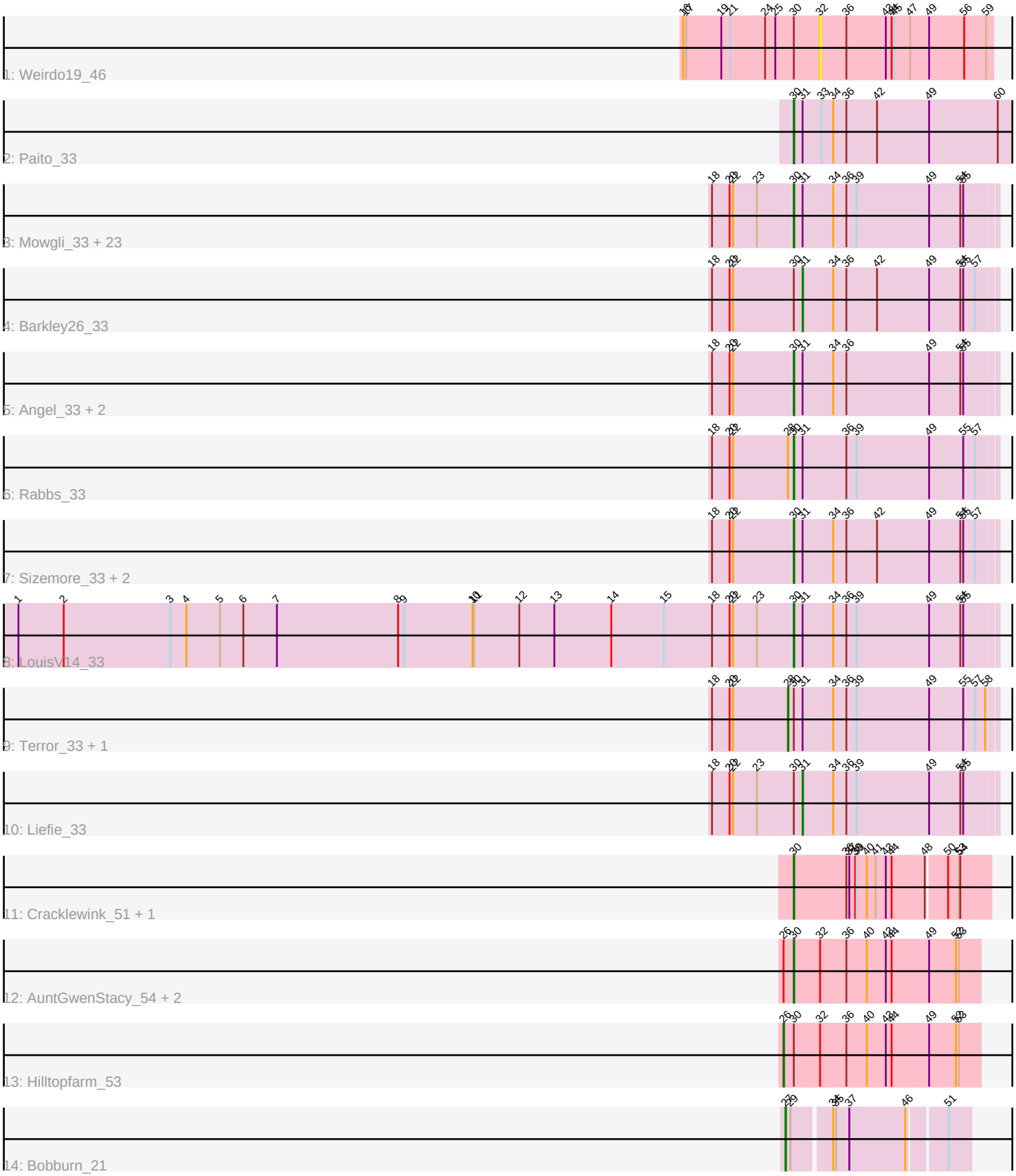
Pham 345863


1: Weirdo19_46
2: Paito_33
3: Mowgli_33 + 23
4: Barkley26_33
5: Angel_33 + 2
6: Rabbs_33
7: Sizemore_33 + 2
8: LouisVI14_33
9: Terror_33 + 1
10: Liefie_33
11: Cracklewink_51 + 1
12: AuntGwenStacy_54 + 2
13: Hilltopfarm_53
14: Bobburn_21

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 345863 Report

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

Pham number 345863 has 45 members, 1 are drafts.

Phages represented in each track:
• Track 1 : Weirdo19_46
• Track 2 : Paito_33
• Track 3 : Mowgli_33, ShaboiShabazz_33, Periodt_33, Phloodle_33, Jeilious_33, TomBrady_33, Avrafan_33, BruceB_33, Cherrybomb426_33, Marmie_33, Sweets_33, Hotshotbaby7_33, Olga_33, Aroostook_33, JorRay_33, Halo_33, Chance64_33, Jonghyun_33, Jane_33, Annihilator_33, Phreak_33, Rattrick_33, BPs_33, Hope_33
• Track 4 : Barkley26_33
• Track 5 : Angel_33, Richarlison_33, Plagueis_33
• Track 6 : Rabbs_33
• Track 7 : Sizemore_33, Grizzly_33, Kasen3_33
• Track 8 : LouisV14_33
• Track 9 : Terror_33, Taheera_33
• Track 10 : Liefie_33
• Track 11 : Cracklewink_51, Bipper_51
• Track 12 : AuntGwenStacy_54, Faiyaz_54, Typha_53
• Track 13 : Hilltopfarm_53
• Track 14 : Bobburn_21

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

The start number called the most often in the published annotations is 30, it was called in 38 of the 44 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Angel_33, Annihilator_33, Aroostook_33, AuntGwenStacy_54, Avrafan_33, BPs_33, Bipper_51, BruceB_33, Chance64_33, Cherrybomb426_33, Cracklewink_51, Faiyaz_54, Grizzly_33, Halo_33, Hope_33, Hotshotbaby7_33, Jane_33, Jeilious_33, Jonghyun_33, JorRay_33, Kasen3_33, LouisV14_33, Marmie_33, Mowgli_33, Olga_33, Paito_33, Periodt_33, Phloodle_33, Phreak_33, Plagueis_33, Rabbs_33, Rattrick_33, Richarlison_33, ShaboiShabazz_33, Sizemore_33, Sweets_33, TomBrady_33, Typha_53,

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

• Barkley26_33, Hilltopfarm_53, Liefie_33, Taheera_33, Terror_33, Weirdo19_46,

Genes that do not have the "Most Annotated" start:
• Bobburn_21,

Summary by start number:

Start 26:
• Found in 4 of 45 (8.9%) of genes in pham
• Manual Annotations of this start: 1 of 44
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Hilltopfarm_53 (Y),

Start 27:
• Found in 1 of 45 (2.2%) of genes in pham
• Manual Annotations of this start: 1 of 44
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bobburn_21 (singleton),

Start 28:
• Found in 3 of 45 (6.7%) of genes in pham
• Manual Annotations of this start: 2 of 44
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Taheera_33 (G1), Terror_33 (G1),

Start 30:
• Found in 44 of 45 (97.8%) of genes in pham
• Manual Annotations of this start: 38 of 44
• Called 86.4% of time when present
• Phage (with cluster) where this start called: Angel_33 (G1), Annihilator_33 (G1), Aroostook_33 (G1), AuntGwenStacy_54 (Y), Avrafan_33 (G1), BPs_33 (G1), Bipper_51 (Y), BruceB_33 (G1), Chance64_33 (G1), Cherrybomb426_33 (G1), Cracklewink_51 (Y), Faiyaz_54 (Y), Grizzly_33 (G1), Halo_33 (G1), Hope_33 (G1), Hotshotbaby7_33 (G1), Jane_33 (G1), Jeilious_33 (G), Jonghyun_33 (G1), JorRay_33 (G1), Kasen3_33 (G1), LouisV14_33 (G1), Marmie_33 (G1), Mowgli_33 (G1), Olga_33 (G1), Paito_33 (G1), Periodt_33 (G1), Phloodle_33 (G1), Phreak_33 (G1), Plagueis_33 (G1), Rabbs_33 (G1), Rattrick_33 (G1), Richarlison_33 (G1), ShaboiShabazz_33 (G1), Sizemore_33 (G1), Sweets_33 (G1), TomBrady_33 (G1), Typha_53 (Y),

Start 31:
• Found in 37 of 45 (82.2%) of genes in pham
• Manual Annotations of this start: 2 of 44
• Called 5.4% of time when present
• Phage (with cluster) where this start called: Barkley26_33 (G1), Liefie_33 (G1),

Start 32:
• Found in 5 of 45 (11.1%) of genes in pham
• No Manual Annotations of this start.
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Weirdo19_46 (AH),

Summary by clusters:

There are 5 clusters represented in this pham: Y, AH, singleton, G, G1,

Info for manual annotations of cluster G:
•Start number 30 was manually annotated 1 time for cluster G.

Info for manual annotations of cluster G1:
•Start number 28 was manually annotated 2 times for cluster G1.
•Start number 30 was manually annotated 32 times for cluster G1.
•Start number 31 was manually annotated 2 times for cluster G1.

Info for manual annotations of cluster Y:
•Start number 26 was manually annotated 1 time for cluster Y.
•Start number 30 was manually annotated 5 times for cluster Y.

Gene Information:

Gene: Angel_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for Angel_33:
(18, 29489), (20, 29453), (22, 29447), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (49, 29048), (54, 28985), (55, 28979),

Gene: Annihilator_33 Start: 29315, Stop: 28905, Start Num: 30
Candidate Starts for Annihilator_33:
(18, 29480), (20, 29444), (22, 29438), (23, 29390), (Start: 30 @29315 has 38 MA's), (Start: 31 @29297 has 2 MA's), (34, 29234), (36, 29207), (39, 29186), (49, 29039), (54, 28976), (55, 28970),

Gene: Aroostook_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for Aroostook_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: AuntGwenStacy_54 Start: 41177, Stop: 40797, Start Num: 30
Candidate Starts for AuntGwenStacy_54:
(Start: 26 @41198 has 1 MA's), (Start: 30 @41177 has 38 MA's), (32, 41123), (36, 41069), (40, 41027), (43, 40988), (44, 40976), (49, 40901), (52, 40847), (53, 40841),

Gene: Avrafan_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for Avrafan_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: BPs_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for BPs_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: Barkley26_33 Start: 29328, Stop: 28936, Start Num: 31
Candidate Starts for Barkley26_33:

(18, 29511), (20, 29475), (22, 29469), (Start: 30 @29346 has 38 MA's), (Start: 31 @29328 has 2 MA's), (34, 29265), (36, 29238), (42, 29175), (49, 29070), (54, 29007), (55, 29001), (57, 28977),

Gene: Bipper_51 Start: 39965, Stop: 39576, Start Num: 30
Candidate Starts for Bipper_51:
(Start: 30 @39965 has 38 MA's), (36, 39857), (37, 39851), (38, 39839), (39, 39836), (40, 39815), (41, 39797), (43, 39776), (44, 39764), (48, 39701), (50, 39662), (53, 39641), (54, 39638),

Gene: Bobburn_21 Start: 15474, Stop: 15130, Start Num: 27
Candidate Starts for Bobburn_21:
(Start: 27 @15474 has 1 MA's), (29, 15468), (34, 15393), (35, 15387), (37, 15360), (46, 15246), (51, 15174),

Gene: BruceB_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for BruceB_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: Chance64_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for Chance64_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: Cherrybomb426_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for Cherrybomb426_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: Cracklewink_51 Start: 39958, Stop: 39569, Start Num: 30
Candidate Starts for Cracklewink_51:
(Start: 30 @39958 has 38 MA's), (36, 39850), (37, 39844), (38, 39832), (39, 39829), (40, 39808), (41, 39790), (43, 39769), (44, 39757), (48, 39694), (50, 39655), (53, 39634), (54, 39631),

Gene: Faiyaz_54 Start: 41165, Stop: 40785, Start Num: 30
Candidate Starts for Faiyaz_54:
(Start: 26 @41186 has 1 MA's), (Start: 30 @41165 has 38 MA's), (32, 41111), (36, 41057), (40, 41015), (43, 40976), (44, 40964), (49, 40889), (52, 40835), (53, 40829),

Gene: Grizzly_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for Grizzly_33:
(18, 29489), (20, 29453), (22, 29447), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (42, 29153), (49, 29048), (54, 28985), (55, 28979), (57, 28955),

Gene: Halo_33 Start: 29319, Stop: 28909, Start Num: 30
Candidate Starts for Halo_33:
(18, 29484), (20, 29448), (22, 29442), (23, 29394), (Start: 30 @29319 has 38 MA's), (Start: 31 @29301 has 2 MA's), (34, 29238), (36, 29211), (39, 29190), (49, 29043), (54, 28980), (55, 28974),

Gene: Hilltopfarm_53 Start: 40885, Stop: 40484, Start Num: 26
Candidate Starts for Hilltopfarm_53:
(Start: 26 @40885 has 1 MA's), (Start: 30 @40864 has 38 MA's), (32, 40810), (36, 40756), (40, 40714), (43, 40675), (44, 40663), (49, 40588), (52, 40534), (53, 40528),

Gene: Hope_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for Hope_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: Hotshotbaby7_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for Hotshotbaby7_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: Jane_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for Jane_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: Jeilious_33 Start: 29323, Stop: 28913, Start Num: 30
Candidate Starts for Jeilious_33:
(18, 29488), (20, 29452), (22, 29446), (23, 29398), (Start: 30 @29323 has 38 MA's), (Start: 31 @29305 has 2 MA's), (34, 29242), (36, 29215), (39, 29194), (49, 29047), (54, 28984), (55, 28978),

Gene: Jonghyun_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for Jonghyun_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: JorRay_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for JorRay_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: Kasen3_33 Start: 29325, Stop: 28915, Start Num: 30
Candidate Starts for Kasen3_33:
(18, 29490), (20, 29454), (22, 29448), (Start: 30 @29325 has 38 MA's), (Start: 31 @29307 has 2 MA's), (34, 29244), (36, 29217), (42, 29154), (49, 29049), (54, 28986), (55, 28980), (57, 28956),

Gene: Liefie_33 Start: 29304, Stop: 28912, Start Num: 31
Candidate Starts for Liefie_33:
(18, 29487), (20, 29451), (22, 29445), (23, 29397), (Start: 30 @29322 has 38 MA's), (Start: 31 @29304 has 2 MA's), (34, 29241), (36, 29214), (39, 29193), (49, 29046), (54, 28983), (55, 28977),

Gene: LouisV14_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for LouisV14_33:
(1, 30914), (2, 30821), (3, 30602), (4, 30569), (5, 30500), (6, 30452), (7, 30383), (8, 30134), (9, 30122), (10, 29981), (11, 29978), (12, 29885), (13, 29813), (14, 29696), (15, 29588), (18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: Marmie_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for Marmie_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: Mowgli_33 Start: 29324, Stop: 28914, Start Num: 30

Candidate Starts for Mowgli_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: Olga_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for Olga_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: Paito_33 Start: 29505, Stop: 29047, Start Num: 30
Candidate Starts for Paito_33:
(Start: 30 @29505 has 38 MA's), (Start: 31 @29487 has 2 MA's), (33, 29448), (34, 29424), (36, 29397), (42, 29334), (49, 29229), (60, 29088),

Gene: Periodt_33 Start: 29315, Stop: 28905, Start Num: 30
Candidate Starts for Periodt_33:
(18, 29480), (20, 29444), (22, 29438), (23, 29390), (Start: 30 @29315 has 38 MA's), (Start: 31 @29297 has 2 MA's), (34, 29234), (36, 29207), (39, 29186), (49, 29039), (54, 28976), (55, 28970),

Gene: Phloodle_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for Phloodle_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: Phreak_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for Phreak_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: Plagueis_33 Start: 29159, Stop: 28749, Start Num: 30
Candidate Starts for Plagueis_33:
(18, 29324), (20, 29288), (22, 29282), (Start: 30 @29159 has 38 MA's), (Start: 31 @29141 has 2 MA's), (34, 29078), (36, 29051), (49, 28883), (54, 28820), (55, 28814),

Gene: Rabbs_33 Start: 29407, Stop: 28997, Start Num: 30
Candidate Starts for Rabbs_33:
(18, 29572), (20, 29536), (22, 29530), (Start: 28 @29419 has 2 MA's), (Start: 30 @29407 has 38 MA's), (Start: 31 @29389 has 2 MA's), (36, 29299), (39, 29278), (49, 29131), (55, 29062), (57, 29038),

Gene: Rattrick_33 Start: 29315, Stop: 28905, Start Num: 30
Candidate Starts for Rattrick_33:
(18, 29480), (20, 29444), (22, 29438), (23, 29390), (Start: 30 @29315 has 38 MA's), (Start: 31 @29297 has 2 MA's), (34, 29234), (36, 29207), (39, 29186), (49, 29039), (54, 28976), (55, 28970),

Gene: Richarlison_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for Richarlison_33:
(18, 29489), (20, 29453), (22, 29447), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (49, 29048), (54, 28985), (55, 28979),

Gene: ShaboiShabazz_33 Start: 29324, Stop: 28914, Start Num: 30
Candidate Starts for ShaboiShabazz_33:
(18, 29489), (20, 29453), (22, 29447), (23, 29399), (Start: 30 @29324 has 38 MA's), (Start: 31 @29306 has 2 MA's), (34, 29243), (36, 29216), (39, 29195), (49, 29048), (54, 28985), (55, 28979),

Gene: Sizemore_33 Start: 29325, Stop: 28915, Start Num: 30
Candidate Starts for Sizemore_33:
(18, 29490), (20, 29454), (22, 29448), (Start: 30 @29325 has 38 MA's), (Start: 31 @29307 has 2 MA's), (34, 29244), (36, 29217), (42, 29154), (49, 29049), (54, 28986), (55, 28980), (57, 28956),

Gene: Sweets_33 Start: 29319, Stop: 28909, Start Num: 30
Candidate Starts for Sweets_33:
(18, 29484), (20, 29448), (22, 29442), (23, 29394), (Start: 30 @29319 has 38 MA's), (Start: 31 @29301 has 2 MA's), (34, 29238), (36, 29211), (39, 29190), (49, 29043), (54, 28980), (55, 28974),

Gene: Taheera_33 Start: 29454, Stop: 29032, Start Num: 28
Candidate Starts for Taheera_33:
(18, 29607), (20, 29571), (22, 29565), (Start: 28 @29454 has 2 MA's), (Start: 30 @29442 has 38 MA's), (Start: 31 @29424 has 2 MA's), (34, 29361), (36, 29334), (39, 29313), (49, 29166), (55, 29097), (57, 29073), (58, 29052),

Gene: Terror_33 Start: 29454, Stop: 29032, Start Num: 28
Candidate Starts for Terror_33:
(18, 29607), (20, 29571), (22, 29565), (Start: 28 @29454 has 2 MA's), (Start: 30 @29442 has 38 MA's), (Start: 31 @29424 has 2 MA's), (34, 29361), (36, 29334), (39, 29313), (49, 29166), (55, 29097), (57, 29073), (58, 29052),

Gene: TomBrady_33 Start: 29325, Stop: 28915, Start Num: 30
Candidate Starts for TomBrady_33:
(18, 29490), (20, 29454), (22, 29448), (23, 29400), (Start: 30 @29325 has 38 MA's), (Start: 31 @29307 has 2 MA's), (34, 29244), (36, 29217), (39, 29196), (49, 29049), (54, 28986), (55, 28980),

Gene: Typha_53 Start: 41177, Stop: 40797, Start Num: 30
Candidate Starts for Typha_53:
(Start: 26 @41198 has 1 MA's), (Start: 30 @41177 has 38 MA's), (32, 41123), (36, 41069), (40, 41027), (43, 40988), (44, 40976), (49, 40901), (52, 40847), (53, 40841),

Gene: Weirdo19_46 Start: 34933, Stop: 34580, Start Num: 32
Candidate Starts for Weirdo19_46:
(16, 35212), (17, 35206), (19, 35134), (21, 35116), (24, 35044), (25, 35023), (Start: 30 @34987 has 38 MA's), (32, 34933), (36, 34879), (43, 34798), (44, 34786), (45, 34780), (47, 34750), (49, 34711), (56, 34639), (59, 34594),