Pham 347504


1: GreenHearts_26
2: Preamble_22 + 1
3: Albanese_26 + 1
4: Immaculata_26 + 2
5: Lasagna_22 + 2
6: Glenn_26 + 8
7: RAP15_26 + 4
8: Aledel_22 + 7
9: Gisselle_22 + 1
10: DrRobert_22
11: Christian_22 + 1
12: Greenhouse_26
13: PinkFriday_22 + 1
14: Maria1952_22 + 5
15: PitaDog_22
16: Litotes_26 + 5
17: HeadNerd_22 + 3
18: Kohra_27
19: AustinPowers_22
20: Fluke_26
21: WonderBoy_22
22: Graynor_26 + 2
23: Nubia_26
24: Kaitzoi_26 + 1
25: EstebanJulior_22 + 1
26: Oxynfrius_26 + 1
27: Dino_26
28: Bodacious_22 + 3
29: Misaeng_26
30: RcigaStruga_26 + 1
31: BigMack_22
32: Scuttle_26
33: Pterodactyl_22
34: Makoto_22
35: Lennox_22
36: Urla_22

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 347504 Report

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

Pham number 347504 has 86 members, 2 are drafts.

Phages represented in each track:
• Track 1 : GreenHearts_26
• Track 2 : Preamble_22, Kittykat_22
• Track 3 : Albanese_26, Lakshmi_26
• Track 4 : Immaculata_26, Potatoes_26, Cholula_26
• Track 5 : Lasagna_22, Lucy_22, OurGirlNessie_22
• Track 6 : Glenn_26, TattModd_26, Rozby_26, Wawa_26, Riverdale_26, Beethoven_26, Carpal_26, MrGloopy_26, Vallejo_26
• Track 7 : RAP15_26, MeganNoll_26, Savage2526_26, Jumboset_26, BrotherBLo_26
• Track 8 : Aledel_22, Supakev_22, HunterDalle_22, Riovina_22, Eunoia_22, Vulture_22, OMalley_22, Chridison_22
• Track 9 : Gisselle_22, DreamTeam_22
• Track 10 : DrRobert_22
• Track 11 : Christian_22, ChewChew_22
• Track 12 : Greenhouse_26
• Track 13 : PinkFriday_22, Pumancara_22
• Track 14 : Maria1952_22, Daiboju_22, Temper16_22, KingBob_22, Herb_22, Sergei_22
• Track 15 : PitaDog_22
• Track 16 : Litotes_26, AppleCider_26, MrBoss_26, Canowicakte_26, Suppi_26, PartyCup_26
• Track 17 : HeadNerd_22, Moki_22, Bennie_22, Huckleberry_22
• Track 18 : Korra_27
• Track 19 : AustinPowers_22
• Track 20 : Fluke_26
• Track 21 : WonderBoy_22
• Track 22 : Graynor_26, CallieOMalley_26, Wayne_26
• Track 23 : Nubia_26
• Track 24 : Kalizoi_26, Zorro_26
• Track 25 : EstebanJulior_22, MamaPearl_22
• Track 26 : Oxynfrius_26, Joann_26
• Track 27 : Dino_26
• Track 28 : Bodacious_22, Nancia_22, CristinaYang_22, LilStuart_22
• Track 29 : Misaeng_26
• Track 30 : RcigaStruga_26, Huntingdon_26
• Track 31 : BigMack_22
• Track 32 : Scuttle_26

• Track 33 : Pterodactyl_22
• Track 34 : Makoto_22
• Track 35 : Lennox_22
• Track 36 : Urla_22

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 33 of the 84 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aledel_22, AustinPowers_22, Beethoven_26, BrotherBLo_26, Carpal_26, Cholula_26, Chridison_22, EstebanJulior_22, Eunoia_22, Glenn_26, HunterDalle_22, Immaculata_26, Jumboset_26, Kalizoi_26, Korra_27, MamaPearl_22, MeganNoll_26, MrGloopy_26, OMalley_22, Potatoes_26, RAP15_26, Riovina_22, Riverdale_26, Rozby_26, Savage2526_26, Scuttle_26, Supakev_22, TattModd_26, Urla_22, Vallejo_26, Vulture_22, Wawa_26, Zorro_26,

Genes that have the "Most Annotated" start but do not call it:
• Dino_26, Fluke_26,

Genes that do not have the "Most Annotated" start:
• Albanese_26, AppleCider_26, Bennie_22, BigMack_22, Bodacious_22, CallieOMalley_26, Canowicakte_26, ChewChew_22, Christian_22, CristinaYang_22, Daiboju_22, DrRobert_22, DreamTeam_22, Gisselle_22, Graynor_26, GreenHearts_26, Greenhouse_26, HeadNerd_22, Herb_22, Huckleberry_22, Huntingdon_26, Joann_26, KingBob_22, Kittykat_22, Lakshmi_26, Lasagna_22, Lennox_22, LilStuart_22, Litotes_26, Lucy_22, Makoto_22, Maria1952_22, Misaeng_26, Moki_22, MrBoss_26, Nancia_22, Nubia_26, OurGirlNessie_22, Oxynfrius_26, PartyCup_26, PinkFriday_22, PitaDog_22, Preamble_22, Pterodactyl_22, Pumancara_22, RcigaStruga_26, Sergei_22, Suppi_26, Temper16_22, Wayne_26, WonderBoy_22,

Summary by start number:

Start 5:
• Found in 33 of 86 (38.4%) of genes in pham
• Manual Annotations of this start: 5 of 84
• Called 15.2% of time when present
• Phage (with cluster) where this start called: Dino_26 (AK), Fluke_26 (AK), Joann_26 (AK), Nubia_26 (AK), Oxynfrius_26 (AK),

Start 6:
• Found in 35 of 86 (40.7%) of genes in pham
• Manual Annotations of this start: 33 of 84
• Called 94.3% of time when present
• Phage (with cluster) where this start called: Aledel_22 (AK), AustinPowers_22 (AK), Beethoven_26 (AK), BrotherBLo_26 (AK), Carpal_26 (AK), Cholula_26 (AK), Chridison_22 (AK), EstebanJulior_22 (AK), Eunoia_22 (AK), Glenn_26 (AK), HunterDalle_22 (AK), Immaculata_26 (AK), Jumboset_26 (AK), Kalizoi_26 (AK),

Korra_27 (AK), MamaPearl_22 (AK), MeganNoll_26 (AK), MrGloopy_26 (AK), OMalley_22 (AK), Potatoes_26 (AK), RAP15_26 (AK), Riovina_22 (AK), Riverdale_26 (AK), Rozby_26 (AK), Savage2526_26 (AK), Scuttle_26 (AK), Supakev_22 (AK), TattModd_26 (AK), Urla_22 (AK), Vallejo_26 (AK), Vulture_22 (AK), Wawa_26 (AK), Zorro_26 (AK),

Start 7:
• Found in 32 of 86 (37.2%) of genes in pham
• Manual Annotations of this start: 29 of 84
• Called 96.9% of time when present
• Phage (with cluster) where this start called: AppleCider_26 (AK), Bennie_22 (AK), BigMack_22 (AK), Bodacious_22 (AK), CallieOMalley_26 (AK), Canowicakte_26 (AK), ChewChew_22 (AK), Christian_22 (AK), CristinaYang_22 (AK), DreamTeam_22 (AK), Gisselle_22 (AK), Graynor_26 (AK), HeadNerd_22 (AK), Huckleberry_22 (AK), Kittykat_22 (AK), Lasagna_22 (AK), Lennox_22 (AK), LilStuart_22 (AK), Litotes_26 (AK), Lucy_22 (AK), Makoto_22 (AK), Moki_22 (AK), MrBoss_26 (AK), Nancia_22 (AK), OurGirlNessie_22 (AK), PartyCup_26 (AK), PitaDog_22 (AK), Preamble_22 (AK), Suppi_26 (AK), Wayne_26 (AK), WonderBoy_22 (AK),

Start 8:
• Found in 11 of 86 (12.8%) of genes in pham
• Manual Annotations of this start: 8 of 84
• Called 72.7% of time when present
• Phage (with cluster) where this start called: Albanese_26 (AK), GreenHearts_26 (AK), Greenhouse_26 (AK), Huntingdon_26 (AK), Lakshmi_26 (AK), Misaeng_26 (AK), Pterodactyl_22 (AK), RcigaStruga_26 (AK),

Start 9:
• Found in 22 of 86 (25.6%) of genes in pham
• Manual Annotations of this start: 9 of 84
• Called 40.9% of time when present
• Phage (with cluster) where this start called: Daiboju_22 (AK), DrRobert_22 (AK), Herb_22 (AK), KingBob_22 (AK), Maria1952_22 (AK), PinkFriday_22 (AK), Pumancara_22 (AK), Sergei_22 (AK), Temper16_22 (AK),

Summary by clusters:

There is one cluster represented in this pham: AK

Info for manual annotations of cluster AK:
•Start number 5 was manually annotated 5 times for cluster AK.
•Start number 6 was manually annotated 33 times for cluster AK.
•Start number 7 was manually annotated 29 times for cluster AK.
•Start number 8 was manually annotated 8 times for cluster AK.
•Start number 9 was manually annotated 9 times for cluster AK.

Gene Information:

Gene: Albanese_26 Start: 20891, Stop: 21394, Start Num: 8
Candidate Starts for Albanese_26:

(Start: 5 @20879 has 5 MA's), (Start: 8 @20891 has 8 MA's), (17, 20957), (19, 20981), (26, 21041), (31, 21110), (34, 21128), (35, 21137), (36, 21149), (37, 21269), (38, 21278), (43, 21329),

Gene: Aledel_22 Start: 19276, Stop: 19779, Start Num: 6
Candidate Starts for Aledel_22:
(Start: 6 @19276 has 33 MA's), (11, 19306), (19, 19366), (20, 19393), (23, 19405), (25, 19414), (28, 19477), (30, 19492), (31, 19495), (32, 19501), (33, 19504), (34, 19513), (35, 19522), (37, 19654), (39, 19687), (43, 19714), (45, 19747),

Gene: AppleCider_26 Start: 20900, Stop: 21400, Start Num: 7
Candidate Starts for AppleCider_26:
(Start: 7 @20900 has 29 MA's), (10, 20903), (11, 20927), (12, 20936), (19, 20987), (25, 21035), (27, 21089), (31, 21116), (34, 21134), (37, 21275), (45, 21368),

Gene: AustinPowers_22 Start: 19277, Stop: 19780, Start Num: 6
Candidate Starts for AustinPowers_22:
(Start: 6 @19277 has 33 MA's), (11, 19307), (19, 19367), (20, 19394), (23, 19406), (25, 19415), (28, 19478), (30, 19493), (31, 19496), (32, 19502), (33, 19505), (34, 19514), (35, 19523), (37, 19655), (43, 19715), (45, 19748),

Gene: Beethoven_26 Start: 20860, Stop: 21363, Start Num: 6
Candidate Starts for Beethoven_26:
(1, 20749), (2, 20770), (Start: 5 @20851 has 5 MA's), (Start: 6 @20860 has 33 MA's), (11, 20890), (12, 20899), (19, 20950), (25, 20998), (31, 21079), (34, 21097), (36, 21118), (37, 21238), (43, 21298), (45, 21331),

Gene: Bennie_22 Start: 19317, Stop: 19835, Start Num: 7
Candidate Starts for Bennie_22:
(Start: 7 @19317 has 29 MA's), (11, 19344), (16, 19371), (19, 19404), (25, 19452), (31, 19533), (34, 19551), (35, 19560), (36, 19572), (37, 19701), (39, 19734), (43, 19761),

Gene: BigMack_22 Start: 19311, Stop: 19829, Start Num: 7
Candidate Starts for BigMack_22:
(Start: 7 @19311 has 29 MA's), (11, 19338), (12, 19347), (19, 19398), (25, 19446), (31, 19527), (34, 19545), (36, 19566), (37, 19695), (40, 19740), (41, 19746), (42, 19749), (43, 19755),

Gene: Bodacious_22 Start: 19328, Stop: 19849, Start Num: 7
Candidate Starts for Bodacious_22:
(Start: 7 @19328 has 29 MA's), (Start: 9 @19331 has 9 MA's), (11, 19358), (16, 19385), (19, 19418), (25, 19466), (31, 19547), (34, 19565), (35, 19574), (36, 19586), (37, 19715), (43, 19775), (46, 19820),

Gene: BrotherBLo_26 Start: 20866, Stop: 21369, Start Num: 6
Candidate Starts for BrotherBLo_26:
(1, 20755), (2, 20776), (Start: 5 @20857 has 5 MA's), (Start: 6 @20866 has 33 MA's), (11, 20896), (12, 20905), (18, 20941), (19, 20956), (25, 21004), (31, 21085), (34, 21103), (36, 21124), (43, 21304), (44, 21325), (45, 21337),

Gene: CallieOMalley_26 Start: 20900, Stop: 21400, Start Num: 7
Candidate Starts for CallieOMalley_26:
(Start: 7 @20900 has 29 MA's), (11, 20927), (12, 20936), (19, 20987), (25, 21035), (27, 21089), (31, 21116), (34, 21134), (37, 21275), (45, 21368),

Gene: Canowicakte_26 Start: 20935, Stop: 21435, Start Num: 7

Candidate Starts for Canowicakte_26:
(Start: 7 @20935 has 29 MA's), (10, 20938), (11, 20962), (12, 20971), (19, 21022), (25, 21070), (27, 21124), (31, 21151), (34, 21169), (37, 21310), (45, 21403),

Gene: Carpal_26 Start: 20867, Stop: 21370, Start Num: 6
Candidate Starts for Carpal_26:
(1, 20756), (2, 20777), (Start: 5 @20858 has 5 MA's), (Start: 6 @20867 has 33 MA's), (11, 20897), (12, 20906), (19, 20957), (25, 21005), (31, 21086), (34, 21104), (36, 21125), (37, 21245), (43, 21305), (45, 21338),

Gene: ChewChew_22 Start: 19323, Stop: 19844, Start Num: 7
Candidate Starts for ChewChew_22:
(Start: 7 @19323 has 29 MA's), (Start: 9 @19326 has 9 MA's), (11, 19353), (16, 19380), (19, 19413), (25, 19461), (31, 19542), (34, 19560), (35, 19569), (36, 19581), (37, 19710), (43, 19770), (46, 19815),

Gene: Cholula_26 Start: 20913, Stop: 21416, Start Num: 6
Candidate Starts for Cholula_26:
(3, 20877), (Start: 5 @20904 has 5 MA's), (Start: 6 @20913 has 33 MA's), (11, 20943), (12, 20952), (19, 21003), (25, 21051), (31, 21132), (34, 21150), (36, 21171), (37, 21291), (43, 21351), (44, 21372), (45, 21384),

Gene: Chridison_22 Start: 19277, Stop: 19780, Start Num: 6
Candidate Starts for Chridison_22:
(Start: 6 @19277 has 33 MA's), (11, 19307), (19, 19367), (20, 19394), (23, 19406), (25, 19415), (28, 19478), (30, 19493), (31, 19496), (32, 19502), (33, 19505), (34, 19514), (35, 19523), (37, 19655), (39, 19688), (43, 19715), (45, 19748),

Gene: Christian_22 Start: 19324, Stop: 19845, Start Num: 7
Candidate Starts for Christian_22:
(Start: 7 @19324 has 29 MA's), (Start: 9 @19327 has 9 MA's), (11, 19354), (16, 19381), (19, 19414), (25, 19462), (31, 19543), (34, 19561), (35, 19570), (36, 19582), (37, 19711), (43, 19771), (46, 19816),

Gene: CristinaYang_22 Start: 19328, Stop: 19849, Start Num: 7
Candidate Starts for CristinaYang_22:
(Start: 7 @19328 has 29 MA's), (Start: 9 @19331 has 9 MA's), (11, 19358), (16, 19385), (19, 19418), (25, 19466), (31, 19547), (34, 19565), (35, 19574), (36, 19586), (37, 19715), (43, 19775), (46, 19820),

Gene: Daiboju_22 Start: 19297, Stop: 19797, Start Num: 9
Candidate Starts for Daiboju_22:
(Start: 9 @19297 has 9 MA's), (15, 19348), (19, 19384), (24, 19429), (25, 19432), (31, 19513), (34, 19531), (37, 19672), (45, 19765),

Gene: Dino_26 Start: 20856, Stop: 21368, Start Num: 5
Candidate Starts for Dino_26:
(1, 20754), (2, 20775), (Start: 5 @20856 has 5 MA's), (Start: 6 @20865 has 33 MA's), (11, 20895), (12, 20904), (17, 20931), (19, 20955), (25, 21003), (31, 21084), (34, 21102), (36, 21123), (37, 21243), (43, 21303), (45, 21336),

Gene: DrRobert_22 Start: 19327, Stop: 19845, Start Num: 9
Candidate Starts for DrRobert_22:
(Start: 7 @19324 has 29 MA's), (Start: 9 @19327 has 9 MA's), (11, 19354), (16, 19381), (19, 19414), (25, 19462), (31, 19543), (34, 19561), (35, 19570), (36, 19582), (37, 19711), (43, 19771), (46, 19816),

Gene: DreamTeam_22 Start: 19356, Stop: 19880, Start Num: 7
Candidate Starts for DreamTeam_22:
(Start: 7 @19356 has 29 MA's), (11, 19383), (12, 19392), (19, 19443), (25, 19491), (27, 19545), (31, 19572), (34, 19590), (36, 19611), (37, 19740), (39, 19773), (40, 19785), (41, 19791),

Gene: EstebanJulior_22 Start: 19324, Stop: 19827, Start Num: 6
Candidate Starts for EstebanJulior_22:
(Start: 6 @19324 has 33 MA's), (11, 19354), (18, 19399), (19, 19414), (25, 19462), (31, 19543), (32, 19549), (34, 19561), (36, 19582), (43, 19762),

Gene: Eunoia_22 Start: 19276, Stop: 19779, Start Num: 6
Candidate Starts for Eunoia_22:
(Start: 6 @19276 has 33 MA's), (11, 19306), (19, 19366), (20, 19393), (23, 19405), (25, 19414), (28, 19477), (30, 19492), (31, 19495), (32, 19501), (33, 19504), (34, 19513), (35, 19522), (37, 19654), (39, 19687), (43, 19714), (45, 19747),

Gene: Fluke_26 Start: 20899, Stop: 21411, Start Num: 5
Candidate Starts for Fluke_26:
(1, 20797), (2, 20818), (Start: 5 @20899 has 5 MA's), (Start: 6 @20908 has 33 MA's), (11, 20938), (12, 20947), (19, 20998), (25, 21046), (31, 21127), (34, 21145), (36, 21166), (37, 21286), (43, 21346), (45, 21379),

Gene: Gisselle_22 Start: 19356, Stop: 19880, Start Num: 7
Candidate Starts for Gisselle_22:
(Start: 7 @19356 has 29 MA's), (11, 19383), (12, 19392), (19, 19443), (25, 19491), (27, 19545), (31, 19572), (34, 19590), (36, 19611), (37, 19740), (39, 19773), (40, 19785), (41, 19791),

Gene: Glenn_26 Start: 20917, Stop: 21420, Start Num: 6
Candidate Starts for Glenn_26:
(1, 20806), (2, 20827), (Start: 5 @20908 has 5 MA's), (Start: 6 @20917 has 33 MA's), (11, 20947), (12, 20956), (19, 21007), (25, 21055), (31, 21136), (34, 21154), (36, 21175), (37, 21295), (43, 21355), (45, 21388),

Gene: Graynor_26 Start: 20921, Stop: 21421, Start Num: 7
Candidate Starts for Graynor_26:
(Start: 7 @20921 has 29 MA's), (11, 20948), (12, 20957), (19, 21008), (25, 21056), (27, 21110), (31, 21137), (34, 21155), (37, 21296), (45, 21389),

Gene: GreenHearts_26 Start: 20983, Stop: 21486, Start Num: 8
Candidate Starts for GreenHearts_26:
(Start: 5 @20971 has 5 MA's), (Start: 8 @20983 has 8 MA's), (13, 21025), (17, 21049), (19, 21073), (26, 21133), (31, 21202), (34, 21220), (35, 21229), (36, 21241), (37, 21361), (38, 21370), (43, 21421),

Gene: Greenhouse_26 Start: 20907, Stop: 21410, Start Num: 8
Candidate Starts for Greenhouse_26:
(Start: 5 @20895 has 5 MA's), (Start: 8 @20907 has 8 MA's), (17, 20973), (19, 20997), (21, 21027), (26, 21057), (31, 21126), (35, 21153), (36, 21165), (37, 21285), (38, 21294), (43, 21345),

Gene: HeadNerd_22 Start: 19317, Stop: 19835, Start Num: 7
Candidate Starts for HeadNerd_22:
(Start: 7 @19317 has 29 MA's), (11, 19344), (16, 19371), (19, 19404), (25, 19452), (31, 19533), (34, 19551), (35, 19560), (36, 19572), (37, 19701), (39, 19734), (43, 19761),

Gene: Herb_22 Start: 19297, Stop: 19797, Start Num: 9
Candidate Starts for Herb_22:
(Start: 9 @19297 has 9 MA's), (15, 19348), (19, 19384), (24, 19429), (25, 19432), (31, 19513), (34, 19531), (37, 19672), (45, 19765),

Gene: Huckleberry_22 Start: 19317, Stop: 19835, Start Num: 7
Candidate Starts for Huckleberry_22:
(Start: 7 @19317 has 29 MA's), (11, 19344), (16, 19371), (19, 19404), (25, 19452), (31, 19533), (34, 19551), (35, 19560), (36, 19572), (37, 19701), (39, 19734), (43, 19761),

Gene: HunterDalle_22 Start: 19276, Stop: 19779, Start Num: 6
Candidate Starts for HunterDalle_22:
(Start: 6 @19276 has 33 MA's), (11, 19306), (19, 19366), (20, 19393), (23, 19405), (25, 19414), (28, 19477), (30, 19492), (31, 19495), (32, 19501), (33, 19504), (34, 19513), (35, 19522), (37, 19654), (39, 19687), (43, 19714), (45, 19747),

Gene: Huntingdon_26 Start: 20875, Stop: 21378, Start Num: 8
Candidate Starts for Huntingdon_26:
(Start: 5 @20863 has 5 MA's), (Start: 8 @20875 has 8 MA's), (13, 20917), (17, 20941), (19, 20965), (34, 21112), (35, 21121), (36, 21133), (37, 21253), (38, 21262), (43, 21313),

Gene: Immaculata_26 Start: 20912, Stop: 21415, Start Num: 6
Candidate Starts for Immaculata_26:
(3, 20876), (Start: 5 @20903 has 5 MA's), (Start: 6 @20912 has 33 MA's), (11, 20942), (12, 20951), (19, 21002), (25, 21050), (31, 21131), (34, 21149), (36, 21170), (37, 21290), (43, 21350), (44, 21371), (45, 21383),

Gene: Joann_26 Start: 20829, Stop: 21344, Start Num: 5
Candidate Starts for Joann_26:
(Start: 5 @20829 has 5 MA's), (Start: 8 @20841 has 8 MA's), (17, 20907), (19, 20931), (26, 20991), (31, 21060), (34, 21078), (35, 21087), (36, 21099), (37, 21219), (38, 21228), (43, 21279),

Gene: Jumboset_26 Start: 20860, Stop: 21363, Start Num: 6
Candidate Starts for Jumboset_26:
(1, 20749), (2, 20770), (Start: 5 @20851 has 5 MA's), (Start: 6 @20860 has 33 MA's), (11, 20890), (12, 20899), (18, 20935), (19, 20950), (25, 20998), (31, 21079), (34, 21097), (36, 21118), (43, 21298), (44, 21319), (45, 21331),

Gene: Kalizoi_26 Start: 20859, Stop: 21362, Start Num: 6
Candidate Starts for Kalizoi_26:
(1, 20748), (2, 20769), (Start: 5 @20850 has 5 MA's), (Start: 6 @20859 has 33 MA's), (11, 20889), (12, 20898), (17, 20925), (19, 20949), (25, 20997), (31, 21078), (34, 21096), (36, 21117), (37, 21237), (43, 21297), (45, 21330),

Gene: KingBob_22 Start: 19297, Stop: 19797, Start Num: 9
Candidate Starts for KingBob_22:
(Start: 9 @19297 has 9 MA's), (15, 19348), (19, 19384), (24, 19429), (25, 19432), (31, 19513), (34, 19531), (37, 19672), (45, 19765),

Gene: Kittykat_22 Start: 19340, Stop: 19864, Start Num: 7
Candidate Starts for Kittykat_22:
(Start: 7 @19340 has 29 MA's), (11, 19367), (19, 19427), (25, 19475), (27, 19529), (31, 19556), (34, 19574), (36, 19595), (37, 19724), (39, 19757), (40, 19769), (41, 19775),

Gene: Korra_27 Start: 20865, Stop: 21368, Start Num: 6
Candidate Starts for Korra_27:
(1, 20754), (2, 20775), (Start: 5 @20856 has 5 MA's), (Start: 6 @20865 has 33 MA's), (11, 20895), (12, 20904), (19, 20955), (22, 20988), (25, 21003), (31, 21084), (34, 21102), (36, 21123), (37, 21243), (43, 21303), (44, 21324), (45, 21336),

Gene: Lakshmi_26 Start: 20867, Stop: 21370, Start Num: 8
Candidate Starts for Lakshmi_26:
(Start: 5 @20855 has 5 MA's), (Start: 8 @20867 has 8 MA's), (17, 20933), (19, 20957), (26, 21017), (31, 21086), (34, 21104), (35, 21113), (36, 21125), (37, 21245), (38, 21254), (43, 21305),

Gene: Lasagna_22 Start: 19324, Stop: 19845, Start Num: 7
Candidate Starts for Lasagna_22:
(Start: 7 @19324 has 29 MA's), (Start: 9 @19327 has 9 MA's), (11, 19354), (16, 19381), (19, 19414), (25, 19462), (31, 19543), (34, 19561), (35, 19570), (36, 19582), (37, 19711), (46, 19816),

Gene: Lennox_22 Start: 19312, Stop: 19833, Start Num: 7
Candidate Starts for Lennox_22:
(Start: 7 @19312 has 29 MA's), (Start: 9 @19315 has 9 MA's), (11, 19342), (16, 19369), (18, 19387), (19, 19402), (25, 19450), (31, 19531), (34, 19549), (35, 19558), (36, 19570), (37, 19699), (46, 19804),

Gene: LilStuart_22 Start: 19316, Stop: 19837, Start Num: 7
Candidate Starts for LilStuart_22:
(Start: 7 @19316 has 29 MA's), (Start: 9 @19319 has 9 MA's), (11, 19346), (16, 19373), (19, 19406), (25, 19454), (31, 19535), (34, 19553), (35, 19562), (36, 19574), (37, 19703), (43, 19763), (46, 19808),

Gene: Litotes_26 Start: 20885, Stop: 21385, Start Num: 7
Candidate Starts for Litotes_26:
(Start: 7 @20885 has 29 MA's), (10, 20888), (11, 20912), (12, 20921), (19, 20972), (25, 21020), (27, 21074), (31, 21101), (34, 21119), (37, 21260), (45, 21353),

Gene: Lucy_22 Start: 19304, Stop: 19825, Start Num: 7
Candidate Starts for Lucy_22:
(Start: 7 @19304 has 29 MA's), (Start: 9 @19307 has 9 MA's), (11, 19334), (16, 19361), (19, 19394), (25, 19442), (31, 19523), (34, 19541), (35, 19550), (36, 19562), (37, 19691), (46, 19796),

Gene: Makoto_22 Start: 19324, Stop: 19845, Start Num: 7
Candidate Starts for Makoto_22:
(Start: 7 @19324 has 29 MA's), (Start: 9 @19327 has 9 MA's), (11, 19354), (16, 19381), (19, 19414), (25, 19462), (31, 19543), (34, 19561), (35, 19570), (36, 19582), (37, 19711), (44, 19792), (46, 19816),

Gene: MamaPearl_22 Start: 19324, Stop: 19827, Start Num: 6
Candidate Starts for MamaPearl_22:
(Start: 6 @19324 has 33 MA's), (11, 19354), (18, 19399), (19, 19414), (25, 19462), (31, 19543), (32, 19549), (34, 19561), (36, 19582), (43, 19762),

Gene: Maria1952_22 Start: 19297, Stop: 19797, Start Num: 9
Candidate Starts for Maria1952_22:
(Start: 9 @19297 has 9 MA's), (15, 19348), (19, 19384), (24, 19429), (25, 19432), (31, 19513), (34, 19531), (37, 19672), (45, 19765),

Gene: MeganNoll_26 Start: 20917, Stop: 21420, Start Num: 6

Candidate Starts for MeganNoll_26:
(1, 20806), (2, 20827), (Start: 5 @20908 has 5 MA's), (Start: 6 @20917 has 33 MA's), (11, 20947), (12, 20956), (18, 20992), (19, 21007), (25, 21055), (31, 21136), (34, 21154), (36, 21175), (43, 21355), (44, 21376), (45, 21388),

Gene: Misaeng_26 Start: 20978, Stop: 21481, Start Num: 8
Candidate Starts for Misaeng_26:
(Start: 5 @20966 has 5 MA's), (Start: 8 @20978 has 8 MA's), (17, 21044), (19, 21068), (34, 21215), (35, 21224), (36, 21236), (43, 21416),

Gene: Moki_22 Start: 19317, Stop: 19835, Start Num: 7
Candidate Starts for Moki_22:
(Start: 7 @19317 has 29 MA's), (11, 19344), (16, 19371), (19, 19404), (25, 19452), (31, 19533), (34, 19551), (35, 19560), (36, 19572), (37, 19701), (39, 19734), (43, 19761),

Gene: MrBoss_26 Start: 20885, Stop: 21385, Start Num: 7
Candidate Starts for MrBoss_26:
(Start: 7 @20885 has 29 MA's), (10, 20888), (11, 20912), (12, 20921), (19, 20972), (25, 21020), (27, 21074), (31, 21101), (34, 21119), (37, 21260), (45, 21353),

Gene: MrGloopy_26 Start: 20851, Stop: 21354, Start Num: 6
Candidate Starts for MrGloopy_26:
(1, 20740), (2, 20761), (Start: 5 @20842 has 5 MA's), (Start: 6 @20851 has 33 MA's), (11, 20881), (12, 20890), (19, 20941), (25, 20989), (31, 21070), (34, 21088), (36, 21109), (37, 21229), (43, 21289), (45, 21322),

Gene: Nancia_22 Start: 19328, Stop: 19849, Start Num: 7
Candidate Starts for Nancia_22:
(Start: 7 @19328 has 29 MA's), (Start: 9 @19331 has 9 MA's), (11, 19358), (16, 19385), (19, 19418), (25, 19466), (31, 19547), (34, 19565), (35, 19574), (36, 19586), (37, 19715), (43, 19775), (46, 19820),

Gene: Nubia_26 Start: 20815, Stop: 21330, Start Num: 5
Candidate Starts for Nubia_26:
(Start: 5 @20815 has 5 MA's), (Start: 8 @20827 has 8 MA's), (13, 20869), (17, 20893), (19, 20917), (26, 20977), (31, 21046), (34, 21064), (35, 21073), (36, 21085), (37, 21205), (38, 21214), (43, 21265),

Gene: OMalley_22 Start: 19276, Stop: 19779, Start Num: 6
Candidate Starts for OMalley_22:
(Start: 6 @19276 has 33 MA's), (11, 19306), (19, 19366), (20, 19393), (23, 19405), (25, 19414), (28, 19477), (30, 19492), (31, 19495), (32, 19501), (33, 19504), (34, 19513), (35, 19522), (37, 19654), (39, 19687), (43, 19714), (45, 19747),

Gene: OurGirlNessie_22 Start: 19304, Stop: 19825, Start Num: 7
Candidate Starts for OurGirlNessie_22:
(Start: 7 @19304 has 29 MA's), (Start: 9 @19307 has 9 MA's), (11, 19334), (16, 19361), (19, 19394), (25, 19442), (31, 19523), (34, 19541), (35, 19550), (36, 19562), (37, 19691), (46, 19796),

Gene: Oxynfrius_26 Start: 20828, Stop: 21343, Start Num: 5
Candidate Starts for Oxynfrius_26:
(Start: 5 @20828 has 5 MA's), (Start: 8 @20840 has 8 MA's), (17, 20906), (19, 20930), (26, 20990), (31, 21059), (34, 21077), (35, 21086), (36, 21098), (37, 21218), (38, 21227), (43, 21278),

Gene: PartyCup_26 Start: 20932, Stop: 21432, Start Num: 7

Candidate Starts for PartyCup_26:
(Start: 7 @20932 has 29 MA's), (10, 20935), (11, 20959), (12, 20968), (19, 21019), (25, 21067), (27, 21121), (31, 21148), (34, 21166), (37, 21307), (45, 21400),

Gene: PinkFriday_22 Start: 19339, Stop: 19839, Start Num: 9
Candidate Starts for PinkFriday_22:
(Start: 9 @19339 has 9 MA's), (15, 19390), (17, 19402), (19, 19426), (20, 19453), (24, 19471), (28, 19537), (31, 19555), (34, 19573), (37, 19714), (43, 19774), (45, 19807),

Gene: PitaDog_22 Start: 19315, Stop: 19836, Start Num: 7
Candidate Starts for PitaDog_22:
(4, 19282), (Start: 7 @19315 has 29 MA's), (11, 19345), (16, 19372), (19, 19405), (25, 19453), (31, 19534), (34, 19552), (35, 19561), (36, 19573), (37, 19702), (43, 19762), (46, 19807),

Gene: Potatoes_26 Start: 20913, Stop: 21416, Start Num: 6
Candidate Starts for Potatoes_26:
(3, 20877), (Start: 5 @20904 has 5 MA's), (Start: 6 @20913 has 33 MA's), (11, 20943), (12, 20952), (19, 21003), (25, 21051), (31, 21132), (34, 21150), (36, 21171), (37, 21291), (43, 21351), (44, 21372), (45, 21384),

Gene: Preamble_22 Start: 19317, Stop: 19841, Start Num: 7
Candidate Starts for Preamble_22:
(Start: 7 @19317 has 29 MA's), (11, 19344), (19, 19404), (25, 19452), (27, 19506), (31, 19533), (34, 19551), (36, 19572), (37, 19701), (39, 19734), (40, 19746), (41, 19752),

Gene: Pterodactyl_22 Start: 19306, Stop: 19827, Start Num: 8
Candidate Starts for Pterodactyl_22:
(Start: 8 @19306 has 8 MA's), (Start: 9 @19309 has 9 MA's), (11, 19336), (16, 19363), (19, 19396), (25, 19444), (31, 19525), (34, 19543), (35, 19552), (36, 19564), (37, 19693), (43, 19753), (46, 19798),

Gene: Pumancara_22 Start: 19321, Stop: 19821, Start Num: 9
Candidate Starts for Pumancara_22:
(Start: 9 @19321 has 9 MA's), (15, 19372), (17, 19384), (19, 19408), (20, 19435), (24, 19453), (28, 19519), (31, 19537), (34, 19555), (37, 19696), (43, 19756), (45, 19789),

Gene: RAP15_26 Start: 20917, Stop: 21420, Start Num: 6
Candidate Starts for RAP15_26:
(1, 20806), (2, 20827), (Start: 5 @20908 has 5 MA's), (Start: 6 @20917 has 33 MA's), (11, 20947), (12, 20956), (18, 20992), (19, 21007), (25, 21055), (31, 21136), (34, 21154), (36, 21175), (43, 21355), (44, 21376), (45, 21388),

Gene: RcigaStruga_26 Start: 20875, Stop: 21378, Start Num: 8
Candidate Starts for RcigaStruga_26:
(Start: 5 @20863 has 5 MA's), (Start: 8 @20875 has 8 MA's), (13, 20917), (17, 20941), (19, 20965), (34, 21112), (35, 21121), (36, 21133), (37, 21253), (38, 21262), (43, 21313),

Gene: Riovina_22 Start: 19276, Stop: 19779, Start Num: 6
Candidate Starts for Riovina_22:
(Start: 6 @19276 has 33 MA's), (11, 19306), (19, 19366), (20, 19393), (23, 19405), (25, 19414), (28, 19477), (30, 19492), (31, 19495), (32, 19501), (33, 19504), (34, 19513), (35, 19522), (37, 19654), (39, 19687), (43, 19714), (45, 19747),

Gene: Riverdale_26 Start: 20847, Stop: 21350, Start Num: 6

Candidate Starts for Riverdale_26:
(1, 20736), (2, 20757), (Start: 5 @20838 has 5 MA's), (Start: 6 @20847 has 33 MA's), (11, 20877), (12, 20886), (19, 20937), (25, 20985), (31, 21066), (34, 21084), (36, 21105), (37, 21225), (43, 21285), (45, 21318),

Gene: Rozby_26 Start: 20848, Stop: 21351, Start Num: 6
Candidate Starts for Rozby_26:
(1, 20737), (2, 20758), (Start: 5 @20839 has 5 MA's), (Start: 6 @20848 has 33 MA's), (11, 20878), (12, 20887), (19, 20938), (25, 20986), (31, 21067), (34, 21085), (36, 21106), (37, 21226), (43, 21286), (45, 21319),

Gene: Savage2526_26 Start: 20911, Stop: 21414, Start Num: 6
Candidate Starts for Savage2526_26:
(1, 20800), (2, 20821), (Start: 5 @20902 has 5 MA's), (Start: 6 @20911 has 33 MA's), (11, 20941), (12, 20950), (18, 20986), (19, 21001), (25, 21049), (31, 21130), (34, 21148), (36, 21169), (43, 21349), (44, 21370), (45, 21382),

Gene: Scuttle_26 Start: 20916, Stop: 21419, Start Num: 6
Candidate Starts for Scuttle_26:
(1, 20805), (2, 20826), (Start: 5 @20907 has 5 MA's), (Start: 6 @20916 has 33 MA's), (11, 20946), (12, 20955), (18, 20991), (19, 21006), (25, 21054), (29, 21129), (31, 21135), (34, 21153), (36, 21174), (37, 21294), (43, 21354), (44, 21375), (45, 21387),

Gene: Sergei_22 Start: 19297, Stop: 19797, Start Num: 9
Candidate Starts for Sergei_22:
(Start: 9 @19297 has 9 MA's), (15, 19348), (19, 19384), (24, 19429), (25, 19432), (31, 19513), (34, 19531), (37, 19672), (45, 19765),

Gene: Supakev_22 Start: 19278, Stop: 19781, Start Num: 6
Candidate Starts for Supakev_22:
(Start: 6 @19278 has 33 MA's), (11, 19308), (19, 19368), (20, 19395), (23, 19407), (25, 19416), (28, 19479), (30, 19494), (31, 19497), (32, 19503), (33, 19506), (34, 19515), (35, 19524), (37, 19656), (39, 19689), (43, 19716), (45, 19749),

Gene: Suppi_26 Start: 20935, Stop: 21435, Start Num: 7
Candidate Starts for Suppi_26:
(Start: 7 @20935 has 29 MA's), (10, 20938), (11, 20962), (12, 20971), (19, 21022), (25, 21070), (27, 21124), (31, 21151), (34, 21169), (37, 21310), (45, 21403),

Gene: TattModd_26 Start: 20910, Stop: 21413, Start Num: 6
Candidate Starts for TattModd_26:
(1, 20799), (2, 20820), (Start: 5 @20901 has 5 MA's), (Start: 6 @20910 has 33 MA's), (11, 20940), (12, 20949), (19, 21000), (25, 21048), (31, 21129), (34, 21147), (36, 21168), (37, 21288), (43, 21348), (45, 21381),

Gene: Temper16_22 Start: 19297, Stop: 19797, Start Num: 9
Candidate Starts for Temper16_22:
(Start: 9 @19297 has 9 MA's), (15, 19348), (19, 19384), (24, 19429), (25, 19432), (31, 19513), (34, 19531), (37, 19672), (45, 19765),

Gene: Urla_22 Start: 19326, Stop: 19829, Start Num: 6
Candidate Starts for Urla_22:

(Start: 6 @19326 has 33 MA's), (14, 19371), (19, 19416), (31, 19545), (33, 19554), (34, 19563), (36, 19584), (42, 19758), (43, 19764), (45, 19797),

Gene: Vallejo_26 Start: 20849, Stop: 21352, Start Num: 6
Candidate Starts for Vallejo_26:
(1, 20738), (2, 20759), (Start: 5 @20840 has 5 MA's), (Start: 6 @20849 has 33 MA's), (11, 20879), (12, 20888), (19, 20939), (25, 20987), (31, 21068), (34, 21086), (36, 21107), (37, 21227), (43, 21287), (45, 21320),

Gene: Vulture_22 Start: 19276, Stop: 19779, Start Num: 6
Candidate Starts for Vulture_22:
(Start: 6 @19276 has 33 MA's), (11, 19306), (19, 19366), (20, 19393), (23, 19405), (25, 19414), (28, 19477), (30, 19492), (31, 19495), (32, 19501), (33, 19504), (34, 19513), (35, 19522), (37, 19654), (39, 19687), (43, 19714), (45, 19747),

Gene: Wawa_26 Start: 20886, Stop: 21389, Start Num: 6
Candidate Starts for Wawa_26:
(1, 20775), (2, 20796), (Start: 5 @20877 has 5 MA's), (Start: 6 @20886 has 33 MA's), (11, 20916), (12, 20925), (19, 20976), (25, 21024), (31, 21105), (34, 21123), (36, 21144), (37, 21264), (43, 21324), (45, 21357),

Gene: Wayne_26 Start: 20981, Stop: 21481, Start Num: 7
Candidate Starts for Wayne_26:
(Start: 7 @20981 has 29 MA's), (11, 21008), (12, 21017), (19, 21068), (25, 21116), (27, 21170), (31, 21197), (34, 21215), (37, 21356), (45, 21449),

Gene: WonderBoy_22 Start: 19305, Stop: 19826, Start Num: 7
Candidate Starts for WonderBoy_22:
(Start: 7 @19305 has 29 MA's), (Start: 9 @19308 has 9 MA's), (16, 19362), (19, 19395), (25, 19443), (31, 19524), (34, 19542), (35, 19551), (36, 19563), (37, 19692), (43, 19752), (46, 19797),

Gene: Zorro_26 Start: 20865, Stop: 21368, Start Num: 6
Candidate Starts for Zorro_26:
(1, 20754), (2, 20775), (Start: 5 @20856 has 5 MA's), (Start: 6 @20865 has 33 MA's), (11, 20895), (12, 20904), (17, 20931), (19, 20955), (25, 21003), (31, 21084), (34, 21102), (36, 21123), (37, 21243), (43, 21303), (45, 21336),