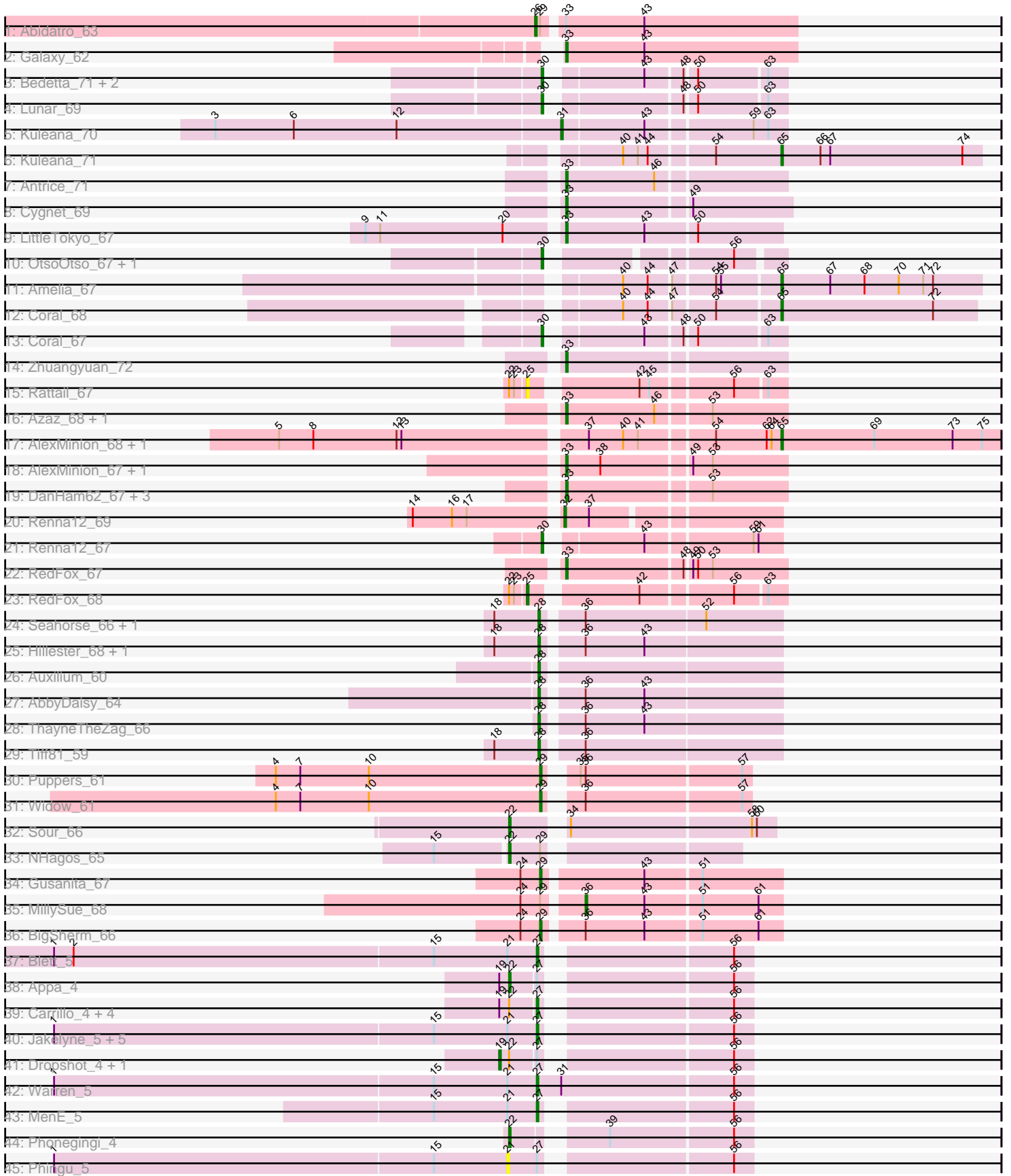


Pham 311583



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 311583 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311583 has 66 members, 13 are drafts.

Phages represented in each track:

- Track 1 : Abidatro_63
- Track 2 : Galaxy_62
- Track 3 : Bedetta_71, Amelia_66, HannahPhantana_68
- Track 4 : Lunar_69
- Track 5 : Kuleana_70
- Track 6 : Kuleana_71
- Track 7 : Antrice_71
- Track 8 : Cygnet_69
- Track 9 : LittleTokyo_67
- Track 10 : OtsoOtso_67, Polka_66
- Track 11 : Amelia_67
- Track 12 : Coral_68
- Track 13 : Coral_67
- Track 14 : Zhuangyuan_72
- Track 15 : Rattail_67
- Track 16 : Azaz_68, Leona_65
- Track 17 : AlexMinion_68, StuartMinion_58
- Track 18 : AlexMinion_67, StuartMinion_57
- Track 19 : DanHam62_67, Fingolfin_68, Juno112_66, Laphuphu24k_65
- Track 20 : Renna12_69
- Track 21 : Renna12_67
- Track 22 : RedFox_67
- Track 23 : RedFox_68
- Track 24 : Seahorse_66, Bhageatrice_66
- Track 25 : Hillester_68, RadFad_68
- Track 26 : Auxilium_60
- Track 27 : AbbyDaisy_64
- Track 28 : ThayneTheZag_66
- Track 29 : Tiff81_59
- Track 30 : Puppies_61
- Track 31 : Widow_61
- Track 32 : Sour_66
- Track 33 : NHagos_65
- Track 34 : Gusanita_67
- Track 35 : MillySue_68
- Track 36 : BigSherm_66
- Track 37 : Blett_5

- Track 38 : Appa_4
- Track 39 : Carrillo_4, Guzman_4, Winchester007_18, Antuna_4, PhillyJawn_4
- Track 40 : Jakelyne_5, Mariel_5, NCRodriguez_5, CookieDog_5, Losacky_5, Bush_5
- Track 41 : Dropshot_4, Violeta_4
- Track 42 : Warren_5
- Track 43 : MenE_5
- Track 44 : Phonegingi_4
- Track 45 : Phingu_5

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

The start number called the most often in the published annotations is 33, it was called in 13 of the 53 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AlexMinion_67, Antrice_71, Azaz_68, Cygnet_69, DanHam62_67, Fingolfin_68, Galaxy_62, Juno112_66, Laphuphu24k_65, Leona_65, LittleTokyo_67, RedFox_67, StuartMinion_57, Zhuangyuan_72,

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

- Abidatro_63,

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

- AbbyDaisy_64, AlexMinion_68, Amelia_66, Amelia_67, Antuna_4, Appa_4, Auxilium_60, Bedetta_71, Bhageatrice_66, BigSherm_66, Blett_5, Bush_5, Carrillo_4, CookieDog_5, Coral_67, Coral_68, Dropshot_4, Gusanita_67, Guzman_4, HannahPhantana_68, Hillester_68, Jakelyne_5, Kuleana_70, Kuleana_71, Losacky_5, Lunar_69, Mariel_5, MenE_5, MillySue_68, NCRodriguez_5, NHagos_65, OtsoOtso_67, PhillyJawn_4, Phingu_5, Phonegingi_4, Polka_66, Puppies_61, RadFad_68, Rattail_67, RedFox_68, Renna12_67, Renna12_69, Seahorse_66, Sour_66, StuartMinion_58, ThayneTheZag_66, Tiff81_59, Violeta_4, Warren_5, Widow_61, Winchester007_18,

Summary by start number:

Start 19:

- Found in 8 of 66 (12.1%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Dropshot_4 (GA), Violeta_4 (GA),

Start 21:

- Found in 10 of 66 (15.2%) of genes in pham
- No Manual Annotations of this start.
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Phingu_5 (GA),

Start 22:

- Found in 13 of 66 (19.7%) of genes in pham

- Manual Annotations of this start: 4 of 53
- Called 30.8% of time when present
- Phage (with cluster) where this start called: Appa_4 (GA), NHagos_65 (DR), Phonegingi_4 (GA), Sour_66 (DR),

Start 25:

- Found in 2 of 66 (3.0%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rattail_67 (AS3), RedFox_68 (AS3),

Start 26:

- Found in 1 of 66 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abidatro_63 (AS1),

Start 27:

- Found in 18 of 66 (27.3%) of genes in pham
- Manual Annotations of this start: 7 of 53
- Called 77.8% of time when present
- Phage (with cluster) where this start called: Antuna_4 (GA), Blett_5 (GA), Bush_5 (GA), Carrillo_4 (GA), CookieDog_5 (GA), Guzman_4 (GA), Jakelyne_5 (GA), Losacky_5 (GA), Mariel_5 (GA), MenE_5 (GA), NCRodriguez_5 (GA), PhillyJawn_4 (GA), Warren_5 (GA), Winchester007_18 (GA),

Start 28:

- Found in 8 of 66 (12.1%) of genes in pham
- Manual Annotations of this start: 8 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbyDaisy_64 (AY), Auxilium_60 (AY), Bhageatrice_66 (AY), Hillester_68 (AY), RadFad_68 (AY), Seahorse_66 (AY), ThayneTheZag_66 (AY), Tiff81_59 (AY),

Start 29:

- Found in 7 of 66 (10.6%) of genes in pham
- Manual Annotations of this start: 4 of 53
- Called 57.1% of time when present
- Phage (with cluster) where this start called: BigSherm_66 (FF), Gusanita_67 (FF), Puppies_61 (CD), Widow_61 (CD),

Start 30:

- Found in 8 of 66 (12.1%) of genes in pham
- Manual Annotations of this start: 7 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amelia_66 (AS2), Bedetta_71 (AS2), Coral_67 (AS2), HannahPhantana_68 (AS2), Lunar_69 (AS2), OtsoOtso_67 (AS2), Polka_66 (AS2), Renna12_67 (AS3),

Start 31:

- Found in 2 of 66 (3.0%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 50.0% of time when present

- Phage (with cluster) where this start called: Kuleana_70 (AS2),

Start 32:

- Found in 1 of 66 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Renna12_69 (AS3),

Start 33:

- Found in 15 of 66 (22.7%) of genes in pham
- Manual Annotations of this start: 13 of 53
- Called 93.3% of time when present
- Phage (with cluster) where this start called: AlexMinion_67 (AS3), Antrice_71 (AS2), Azaz_68 (AS3), Cygnet_69 (AS2), DanHam62_67 (AS3), Fingolfin_68 (AS3), Galaxy_62 (AS1), Juno112_66 (AS3), Laphuphu24k_65 (AS3), Leona_65 (AS3), LittleTokyo_67 (AS2), RedFox_67 (AS3), StuartMinion_57 (AS3), Zhuangyuan_72 (AS2),

Start 36:

- Found in 11 of 66 (16.7%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 9.1% of time when present
- Phage (with cluster) where this start called: MillySue_68 (FF),

Start 65:

- Found in 5 of 66 (7.6%) of genes in pham
- Manual Annotations of this start: 4 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AlexMinion_68 (AS3), Amelia_67 (AS2), Coral_68 (AS2), Kuleana_71 (AS2), StuartMinion_58 (AS3),

Summary by clusters:

There are 8 clusters represented in this pham: AS3, AS2, AS1, GA, CD, FF, AY, DR,

Info for manual annotations of cluster AS1:

- Start number 26 was manually annotated 1 time for cluster AS1.
- Start number 33 was manually annotated 1 time for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 30 was manually annotated 6 times for cluster AS2.
- Start number 31 was manually annotated 1 time for cluster AS2.
- Start number 33 was manually annotated 4 times for cluster AS2.
- Start number 65 was manually annotated 3 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 25 was manually annotated 1 time for cluster AS3.
- Start number 30 was manually annotated 1 time for cluster AS3.
- Start number 32 was manually annotated 1 time for cluster AS3.
- Start number 33 was manually annotated 8 times for cluster AS3.
- Start number 65 was manually annotated 1 time for cluster AS3.

Info for manual annotations of cluster AY:

- Start number 28 was manually annotated 8 times for cluster AY.

Info for manual annotations of cluster CD:

- Start number 29 was manually annotated 2 times for cluster CD.

Info for manual annotations of cluster DR:

- Start number 22 was manually annotated 2 times for cluster DR.

Info for manual annotations of cluster FF:

- Start number 29 was manually annotated 2 times for cluster FF.
- Start number 36 was manually annotated 1 time for cluster FF.

Info for manual annotations of cluster GA:

- Start number 19 was manually annotated 1 time for cluster GA.
- Start number 22 was manually annotated 2 times for cluster GA.
- Start number 27 was manually annotated 7 times for cluster GA.

Gene Information:

Gene: AbbyDaisy_64 Start: 35318, Stop: 35455, Start Num: 28

Candidate Starts for AbbyDaisy_64:

(Start: 28 @35318 has 8 MA's), (Start: 36 @35339 has 1 MA's), (43, 35375),

Gene: Abidatro_63 Start: 37722, Stop: 37874, Start Num: 26

Candidate Starts for Abidatro_63:

(Start: 26 @37722 has 1 MA's), (Start: 29 @37725 has 4 MA's), (Start: 33 @37734 has 13 MA's), (43, 37782),

Gene: AlexMinion_68 Start: 37111, Stop: 37245, Start Num: 65

Candidate Starts for AlexMinion_68:

(5, 36820), (8, 36841), (12, 36892), (13, 36895), (37, 37000), (40, 37021), (41, 37030), (54, 37072), (62, 37102), (64, 37105), (Start: 65 @37111 has 4 MA's), (69, 37168), (73, 37216), (75, 37234),

Gene: AlexMinion_67 Start: 36986, Stop: 37114, Start Num: 33

Candidate Starts for AlexMinion_67:

(Start: 33 @36986 has 13 MA's), (38, 37007), (49, 37058), (53, 37070),

Gene: Amelia_66 Start: 36727, Stop: 36852, Start Num: 30

Candidate Starts for Amelia_66:

(Start: 30 @36727 has 7 MA's), (43, 36775), (48, 36796), (50, 36802), (63, 36841),

Gene: Amelia_67 Start: 36849, Stop: 36971, Start Num: 65

Candidate Starts for Amelia_67:

(40, 36762), (44, 36777), (47, 36789), (54, 36813), (55, 36816), (Start: 65 @36849 has 4 MA's), (67, 36879), (68, 36900), (70, 36921), (71, 36936), (72, 36942),

Gene: Antrice_71 Start: 37839, Stop: 37967, Start Num: 33

Candidate Starts for Antrice_71:

(Start: 33 @37839 has 13 MA's), (46, 37893),

Gene: Antuna_4 Start: 880, Stop: 993, Start Num: 27

Candidate Starts for Antuna_4:
(Start: 19 @859 has 1 MA's), (Start: 22 @865 has 4 MA's), (Start: 27 @880 has 7 MA's), (56, 982),

Gene: Appa_4 Start: 883, Stop: 1011, Start Num: 22
Candidate Starts for Appa_4:
(Start: 19 @877 has 1 MA's), (Start: 22 @883 has 4 MA's), (Start: 27 @898 has 7 MA's), (56, 1000),

Gene: Auxilium_60 Start: 32290, Stop: 32427, Start Num: 28
Candidate Starts for Auxilium_60:
(Start: 28 @32290 has 8 MA's),

Gene: Azaz_68 Start: 37503, Stop: 37631, Start Num: 33
Candidate Starts for Azaz_68:
(Start: 33 @37503 has 13 MA's), (46, 37557), (53, 37587),

Gene: Bedetta_71 Start: 36890, Stop: 37015, Start Num: 30
Candidate Starts for Bedetta_71:
(Start: 30 @36890 has 7 MA's), (43, 36938), (48, 36959), (50, 36965), (63, 37004),

Gene: Bhageatrice_66 Start: 37131, Stop: 37268, Start Num: 28
Candidate Starts for Bhageatrice_66:
(18, 37104), (Start: 28 @37131 has 8 MA's), (Start: 36 @37152 has 1 MA's), (52, 37224),

Gene: BigSherm_66 Start: 40804, Stop: 40941, Start Num: 29
Candidate Starts for BigSherm_66:
(24, 40792), (Start: 29 @40804 has 4 MA's), (Start: 36 @40825 has 1 MA's), (43, 40861), (51, 40894),
(61, 40927),

Gene: Blett_5 Start: 1053, Stop: 1166, Start Num: 27
Candidate Starts for Blett_5:
(1, 759), (2, 771), (15, 990), (21, 1035), (Start: 27 @1053 has 7 MA's), (56, 1155),

Gene: Bush_5 Start: 1059, Stop: 1172, Start Num: 27
Candidate Starts for Bush_5:
(1, 765), (15, 996), (21, 1041), (Start: 27 @1059 has 7 MA's), (56, 1161),

Gene: Carrillo_4 Start: 892, Stop: 1005, Start Num: 27
Candidate Starts for Carrillo_4:
(Start: 19 @871 has 1 MA's), (Start: 22 @877 has 4 MA's), (Start: 27 @892 has 7 MA's), (56, 994),

Gene: CookieDog_5 Start: 1059, Stop: 1172, Start Num: 27
Candidate Starts for CookieDog_5:
(1, 765), (15, 996), (21, 1041), (Start: 27 @1059 has 7 MA's), (56, 1161),

Gene: Coral_68 Start: 37035, Stop: 37154, Start Num: 65
Candidate Starts for Coral_68:
(40, 36948), (44, 36963), (47, 36975), (54, 36999), (Start: 65 @37035 has 4 MA's), (72, 37128),

Gene: Coral_67 Start: 36913, Stop: 37038, Start Num: 30
Candidate Starts for Coral_67:
(Start: 30 @36913 has 7 MA's), (43, 36961), (48, 36982), (50, 36988), (63, 37027),

Gene: Cygnet_69 Start: 38186, Stop: 38317, Start Num: 33

Candidate Starts for Cygnet_69:
(Start: 33 @38186 has 13 MA's), (49, 38258),

Gene: DanHam62_67 Start: 37421, Stop: 37549, Start Num: 33
Candidate Starts for DanHam62_67:
(Start: 33 @37421 has 13 MA's), (53, 37505),

Gene: Dropshot_4 Start: 877, Stop: 1011, Start Num: 19
Candidate Starts for Dropshot_4:
(Start: 19 @877 has 1 MA's), (Start: 22 @883 has 4 MA's), (Start: 27 @898 has 7 MA's), (56, 1000),

Gene: Fingolfin_68 Start: 37424, Stop: 37552, Start Num: 33
Candidate Starts for Fingolfin_68:
(Start: 33 @37424 has 13 MA's), (53, 37508),

Gene: Galaxy_62 Start: 36560, Stop: 36700, Start Num: 33
Candidate Starts for Galaxy_62:
(Start: 33 @36560 has 13 MA's), (43, 36608),

Gene: Gusanita_67 Start: 41673, Stop: 41810, Start Num: 29
Candidate Starts for Gusanita_67:
(24, 41661), (Start: 29 @41673 has 4 MA's), (43, 41730), (51, 41763),

Gene: Guzman_4 Start: 892, Stop: 1005, Start Num: 27
Candidate Starts for Guzman_4:
(Start: 19 @871 has 1 MA's), (Start: 22 @877 has 4 MA's), (Start: 27 @892 has 7 MA's), (56, 994),

Gene: HannahPhantana_68 Start: 36722, Stop: 36847, Start Num: 30
Candidate Starts for HannahPhantana_68:
(Start: 30 @36722 has 7 MA's), (43, 36770), (48, 36791), (50, 36797), (63, 36836),

Gene: Hillester_68 Start: 35895, Stop: 36032, Start Num: 28
Candidate Starts for Hillester_68:
(18, 35868), (Start: 28 @35895 has 8 MA's), (Start: 36 @35916 has 1 MA's), (43, 35952),

Gene: Jakelyne_5 Start: 1053, Stop: 1166, Start Num: 27
Candidate Starts for Jakelyne_5:
(1, 759), (15, 990), (21, 1035), (Start: 27 @1053 has 7 MA's), (56, 1155),

Gene: Juno112_66 Start: 37424, Stop: 37552, Start Num: 33
Candidate Starts for Juno112_66:
(Start: 33 @37424 has 13 MA's), (53, 37508),

Gene: Kuleana_70 Start: 37424, Stop: 37552, Start Num: 31
Candidate Starts for Kuleana_70:
(3, 37223), (6, 37271), (12, 37334), (Start: 31 @37424 has 1 MA's), (43, 37472), (59, 37532), (63, 37541),

Gene: Kuleana_71 Start: 37549, Stop: 37671, Start Num: 65
Candidate Starts for Kuleana_71:
(40, 37459), (41, 37468), (44, 37474), (54, 37510), (Start: 65 @37549 has 4 MA's), (66, 37573), (67, 37579), (74, 37660),

Gene: Laphuphu24k_65 Start: 37408, Stop: 37536, Start Num: 33
Candidate Starts for Laphuphu24k_65:
(Start: 33 @37408 has 13 MA's), (53, 37492),

Gene: Leona_65 Start: 37507, Stop: 37635, Start Num: 33
Candidate Starts for Leona_65:
(Start: 33 @37507 has 13 MA's), (46, 37561), (53, 37591),

Gene: LittleTokyo_67 Start: 36418, Stop: 36546, Start Num: 33
Candidate Starts for LittleTokyo_67:
(9, 36304), (11, 36313), (20, 36388), (Start: 33 @36418 has 13 MA's), (43, 36466), (50, 36496),

Gene: Losacky_5 Start: 1050, Stop: 1163, Start Num: 27
Candidate Starts for Losacky_5:
(1, 756), (15, 987), (21, 1032), (Start: 27 @1050 has 7 MA's), (56, 1152),

Gene: Lunar_69 Start: 37045, Stop: 37170, Start Num: 30
Candidate Starts for Lunar_69:
(Start: 30 @37045 has 7 MA's), (48, 37114), (50, 37120), (63, 37159),

Gene: Mariel_5 Start: 1059, Stop: 1172, Start Num: 27
Candidate Starts for Mariel_5:
(1, 765), (15, 996), (21, 1041), (Start: 27 @1059 has 7 MA's), (56, 1161),

Gene: MenE_5 Start: 1059, Stop: 1172, Start Num: 27
Candidate Starts for MenE_5:
(15, 996), (21, 1041), (Start: 27 @1059 has 7 MA's), (56, 1161),

Gene: MillySue_68 Start: 41010, Stop: 41126, Start Num: 36
Candidate Starts for MillySue_68:
(24, 40977), (Start: 29 @40989 has 4 MA's), (Start: 36 @41010 has 1 MA's), (43, 41046), (51, 41079),
(61, 41112),

Gene: NCRodriguez_5 Start: 1062, Stop: 1175, Start Num: 27
Candidate Starts for NCRodriguez_5:
(1, 768), (15, 999), (21, 1044), (Start: 27 @1062 has 7 MA's), (56, 1164),

Gene: NHagos_65 Start: 52079, Stop: 52204, Start Num: 22
Candidate Starts for NHagos_65:
(15, 52037), (Start: 22 @52079 has 4 MA's), (Start: 29 @52097 has 4 MA's),

Gene: OtsoOtso_67 Start: 36577, Stop: 36696, Start Num: 30
Candidate Starts for OtsoOtso_67:
(Start: 30 @36577 has 7 MA's), (56, 36670),

Gene: PhillyJawn_4 Start: 898, Stop: 1011, Start Num: 27
Candidate Starts for PhillyJawn_4:
(Start: 19 @877 has 1 MA's), (Start: 22 @883 has 4 MA's), (Start: 27 @898 has 7 MA's), (56, 1000),

Gene: Phingu_5 Start: 1044, Stop: 1175, Start Num: 21
Candidate Starts for Phingu_5:
(1, 768), (15, 999), (21, 1044), (Start: 27 @1062 has 7 MA's), (56, 1164),

Gene: Phonegingi_4 Start: 872, Stop: 1000, Start Num: 22
Candidate Starts for Phonegingi_4:
(Start: 22 @872 has 4 MA's), (39, 917), (56, 989),

Gene: Polka_66 Start: 36577, Stop: 36696, Start Num: 30
Candidate Starts for Polka_66:
(Start: 30 @36577 has 7 MA's), (56, 36670),

Gene: Puppies_61 Start: 41680, Stop: 41793, Start Num: 29
Candidate Starts for Puppies_61:
(4, 41518), (7, 41533), (10, 41575), (Start: 29 @41680 has 4 MA's), (35, 41692), (Start: 36 @41695 has 1 MA's), (57, 41788),

Gene: RadFad_68 Start: 35895, Stop: 36032, Start Num: 28
Candidate Starts for RadFad_68:
(18, 35868), (Start: 28 @35895 has 8 MA's), (Start: 36 @35916 has 1 MA's), (43, 35952),

Gene: Rattail_67 Start: 37721, Stop: 37858, Start Num: 25
Candidate Starts for Rattail_67:
(Start: 22 @37712 has 4 MA's), (23, 37715), (Start: 25 @37721 has 1 MA's), (42, 37778), (45, 37784), (56, 37829), (63, 37847),

Gene: RedFox_67 Start: 37521, Stop: 37649, Start Num: 33
Candidate Starts for RedFox_67:
(Start: 33 @37521 has 13 MA's), (48, 37590), (49, 37593), (50, 37596), (53, 37605),

Gene: RedFox_68 Start: 37646, Stop: 37783, Start Num: 25
Candidate Starts for RedFox_68:
(Start: 22 @37637 has 4 MA's), (23, 37640), (Start: 25 @37646 has 1 MA's), (42, 37703), (56, 37754), (63, 37772),

Gene: Renna12_69 Start: 38028, Stop: 38147, Start Num: 32
Candidate Starts for Renna12_69:
(14, 37944), (16, 37968), (17, 37977), (Start: 32 @38028 has 1 MA's), (37, 38043),

Gene: Renna12_67 Start: 37634, Stop: 37759, Start Num: 30
Candidate Starts for Renna12_67:
(Start: 30 @37634 has 7 MA's), (43, 37682), (59, 37742), (61, 37745),

Gene: Seahorse_66 Start: 36402, Stop: 36539, Start Num: 28
Candidate Starts for Seahorse_66:
(18, 36375), (Start: 28 @36402 has 8 MA's), (Start: 36 @36423 has 1 MA's), (52, 36495),

Gene: Sour_66 Start: 54996, Stop: 55142, Start Num: 22
Candidate Starts for Sour_66:
(Start: 22 @54996 has 4 MA's), (34, 55020), (58, 55128), (60, 55131),

Gene: StuartMinion_58 Start: 34010, Stop: 34144, Start Num: 65
Candidate Starts for StuartMinion_58:
(5, 33719), (8, 33740), (12, 33791), (13, 33794), (37, 33899), (40, 33920), (41, 33929), (54, 33971), (62, 34001), (64, 34004), (Start: 65 @34010 has 4 MA's), (69, 34067), (73, 34115), (75, 34133),

Gene: StuartMinion_57 Start: 33885, Stop: 34013, Start Num: 33

Candidate Starts for StuartMinion_57:
(Start: 33 @33885 has 13 MA's), (38, 33906), (49, 33957), (53, 33969),

Gene: ThayneTheZag_66 Start: 34569, Stop: 34706, Start Num: 28
Candidate Starts for ThayneTheZag_66:
(Start: 28 @34569 has 8 MA's), (Start: 36 @34590 has 1 MA's), (43, 34626),

Gene: Tiff81_59 Start: 32815, Stop: 32952, Start Num: 28
Candidate Starts for Tiff81_59:
(18, 32788), (Start: 28 @32815 has 8 MA's), (Start: 36 @32836 has 1 MA's),

Gene: Violeta_4 Start: 868, Stop: 1002, Start Num: 19
Candidate Starts for Violeta_4:
(Start: 19 @868 has 1 MA's), (Start: 22 @874 has 4 MA's), (Start: 27 @889 has 7 MA's), (56, 991),

Gene: Warren_5 Start: 1062, Stop: 1190, Start Num: 27
Candidate Starts for Warren_5:
(1, 768), (15, 999), (21, 1044), (Start: 27 @1062 has 7 MA's), (Start: 31 @1077 has 1 MA's), (56, 1179),

Gene: Widow_61 Start: 42226, Stop: 42339, Start Num: 29
Candidate Starts for Widow_61:
(4, 42064), (7, 42079), (10, 42121), (Start: 29 @42226 has 4 MA's), (Start: 36 @42241 has 1 MA's), (57, 42334),

Gene: Winchester007_18 Start: 6875, Stop: 6988, Start Num: 27
Candidate Starts for Winchester007_18:
(Start: 19 @6854 has 1 MA's), (Start: 22 @6860 has 4 MA's), (Start: 27 @6875 has 7 MA's), (56, 6977),

Gene: Zhuangyuan_72 Start: 38420, Stop: 38548, Start Num: 33
Candidate Starts for Zhuangyuan_72:
(Start: 33 @38420 has 13 MA's),