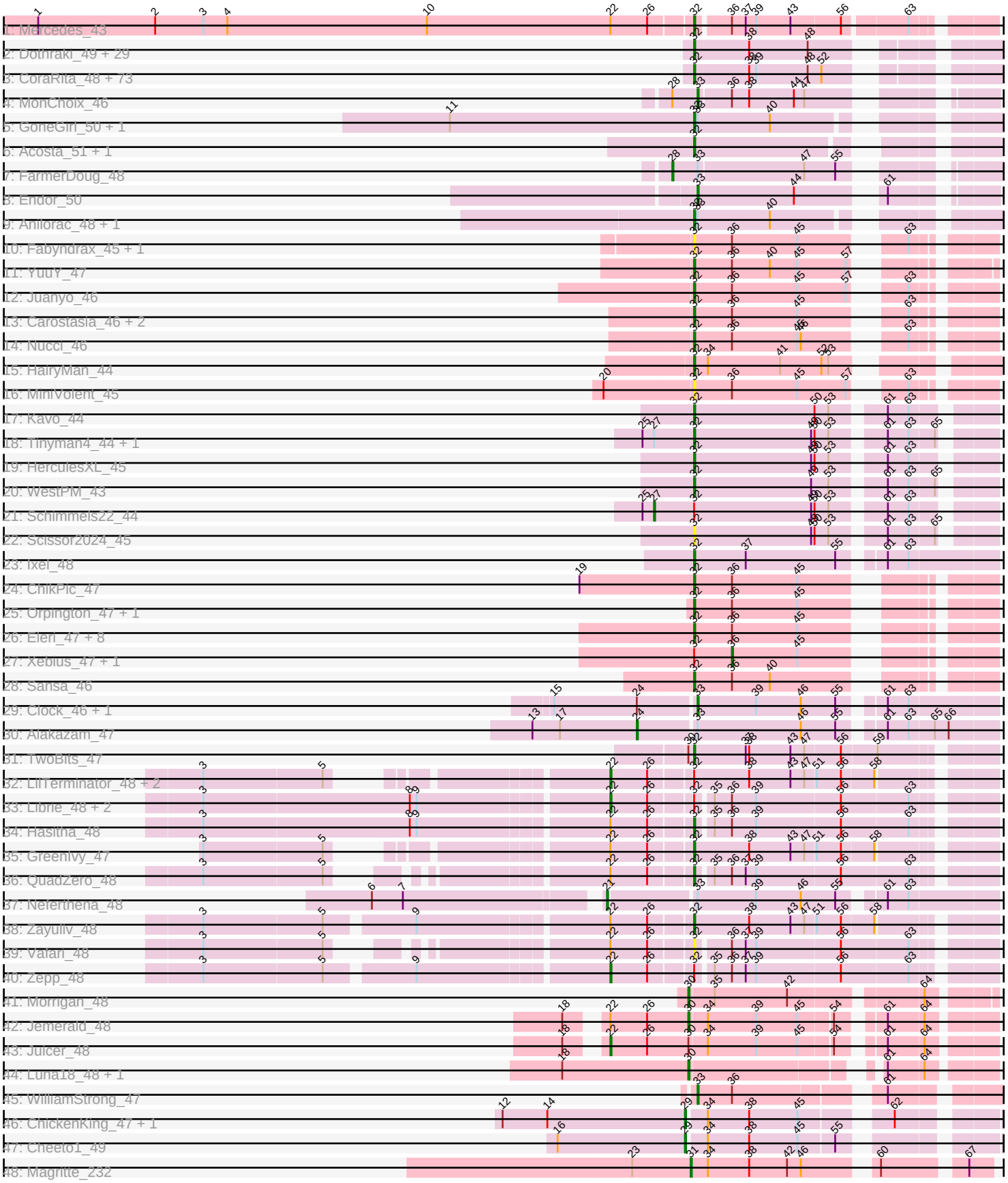
Pham 334475


1: Marcedes_43
2: Dothraki_49 + 29
3: CoraRita_48 + 73
4: MonChoix_46
5: GoneGirl_50 + 1
6: Acosta_51 + 1
7: FarmerDoug_48
8: Endor_50
9: Anilorac_48 + 1
10: Fabyndrax_45 + 1
11: YuuY_47
12: Juanyo_46
13: Carostasia_46 + 2
14: Nucci_46
15: HairyMan_44
16: MiniViolent_45
17: Kavo_44
18: Tinyman4_44 + 1
19: HerculesXL_45
20: WestPM_43
21: Schimmels22_44
22: Scissor2024_45
23: Ixel_48
24: ChikPic_47
25: Orpington_47 + 1
26: Eleri_47 + 8
27: Xeblus_47 + 1
28: Sansa_46
29: Clock_46 + 1
30: Alakazam_47
31: TwoBits_47
32: LilTerminator_48 + 2
33: Librie_48 + 2
34: Hasitha_48
35: GreenIvy_47
36: QuadZero_48
37: Neferthena_48
38: Zayuliv_48
39: Vafari_48
40: Zepp_48
41: Morrigan_48
42: Jemerald_48
43: Juicer_48
44: Luna18_48 + 1
45: WilliamStrong_47
46: ChickenKing_47 + 1
47: Cheeto1_49
48: Magritte_232

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 334475 Report

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

Pham number 334475 has 174 members, 9 are drafts.

Phages represented in each track:
• Track 1 : Mercedes_43
• Track 2 : Dothraki_49, AlexAdler_49, NickSell_49, Martin_50, Bandik_49, TatarkaPM_49, SoilGremlin_50, Renzie_49, Riyhil_49, BeautPeep30_49, Inventa_49, Phireproof_49, Dave_49, Rapheph_49, Robinson_49, Kurt1_49, Superfresh_49, MillyPhilly_49, ParleG_49, Phiderman_49, Antoinette_49, Byron23_50, Peep_49, Phriends_49, Pherferi_49, OldNelly_50, Shee_49, PhredFlintston_49, MaeLinda_49, TinSulphur_50
• Track 3 : CoraRita_48, Erla_48, StingRay_48, BonesMcCoy_49, Raptor_49, Kouch_49, Aubergine_48, Garey24_49, HankSprout_49, Greys_49, Kale_48, BigRedClifford_49, Thorongil_49, TeddyBear_48, Papafritta_48, StirfryIV_48, Winzigespinne_48, ManRay_48, Duocatuli_48, Ioannes_49, SJay_49, Vispistious_49, Benjalauren_49, Klimt_49, Espinosa_48, Convict_49, Baines_48, Bonino_48, AranulaLuti_48, Ludgate_49, Exploradora_48, Pocket_48, Chamuel_48, Nattles_48, Blage_49, HanSolo_48, SonOfLevi_49, Asta_48, WildNOut_49, Rog141_48, Alyxandracam_49, Ilzat_48, Gershwin_48, KannH_48, Clancy_48, Thompsone_49, Velene_49, JeriBeth_48, Symere_48, HungryHenry_48, Chako_48, Teagan_49, Calix_48, Gargoyle_49, Knox_49, Christoph_48, RosieMae_48, Sedgewig_48, Etta_48, Gelo_48, Nagem_49, PuppyEggo_49, Zada_50, Janus167_48, GoingMerry_49, Oats_48, Lovelyunicorn_49, Strathdee_49, AxiPup_49, Tenda_48, ShaiHulud_49, Den3_49, Gubbabump_48, Oxtober96_50
• Track 4 : MonChoix_46
• Track 5 : GoneGirl_50, GardenB_49
• Track 6 : Acosta_51, HavenFinLeoSun_51
• Track 7 : FarmerDoug_48
• Track 8 : Endor_50
• Track 9 : Anilorac_48, Agente005_49
• Track 10 : Fabyndrax_45, Cidela_45
• Track 11 : YuuY_47
• Track 12 : Juanyo_46
• Track 13 : Carostasia_46, Quartz_47, Mandalorian_46
• Track 14 : Nucci_46
• Track 15 : HairyMan_44
• Track 16 : MiniVolent_45
• Track 17 : Kavo_44
• Track 18 : Tinyman4_44, Penta_43
• Track 19 : HerculesXL_45
• Track 20 : WestPM_43

• Track 21 : Schimmels22_44
• Track 22 : Scissor2024_45
• Track 23 : Ixel_48
• Track 24 : ChikPic_47
• Track 25 : Orpington_47, Shamu_48
• Track 26 : Eleri_47, ColaCorta_47, Glamour_47, Phanita_48, Andromedas_47, MCubed_47, PSirce_47, Zenitsu_47, Saratos_47
• Track 27 : Xebius_47, Finny_48
• Track 28 : Sansa_46
• Track 29 : Clock_46, Nebulous_45
• Track 30 : Alakazam_47
• Track 31 : TwoBits_47
• Track 32 : LilTerminator_48, BaronJohn_49, Wardwill_50
• Track 33 : Librie_48, Fulton_48, CaptainRex_48
• Track 34 : Hasitha_48
• Track 35 : GreenIvy_47
• Track 36 : QuadZero_48
• Track 37 : Neferthena_48
• Track 38 : Zayuliv_48
• Track 39 : Vafari_48
• Track 40 : Zepp_48
• Track 41 : Morrigan_48
• Track 42 : Jemerald_48
• Track 43 : Juicer_48
• Track 44 : Luna18_48, Chepli_48
• Track 45 : WilliamStrong_47
• Track 46 : ChickenKing_47, GaeCeo_49
• Track 47 : Cheeto1_49
• Track 48 : Magritte_232

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

The start number called the most often in the published annotations is 32, it was called in 139 of the 165 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Acosta_51, Agente005_49, AlexAdler_49, Alyxandracam_49, Andromedas_47, Anilorac_48, Antoinette_49, AranulaLuti_48, Asta_48, Aubergine_48, AxiPup_49, Baines_48, Bandik_49, BeautPeep30_49, Benjalauren_49, BigRedClifford_49, Blage_49, BonesMcCoy_49, Bonino_48, Byron23_50, Calix_48, Carostasia_46, Chako_48, Chamuel_48, ChikPic_47, Christoph_48, Cidela_45, Clancy_48, ColaCorta_47, Convict_49, CoraRita_48, Dave_49, Den3_49, Dothraki_49, Duocatuli_48, Eleri_47, Erla_48, Espinosa_48, Etta_48, Exploradora_48, Fabyndrax_45, GardenB_49, Garey24_49, Gargoyle_49, Gelo_48, Gershwin_48, Glamour_47, GoingMerry_49, GoneGirl_50, GreenIvy_47, Greys_49, Gubbabump_48, HairyMan_44, HanSolo_48, HankSprout_49, Hasitha_48, HavenFinLeoSun_51, HerculesXL_45, HungryHenry_48, Ilzat_48, Inventa_49, Ioannes_49, Ixel_48, Janus167_48, JeriBeth_48, Juanyo_46, Kale_48, KannH_48, Kavo_44, Klimt_49, Knox_49, Kouch_49, Kurt1_49, Lovelyunicorn_49, Ludgate_49, MCubed_47, MaeLinda_49, ManRay_48, Mandalorian_46, Martin_50, Mercedes_43,

MillyPhilly_49, MiniVolent_45, Nagem_49, Nattles_48, NickSell_49, Nucci_46, Oats_48, OldNelly_50, Orpington_47, Oxtober96_50, PSirce_47, Papafritta_48, ParleG_49, Peep_49, Penta_43, Phanita_48, Pherferi_49, Phiderman_49, Phireproof_49, PhredFlintston_49, Phriends_49, Pocket_48, PuppyEggo_49, QuadZero_48, Quartz_47, Rapheph_49, Raptor_49, Renzie_49, Riyhil_49, Robinson_49, Rog141_48, RosieMae_48, SJay_49, Sansa_46, Saratos_47, Scissor2024_45, Sedgewig_48, ShaiHulud_49, Shamu_48, Shee_49, SoilGremlin_50, SonOfLevi_49, StingRay_48, StirfryIV_48, Strathdee_49, Superfresh_49, Symere_48, TatarkaPM_49, Teagan_49, TeddyBear_48, Tenda_48, Thompsone_49, Thorongil_49, TinSulphur_50, Tinyman4_44, TwoBits_47, Vafari_48, Velene_49, Vispistious_49, WestPM_43, WildNOut_49, Winzigespinne_48, YuuY_47, Zada_50, Zayuliv_48, Zenitsu_47,

Genes that have the "Most Annotated" start but do not call it:
• BaronJohn_49, CaptainRex_48, Finny_48, Fulton_48, Librie_48, LilTerminator_48, Schimmels22_44, Wardwill_50, Xebius_47, Zepp_48,

Genes that do not have the "Most Annotated" start:
• Alakazam_47, Cheeto1_49, Chepli_48, ChickenKing_47, Clock_46, Endor_50, FarmerDoug_48, GaeCeo_49, Jemerald_48, Juicer_48, Luna18_48, Magritte_232, MonChoix_46, Morrigan_48, Nebulous_45, Neferthena_48, WilliamStrong_47,

Summary by start number:

Start 21:
• Found in 1 of 174 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 165
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Neferthena_48 (EA5),

Start 22:
• Found in 15 of 174 (8.6%) of genes in pham
• Manual Annotations of this start: 8 of 165
• Called 53.3% of time when present
• Phage (with cluster) where this start called: BaronJohn_49 (EA5), CaptainRex_48 (EA5), Fulton_48 (EA5), Juicer_48 (EA6), Librie_48 (EA5), LilTerminator_48 (EA5), Wardwill_50 (EA5), Zepp_48 (EA5),

Start 24:
• Found in 3 of 174 (1.7%) of genes in pham
• Manual Annotations of this start: 1 of 165
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Alakazam_47 (EA5),

Start 27:
• Found in 3 of 174 (1.7%) of genes in pham
• Manual Annotations of this start: 1 of 165
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Schimmels22_44 (EA11),

Start 28:
• Found in 2 of 174 (1.1%) of genes in pham
• Manual Annotations of this start: 1 of 165

• Called 50.0% of time when present
• Phage (with cluster) where this start called: FarmerDoug_48 (EA1),

Start 29:
• Found in 3 of 174 (1.7%) of genes in pham
• Manual Annotations of this start: 3 of 165
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Cheeto1_49 (EA9), ChickenKing_47 (EA9), GaeCeo_49 (EA9),

Start 30:
• Found in 6 of 174 (3.4%) of genes in pham
• Manual Annotations of this start: 4 of 165
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Chepli_48 (EA6), Jemerald_48 (EA6), Luna18_48 (EA6), Morrigan_48 (EA6),

Start 31:
• Found in 1 of 174 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 165
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Magritte_232 (singleton),

Start 32:
• Found in 157 of 174 (90.2%) of genes in pham
• Manual Annotations of this start: 139 of 165
• Called 93.6% of time when present
• Phage (with cluster) where this start called: Acosta_51 (EA1), Agente005_49 (EA1), AlexAdler_49 (EA1), Alyxandracam_49 (EA1), Andromedas_47 (EA2), Anilorac_48 (EA1), Antoinette_49 (EA1), AranulaLuti_48 (EA1), Asta_48 (EA1), Aubergine_48 (EA1), AxiPup_49 (EA1), Baines_48 (EA1), Bandik_49 (EA1), BeautPeep30_49 (EA1), Benjalauren_49 (EA1), BigRedClifford_49 (EA1), Blage_49 (EA1), BonesMcCoy_49 (EA1), Bonino_48 (EA1), Byron23_50 (EA1), Calix_48 (EA1), Carostasia_46 (EA10), Chako_48 (EA1), Chamuel_48 (EA1), ChikPic_47 (EA2), Christoph_48 (EA1), Cidela_45 (EA10), Clancy_48 (EA1), ColaCorta_47 (EA2), Convict_49 (EA1), CoraRita_48 (EA1), Dave_49 (EA1), Den3_49 (EA1), Dothraki_49 (EA1), Duocatuli_48 (EA1), Eleri_47 (EA2), Erla_48 (EA1), Espinosa_48 (EA1), Etta_48 (EA1), Exploradora_48 (EA1), Fabyndrax_45 (EA10), GardenB_49 (EA1), Garey24_49 (EA1), Gargoyle_49 (EA1), Gelo_48 (EA1), Gershwin_48 (EA1), Glamour_47 (EA2), GoingMerry_49 (EA1), GoneGirl_50 (EA1), GreenIvy_47 (EA5), Greys_49 (EA1), Gubbabump_48 (EA1), HairyMan_44 (EA10), HanSolo_48 (EA1), HankSprout_49 (EA1), Hasitha_48 (EA5), HavenFinLeoSun_51 (EA1), HerculesXL_45 (EA11), HungryHenry_48 (EA1), Ilzat_48 (EA1), Inventa_49 (EA1), Ioannes_49 (EA1), Ixel_48 (EA11), Janus167_48 (EA1), JeriBeth_48 (EA1), Juanyo_46 (EA10), Kale_48 (EA1), KannH_48 (EA1), Kavo_44 (EA11), Klimt_49 (EA1), Knox_49 (EA1), Kouch_49 (EA1), Kurt1_49 (EA1), Lovelyunicorn_49 (EA1), Ludgate_49 (EA1), MCubed_47 (EA2), MaeLinda_49 (EA1), ManRay_48 (EA1), Mandalorian_46 (EA10), Martin_50 (EA1), Mercedes_43 (EA), MillyPhilly_49 (EA1), MiniVolent_45 (EA10), Nagem_49 (EA1), Nattles_48 (EA1), NickSell_49 (EA1), Nucci_46 (EA10), Oats_48 (EA1), OldNelly_50 (EA1), Orpington_47 (EA2), Oxtober96_50 (EA1), PSirce_47 (EA2), Papafritta_48 (EA1), ParleG_49 (EA1), Peep_49 (EA1), Penta_43 (EA11), Phanita_48 (EA2), Pherferi_49 (EA1), Phiderman_49 (EA1), Phireproof_49 (EA1), PhredFlintston_49 (EA1), Phriends_49

(EA1), Pocket_48 (EA1), PuppyEggo_49 (EA1), QuadZero_48 (EA5), Quartz_47 (EA10), Rapheph_49 (EA1), Raptor_49 (EA1), Renzie_49 (EA1), Riyhil_49 (EA1), Robinson_49 (EA1), Rog141_48 (EA1), RosieMae_48 (EA1), SJay_49 (EA1), Sansa_46 (EA2), Saratos_47 (EA2), Scissor2024_45 (EA11), Sedgewig_48 (EA1), ShaiHulud_49 (EA1), Shamu_48 (EA2), Shee_49 (EA1), SoilGremlin_50 (EA1), SonOfLevi_49 (EA1), StingRay_48 (EA1), StirfryIV_48 (EA1), Strathdee_49 (EA1), Superfresh_49 (EA1), Symere_48 (EA1), TatarkaPM_49 (EA1), Teagan_49 (EA1), TeddyBear_48 (EA1), Tenda_48 (EA1), Thompsone_49 (EA1), Thorongil_49 (EA1), TinSulphur_50 (EA1), Tinyman4_44 (EA11), TwoBits_47 (EA5), Vafari_48 (EA5), Velene_49 (EA1), Vispistious_49 (EA1), WestPM_43 (EA11), WildNOut_49 (EA1), Winzigespinne_48 (EA1), YuuY_47 (EA10), Zada_50 (EA1), Zayuliv_48 (EA5), Zenitsu_47 (EA2),

Start 33:
• Found in 12 of 174 (6.9%) of genes in pham
• Manual Annotations of this start: 5 of 165
• Called 41.7% of time when present
• Phage (with cluster) where this start called: Clock_46 (EA5), Endor_50 (EA1), MonChoix_46 (EA1), Nebulous_45 (EA5), WilliamStrong_47 (EA6),

Start 36:
• Found in 34 of 174 (19.5%) of genes in pham
• Manual Annotations of this start: 1 of 165
• Called 5.9% of time when present
• Phage (with cluster) where this start called: Finny_48 (EA2), Xebius_47 (EA2),

Summary by clusters:

There are 9 clusters represented in this pham: singleton, EA11, EA10, EA, EA9, EA1, EA2, EA5, EA6,

Info for manual annotations of cluster EA:
•Start number 32 was manually annotated 1 time for cluster EA.

Info for manual annotations of cluster EA1:
•Start number 28 was manually annotated 1 time for cluster EA1.
•Start number 32 was manually annotated 108 times for cluster EA1.
•Start number 33 was manually annotated 2 times for cluster EA1.

Info for manual annotations of cluster EA10:
•Start number 32 was manually annotated 7 times for cluster EA10.

Info for manual annotations of cluster EA11:
•Start number 27 was manually annotated 1 time for cluster EA11.
•Start number 32 was manually annotated 5 times for cluster EA11.

Info for manual annotations of cluster EA2:
•Start number 32 was manually annotated 13 times for cluster EA2.
•Start number 36 was manually annotated 1 time for cluster EA2.

Info for manual annotations of cluster EA5:
•Start number 21 was manually annotated 1 time for cluster EA5.
•Start number 22 was manually annotated 7 times for cluster EA5.

•Start number 24 was manually annotated 1 time for cluster EA5.
•Start number 32 was manually annotated 5 times for cluster EA5.
•Start number 33 was manually annotated 2 times for cluster EA5.

Info for manual annotations of cluster EA6:
•Start number 22 was manually annotated 1 time for cluster EA6.
•Start number 30 was manually annotated 4 times for cluster EA6.
•Start number 33 was manually annotated 1 time for cluster EA6.

Info for manual annotations of cluster EA9:
•Start number 29 was manually annotated 3 times for cluster EA9.

Gene Information:

Gene: Acosta_51 Start: 35700, Stop: 35482, Start Num: 32
Candidate Starts for Acosta_51:
(Start: 32 @35700 has 139 MA's),

Gene: Agente005_49 Start: 35521, Stop: 35294, Start Num: 32
Candidate Starts for Agente005_49:
(Start: 32 @35521 has 139 MA's), (Start: 33 @35518 has 5 MA's), (40, 35455),

Gene: Alakazam_47 Start: 35003, Stop: 34707, Start Num: 24
Candidate Starts for Alakazam_47:
(13, 35093), (17, 35069), (Start: 24 @35003 has 1 MA's), (Start: 33 @34955 has 5 MA's), (46, 34865), (55, 34835), (61, 34805), (63, 34787), (65, 34766), (66, 34754),

Gene: AlexAdler_49 Start: 35534, Stop: 35301, Start Num: 32
Candidate Starts for AlexAdler_49:
(Start: 32 @35534 has 139 MA's), (38, 35486), (48, 35435),

Gene: Alyxandracam_49 Start: 35544, Stop: 35311, Start Num: 32
Candidate Starts for Alyxandracam_49:
(Start: 32 @35544 has 139 MA's), (38, 35496), (39, 35490), (48, 35445), (52, 35433),

Gene: Andromedas_47 Start: 34462, Stop: 34241, Start Num: 32
Candidate Starts for Andromedas_47:
(Start: 32 @34462 has 139 MA's), (Start: 36 @34429 has 1 MA's), (45, 34372),

Gene: Anilorac_48 Start: 35463, Stop: 35236, Start Num: 32
Candidate Starts for Anilorac_48:
(Start: 32 @35463 has 139 MA's), (Start: 33 @35460 has 5 MA's), (40, 35397),

Gene: Antoinette_49 Start: 35534, Stop: 35301, Start Num: 32
Candidate Starts for Antoinette_49:
(Start: 32 @35534 has 139 MA's), (38, 35486), (48, 35435),

Gene: AranulaLuti_48 Start: 35246, Stop: 35013, Start Num: 32
Candidate Starts for AranulaLuti_48:
(Start: 32 @35246 has 139 MA's), (38, 35198), (39, 35192), (48, 35147), (52, 35135),

Gene: Asta_48 Start: 35256, Stop: 35023, Start Num: 32
Candidate Starts for Asta_48:
(Start: 32 @35256 has 139 MA's), (38, 35208), (39, 35202), (48, 35157), (52, 35145),

Gene: Aubergine_48 Start: 35256, Stop: 35023, Start Num: 32
Candidate Starts for Aubergine_48:
(Start: 32 @35256 has 139 MA's), (38, 35208), (39, 35202), (48, 35157), (52, 35145),

Gene: AxiPup_49 Start: 35513, Stop: 35280, Start Num: 32
Candidate Starts for AxiPup_49:
(Start: 32 @35513 has 139 MA's), (38, 35465), (39, 35459), (48, 35414), (52, 35402),

Gene: Baines_48 Start: 35249, Stop: 35016, Start Num: 32
Candidate Starts for Baines_48:
(Start: 32 @35249 has 139 MA's), (38, 35201), (39, 35195), (48, 35150), (52, 35138),

Gene: Bandik_49 Start: 35539, Stop: 35306, Start Num: 32
Candidate Starts for Bandik_49:
(Start: 32 @35539 has 139 MA's), (38, 35491), (48, 35440),

Gene: BaronJohn_49 Start: 34764, Stop: 34456, Start Num: 22
Candidate Starts for BaronJohn_49:
(3, 35043), (5, 34941), (Start: 22 @34764 has 8 MA's), (26, 34734), (Start: 32 @34701 has 139 MA's), (38, 34653), (43, 34617), (47, 34605), (51, 34596), (56, 34575), (58, 34548),

Gene: BeautPeep30_49 Start: 35545, Stop: 35312, Start Num: 32
Candidate Starts for BeautPeep30_49:
(Start: 32 @35545 has 139 MA's), (38, 35497), (48, 35446),

Gene: Benjalauren_49 Start: 35262, Stop: 35029, Start Num: 32
Candidate Starts for Benjalauren_49:
(Start: 32 @35262 has 139 MA's), (38, 35214), (39, 35208), (48, 35163), (52, 35151),

Gene: BigRedClifford_49 Start: 35540, Stop: 35307, Start Num: 32
Candidate Starts for BigRedClifford_49:
(Start: 32 @35540 has 139 MA's), (38, 35492), (39, 35486), (48, 35441), (52, 35429),

Gene: Blage_49 Start: 35540, Stop: 35307, Start Num: 32
Candidate Starts for Blage_49:
(Start: 32 @35540 has 139 MA's), (38, 35492), (39, 35486), (48, 35441), (52, 35429),

Gene: BonesMcCoy_49 Start: 35540, Stop: 35307, Start Num: 32
Candidate Starts for BonesMcCoy_49:
(Start: 32 @35540 has 139 MA's), (38, 35492), (39, 35486), (48, 35441), (52, 35429),

Gene: Bonino_48 Start: 35235, Stop: 35002, Start Num: 32
Candidate Starts for Bonino_48:
(Start: 32 @35235 has 139 MA's), (38, 35187), (39, 35181), (48, 35136), (52, 35124),

Gene: Byron23_50 Start: 35542, Stop: 35309, Start Num: 32
Candidate Starts for Byron23_50:
(Start: 32 @35542 has 139 MA's), (38, 35494), (48, 35443),

Gene: Calix_48 Start: 35242, Stop: 35009, Start Num: 32
Candidate Starts for Calix_48:
(Start: 32 @35242 has 139 MA's), (38, 35194), (39, 35188), (48, 35143), (52, 35131),

Gene: CaptainRex_48 Start: 33994, Stop: 33689, Start Num: 22
Candidate Starts for CaptainRex_48:
(3, 34333), (8, 34156), (9, 34150), (Start: 22 @33994 has 8 MA's), (26, 33964), (Start: 32 @33931 has 139 MA's), (35, 33919), (Start: 36 @33904 has 1 MA's), (39, 33883), (56, 33811), (63, 33754),

Gene: Carostasia_46 Start: 34024, Stop: 33800, Start Num: 32
Candidate Starts for Carostasia_46:
(Start: 32 @34024 has 139 MA's), (Start: 36 @33991 has 1 MA's), (45, 33934), (63, 33865),

Gene: Chako_48 Start: 35246, Stop: 35013, Start Num: 32
Candidate Starts for Chako_48:
(Start: 32 @35246 has 139 MA's), (38, 35198), (39, 35192), (48, 35147), (52, 35135),

Gene: Chamuel_48 Start: 35268, Stop: 35035, Start Num: 32
Candidate Starts for Chamuel_48:
(Start: 32 @35268 has 139 MA's), (38, 35220), (39, 35214), (48, 35169), (52, 35157),

Gene: Cheeto1_49 Start: 35008, Stop: 34778, Start Num: 29
Candidate Starts for Cheeto1_49:
(16, 35119), (Start: 29 @35008 has 3 MA's), (34, 34993), (38, 34957), (45, 34915), (55, 34885),

Gene: Chepli_48 Start: 33829, Stop: 33602, Start Num: 30
Candidate Starts for Chepli_48:
(18, 33937), (Start: 30 @33829 has 4 MA's), (61, 33691), (64, 33661),

Gene: ChickenKing_47 Start: 34901, Stop: 34671, Start Num: 29
Candidate Starts for ChickenKing_47:
(12, 35060), (14, 35021), (Start: 29 @34901 has 3 MA's), (34, 34886), (38, 34850), (45, 34808), (62, 34745),

Gene: ChikPic_47 Start: 34316, Stop: 34095, Start Num: 32
Candidate Starts for ChikPic_47:
(19, 34415), (Start: 32 @34316 has 139 MA's), (Start: 36 @34283 has 1 MA's), (45, 34226),

Gene: Christoph_48 Start: 35255, Stop: 35022, Start Num: 32
Candidate Starts for Christoph_48:
(Start: 32 @35255 has 139 MA's), (38, 35207), (39, 35201), (48, 35156), (52, 35144),

Gene: Cidela_45 Start: 35048, Stop: 34824, Start Num: 32
Candidate Starts for Cidela_45:
(Start: 32 @35048 has 139 MA's), (Start: 36 @35015 has 1 MA's), (45, 34958), (63, 34889),

Gene: Clancy_48 Start: 35291, Stop: 35058, Start Num: 32
Candidate Starts for Clancy_48:
(Start: 32 @35291 has 139 MA's), (38, 35243), (39, 35237), (48, 35192), (52, 35180),

Gene: Clock_46 Start: 35691, Stop: 35443, Start Num: 33
Candidate Starts for Clock_46:

(15, 35811), (Start: 24 @35739 has 1 MA's), (Start: 33 @35691 has 5 MA's), (39, 35640), (46, 35601), (55, 35571), (61, 35541), (63, 35523),

Gene: ColaCorta_47 Start: 34462, Stop: 34241, Start Num: 32
Candidate Starts for ColaCorta_47:
(Start: 32 @34462 has 139 MA's), (Start: 36 @34429 has 1 MA's), (45, 34372),

Gene: Convict_49 Start: 35540, Stop: 35307, Start Num: 32
Candidate Starts for Convict_49:
(Start: 32 @35540 has 139 MA's), (38, 35492), (39, 35486), (48, 35441), (52, 35429),

Gene: CoraRita_48 Start: 35261, Stop: 35028, Start Num: 32
Candidate Starts for CoraRita_48:
(Start: 32 @35261 has 139 MA's), (38, 35213), (39, 35207), (48, 35162), (52, 35150),

Gene: Dave_49 Start: 35534, Stop: 35301, Start Num: 32
Candidate Starts for Dave_49:
(Start: 32 @35534 has 139 MA's), (38, 35486), (48, 35435),

Gene: Den3_49 Start: 35545, Stop: 35312, Start Num: 32
Candidate Starts for Den3_49:
(Start: 32 @35545 has 139 MA's), (38, 35497), (39, 35491), (48, 35446), (52, 35434),

Gene: Dothraki_49 Start: 35542, Stop: 35309, Start Num: 32
Candidate Starts for Dothraki_49:
(Start: 32 @35542 has 139 MA's), (38, 35494), (48, 35443),

Gene: Duocatuli_48 Start: 35246, Stop: 35013, Start Num: 32
Candidate Starts for Duocatuli_48:
(Start: 32 @35246 has 139 MA's), (38, 35198), (39, 35192), (48, 35147), (52, 35135),

Gene: Eleri_47 Start: 34306, Stop: 34085, Start Num: 32
Candidate Starts for Eleri_47:
(Start: 32 @34306 has 139 MA's), (Start: 36 @34273 has 1 MA's), (45, 34216),

Gene: Endor_50 Start: 35728, Stop: 35504, Start Num: 33
Candidate Starts for Endor_50:
(Start: 33 @35728 has 5 MA's), (44, 35644), (61, 35587),

Gene: Erla_48 Start: 35239, Stop: 35006, Start Num: 32
Candidate Starts for Erla_48:
(Start: 32 @35239 has 139 MA's), (38, 35191), (39, 35185), (48, 35140), (52, 35128),

Gene: Espinosa_48 Start: 35254, Stop: 35021, Start Num: 32
Candidate Starts for Espinosa_48:
(Start: 32 @35254 has 139 MA's), (38, 35206), (39, 35200), (48, 35155), (52, 35143),

Gene: Etta_48 Start: 35243, Stop: 35010, Start Num: 32
Candidate Starts for Etta_48:
(Start: 32 @35243 has 139 MA's), (38, 35195), (39, 35189), (48, 35144), (52, 35132),

Gene: Exploradora_48 Start: 35246, Stop: 35013, Start Num: 32
Candidate Starts for Exploradora_48:

(Start: 32 @35246 has 139 MA's), (38, 35198), (39, 35192), (48, 35147), (52, 35135),

Gene: Fabyndrax_45 Start: 35060, Stop: 34836, Start Num: 32
Candidate Starts for Fabyndrax_45:
(Start: 32 @35060 has 139 MA's), (Start: 36 @35027 has 1 MA's), (45, 34970), (63, 34901),

Gene: FarmerDoug_48 Start: 35255, Stop: 35010, Start Num: 28
Candidate Starts for FarmerDoug_48:
(Start: 28 @35255 has 1 MA's), (Start: 33 @35234 has 5 MA's), (47, 35144), (55, 35117),

Gene: Finny_48 Start: 34267, Stop: 34079, Start Num: 36
Candidate Starts for Finny_48:
(Start: 32 @34300 has 139 MA's), (Start: 36 @34267 has 1 MA's), (45, 34210),

Gene: Fulton_48 Start: 33995, Stop: 33690, Start Num: 22
Candidate Starts for Fulton_48:
(3, 34334), (8, 34157), (9, 34151), (Start: 22 @33995 has 8 MA's), (26, 33965), (Start: 32 @33932 has 139 MA's), (35, 33920), (Start: 36 @33905 has 1 MA's), (39, 33884), (56, 33812), (63, 33755),

Gene: GaeCeo_49 Start: 35134, Stop: 34904, Start Num: 29
Candidate Starts for GaeCeo_49:
(12, 35293), (14, 35254), (Start: 29 @35134 has 3 MA's), (34, 35119), (38, 35083), (45, 35041), (62, 34978),

Gene: GardenB_49 Start: 35493, Stop: 35266, Start Num: 32
Candidate Starts for GardenB_49:
(11, 35706), (Start: 32 @35493 has 139 MA's), (Start: 33 @35490 has 5 MA's), (40, 35427),

Gene: Garey24_49 Start: 35222, Stop: 34989, Start Num: 32
Candidate Starts for Garey24_49:
(Start: 32 @35222 has 139 MA's), (38, 35174), (39, 35168), (48, 35123), (52, 35111),

Gene: Gargoyle_49 Start: 35545, Stop: 35312, Start Num: 32
Candidate Starts for Gargoyle_49:
(Start: 32 @35545 has 139 MA's), (38, 35497), (39, 35491), (48, 35446), (52, 35434),

Gene: Gelo_48 Start: 35249, Stop: 35016, Start Num: 32
Candidate Starts for Gelo_48:
(Start: 32 @35249 has 139 MA's), (38, 35201), (39, 35195), (48, 35150), (52, 35138),

Gene: Gershwin_48 Start: 35256, Stop: 35023, Start Num: 32
Candidate Starts for Gershwin_48:
(Start: 32 @35256 has 139 MA's), (38, 35208), (39, 35202), (48, 35157), (52, 35145),

Gene: Glamour_47 Start: 34454, Stop: 34233, Start Num: 32
Candidate Starts for Glamour_47:
(Start: 32 @34454 has 139 MA's), (Start: 36 @34421 has 1 MA's), (45, 34364),

Gene: GoingMerry_49 Start: 35523, Stop: 35290, Start Num: 32
Candidate Starts for GoingMerry_49:
(Start: 32 @35523 has 139 MA's), (38, 35475), (39, 35469), (48, 35424), (52, 35412),

Gene: GoneGirl_50 Start: 35486, Stop: 35259, Start Num: 32

Candidate Starts for GoneGirl_50:
(11, 35699), (Start: 32 @35486 has 139 MA's), (Start: 33 @35483 has 5 MA's), (40, 35420),

Gene: GreenIvy_47 Start: 34290, Stop: 34045, Start Num: 32
Candidate Starts for GreenIvy_47:
(3, 34632), (5, 34530), (Start: 22 @34353 has 8 MA's), (26, 34323), (Start: 32 @34290 has 139 MA's), (38, 34242), (43, 34206), (47, 34194), (51, 34185), (56, 34164), (58, 34137),

Gene: Greys_49 Start: 35541, Stop: 35308, Start Num: 32
Candidate Starts for Greys_49:
(Start: 32 @35541 has 139 MA's), (38, 35493), (39, 35487), (48, 35442), (52, 35430),

Gene: Gubbabump_48 Start: 35236, Stop: 35003, Start Num: 32
Candidate Starts for Gubbabump_48:
(Start: 32 @35236 has 139 MA's), (38, 35188), (39, 35182), (48, 35137), (52, 35125),

Gene: HairyMan_44 Start: 33904, Stop: 33677, Start Num: 32
Candidate Starts for HairyMan_44:
(Start: 32 @33904 has 139 MA's), (34, 33892), (41, 33829), (52, 33793), (53, 33787),

Gene: HanSolo_48 Start: 35246, Stop: 35013, Start Num: 32
Candidate Starts for HanSolo_48:
(Start: 32 @35246 has 139 MA's), (38, 35198), (39, 35192), (48, 35147), (52, 35135),

Gene: HankSprout_49 Start: 35123, Stop: 34890, Start Num: 32
Candidate Starts for HankSprout_49:
(Start: 32 @35123 has 139 MA's), (38, 35075), (39, 35069), (48, 35024), (52, 35012),

Gene: Hasitha_48 Start: 33944, Stop: 33702, Start Num: 32
Candidate Starts for Hasitha_48:
(3, 34346), (8, 34169), (9, 34163), (Start: 22 @34007 has 8 MA's), (26, 33977), (Start: 32 @33944 has 139 MA's), (35, 33932), (Start: 36 @33917 has 1 MA's), (39, 33896), (56, 33824), (63, 33767),

Gene: HavenFinLeoSun_51 Start: 35646, Stop: 35428, Start Num: 32
Candidate Starts for HavenFinLeoSun_51:
(Start: 32 @35646 has 139 MA's),

Gene: HerculesXL_45 Start: 33070, Stop: 32831, Start Num: 32
Candidate Starts for HerculesXL_45:
(Start: 32 @33070 has 139 MA's), (49, 32968), (50, 32965), (53, 32953), (61, 32914), (63, 32896),

Gene: HungryHenry_48 Start: 35251, Stop: 35018, Start Num: 32
Candidate Starts for HungryHenry_48:
(Start: 32 @35251 has 139 MA's), (38, 35203), (39, 35197), (48, 35152), (52, 35140),

Gene: Ilzat_48 Start: 35262, Stop: 35029, Start Num: 32
Candidate Starts for Ilzat_48:
(Start: 32 @35262 has 139 MA's), (38, 35214), (39, 35208), (48, 35163), (52, 35151),

Gene: Inventa_49 Start: 35539, Stop: 35306, Start Num: 32
Candidate Starts for Inventa_49:
(Start: 32 @35539 has 139 MA's), (38, 35491), (48, 35440),

Gene: Ioannes_49 Start: 35543, Stop: 35310, Start Num: 32
Candidate Starts for Ioannes_49:
(Start: 32 @35543 has 139 MA's), (38, 35495), (39, 35489), (48, 35444), (52, 35432),

Gene: Ixel_48 Start: 34765, Stop: 34514, Start Num: 32
Candidate Starts for Ixel_48:
(Start: 32 @34765 has 139 MA's), (37, 34720), (55, 34642), (61, 34612), (63, 34594),

Gene: Janus167_48 Start: 35273, Stop: 35043, Start Num: 32
Candidate Starts for Janus167_48:
(Start: 32 @35273 has 139 MA's), (38, 35225), (39, 35219), (48, 35174), (52, 35162),

Gene: Jemerald_48 Start: 34908, Stop: 34672, Start Num: 30
Candidate Starts for Jemerald_48:
(18, 34998), (Start: 22 @34974 has 8 MA's), (26, 34944), (Start: 30 @34908 has 4 MA's), (34, 34893), (39, 34851), (45, 34815), (54, 34788), (61, 34758), (64, 34728),

Gene: JeriBeth_48 Start: 35109, Stop: 34876, Start Num: 32
Candidate Starts for JeriBeth_48:
(Start: 32 @35109 has 139 MA's), (38, 35061), (39, 35055), (48, 35010), (52, 34998),

Gene: Juanyo_46 Start: 33928, Stop: 33704, Start Num: 32
Candidate Starts for Juanyo_46:
(Start: 32 @33928 has 139 MA's), (Start: 36 @33895 has 1 MA's), (45, 33838), (57, 33796), (63, 33769),

Gene: Juicer_48 Start: 34974, Stop: 34672, Start Num: 22
Candidate Starts for Juicer_48:
(18, 34998), (Start: 22 @34974 has 8 MA's), (26, 34944), (Start: 30 @34908 has 4 MA's), (34, 34893), (39, 34851), (45, 34815), (54, 34788), (61, 34758), (64, 34728),

Gene: Kale_48 Start: 35258, Stop: 35025, Start Num: 32
Candidate Starts for Kale_48:
(Start: 32 @35258 has 139 MA's), (38, 35210), (39, 35204), (48, 35159), (52, 35147),

Gene: KannH_48 Start: 35246, Stop: 35013, Start Num: 32
Candidate Starts for KannH_48:
(Start: 32 @35246 has 139 MA's), (38, 35198), (39, 35192), (48, 35147), (52, 35135),

Gene: Kavo_44 Start: 33120, Stop: 32881, Start Num: 32
Candidate Starts for Kavo_44:
(Start: 32 @33120 has 139 MA's), (50, 33015), (53, 33003), (61, 32964), (63, 32946),

Gene: Klimt_49 Start: 35274, Stop: 35041, Start Num: 32
Candidate Starts for Klimt_49:
(Start: 32 @35274 has 139 MA's), (38, 35226), (39, 35220), (48, 35175), (52, 35163),

Gene: Knox_49 Start: 35540, Stop: 35307, Start Num: 32
Candidate Starts for Knox_49:
(Start: 32 @35540 has 139 MA's), (38, 35492), (39, 35486), (48, 35441), (52, 35429),

Gene: Kouch_49 Start: 35246, Stop: 35013, Start Num: 32
Candidate Starts for Kouch_49:

(Start: 32 @35246 has 139 MA's), (38, 35198), (39, 35192), (48, 35147), (52, 35135),

Gene: Kurt1_49 Start: 35539, Stop: 35306, Start Num: 32
Candidate Starts for Kurt1_49:
(Start: 32 @35539 has 139 MA's), (38, 35491), (48, 35440),

Gene: Librie_48 Start: 33994, Stop: 33689, Start Num: 22
Candidate Starts for Librie_48:
(3, 34333), (8, 34156), (9, 34150), (Start: 22 @33994 has 8 MA's), (26, 33964), (Start: 32 @33931 has 139 MA's), (35, 33919), (Start: 36 @33904 has 1 MA's), (39, 33883), (56, 33811), (63, 33754),

Gene: LilTerminator_48 Start: 34019, Stop: 33711, Start Num: 22
Candidate Starts for LilTerminator_48:
(3, 34298), (5, 34196), (Start: 22 @34019 has 8 MA's), (26, 33989), (Start: 32 @33956 has 139 MA's), (38, 33908), (43, 33872), (47, 33860), (51, 33851), (56, 33830), (58, 33803),

Gene: Lovelyunicorn_49 Start: 35541, Stop: 35374, Start Num: 32
Candidate Starts for Lovelyunicorn_49:
(Start: 32 @35541 has 139 MA's), (38, 35493), (39, 35487), (48, 35442), (52, 35430),

Gene: Ludgate_49 Start: 35542, Stop: 35309, Start Num: 32
Candidate Starts for Ludgate_49:
(Start: 32 @35542 has 139 MA's), (38, 35494), (39, 35488), (48, 35443), (52, 35431),

Gene: Luna18_48 Start: 33841, Stop: 33614, Start Num: 30
Candidate Starts for Luna18_48:
(18, 33949), (Start: 30 @33841 has 4 MA's), (61, 33703), (64, 33673),

Gene: MCubed_47 Start: 34331, Stop: 34110, Start Num: 32
Candidate Starts for MCubed_47:
(Start: 32 @34331 has 139 MA's), (Start: 36 @34298 has 1 MA's), (45, 34241),

Gene: MaeLinda_49 Start: 35543, Stop: 35310, Start Num: 32
Candidate Starts for MaeLinda_49:
(Start: 32 @35543 has 139 MA's), (38, 35495), (48, 35444),

Gene: Magritte_232 Start: 121567, Stop: 121797, Start Num: 31
Candidate Starts for Magritte_232:
(23, 121516), (Start: 31 @121567 has 1 MA's), (34, 121582), (38, 121618), (42, 121651), (46, 121663), (60, 121714), (67, 121777),

Gene: ManRay_48 Start: 35256, Stop: 35023, Start Num: 32
Candidate Starts for ManRay_48:
(Start: 32 @35256 has 139 MA's), (38, 35208), (39, 35202), (48, 35157), (52, 35145),

Gene: Mandalorian_46 Start: 34034, Stop: 33810, Start Num: 32
Candidate Starts for Mandalorian_46:
(Start: 32 @34034 has 139 MA's), (Start: 36 @34001 has 1 MA's), (45, 33944), (63, 33875),

Gene: Martin_50 Start: 35548, Stop: 35315, Start Num: 32
Candidate Starts for Martin_50:
(Start: 32 @35548 has 139 MA's), (38, 35500), (48, 35449),

Gene: Mercedes_43 Start: 33910, Stop: 33674, Start Num: 32
Candidate Starts for Mercedes_43:
(1, 34471), (2, 34369), (3, 34327), (4, 34306), (10, 34132), (Start: 22 @33973 has 8 MA's), (26, 33943), (Start: 32 @33910 has 139 MA's), (Start: 36 @33883 has 1 MA's), (37, 33871), (39, 33862), (43, 33832), (56, 33790), (63, 33739),

Gene: MillyPhilly_49 Start: 35536, Stop: 35303, Start Num: 32
Candidate Starts for MillyPhilly_49:
(Start: 32 @35536 has 139 MA's), (38, 35488), (48, 35437),

Gene: MiniVolent_45 Start: 33890, Stop: 33666, Start Num: 32
Candidate Starts for MiniVolent_45:
(20, 33965), (Start: 32 @33890 has 139 MA's), (Start: 36 @33857 has 1 MA's), (45, 33800), (57, 33758), (63, 33731),

Gene: MonChoix_46 Start: 35079, Stop: 34858, Start Num: 33
Candidate Starts for MonChoix_46:
(Start: 28 @35100 has 1 MA's), (Start: 33 @35079 has 5 MA's), (Start: 36 @35052 has 1 MA's), (38, 35037), (44, 34998), (47, 34989),

Gene: Morrigan_48 Start: 33809, Stop: 33570, Start Num: 30
Candidate Starts for Morrigan_48:
(Start: 30 @33809 has 4 MA's), (35, 33788), (42, 33725), (64, 33623),

Gene: Nagem_49 Start: 35539, Stop: 35306, Start Num: 32
Candidate Starts for Nagem_49:
(Start: 32 @35539 has 139 MA's), (38, 35491), (39, 35485), (48, 35440), (52, 35428),

Gene: Nattles_48 Start: 35243, Stop: 35010, Start Num: 32
Candidate Starts for Nattles_48:
(Start: 32 @35243 has 139 MA's), (38, 35195), (39, 35189), (48, 35144), (52, 35132),

Gene: Nebulous_45 Start: 35872, Stop: 35624, Start Num: 33
Candidate Starts for Nebulous_45:
(15, 35992), (Start: 24 @35920 has 1 MA's), (Start: 33 @35872 has 5 MA's), (39, 35821), (46, 35782), (55, 35752), (61, 35722), (63, 35704),

Gene: Neferthena_48 Start: 35278, Stop: 34961, Start Num: 21
Candidate Starts for Neferthena_48:
(6, 35464), (7, 35437), (Start: 21 @35278 has 1 MA's), (Start: 33 @35209 has 5 MA's), (39, 35158), (46, 35119), (55, 35089), (61, 35059), (63, 35041),

Gene: NickSell_49 Start: 35549, Stop: 35316, Start Num: 32
Candidate Starts for NickSell_49:
(Start: 32 @35549 has 139 MA's), (38, 35501), (48, 35450),

Gene: Nucci_46 Start: 34017, Stop: 33793, Start Num: 32
Candidate Starts for Nucci_46:
(Start: 32 @34017 has 139 MA's), (Start: 36 @33984 has 1 MA's), (45, 33927), (46, 33924), (63, 33858),

Gene: Oats_48 Start: 35256, Stop: 35023, Start Num: 32
Candidate Starts for Oats_48:

(Start: 32 @35256 has 139 MA's), (38, 35208), (39, 35202), (48, 35157), (52, 35145),

Gene: OldNelly_50 Start: 35545, Stop: 35312, Start Num: 32
Candidate Starts for OldNelly_50:
(Start: 32 @35545 has 139 MA's), (38, 35497), (48, 35446),

Gene: Orpington_47 Start: 34470, Stop: 34249, Start Num: 32
Candidate Starts for Orpington_47:
(Start: 32 @34470 has 139 MA's), (Start: 36 @34437 has 1 MA's), (45, 34380),

Gene: Oxtober96_50 Start: 35541, Stop: 35308, Start Num: 32
Candidate Starts for Oxtober96_50:
(Start: 32 @35541 has 139 MA's), (38, 35493), (39, 35487), (48, 35442), (52, 35430),

Gene: PSirce_47 Start: 34461, Stop: 34240, Start Num: 32
Candidate Starts for PSirce_47:
(Start: 32 @34461 has 139 MA's), (Start: 36 @34428 has 1 MA's), (45, 34371),

Gene: Papafritta_48 Start: 35297, Stop: 35067, Start Num: 32
Candidate Starts for Papafritta_48:
(Start: 32 @35297 has 139 MA's), (38, 35249), (39, 35243), (48, 35198), (52, 35186),

Gene: ParleG_49 Start: 35546, Stop: 35313, Start Num: 32
Candidate Starts for ParleG_49:
(Start: 32 @35546 has 139 MA's), (38, 35498), (48, 35447),

Gene: Peep_49 Start: 35531, Stop: 35298, Start Num: 32
Candidate Starts for Peep_49:
(Start: 32 @35531 has 139 MA's), (38, 35483), (48, 35432),

Gene: Penta_43 Start: 32979, Stop: 32740, Start Num: 32
Candidate Starts for Penta_43:
(25, 33021), (Start: 27 @33012 has 1 MA's), (Start: 32 @32979 has 139 MA's), (49, 32877), (50, 32874), (53, 32862), (61, 32823), (63, 32805), (65, 32784),

Gene: Phanita_48 Start: 34243, Stop: 34022, Start Num: 32
Candidate Starts for Phanita_48:
(Start: 32 @34243 has 139 MA's), (Start: 36 @34210 has 1 MA's), (45, 34153),

Gene: Pherferi_49 Start: 35539, Stop: 35306, Start Num: 32
Candidate Starts for Pherferi_49:
(Start: 32 @35539 has 139 MA's), (38, 35491), (48, 35440),

Gene: Phiderman_49 Start: 35536, Stop: 35303, Start Num: 32
Candidate Starts for Phiderman_49:
(Start: 32 @35536 has 139 MA's), (38, 35488), (48, 35437),

Gene: Phireproof_49 Start: 35545, Stop: 35312, Start Num: 32
Candidate Starts for Phireproof_49:
(Start: 32 @35545 has 139 MA's), (38, 35497), (48, 35446),

Gene: PhredFlintston_49 Start: 35539, Stop: 35306, Start Num: 32
Candidate Starts for PhredFlintston_49:

(Start: 32 @35539 has 139 MA's), (38, 35491), (48, 35440),

Gene: Phriends_49 Start: 35545, Stop: 35312, Start Num: 32
Candidate Starts for Phriends_49:
(Start: 32 @35545 has 139 MA's), (38, 35497), (48, 35446),

Gene: Pocket_48 Start: 35283, Stop: 35050, Start Num: 32
Candidate Starts for Pocket_48:
(Start: 32 @35283 has 139 MA's), (38, 35235), (39, 35229), (48, 35184), (52, 35172),

Gene: PuppyEggo_49 Start: 35546, Stop: 35313, Start Num: 32
Candidate Starts for PuppyEggo_49:
(Start: 32 @35546 has 139 MA's), (38, 35498), (39, 35492), (48, 35447), (52, 35435),

Gene: QuadZero_48 Start: 34095, Stop: 33853, Start Num: 32
Candidate Starts for QuadZero_48:
(3, 34437), (5, 34335), (Start: 22 @34158 has 8 MA's), (26, 34128), (Start: 32 @34095 has 139 MA's), (35, 34083), (Start: 36 @34068 has 1 MA's), (37, 34056), (39, 34047), (56, 33975), (63, 33918),

Gene: Quartz_47 Start: 34147, Stop: 33923, Start Num: 32
Candidate Starts for Quartz_47:
(Start: 32 @34147 has 139 MA's), (Start: 36 @34114 has 1 MA's), (45, 34057), (63, 33988),

Gene: Rapheph_49 Start: 35539, Stop: 35306, Start Num: 32
Candidate Starts for Rapheph_49:
(Start: 32 @35539 has 139 MA's), (38, 35491), (48, 35440),

Gene: Raptor_49 Start: 35543, Stop: 35310, Start Num: 32
Candidate Starts for Raptor_49:
(Start: 32 @35543 has 139 MA's), (38, 35495), (39, 35489), (48, 35444), (52, 35432),

Gene: Renzie_49 Start: 35534, Stop: 35301, Start Num: 32
Candidate Starts for Renzie_49:
(Start: 32 @35534 has 139 MA's), (38, 35486), (48, 35435),

Gene: Riyhil_49 Start: 35549, Stop: 35316, Start Num: 32
Candidate Starts for Riyhil_49:
(Start: 32 @35549 has 139 MA's), (38, 35501), (48, 35450),

Gene: Robinson_49 Start: 35537, Stop: 35304, Start Num: 32
Candidate Starts for Robinson_49:
(Start: 32 @35537 has 139 MA's), (38, 35489), (48, 35438),

Gene: Rog141_48 Start: 35246, Stop: 35013, Start Num: 32
Candidate Starts for Rog141_48:
(Start: 32 @35246 has 139 MA's), (38, 35198), (39, 35192), (48, 35147), (52, 35135),

Gene: RosieMae_48 Start: 35301, Stop: 35068, Start Num: 32
Candidate Starts for RosieMae_48:
(Start: 32 @35301 has 139 MA's), (38, 35253), (39, 35247), (48, 35202), (52, 35190),

Gene: SJay_49 Start: 35540, Stop: 35307, Start Num: 32
Candidate Starts for SJay_49:

(Start: 32 @35540 has 139 MA's), (38, 35492), (39, 35486), (48, 35441), (52, 35429),

Gene: Sansa_46 Start: 34536, Stop: 34315, Start Num: 32
Candidate Starts for Sansa_46:
(Start: 32 @34536 has 139 MA's), (Start: 36 @34503 has 1 MA's), (40, 34470),

Gene: Saratos_47 Start: 34291, Stop: 34070, Start Num: 32
Candidate Starts for Saratos_47:
(Start: 32 @34291 has 139 MA's), (Start: 36 @34258 has 1 MA's), (45, 34201),

Gene: Schimmels22_44 Start: 33402, Stop: 33130, Start Num: 27
Candidate Starts for Schimmels22_44:
(25, 33411), (Start: 27 @33402 has 1 MA's), (Start: 32 @33369 has 139 MA's), (49, 33267), (50, 33264), (53, 33252), (61, 33213), (63, 33195),

Gene: Scissor2024_45 Start: 33016, Stop: 32777, Start Num: 32
Candidate Starts for Scissor2024_45:
(Start: 32 @33016 has 139 MA's), (49, 32914), (50, 32911), (53, 32899), (61, 32860), (63, 32842), (65, 32821),

Gene: Sedgewig_48 Start: 35244, Stop: 35011, Start Num: 32
Candidate Starts for Sedgewig_48:
(Start: 32 @35244 has 139 MA's), (38, 35196), (39, 35190), (48, 35145), (52, 35133),

Gene: ShaiHulud_49 Start: 35555, Stop: 35322, Start Num: 32
Candidate Starts for ShaiHulud_49:
(Start: 32 @35555 has 139 MA's), (38, 35507), (39, 35501), (48, 35456), (52, 35444),

Gene: Shamu_48 Start: 34470, Stop: 34249, Start Num: 32
Candidate Starts for Shamu_48:
(Start: 32 @34470 has 139 MA's), (Start: 36 @34437 has 1 MA's), (45, 34380),

Gene: Shee_49 Start: 35536, Stop: 35303, Start Num: 32
Candidate Starts for Shee_49:
(Start: 32 @35536 has 139 MA's), (38, 35488), (48, 35437),

Gene: SoilGremlin_50 Start: 35542, Stop: 35309, Start Num: 32
Candidate Starts for SoilGremlin_50:
(Start: 32 @35542 has 139 MA's), (38, 35494), (48, 35443),

Gene: SonOfLevi_49 Start: 35274, Stop: 35041, Start Num: 32
Candidate Starts for SonOfLevi_49:
(Start: 32 @35274 has 139 MA's), (38, 35226), (39, 35220), (48, 35175), (52, 35163),

Gene: StingRay_48 Start: 35259, Stop: 35026, Start Num: 32
Candidate Starts for StingRay_48:
(Start: 32 @35259 has 139 MA's), (38, 35211), (39, 35205), (48, 35160), (52, 35148),

Gene: StirfryIV_48 Start: 35255, Stop: 35022, Start Num: 32
Candidate Starts for StirfryIV_48:
(Start: 32 @35255 has 139 MA's), (38, 35207), (39, 35201), (48, 35156), (52, 35144),

Gene: Strathdee_49 Start: 35545, Stop: 35312, Start Num: 32

Candidate Starts for Strathdee_49:
(Start: 32 @35545 has 139 MA's), (38, 35497), (39, 35491), (48, 35446), (52, 35434),

Gene: Superfresh_49 Start: 35534, Stop: 35301, Start Num: 32
Candidate Starts for Superfresh_49:
(Start: 32 @35534 has 139 MA's), (38, 35486), (48, 35435),

Gene: Symere_48 Start: 35254, Stop: 35021, Start Num: 32
Candidate Starts for Symere_48:
(Start: 32 @35254 has 139 MA's), (38, 35206), (39, 35200), (48, 35155), (52, 35143),

Gene: TatarkaPM_49 Start: 35549, Stop: 35316, Start Num: 32
Candidate Starts for TatarkaPM_49:
(Start: 32 @35549 has 139 MA's), (38, 35501), (48, 35450),

Gene: Teagan_49 Start: 35536, Stop: 35303, Start Num: 32
Candidate Starts for Teagan_49:
(Start: 32 @35536 has 139 MA's), (38, 35488), (39, 35482), (48, 35437), (52, 35425),

Gene: TeddyBear_48 Start: 35256, Stop: 35023, Start Num: 32
Candidate Starts for TeddyBear_48:
(Start: 32 @35256 has 139 MA's), (38, 35208), (39, 35202), (48, 35157), (52, 35145),

Gene: Tenda_48 Start: 35254, Stop: 35021, Start Num: 32
Candidate Starts for Tenda_48:
(Start: 32 @35254 has 139 MA's), (38, 35206), (39, 35200), (48, 35155), (52, 35143),

Gene: Thompsone_49 Start: 35543, Stop: 35310, Start Num: 32
Candidate Starts for Thompsone_49:
(Start: 32 @35543 has 139 MA's), (38, 35495), (39, 35489), (48, 35444), (52, 35432),

Gene: Thorongil_49 Start: 35060, Stop: 34827, Start Num: 32
Candidate Starts for Thorongil_49:
(Start: 32 @35060 has 139 MA's), (38, 35012), (39, 35006), (48, 34961), (52, 34949),

Gene: TinSulphur_50 Start: 35545, Stop: 35312, Start Num: 32
Candidate Starts for TinSulphur_50:
(Start: 32 @35545 has 139 MA's), (38, 35497), (48, 35446),

Gene: Tinyman4_44 Start: 33070, Stop: 32831, Start Num: 32
Candidate Starts for Tinyman4_44:
(25, 33112), (Start: 27 @33103 has 1 MA's), (Start: 32 @33070 has 139 MA's), (49, 32968), (50, 32965), (53, 32953), (61, 32914), (63, 32896), (65, 32875),

Gene: TwoBits_47 Start: 34436, Stop: 34191, Start Num: 32
Candidate Starts for TwoBits_47:
(Start: 30 @34439 has 4 MA's), (Start: 32 @34436 has 139 MA's), (37, 34391), (38, 34388), (43, 34352), (47, 34340), (56, 34310), (59, 34283),

Gene: Vafari_48 Start: 33954, Stop: 33712, Start Num: 32
Candidate Starts for Vafari_48:
(3, 34296), (5, 34194), (Start: 22 @34017 has 8 MA's), (26, 33987), (Start: 32 @33954 has 139 MA's), (Start: 36 @33927 has 1 MA's), (37, 33915), (39, 33906), (56, 33834), (63, 33777),

Gene: Velene_49 Start: 35541, Stop: 35308, Start Num: 32
Candidate Starts for Velene_49:
(Start: 32 @35541 has 139 MA's), (38, 35493), (39, 35487), (48, 35442), (52, 35430),

Gene: Vispistious_49 Start: 35546, Stop: 35313, Start Num: 32
Candidate Starts for Vispistious_49:
(Start: 32 @35546 has 139 MA's), (38, 35498), (39, 35492), (48, 35447), (52, 35435),

Gene: Wardwill_50 Start: 34196, Stop: 33888, Start Num: 22
Candidate Starts for Wardwill_50:
(3, 34475), (5, 34373), (Start: 22 @34196 has 8 MA's), (26, 34166), (Start: 32 @34133 has 139 MA's), (38, 34085), (43, 34049), (47, 34037), (51, 34028), (56, 34007), (58, 33980),

Gene: WestPM_43 Start: 33142, Stop: 32903, Start Num: 32
Candidate Starts for WestPM_43:
(Start: 32 @33142 has 139 MA's), (49, 33040), (53, 33025), (61, 32986), (63, 32968), (65, 32947),

Gene: WildNOut_49 Start: 35539, Stop: 35306, Start Num: 32
Candidate Starts for WildNOut_49:
(Start: 32 @35539 has 139 MA's), (38, 35491), (39, 35485), (48, 35440), (52, 35428),

Gene: WilliamStrong_47 Start: 34382, Stop: 34158, Start Num: 33
Candidate Starts for WilliamStrong_47:
(Start: 33 @34382 has 5 MA's), (Start: 36 @34352 has 1 MA's), (61, 34241),

Gene: Winzigespinne_48 Start: 35242, Stop: 35009, Start Num: 32
Candidate Starts for Winzigespinne_48:
(Start: 32 @35242 has 139 MA's), (38, 35194), (39, 35188), (48, 35143), (52, 35131),

Gene: Xebius_47 Start: 34261, Stop: 34073, Start Num: 36
Candidate Starts for Xebius_47:
(Start: 32 @34294 has 139 MA's), (Start: 36 @34261 has 1 MA's), (45, 34204),

Gene: YuuY_47 Start: 34607, Stop: 34386, Start Num: 32
Candidate Starts for YuuY_47:
(Start: 32 @34607 has 139 MA's), (Start: 36 @34574 has 1 MA's), (40, 34541), (45, 34517), (57, 34475),

Gene: Zada_50 Start: 35515, Stop: 35282, Start Num: 32
Candidate Starts for Zada_50:
(Start: 32 @35515 has 139 MA's), (38, 35467), (39, 35461), (48, 35416), (52, 35404),

Gene: Zayuliv_48 Start: 34572, Stop: 34327, Start Num: 32
Candidate Starts for Zayuliv_48:
(3, 34962), (5, 34860), (9, 34791), (Start: 22 @34635 has 8 MA's), (26, 34605), (Start: 32 @34572 has 139 MA's), (38, 34524), (43, 34488), (47, 34476), (51, 34467), (56, 34446), (58, 34419),

Gene: Zenitsu_47 Start: 34336, Stop: 34115, Start Num: 32
Candidate Starts for Zenitsu_47:
(Start: 32 @34336 has 139 MA's), (Start: 36 @34303 has 1 MA's), (45, 34246),

Gene: Zepp_48 Start: 34066, Stop: 33761, Start Num: 22

Candidate Starts for Zepp_48:
(3, 34393), (5, 34291), (9, 34222), (Start: 22 @34066 has 8 MA's), (26, 34036), (Start: 32 @34003 has 139 MA's), (35, 33991), (Start: 36 @33976 has 1 MA's), (37, 33964), (39, 33955), (56, 33883), (63, 33826),