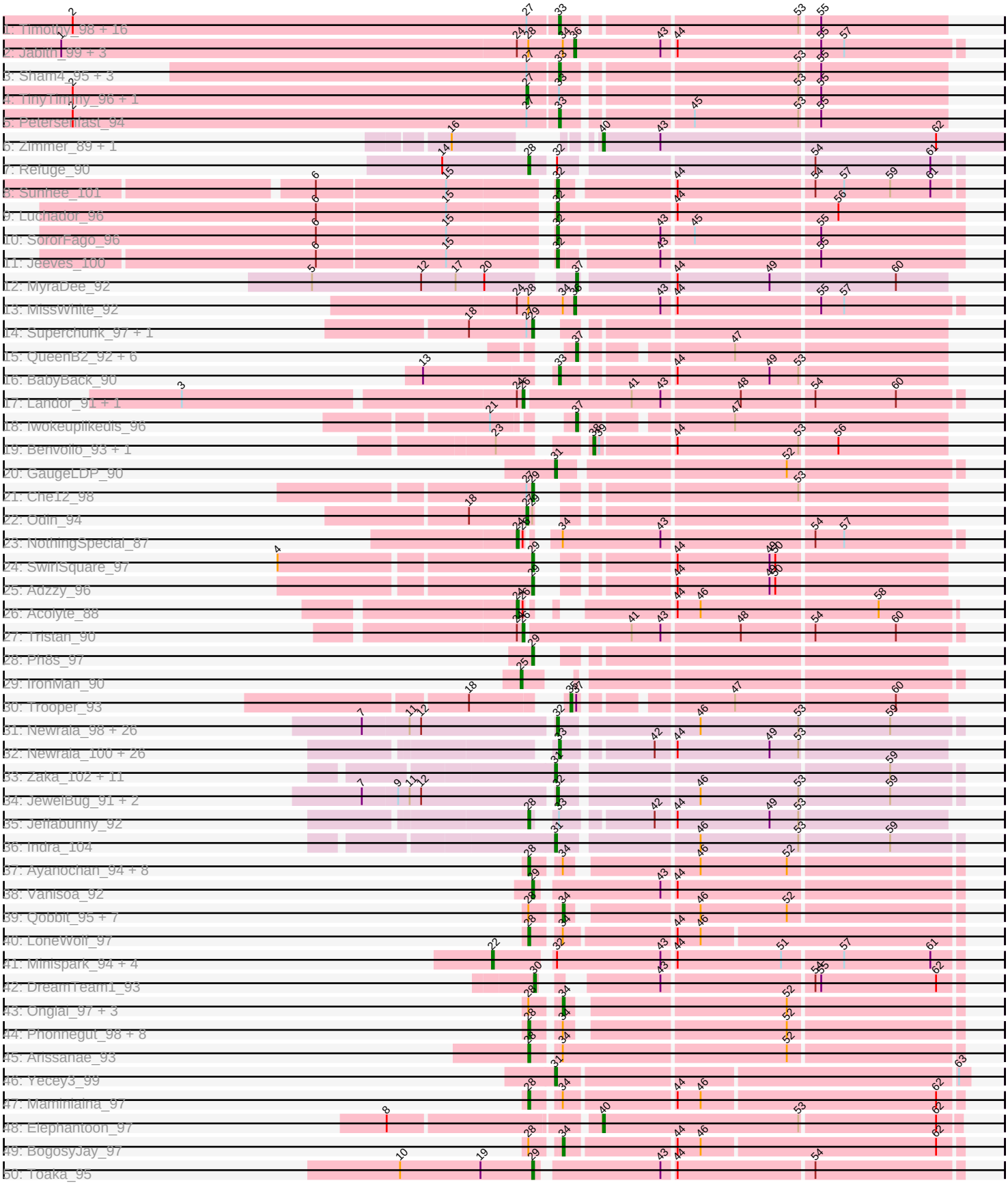
Pham 347297


1: Timothy1_98 + 16
2: Jabith_99 + 3
3: Sham4_95 + 3
4: TinyTimmy_96 + 1
5: Petersenfast_94
6: Zimmer_89 + 1
7: Refuge_90
8: Sunhee_101
9: Luchador_96
10: SororFago_96
11: Jeeves_100
12: MyraDee_92
13: MissWhite_92
14: Superchunk_97 + 1
15: QueenB2_92 + 6
16: BabyBack_90
17: Landor_91 + 1
18: Iwokeuplikedis_96
19: Benvolio_93 + 1
20: GaugeLDP_90
21: Che12_98
22: Odin_94
23: NothingSpecial_87
24: SwimSquare_97
25: Adzzy_96
26: Acolyte_88
27: Tristan_90
28: Phs_97
29: IronMan_90
30: Trooper_93
31: Newrala_98 + 26
32: Newrala_100 + 26
33: Zaka_102 + 11
34: JewelBug_91 + 2
35: Jellabunny_92
36: Indra_104
37: Ayanochan_94 + 8
38: Vanisoa_92
39: Qobbit_95 + 7
40: LoneWolf_97
41: Minispark_94 + 4
42: DreamTeam1_93
43: Onglai_97 + 3
44: Phonnegut_98 + 8
45: Arissanae_93
46: Yecey3_99
47: Mamimama_97
48: Elephantoon_97
49: BogosyJay_97
50: Toaka_95

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 347297 Report

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

Pham number 347297 has 178 members, 6 are drafts.

Phages represented in each track:
• Track 1 : Timothy_98, Orange_98, Aneem_99, Munch_97, Joselito_96, Lucivia_99, Bud_91, Bachome_96, Ebony_97, Mulciber_97, Kimba_95, Flaverint_99, Mabel_98, Snape_98, Gilberta_96, Bowtie_94, Saskia_97
• Track 2 : Jabith_99, Salz_95, Et2Brutus_99, Hutc2_96
• Track 3 : Sham4_95, Fibonacci_98, Insomnia_98, Wolpertinger_97
• Track 4 : TinyTimmy_96, MaCh_98
• Track 5 : Petersenfast_94
• Track 6 : Zimmer_89, DarthPhader_90
• Track 7 : Refuge_90
• Track 8 : Sunhee_101
• Track 9 : Luchador_96
• Track 10 : SororFago_96
• Track 11 : Jeeves_100
• Track 12 : MyraDee_92
• Track 13 : MissWhite_92
• Track 14 : Superchunk_97, Caraxes_97
• Track 15 : QueenB2_92, Retro23_94, Fameo_92, Anselm_96, Dalmatian_93, Heffalump_90, DudeLittle_92
• Track 16 : BabyBack_90
• Track 17 : Landor_91, Bactobuster_86
• Track 18 : Iwokeuplikedis_96
• Track 19 : Benvolio_93, Echild_98
• Track 20 : GaugeLDP_90
• Track 21 : Che12_98
• Track 22 : Odin_94
• Track 23 : NothingSpecial_87
• Track 24 : SwirlSquare_97
• Track 25 : Adzzy_96
• Track 26 : Acolyte_88
• Track 27 : Tristan_90
• Track 28 : Ph8s_97
• Track 29 : IronMan_90
• Track 30 : Trooper_93
• Track 31 : Newrala_98, VohminGhazi_99, Kazan_100, EricB_97, DaVinci_97, Chartreuse_98, Roksolana_102, DelvinSonDorr_95, Hexamo_101, Dorothea_99, Candra_100, Artemis2UCLA_101, Hoot_94, Jeffabunny_90, SuperAwesome_99, Jordennis_97, GreedyLawyer_89, Helmet_104, Isiphiwo_96, Kipper29_99,

BABullseye_92, BennyP_101, Priamo_99, Pmask_98, CloudWang3_102, McFly_99, SmellyB_99
• Track 32 : Newrala_100, Neeharika16_98, VohminGhazi_101, Kazan_102, Roksolana_104, EricB_98, DaVinci_98, Chartreuse_100, Hexamo_103, Hammer_102, CloudWang3_104, DelvinSonDorr_96, Candra_102, Rifter_102, Hoot_96, Artemis2UCLA_103, Koko_103, Gruunaga_102, BABullseye_94, Cookiedough_99, BennyP_103, SmellyB_101, Isiphiwo_97, Gladiator_98, GreedyLawyer_90, SuperCallie99_96, McFly_100
• Track 33 : Zaka_102, Yokurt_101, Garak_103, Zulu_103, Lilbunny_98, Wiks_101, ToneTone_98, WunderPhul_90, Tucker_102, Blue7_103, Temprado_103, BlessJoy_102
• Track 34 : JewelBug_91, Imbriano_100, Polyphemus_92
• Track 35 : Jeffabunny_92
• Track 36 : Indra_104
• Track 37 : Ayanochan_94, Alma_95, Catalina_100, Fayely_95, Conquerage_95, ExplosioNervosa_95, Priya_95, Spouty_95, Eidsmoe_95
• Track 38 : Vanisoa_92
• Track 39 : Qobbit_95, Aliter_91, HortumSL17_99, Tubs_98, EmyBug_94, Phaeder_98, PackMan_93, Myxus_98
• Track 40 : LoneWolf_97
• Track 41 : Minispark_94, Rahalelujah_96, CogOmlette_94, WorldCup_95, Bellris_96
• Track 42 : DreamTeam1_93
• Track 43 : Onglai_97, Beemo_98, Lilleskat_98, Holex_98
• Track 44 : Phonnegut_98, Pioneer_98, Sachima_98, Jiawan_98, Hanray_98, Scherzo_96, EdogawaKiddo_98, RyeScarlet_98, Ugenie5_85
• Track 45 : Arissanae_93
• Track 46 : Yecey3_99
• Track 47 : Maminiaina_97
• Track 48 : Elephantoon_97
• Track 49 : BogosyJay_97
• Track 50 : Toaka_95

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

The start number called the most often in the published annotations is 33, it was called in 49 of the 172 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aneem_99, Artemis2UCLA_103, BABullseye_94, BabyBack_90, Bachome_96, BennyP_103, Bowtie_94, Bud_91, Candra_102, Chartreuse_100, CloudWang3_104, Cookiedough_99, DaVinci_98, DelvinSonDorr_96, Ebony_97, EricB_98, Fibonacci_98, Flaverint_99, Gilberta_96, Gladiator_98, GreedyLawyer_90, Gruunaga_102, Hammer_102, Hexamo_103, Hoot_96, Insomnia_98, Isiphiwo_97, Joselito_96, Kazan_102, Kimba_95, Koko_103, Lucivia_99, Mabel_98, McFly_100, Mulciber_97, Munch_97, Neeharika16_98, Newrala_100, Orange_98, Petersenfast_94, Rifter_102, Roksolana_104, Saskia_97, Sham4_95, SmellyB_101, Snape_98, SuperCallie99_96, Timothy_98, VohminGhazi_101, Wolpertinger_97,

Genes that have the "Most Annotated" start but do not call it:
• Jeffabunny_92, MaCh_98, TinyTimmy_96,

Genes that do not have the "Most Annotated" start:
• Acolyte_88, Adzzy_96, Aliter_91, Alma_95, Anselm_96, Arissanae_93, Artemis2UCLA_101, Ayanochan_94, BABullseye_92, Bactobuster_86, Beemo_98, Bellris_96, BennyP_101, Benvolio_93, BlessJoy_102, Blue7_103, BogosyJay_97, Candra_100, Caraxes_97, Catalina_100, Chartreuse_98, Che12_98, CloudWang3_102, CogOmlette_94, Conquerage_95, DaVinci_97, Dalmatian_93, DarthPhader_90, DelvinSonDorr_95, Dorothea_99, DreamTeam1_93, DudeLittle_92, Echild_98, EdogawaKiddo_98, Eidsmoe_95, Elephantoon_97, EmyBug_94, EricB_97, Et2Brutus_99, ExplosioNervosa_95, Fameo_92, Fayely_95, Garak_103, GaugeLDP_90, GreedyLawyer_89, Hanray_98, Heffalump_90, Helmet_104, Hexamo_101, Holex_98, Hoot_94, HortumSL17_99, Hutc2_96, Imbriano_100, Indra_104, IronMan_90, Isiphiwo_96, Iwokeuplikedis_96, Jabith_99, Jeeves_100, Jeffabunny_90, JewelBug_91, Jiawan_98, Jordennis_97, Kazan_100, Kipper29_99, Landor_91, Lilbunny_98, Lilleskat_98, LoneWolf_97, Luchador_96, Maminiaina_97, McFly_99, Minispark_94, MissWhite_92, MyraDee_92, Myxus_98, Newrala_98, NothingSpecial_87, Odin_94, Onglai_97, PackMan_93, Ph8s_97, Phaeder_98, Phonnegut_98, Pioneer_98, Pmask_98, Polyphemus_92, Priamo_99, Priya_95, Qobbit_95, QueenB2_92, Rahalelujah_96, Refuge_90, Retro23_94, Roksolana_102, RyeScarlet_98, Sachima_98, Salz_95, Scherzo_96, SmellyB_99, SororFago_96, Spouty_95, Sunhee_101, SuperAwesome_99, Superchunk_97, SwirlSquare_97, Temprado_103, Toaka_95, ToneTone_98, Tristan_90, Trooper_93, Tubs_98, Tucker_102, Ugenie5_85, Vanisoa_92, VohminGhazi_99, Wiks_101, WorldCup_95, WunderPhul_90, Yecey3_99, Yokurt_101, Zaka_102, Zimmer_89, Zulu_103,

Summary by start number:

Start 22:
• Found in 5 of 178 (2.8%) of genes in pham
• Manual Annotations of this start: 2 of 172
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bellris_96 (A9), CogOmlette_94 (A9), Minispark_94 (A9), Rahalelujah_96 (A9), WorldCup_95 (A9),

Start 24:
• Found in 10 of 178 (5.6%) of genes in pham
• Manual Annotations of this start: 2 of 172
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Acolyte_88 (A2), NothingSpecial_87 (A2),

Start 25:
• Found in 1 of 178 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 172
• Called 100.0% of time when present
• Phage (with cluster) where this start called: IronMan_90 (A2),

Start 26:
• Found in 5 of 178 (2.8%) of genes in pham
• Manual Annotations of this start: 3 of 172
• Called 60.0% of time when present
• Phage (with cluster) where this start called: Bactobuster_86 (A2), Landor_91 (A2), Tristan_90 (A2),

Start 27:
• Found in 28 of 178 (15.7%) of genes in pham
• Manual Annotations of this start: 3 of 172
• Called 10.7% of time when present
• Phage (with cluster) where this start called: MaCh_98 (A11), Odin_94 (A2), TinyTimmy_96 (A11),

Start 28:
• Found in 41 of 178 (23.0%) of genes in pham
• Manual Annotations of this start: 23 of 172
• Called 56.1% of time when present
• Phage (with cluster) where this start called: Alma_95 (A9), Arissanae_93 (A9), Ayanochan_94 (A9), Catalina_100 (A9), Conquerage_95 (A9), EdogawaKiddo_98 (A9), Eidsmoe_95 (A9), ExplosioNervosa_95 (A9), Fayely_95 (A9), Hanray_98 (A9), Jeffabunny_92 (A6), Jiawan_98 (A9), LoneWolf_97 (A9), Maminiaina_97 (A9), Phonnegut_98 (A9), Pioneer_98 (A9), Priya_95 (A9), Refuge_90 (A12), RyeScarlet_98 (A9), Sachima_98 (A9), Scherzo_96 (A9), Spouty_95 (A9), Ugenie5_85 (A9),

Start 29:
• Found in 9 of 178 (5.1%) of genes in pham
• Manual Annotations of this start: 8 of 172
• Called 88.9% of time when present
• Phage (with cluster) where this start called: Adzzy_96 (A2), Caraxes_97 (A2), Che12_98 (A2), Ph8s_97 (A2), Superchunk_97 (A2), SwirlSquare_97 (A2), Toaka_95 (A9), Vanisoa_92 (A9),

Start 30:
• Found in 1 of 178 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 172
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DreamTeam1_93 (A9),

Start 31:
• Found in 15 of 178 (8.4%) of genes in pham
• Manual Annotations of this start: 14 of 172
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BlessJoy_102 (A6), Blue7_103 (A6), Garak_103 (A6), GaugeLDP_90 (A2), Indra_104 (A6), Lilbunny_98 (A6), Temprado_103 (A6), ToneTone_98 (A6), Tucker_102 (A6), Wiks_101 (A6), WunderPhul_90 (A6), Yecey3_99 (A9), Yokurt_101 (A6), Zaka_102 (A6), Zulu_103 (A6),

Start 32:
• Found in 40 of 178 (22.5%) of genes in pham
• Manual Annotations of this start: 33 of 172
• Called 85.0% of time when present
• Phage (with cluster) where this start called: Artemis2UCLA_101 (A6), BABullseye_92 (A6), BennyP_101 (A6), Candra_100 (A6), Chartreuse_98 (A6), CloudWang3_102 (A6), DaVinci_97 (A6), DelvinSonDorr_95 (A6), Dorothea_99 (A6), EricB_97 (A6), GreedyLawyer_89 (A6), Helmet_104 (A6), Hexamo_101 (A6), Hoot_94 (A6), Imbriano_100 (A6), Isiphiwo_96 (A6), Jeeves_100 (A14),

Jeffabunny_90 (A6), JewelBug_91 (A6), Jordennis_97 (A6), Kazan_100 (A6), Kipper29_99 (A6), Luchador_96 (A14), McFly_99 (A6), Newrala_98 (A6), Pmask_98 (A6), Polyphemus_92 (A6), Priamo_99 (A6), Roksolana_102 (A6), SmellyB_99 (A6), SororFago_96 (A14), Sunhee_101 (A14), SuperAwesome_99 (A6), VohminGhazi_99 (A6),

Start 33:
• Found in 53 of 178 (29.8%) of genes in pham
• Manual Annotations of this start: 49 of 172
• Called 94.3% of time when present
• Phage (with cluster) where this start called: Aneem_99 (A11), Artemis2UCLA_103 (A6), BABullseye_94 (A6), BabyBack_90 (A2), Bachome_96 (A11), BennyP_103 (A6), Bowtie_94 (A11), Bud_91 (A11), Candra_102 (A6), Chartreuse_100 (A6), CloudWang3_104 (A6), Cookiedough_99 (A6), DaVinci_98 (A6), DelvinSonDorr_96 (A6), Ebony_97 (A11), EricB_98 (A6), Fibonacci_98 (A11), Flaverint_99 (A11), Gilberta_96 (A11), Gladiator_98 (A6), GreedyLawyer_90 (A6), Gruunaga_102 (A6), Hammer_102 (A6), Hexamo_103 (A6), Hoot_96 (A6), Insomnia_98 (A11), Isiphiwo_97 (A6), Joselito_96 (A11), Kazan_102 (A6), Kimba_95 (A11), Koko_103 (A6), Lucivia_99 (A11), Mabel_98 (A11), McFly_100 (A6), Mulciber_97 (A11), Munch_97 (A11), Neeharika16_98 (A6), Newrala_100 (A6), Orange_98 (A11), Petersenfast_94 (A11), Rifter_102 (A6), Roksolana_104 (A6), Saskia_97 (A11), Sham4_95 (A11), SmellyB_101 (A6), Snape_98 (A11), SuperCallie99_96 (A6), Timothy_98 (A11), VohminGhazi_101 (A6), Wolpertinger_97 (A11),

Start 34:
• Found in 40 of 178 (22.5%) of genes in pham
• Manual Annotations of this start: 13 of 172
• Called 32.5% of time when present
• Phage (with cluster) where this start called: Aliter_91 (A9), Beemo_98 (A9), BogosyJay_97 (A9), EmyBug_94 (A9), Holex_98 (A9), HortumSL17_99 (A9), Lilleskat_98 (A9), Myxus_98 (A9), Onglai_97 (A9), PackMan_93 (A9), Phaeder_98 (A9), Qobbit_95 (A9), Tubs_98 (A9),

Start 35:
• Found in 1 of 178 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 172
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Trooper_93 (A2),

Start 36:
• Found in 5 of 178 (2.8%) of genes in pham
• Manual Annotations of this start: 5 of 172
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Et2Brutus_99 (A11), Hutc2_96 (A11), Jabith_99 (A11), MissWhite_92 (A2), Salz_95 (A11),

Start 37:
• Found in 10 of 178 (5.6%) of genes in pham
• Manual Annotations of this start: 9 of 172
• Called 90.0% of time when present
• Phage (with cluster) where this start called: Anselm_96 (A2), Dalmatian_93 (A2), DudeLittle_92 (A2), Fameo_92 (A2), Heffalump_90 (A2), Iwokeuplikedis_96 (A2), MyraDee_92 (A18), QueenB2_92 (A2), Retro23_94 (A2),

Start 38:
• Found in 2 of 178 (1.1%) of genes in pham
• Manual Annotations of this start: 2 of 172
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Benvolio_93 (A2), Echild_98 (A2),

Start 40:
• Found in 3 of 178 (1.7%) of genes in pham
• Manual Annotations of this start: 3 of 172
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DarthPhader_90 (A12), Elephantoon_97 (A9), Zimmer_89 (A12),

Summary by clusters:

There are 7 clusters represented in this pham: A14, A11, A12, A18, A2, A6, A9,

Info for manual annotations of cluster A11:
•Start number 27 was manually annotated 2 times for cluster A11.
•Start number 33 was manually annotated 22 times for cluster A11.
•Start number 36 was manually annotated 4 times for cluster A11.

Info for manual annotations of cluster A12:
•Start number 28 was manually annotated 1 time for cluster A12.
•Start number 40 was manually annotated 2 times for cluster A12.

Info for manual annotations of cluster A14:
•Start number 32 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A18:
•Start number 37 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A2:
•Start number 24 was manually annotated 2 times for cluster A2.
•Start number 25 was manually annotated 1 time for cluster A2.
•Start number 26 was manually annotated 3 times for cluster A2.
•Start number 27 was manually annotated 1 time for cluster A2.
•Start number 29 was manually annotated 6 times for cluster A2.
•Start number 31 was manually annotated 1 time for cluster A2.
•Start number 33 was manually annotated 1 time for cluster A2.
•Start number 35 was manually annotated 1 time for cluster A2.
•Start number 36 was manually annotated 1 time for cluster A2.
•Start number 37 was manually annotated 8 times for cluster A2.
•Start number 38 was manually annotated 2 times for cluster A2.

Info for manual annotations of cluster A6:
•Start number 28 was manually annotated 1 time for cluster A6.
•Start number 31 was manually annotated 12 times for cluster A6.
•Start number 32 was manually annotated 29 times for cluster A6.
•Start number 33 was manually annotated 26 times for cluster A6.

Info for manual annotations of cluster A9:

•Start number 22 was manually annotated 2 times for cluster A9.
•Start number 28 was manually annotated 21 times for cluster A9.
•Start number 29 was manually annotated 2 times for cluster A9.
•Start number 30 was manually annotated 1 time for cluster A9.
•Start number 31 was manually annotated 1 time for cluster A9.
•Start number 34 was manually annotated 13 times for cluster A9.
•Start number 40 was manually annotated 1 time for cluster A9.

Gene Information:

Gene: Acolyte_88 Start: 50735, Stop: 50541, Start Num: 24
Candidate Starts for Acolyte_88:
(Start: 24 @50735 has 2 MA's), (Start: 26 @50732 has 3 MA's), (44, 50681), (46, 50669), (58, 50579),

Gene: Adzzy_96 Start: 50624, Stop: 50436, Start Num: 29
Candidate Starts for Adzzy_96:
(Start: 29 @50624 has 8 MA's), (44, 50573), (49, 50525), (50, 50522),

Gene: Aliter_91 Start: 48577, Stop: 48383, Start Num: 34
Candidate Starts for Aliter_91:
(Start: 28 @48589 has 23 MA's), (Start: 34 @48577 has 13 MA's), (46, 48514), (52, 48469),

Gene: Alma_95 Start: 51299, Stop: 51096, Start Num: 28
Candidate Starts for Alma_95:
(Start: 28 @51299 has 23 MA's), (Start: 34 @51287 has 13 MA's), (46, 51227), (52, 51182),

Gene: Aneem_99 Start: 50978, Stop: 50790, Start Num: 33
Candidate Starts for Aneem_99:
(2, 51230), (Start: 27 @50993 has 3 MA's), (Start: 33 @50978 has 49 MA's), (53, 50864), (55, 50855),

Gene: Anselm_96 Start: 51904, Stop: 51731, Start Num: 37
Candidate Starts for Anselm_96:
(Start: 37 @51904 has 9 MA's), (47, 51838),

Gene: Arissanae_93 Start: 51287, Stop: 51075, Start Num: 28
Candidate Starts for Arissanae_93:
(Start: 28 @51287 has 23 MA's), (Start: 34 @51275 has 13 MA's), (52, 51161),

Gene: Artemis2UCLA_101 Start: 50316, Stop: 50119, Start Num: 32
Candidate Starts for Artemis2UCLA_101:
(7, 50412), (11, 50388), (12, 50382), (Start: 32 @50316 has 33 MA's), (46, 50250), (53, 50199), (59, 50154),

Gene: Artemis2UCLA_103 Start: 50643, Stop: 50455, Start Num: 33
Candidate Starts for Artemis2UCLA_103:
(Start: 33 @50643 has 49 MA's), (42, 50601), (44, 50592), (49, 50544), (53, 50529),

Gene: Ayanochan_94 Start: 51090, Stop: 50887, Start Num: 28
Candidate Starts for Ayanochan_94:
(Start: 28 @51090 has 23 MA's), (Start: 34 @51078 has 13 MA's), (46, 51018), (52, 50973),

Gene: BABullseye_94 Start: 48781, Stop: 48593, Start Num: 33
Candidate Starts for BABullseye_94:
(Start: 33 @48781 has 49 MA's), (42, 48739), (44, 48730), (49, 48682), (53, 48667),

Gene: BABullseye_92 Start: 48454, Stop: 48257, Start Num: 32
Candidate Starts for BABullseye_92:
(7, 48550), (11, 48526), (12, 48520), (Start: 32 @48454 has 33 MA's), (46, 48388), (53, 48337), (59, 48292),

Gene: BabyBack_90 Start: 51813, Stop: 51625, Start Num: 33
Candidate Starts for BabyBack_90:
(13, 51873), (Start: 33 @51813 has 49 MA's), (44, 51762), (49, 51714), (53, 51699),

Gene: Bachome_96 Start: 50026, Stop: 49838, Start Num: 33
Candidate Starts for Bachome_96:
(2, 50278), (Start: 27 @50041 has 3 MA's), (Start: 33 @50026 has 49 MA's), (53, 49912), (55, 49903),

Gene: Bactobuster_86 Start: 50535, Stop: 50317, Start Num: 26
Candidate Starts for Bactobuster_86:
(3, 50706), (Start: 24 @50538 has 2 MA's), (Start: 26 @50535 has 3 MA's), (41, 50481), (43, 50466), (48, 50427), (54, 50391), (60, 50349),

Gene: Beemo_98 Start: 51408, Stop: 51217, Start Num: 34
Candidate Starts for Beemo_98:
(Start: 28 @51420 has 23 MA's), (Start: 34 @51408 has 13 MA's), (52, 51303),

Gene: Bellris_96 Start: 50894, Stop: 50664, Start Num: 22
Candidate Starts for Bellris_96:
(Start: 22 @50894 has 2 MA's), (Start: 32 @50867 has 33 MA's), (43, 50813), (44, 50807), (51, 50753), (57, 50723), (61, 50678),

Gene: BennyP_103 Start: 50627, Stop: 50439, Start Num: 33
Candidate Starts for BennyP_103:
(Start: 33 @50627 has 49 MA's), (42, 50585), (44, 50576), (49, 50528), (53, 50513),

Gene: BennyP_101 Start: 50300, Stop: 50103, Start Num: 32
Candidate Starts for BennyP_101:
(7, 50396), (11, 50372), (12, 50366), (Start: 32 @50300 has 33 MA's), (46, 50234), (53, 50183), (59, 50138),

Gene: Benvolio_93 Start: 51526, Stop: 51350, Start Num: 38
Candidate Starts for Benvolio_93:
(23, 51562), (Start: 38 @51526 has 2 MA's), (39, 51523), (44, 51487), (53, 51424), (56, 51406),

Gene: BlessJoy_102 Start: 50840, Stop: 50643, Start Num: 31
Candidate Starts for BlessJoy_102:
(Start: 31 @50840 has 14 MA's), (59, 50678),

Gene: Blue7_103 Start: 50550, Stop: 50353, Start Num: 31
Candidate Starts for Blue7_103:
(Start: 31 @50550 has 14 MA's), (59, 50388),

Gene: BogosyJay_97 Start: 51415, Stop: 51218, Start Num: 34

Candidate Starts for BogosyJay_97:
(Start: 28 @51427 has 23 MA's), (Start: 34 @51415 has 13 MA's), (44, 51361), (46, 51349), (62, 51229),

Gene: Bowtie_94 Start: 49585, Stop: 49397, Start Num: 33
Candidate Starts for Bowtie_94:
(2, 49837), (Start: 27 @49600 has 3 MA's), (Start: 33 @49585 has 49 MA's), (53, 49471), (55, 49462),

Gene: Bud_91 Start: 49684, Stop: 49496, Start Num: 33
Candidate Starts for Bud_91:
(2, 49936), (Start: 27 @49699 has 3 MA's), (Start: 33 @49684 has 49 MA's), (53, 49570), (55, 49561),

Gene: Candra_100 Start: 50162, Stop: 49965, Start Num: 32
Candidate Starts for Candra_100:
(7, 50258), (11, 50234), (12, 50228), (Start: 32 @50162 has 33 MA's), (46, 50096), (53, 50045), (59, 50000),

Gene: Candra_102 Start: 50489, Stop: 50301, Start Num: 33
Candidate Starts for Candra_102:
(Start: 33 @50489 has 49 MA's), (42, 50447), (44, 50438), (49, 50390), (53, 50375),

Gene: Caraxes_97 Start: 51158, Stop: 50970, Start Num: 29
Candidate Starts for Caraxes_97:
(18, 51191), (Start: 27 @51161 has 3 MA's), (Start: 29 @51158 has 8 MA's),

Gene: Catalina_100 Start: 51533, Stop: 51330, Start Num: 28
Candidate Starts for Catalina_100:
(Start: 28 @51533 has 23 MA's), (Start: 34 @51521 has 13 MA's), (46, 51461), (52, 51416),

Gene: Chartreuse_100 Start: 49790, Stop: 49602, Start Num: 33
Candidate Starts for Chartreuse_100:
(Start: 33 @49790 has 49 MA's), (42, 49748), (44, 49739), (49, 49691), (53, 49676),

Gene: Chartreuse_98 Start: 49463, Stop: 49266, Start Num: 32
Candidate Starts for Chartreuse_98:
(7, 49559), (11, 49535), (12, 49529), (Start: 32 @49463 has 33 MA's), (46, 49397), (53, 49346), (59, 49301),

Gene: Che12_98 Start: 51094, Stop: 50906, Start Num: 29
Candidate Starts for Che12_98:
(Start: 27 @51097 has 3 MA's), (Start: 29 @51094 has 8 MA's), (53, 50980),

Gene: CloudWang3_104 Start: 51172, Stop: 50984, Start Num: 33
Candidate Starts for CloudWang3_104:
(Start: 33 @51172 has 49 MA's), (42, 51130), (44, 51121), (49, 51073), (53, 51058),

Gene: CloudWang3_102 Start: 50845, Stop: 50648, Start Num: 32
Candidate Starts for CloudWang3_102:
(7, 50941), (11, 50917), (12, 50911), (Start: 32 @50845 has 33 MA's), (46, 50779), (53, 50728), (59, 50683),

Gene: CogOmlette_94 Start: 50891, Stop: 50661, Start Num: 22
Candidate Starts for CogOmlette_94:

(Start: 22 @50891 has 2 MA's), (Start: 32 @50864 has 33 MA's), (43, 50810), (44, 50804), (51, 50750), (57, 50720), (61, 50675),

Gene: Conquerage_95 Start: 51075, Stop: 50872, Start Num: 28
Candidate Starts for Conquerage_95:
(Start: 28 @51075 has 23 MA's), (Start: 34 @51063 has 13 MA's), (46, 51003), (52, 50958),

Gene: Cookiedough_99 Start: 50764, Stop: 50576, Start Num: 33
Candidate Starts for Cookiedough_99:
(Start: 33 @50764 has 49 MA's), (42, 50722), (44, 50713), (49, 50665), (53, 50650),

Gene: DaVinci_98 Start: 49844, Stop: 49656, Start Num: 33
Candidate Starts for DaVinci_98:
(Start: 33 @49844 has 49 MA's), (42, 49802), (44, 49793), (49, 49745), (53, 49730),

Gene: DaVinci_97 Start: 49517, Stop: 49320, Start Num: 32
Candidate Starts for DaVinci_97:
(7, 49613), (11, 49589), (12, 49583), (Start: 32 @49517 has 33 MA's), (46, 49451), (53, 49400), (59, 49355),

Gene: Dalmatian_93 Start: 51205, Stop: 51032, Start Num: 37
Candidate Starts for Dalmatian_93:
(Start: 37 @51205 has 9 MA's), (47, 51139),

Gene: DarthPhader_90 Start: 51559, Stop: 51353, Start Num: 40
Candidate Starts for DarthPhader_90:
(16, 51604), (Start: 40 @51559 has 3 MA's), (43, 51529), (62, 51388),

Gene: DelvinSonDorr_95 Start: 49919, Stop: 49722, Start Num: 32
Candidate Starts for DelvinSonDorr_95:
(7, 50015), (11, 49991), (12, 49985), (Start: 32 @49919 has 33 MA's), (46, 49853), (53, 49802), (59, 49757),

Gene: DelvinSonDorr_96 Start: 50246, Stop: 50058, Start Num: 33
Candidate Starts for DelvinSonDorr_96:
(Start: 33 @50246 has 49 MA's), (42, 50204), (44, 50195), (49, 50147), (53, 50132),

Gene: Dorothea_99 Start: 50808, Stop: 50611, Start Num: 32
Candidate Starts for Dorothea_99:
(7, 50904), (11, 50880), (12, 50874), (Start: 32 @50808 has 33 MA's), (46, 50742), (53, 50691), (59, 50646),

Gene: DreamTeam1_93 Start: 50710, Stop: 50516, Start Num: 30
Candidate Starts for DreamTeam1_93:
(Start: 30 @50710 has 1 MA's), (43, 50665), (54, 50590), (55, 50587), (62, 50527),

Gene: DudeLittle_92 Start: 51271, Stop: 51098, Start Num: 37
Candidate Starts for DudeLittle_92:
(Start: 37 @51271 has 9 MA's), (47, 51205),

Gene: Ebony_97 Start: 50549, Stop: 50361, Start Num: 33
Candidate Starts for Ebony_97:
(2, 50801), (Start: 27 @50564 has 3 MA's), (Start: 33 @50549 has 49 MA's), (53, 50435), (55, 50426),

Gene: Echild_98 Start: 51550, Stop: 51374, Start Num: 38
Candidate Starts for Echild_98:
(23, 51586), (Start: 38 @51550 has 2 MA's), (39, 51547), (44, 51511), (53, 51448), (56, 51430),

Gene: EdogawaKiddo_98 Start: 51496, Stop: 51293, Start Num: 28
Candidate Starts for EdogawaKiddo_98:
(Start: 28 @51496 has 23 MA's), (Start: 34 @51484 has 13 MA's), (52, 51379),

Gene: Eidsmoe_95 Start: 51068, Stop: 50865, Start Num: 28
Candidate Starts for Eidsmoe_95:
(Start: 28 @51068 has 23 MA's), (Start: 34 @51056 has 13 MA's), (46, 50996), (52, 50951),

Gene: Elephantoon_97 Start: 51166, Stop: 50984, Start Num: 40
Candidate Starts for Elephantoon_97:
(8, 51268), (Start: 40 @51166 has 3 MA's), (53, 51064), (62, 50995),

Gene: EmyBug_94 Start: 51058, Stop: 50867, Start Num: 34
Candidate Starts for EmyBug_94:
(Start: 28 @51070 has 23 MA's), (Start: 34 @51058 has 13 MA's), (46, 50998), (52, 50953),

Gene: EricB_97 Start: 49662, Stop: 49465, Start Num: 32
Candidate Starts for EricB_97:
(7, 49758), (11, 49734), (12, 49728), (Start: 32 @49662 has 33 MA's), (46, 49596), (53, 49545), (59, 49500),

Gene: EricB_98 Start: 49989, Stop: 49801, Start Num: 33
Candidate Starts for EricB_98:
(Start: 33 @49989 has 49 MA's), (42, 49947), (44, 49938), (49, 49890), (53, 49875),

Gene: Et2Brutus_99 Start: 50879, Stop: 50685, Start Num: 36
Candidate Starts for Et2Brutus_99:
(1, 51146), (Start: 24 @50909 has 2 MA's), (Start: 28 @50903 has 23 MA's), (Start: 34 @50885 has 13 MA's), (Start: 36 @50879 has 5 MA's), (43, 50834), (44, 50828), (55, 50756), (57, 50744),

Gene: ExplosioNervosa_95 Start: 51136, Stop: 50933, Start Num: 28
Candidate Starts for ExplosioNervosa_95:
(Start: 28 @51136 has 23 MA's), (Start: 34 @51124 has 13 MA's), (46, 51064), (52, 51019),

Gene: Fameo_92 Start: 50977, Stop: 50804, Start Num: 37
Candidate Starts for Fameo_92:
(Start: 37 @50977 has 9 MA's), (47, 50911),

Gene: Fayely_95 Start: 51044, Stop: 50841, Start Num: 28
Candidate Starts for Fayely_95:
(Start: 28 @51044 has 23 MA's), (Start: 34 @51032 has 13 MA's), (46, 50972), (52, 50927),

Gene: Fibonacci_98 Start: 50832, Stop: 50644, Start Num: 33
Candidate Starts for Fibonacci_98:
(Start: 27 @50847 has 3 MA's), (Start: 33 @50832 has 49 MA's), (53, 50718), (55, 50709),

Gene: Flaverint_99 Start: 50976, Stop: 50788, Start Num: 33
Candidate Starts for Flaverint_99:

(2, 51228), (Start: 27 @50991 has 3 MA's), (Start: 33 @50976 has 49 MA's), (53, 50862), (55, 50853),

Gene: Garak_103 Start: 50790, Stop: 50593, Start Num: 31
Candidate Starts for Garak_103:
(Start: 31 @50790 has 14 MA's), (59, 50628),

Gene: GaugeLDP_90 Start: 51345, Stop: 51148, Start Num: 31
Candidate Starts for GaugeLDP_90:
(Start: 31 @51345 has 14 MA's), (52, 51234),

Gene: Gilberta_96 Start: 49852, Stop: 49664, Start Num: 33
Candidate Starts for Gilberta_96:
(2, 50104), (Start: 27 @49867 has 3 MA's), (Start: 33 @49852 has 49 MA's), (53, 49738), (55, 49729),

Gene: Gladiator_98 Start: 50501, Stop: 50313, Start Num: 33
Candidate Starts for Gladiator_98:
(Start: 33 @50501 has 49 MA's), (42, 50459), (44, 50450), (49, 50402), (53, 50387),

Gene: GreedyLawyer_89 Start: 50095, Stop: 49898, Start Num: 32
Candidate Starts for GreedyLawyer_89:
(7, 50191), (11, 50167), (12, 50161), (Start: 32 @50095 has 33 MA's), (46, 50029), (53, 49978), (59, 49933),

Gene: GreedyLawyer_90 Start: 50422, Stop: 50234, Start Num: 33
Candidate Starts for GreedyLawyer_90:
(Start: 33 @50422 has 49 MA's), (42, 50380), (44, 50371), (49, 50323), (53, 50308),

Gene: Gruunaga_102 Start: 50457, Stop: 50269, Start Num: 33
Candidate Starts for Gruunaga_102:
(Start: 33 @50457 has 49 MA's), (42, 50415), (44, 50406), (49, 50358), (53, 50343),

Gene: Hammer_102 Start: 50154, Stop: 49966, Start Num: 33
Candidate Starts for Hammer_102:
(Start: 33 @50154 has 49 MA's), (42, 50112), (44, 50103), (49, 50055), (53, 50040),

Gene: Hanray_98 Start: 51485, Stop: 51282, Start Num: 28
Candidate Starts for Hanray_98:
(Start: 28 @51485 has 23 MA's), (Start: 34 @51473 has 13 MA's), (52, 51368),

Gene: Heffalump_90 Start: 51446, Stop: 51273, Start Num: 37
Candidate Starts for Heffalump_90:
(Start: 37 @51446 has 9 MA's), (47, 51380),

Gene: Helmet_104 Start: 50790, Stop: 50593, Start Num: 32
Candidate Starts for Helmet_104:
(7, 50886), (11, 50862), (12, 50856), (Start: 32 @50790 has 33 MA's), (46, 50724), (53, 50673), (59, 50628),

Gene: Hexamo_103 Start: 50658, Stop: 50470, Start Num: 33
Candidate Starts for Hexamo_103:
(Start: 33 @50658 has 49 MA's), (42, 50616), (44, 50607), (49, 50559), (53, 50544),

Gene: Hexamo_101 Start: 50331, Stop: 50134, Start Num: 32

Candidate Starts for Hexamo_101:
(7, 50427), (11, 50403), (12, 50397), (Start: 32 @50331 has 33 MA's), (46, 50265), (53, 50214), (59, 50169),

Gene: Holex_98 Start: 51486, Stop: 51295, Start Num: 34
Candidate Starts for Holex_98:
(Start: 28 @51498 has 23 MA's), (Start: 34 @51486 has 13 MA's), (52, 51381),

Gene: Hoot_96 Start: 48306, Stop: 48118, Start Num: 33
Candidate Starts for Hoot_96:
(Start: 33 @48306 has 49 MA's), (42, 48264), (44, 48255), (49, 48207), (53, 48192),

Gene: Hoot_94 Start: 47979, Stop: 47782, Start Num: 32
Candidate Starts for Hoot_94:
(7, 48075), (11, 48051), (12, 48045), (Start: 32 @47979 has 33 MA's), (46, 47913), (53, 47862), (59, 47817),

Gene: HortumSL17_99 Start: 51522, Stop: 51328, Start Num: 34
Candidate Starts for HortumSL17_99:
(Start: 28 @51534 has 23 MA's), (Start: 34 @51522 has 13 MA's), (46, 51459), (52, 51414),

Gene: Hutc2_96 Start: 49769, Stop: 49575, Start Num: 36
Candidate Starts for Hutc2_96:
(1, 50036), (Start: 24 @49799 has 2 MA's), (Start: 28 @49793 has 23 MA's), (Start: 34 @49775 has 13 MA's), (Start: 36 @49769 has 5 MA's), (43, 49724), (44, 49718), (55, 49646), (57, 49634),

Gene: Imbriano_100 Start: 51010, Stop: 50813, Start Num: 32
Candidate Starts for Imbriano_100:
(7, 51106), (9, 51088), (11, 51082), (12, 51076), (Start: 32 @51010 has 33 MA's), (46, 50944), (53, 50893), (59, 50848),

Gene: Indra_104 Start: 50791, Stop: 50594, Start Num: 31
Candidate Starts for Indra_104:
(Start: 31 @50791 has 14 MA's), (46, 50725), (53, 50674), (59, 50629),

Gene: Insomnia_98 Start: 51010, Stop: 50822, Start Num: 33
Candidate Starts for Insomnia_98:
(Start: 27 @51025 has 3 MA's), (Start: 33 @51010 has 49 MA's), (53, 50896), (55, 50887),

Gene: IronMan_90 Start: 51924, Stop: 51724, Start Num: 25
Candidate Starts for IronMan_90:
(Start: 25 @51924 has 1 MA's),

Gene: Isiphiwo_97 Start: 50208, Stop: 50020, Start Num: 33
Candidate Starts for Isiphiwo_97:
(Start: 33 @50208 has 49 MA's), (42, 50166), (44, 50157), (49, 50109), (53, 50094),

Gene: Isiphiwo_96 Start: 49881, Stop: 49684, Start Num: 32
Candidate Starts for Isiphiwo_96:
(7, 49977), (11, 49953), (12, 49947), (Start: 32 @49881 has 33 MA's), (46, 49815), (53, 49764), (59, 49719),

Gene: Iwokeuplikedis_96 Start: 51616, Stop: 51443, Start Num: 37

Candidate Starts for Iwokeuplikedis_96:
(21, 51640), (Start: 37 @51616 has 9 MA's), (47, 51550),

Gene: Jabith_99 Start: 51077, Stop: 50883, Start Num: 36
Candidate Starts for Jabith_99:
(1, 51344), (Start: 24 @51107 has 2 MA's), (Start: 28 @51101 has 23 MA's), (Start: 34 @51083 has 13 MA's), (Start: 36 @51077 has 5 MA's), (43, 51032), (44, 51026), (55, 50954), (57, 50942),

Gene: Jeeves_100 Start: 50694, Stop: 50494, Start Num: 32
Candidate Starts for Jeeves_100:
(6, 50808), (15, 50742), (Start: 32 @50694 has 33 MA's), (43, 50646), (55, 50568),

Gene: Jeffabunny_92 Start: 47267, Stop: 47073, Start Num: 28
Candidate Starts for Jeffabunny_92:
(Start: 28 @47267 has 23 MA's), (Start: 33 @47261 has 49 MA's), (42, 47219), (44, 47210), (49, 47162), (53, 47147),

Gene: Jeffabunny_90 Start: 46934, Stop: 46737, Start Num: 32
Candidate Starts for Jeffabunny_90:
(7, 47030), (11, 47006), (12, 47000), (Start: 32 @46934 has 33 MA's), (46, 46868), (53, 46817), (59, 46772),

Gene: JewelBug_91 Start: 48501, Stop: 48304, Start Num: 32
Candidate Starts for JewelBug_91:
(7, 48597), (9, 48579), (11, 48573), (12, 48567), (Start: 32 @48501 has 33 MA's), (46, 48435), (53, 48384), (59, 48339),

Gene: Jiawan_98 Start: 51515, Stop: 51312, Start Num: 28
Candidate Starts for Jiawan_98:
(Start: 28 @51515 has 23 MA's), (Start: 34 @51503 has 13 MA's), (52, 51398),

Gene: Jordennis_97 Start: 50405, Stop: 50208, Start Num: 32
Candidate Starts for Jordennis_97:
(7, 50501), (11, 50477), (12, 50471), (Start: 32 @50405 has 33 MA's), (46, 50339), (53, 50288), (59, 50243),

Gene: Joselito_96 Start: 50730, Stop: 50542, Start Num: 33
Candidate Starts for Joselito_96:
(2, 50982), (Start: 27 @50745 has 3 MA's), (Start: 33 @50730 has 49 MA's), (53, 50616), (55, 50607),

Gene: Kazan_100 Start: 50132, Stop: 49935, Start Num: 32
Candidate Starts for Kazan_100:
(7, 50228), (11, 50204), (12, 50198), (Start: 32 @50132 has 33 MA's), (46, 50066), (53, 50015), (59, 49970),

Gene: Kazan_102 Start: 50459, Stop: 50271, Start Num: 33
Candidate Starts for Kazan_102:
(Start: 33 @50459 has 49 MA's), (42, 50417), (44, 50408), (49, 50360), (53, 50345),

Gene: Kimba_95 Start: 50034, Stop: 49846, Start Num: 33
Candidate Starts for Kimba_95:
(2, 50286), (Start: 27 @50049 has 3 MA's), (Start: 33 @50034 has 49 MA's), (53, 49920), (55, 49911),

Gene: Kipper29_99 Start: 50180, Stop: 49983, Start Num: 32
Candidate Starts for Kipper29_99:
(7, 50276), (11, 50252), (12, 50246), (Start: 32 @50180 has 33 MA's), (46, 50114), (53, 50063), (59, 50018),

Gene: Koko_103 Start: 51171, Stop: 50983, Start Num: 33
Candidate Starts for Koko_103:
(Start: 33 @51171 has 49 MA's), (42, 51129), (44, 51120), (49, 51072), (53, 51057),

Gene: Landor_91 Start: 52081, Stop: 51863, Start Num: 26
Candidate Starts for Landor_91:
(3, 52252), (Start: 24 @52084 has 2 MA's), (Start: 26 @52081 has 3 MA's), (41, 52027), (43, 52012), (48, 51973), (54, 51937), (60, 51895),

Gene: Lilbunny_98 Start: 49038, Stop: 48841, Start Num: 31
Candidate Starts for Lilbunny_98:
(Start: 31 @49038 has 14 MA's), (59, 48876),

Gene: Lilleskat_98 Start: 51474, Stop: 51283, Start Num: 34
Candidate Starts for Lilleskat_98:
(Start: 28 @51486 has 23 MA's), (Start: 34 @51474 has 13 MA's), (52, 51369),

Gene: LoneWolf_97 Start: 51410, Stop: 51201, Start Num: 28
Candidate Starts for LoneWolf_97:
(Start: 28 @51410 has 23 MA's), (Start: 34 @51398 has 13 MA's), (44, 51344), (46, 51332),

Gene: Luchador_96 Start: 51613, Stop: 51407, Start Num: 32
Candidate Starts for Luchador_96:
(6, 51727), (15, 51661), (Start: 32 @51613 has 33 MA's), (44, 51553), (56, 51472),

Gene: Lucivia_99 Start: 51009, Stop: 50821, Start Num: 33
Candidate Starts for Lucivia_99:
(2, 51261), (Start: 27 @51024 has 3 MA's), (Start: 33 @51009 has 49 MA's), (53, 50895), (55, 50886),

Gene: MaCh_98 Start: 50988, Stop: 50785, Start Num: 27
Candidate Starts for MaCh_98:
(2, 51225), (Start: 27 @50988 has 3 MA's), (Start: 33 @50973 has 49 MA's), (53, 50859), (55, 50850),

Gene: Mabel_98 Start: 50974, Stop: 50786, Start Num: 33
Candidate Starts for Mabel_98:
(2, 51226), (Start: 27 @50989 has 3 MA's), (Start: 33 @50974 has 49 MA's), (53, 50860), (55, 50851),

Gene: Maminiaina_97 Start: 51409, Stop: 51200, Start Num: 28
Candidate Starts for Maminiaina_97:
(Start: 28 @51409 has 23 MA's), (Start: 34 @51397 has 13 MA's), (44, 51343), (46, 51331), (62, 51211),

Gene: McFly_99 Start: 50471, Stop: 50274, Start Num: 32
Candidate Starts for McFly_99:
(7, 50567), (11, 50543), (12, 50537), (Start: 32 @50471 has 33 MA's), (46, 50405), (53, 50354), (59, 50309),

Gene: McFly_100 Start: 50798, Stop: 50610, Start Num: 33

Candidate Starts for McFly_100:
(Start: 33 @50798 has 49 MA's), (42, 50756), (44, 50747), (49, 50699), (53, 50684),

Gene: Minispark_94 Start: 50888, Stop: 50658, Start Num: 22
Candidate Starts for Minispark_94:
(Start: 22 @50888 has 2 MA's), (Start: 32 @50861 has 33 MA's), (43, 50807), (44, 50801), (51, 50747), (57, 50717), (61, 50672),

Gene: MissWhite_92 Start: 48624, Stop: 48430, Start Num: 36
Candidate Starts for MissWhite_92:
(Start: 24 @48654 has 2 MA's), (Start: 28 @48648 has 23 MA's), (Start: 34 @48630 has 13 MA's), (Start: 36 @48624 has 5 MA's), (43, 48579), (44, 48573), (55, 48501), (57, 48489),

Gene: Mulciber_97 Start: 50829, Stop: 50641, Start Num: 33
Candidate Starts for Mulciber_97:
(2, 51081), (Start: 27 @50844 has 3 MA's), (Start: 33 @50829 has 49 MA's), (53, 50715), (55, 50706),

Gene: Munch_97 Start: 50978, Stop: 50790, Start Num: 33
Candidate Starts for Munch_97:
(2, 51230), (Start: 27 @50993 has 3 MA's), (Start: 33 @50978 has 49 MA's), (53, 50864), (55, 50855),

Gene: MyraDee_92 Start: 48828, Stop: 48646, Start Num: 37
Candidate Starts for MyraDee_92:
(5, 48954), (12, 48897), (17, 48879), (20, 48864), (Start: 37 @48828 has 9 MA's), (44, 48783), (49, 48735), (60, 48672),

Gene: Myxus_98 Start: 51522, Stop: 51328, Start Num: 34
Candidate Starts for Myxus_98:
(Start: 28 @51534 has 23 MA's), (Start: 34 @51522 has 13 MA's), (46, 51459), (52, 51414),

Gene: Neeharika16_98 Start: 50215, Stop: 50027, Start Num: 33
Candidate Starts for Neeharika16_98:
(Start: 33 @50215 has 49 MA's), (42, 50173), (44, 50164), (49, 50116), (53, 50101),

Gene: Newrala_98 Start: 50570, Stop: 50373, Start Num: 32
Candidate Starts for Newrala_98:
(7, 50666), (11, 50642), (12, 50636), (Start: 32 @50570 has 33 MA's), (46, 50504), (53, 50453), (59, 50408),

Gene: Newrala_100 Start: 50897, Stop: 50709, Start Num: 33
Candidate Starts for Newrala_100:
(Start: 33 @50897 has 49 MA's), (42, 50855), (44, 50846), (49, 50798), (53, 50783),

Gene: NothingSpecial_87 Start: 50873, Stop: 50661, Start Num: 24
Candidate Starts for NothingSpecial_87:
(Start: 24 @50873 has 2 MA's), (Start: 26 @50870 has 3 MA's), (Start: 34 @50861 has 13 MA's), (43, 50810), (54, 50735), (57, 50720),

Gene: Odin_94 Start: 51072, Stop: 50881, Start Num: 27
Candidate Starts for Odin_94:
(18, 51102), (Start: 27 @51072 has 3 MA's), (Start: 29 @51069 has 8 MA's),

Gene: Onglai_97 Start: 49675, Stop: 49484, Start Num: 34

Candidate Starts for Onglai_97:
(Start: 28 @49687 has 23 MA's), (Start: 34 @49675 has 13 MA's), (52, 49570),

Gene: Orange_98 Start: 50528, Stop: 50340, Start Num: 33
Candidate Starts for Orange_98:
(2, 50780), (Start: 27 @50543 has 3 MA's), (Start: 33 @50528 has 49 MA's), (53, 50414), (55, 50405),

Gene: PackMan_93 Start: 49436, Stop: 49242, Start Num: 34
Candidate Starts for PackMan_93:
(Start: 28 @49448 has 23 MA's), (Start: 34 @49436 has 13 MA's), (46, 49373), (52, 49328),

Gene: Petersenfast_94 Start: 49409, Stop: 49221, Start Num: 33
Candidate Starts for Petersenfast_94:
(2, 49661), (Start: 27 @49424 has 3 MA's), (Start: 33 @49409 has 49 MA's), (45, 49349), (53, 49295), (55, 49286),

Gene: Ph8s_97 Start: 50955, Stop: 50767, Start Num: 29
Candidate Starts for Ph8s_97:
(Start: 29 @50955 has 8 MA's),

Gene: Phaeder_98 Start: 51397, Stop: 51203, Start Num: 34
Candidate Starts for Phaeder_98:
(Start: 28 @51409 has 23 MA's), (Start: 34 @51397 has 13 MA's), (46, 51334), (52, 51289),

Gene: Phonnegut_98 Start: 51419, Stop: 51216, Start Num: 28
Candidate Starts for Phonnegut_98:
(Start: 28 @51419 has 23 MA's), (Start: 34 @51407 has 13 MA's), (52, 51302),

Gene: Pioneer_98 Start: 51419, Stop: 51216, Start Num: 28
Candidate Starts for Pioneer_98:
(Start: 28 @51419 has 23 MA's), (Start: 34 @51407 has 13 MA's), (52, 51302),

Gene: Pmask_98 Start: 50771, Stop: 50574, Start Num: 32
Candidate Starts for Pmask_98:
(7, 50867), (11, 50843), (12, 50837), (Start: 32 @50771 has 33 MA's), (46, 50705), (53, 50654), (59, 50609),

Gene: Polyphemus_92 Start: 48585, Stop: 48388, Start Num: 32
Candidate Starts for Polyphemus_92:
(7, 48681), (9, 48663), (11, 48657), (12, 48651), (Start: 32 @48585 has 33 MA's), (46, 48519), (53, 48468), (59, 48423),

Gene: Priamo_99 Start: 49814, Stop: 49617, Start Num: 32
Candidate Starts for Priamo_99:
(7, 49910), (11, 49886), (12, 49880), (Start: 32 @49814 has 33 MA's), (46, 49748), (53, 49697), (59, 49652),

Gene: Priya_95 Start: 51071, Stop: 50868, Start Num: 28
Candidate Starts for Priya_95:
(Start: 28 @51071 has 23 MA's), (Start: 34 @51059 has 13 MA's), (46, 50999), (52, 50954),

Gene: Qobbit_95 Start: 51021, Stop: 50830, Start Num: 34
Candidate Starts for Qobbit_95:

(Start: 28 @51033 has 23 MA's), (Start: 34 @51021 has 13 MA's), (46, 50961), (52, 50916),

Gene: QueenB2_92 Start: 51097, Stop: 50924, Start Num: 37
Candidate Starts for QueenB2_92:
(Start: 37 @51097 has 9 MA's), (47, 51031),

Gene: Rahalelujah_96 Start: 50903, Stop: 50673, Start Num: 22
Candidate Starts for Rahalelujah_96:
(Start: 22 @50903 has 2 MA's), (Start: 32 @50876 has 33 MA's), (43, 50822), (44, 50816), (51, 50762), (57, 50732), (61, 50687),

Gene: Refuge_90 Start: 51776, Stop: 51570, Start Num: 28
Candidate Starts for Refuge_90:
(14, 51821), (Start: 28 @51776 has 23 MA's), (Start: 32 @51767 has 33 MA's), (54, 51644), (61, 51584),

Gene: Retro23_94 Start: 51395, Stop: 51222, Start Num: 37
Candidate Starts for Retro23_94:
(Start: 37 @51395 has 9 MA's), (47, 51329),

Gene: Rifter_102 Start: 49949, Stop: 49761, Start Num: 33
Candidate Starts for Rifter_102:
(Start: 33 @49949 has 49 MA's), (42, 49907), (44, 49898), (49, 49850), (53, 49835),

Gene: Roksolana_104 Start: 51001, Stop: 50813, Start Num: 33
Candidate Starts for Roksolana_104:
(Start: 33 @51001 has 49 MA's), (42, 50959), (44, 50950), (49, 50902), (53, 50887),

Gene: Roksolana_102 Start: 50674, Stop: 50477, Start Num: 32
Candidate Starts for Roksolana_102:
(7, 50770), (11, 50746), (12, 50740), (Start: 32 @50674 has 33 MA's), (46, 50608), (53, 50557), (59, 50512),

Gene: RyeScarlet_98 Start: 51405, Stop: 51202, Start Num: 28
Candidate Starts for RyeScarlet_98:
(Start: 28 @51405 has 23 MA's), (Start: 34 @51393 has 13 MA's), (52, 51288),

Gene: Sachima_98 Start: 51433, Stop: 51230, Start Num: 28
Candidate Starts for Sachima_98:
(Start: 28 @51433 has 23 MA's), (Start: 34 @51421 has 13 MA's), (52, 51316),

Gene: Salz_95 Start: 49691, Stop: 49497, Start Num: 36
Candidate Starts for Salz_95:
(1, 49958), (Start: 24 @49721 has 2 MA's), (Start: 28 @49715 has 23 MA's), (Start: 34 @49697 has 13 MA's), (Start: 36 @49691 has 5 MA's), (43, 49646), (44, 49640), (55, 49568), (57, 49556),

Gene: Saskia_97 Start: 50197, Stop: 50009, Start Num: 33
Candidate Starts for Saskia_97:
(2, 50449), (Start: 27 @50212 has 3 MA's), (Start: 33 @50197 has 49 MA's), (53, 50083), (55, 50074),

Gene: Scherzo_96 Start: 51450, Stop: 51247, Start Num: 28
Candidate Starts for Scherzo_96:
(Start: 28 @51450 has 23 MA's), (Start: 34 @51438 has 13 MA's), (52, 51333),

Gene: Sham4_95 Start: 49724, Stop: 49536, Start Num: 33
Candidate Starts for Sham4_95:
(Start: 27 @49739 has 3 MA's), (Start: 33 @49724 has 49 MA's), (53, 49610), (55, 49601),

Gene: SmellyB_101 Start: 50453, Stop: 50265, Start Num: 33
Candidate Starts for SmellyB_101:
(Start: 33 @50453 has 49 MA's), (42, 50411), (44, 50402), (49, 50354), (53, 50339),

Gene: SmellyB_99 Start: 50126, Stop: 49929, Start Num: 32
Candidate Starts for SmellyB_99:
(7, 50222), (11, 50198), (12, 50192), (Start: 32 @50126 has 33 MA's), (46, 50060), (53, 50009), (59, 49964),

Gene: Snape_98 Start: 50517, Stop: 50329, Start Num: 33
Candidate Starts for Snape_98:
(2, 50769), (Start: 27 @50532 has 3 MA's), (Start: 33 @50517 has 49 MA's), (53, 50403), (55, 50394),

Gene: SororFago_96 Start: 51668, Stop: 51465, Start Num: 32
Candidate Starts for SororFago_96:
(6, 51782), (15, 51716), (Start: 32 @51668 has 33 MA's), (43, 51617), (45, 51602), (55, 51539),

Gene: Spouty_95 Start: 51070, Stop: 50867, Start Num: 28
Candidate Starts for Spouty_95:
(Start: 28 @51070 has 23 MA's), (Start: 34 @51058 has 13 MA's), (46, 50998), (52, 50953),

Gene: Sunhee_101 Start: 50509, Stop: 50312, Start Num: 32
Candidate Starts for Sunhee_101:
(6, 50623), (15, 50557), (Start: 32 @50509 has 33 MA's), (44, 50455), (54, 50386), (57, 50371), (59, 50347), (61, 50326),

Gene: SuperAwesome_99 Start: 50810, Stop: 50613, Start Num: 32
Candidate Starts for SuperAwesome_99:
(7, 50906), (11, 50882), (12, 50876), (Start: 32 @50810 has 33 MA's), (46, 50744), (53, 50693), (59, 50648),

Gene: SuperCallie99_96 Start: 50373, Stop: 50185, Start Num: 33
Candidate Starts for SuperCallie99_96:
(Start: 33 @50373 has 49 MA's), (42, 50331), (44, 50322), (49, 50274), (53, 50259),

Gene: Superchunk_97 Start: 51158, Stop: 50970, Start Num: 29
Candidate Starts for Superchunk_97:
(18, 51191), (Start: 27 @51161 has 3 MA's), (Start: 29 @51158 has 8 MA's),

Gene: SwirlSquare_97 Start: 50315, Stop: 50127, Start Num: 29
Candidate Starts for SwirlSquare_97:
(4, 50441), (Start: 29 @50315 has 8 MA's), (44, 50264), (49, 50216), (50, 50213),

Gene: Temprado_103 Start: 50790, Stop: 50593, Start Num: 31
Candidate Starts for Temprado_103:
(Start: 31 @50790 has 14 MA's), (59, 50628),

Gene: Timothy_98 Start: 50494, Stop: 50306, Start Num: 33

Candidate Starts for Timothy_98:
(2, 50746), (Start: 27 @50509 has 3 MA's), (Start: 33 @50494 has 49 MA's), (53, 50380), (55, 50371),

Gene: TinyTimmy_96 Start: 50238, Stop: 50035, Start Num: 27
Candidate Starts for TinyTimmy_96:
(2, 50475), (Start: 27 @50238 has 3 MA's), (Start: 33 @50223 has 49 MA's), (53, 50109), (55, 50100),

Gene: Toaka_95 Start: 51213, Stop: 51004, Start Num: 29
Candidate Starts for Toaka_95:
(10, 51282), (19, 51240), (Start: 29 @51213 has 8 MA's), (43, 51153), (44, 51147), (54, 51078),

Gene: ToneTone_98 Start: 50341, Stop: 50144, Start Num: 31
Candidate Starts for ToneTone_98:
(Start: 31 @50341 has 14 MA's), (59, 50179),

Gene: Tristan_90 Start: 51880, Stop: 51662, Start Num: 26
Candidate Starts for Tristan_90:
(Start: 24 @51883 has 2 MA's), (Start: 26 @51880 has 3 MA's), (41, 51826), (43, 51811), (48, 51772), (54, 51736), (60, 51694),

Gene: Trooper_93 Start: 50915, Stop: 50739, Start Num: 35
Candidate Starts for Trooper_93:
(18, 50951), (Start: 35 @50915 has 1 MA's), (Start: 37 @50912 has 9 MA's), (47, 50846), (60, 50765),

Gene: Tubs_98 Start: 51397, Stop: 51203, Start Num: 34
Candidate Starts for Tubs_98:
(Start: 28 @51409 has 23 MA's), (Start: 34 @51397 has 13 MA's), (46, 51334), (52, 51289),

Gene: Tucker_102 Start: 50544, Stop: 50347, Start Num: 31
Candidate Starts for Tucker_102:
(Start: 31 @50544 has 14 MA's), (59, 50382),

Gene: Ugenie5_85 Start: 48894, Stop: 48691, Start Num: 28
Candidate Starts for Ugenie5_85:
(Start: 28 @48894 has 23 MA's), (Start: 34 @48882 has 13 MA's), (52, 48777),

Gene: Vanisoa_92 Start: 51506, Stop: 51297, Start Num: 29
Candidate Starts for Vanisoa_92:
(Start: 29 @51506 has 8 MA's), (43, 51446), (44, 51440),

Gene: VohminGhazi_99 Start: 50127, Stop: 49930, Start Num: 32
Candidate Starts for VohminGhazi_99:
(7, 50223), (11, 50199), (12, 50193), (Start: 32 @50127 has 33 MA's), (46, 50061), (53, 50010), (59, 49965),

Gene: VohminGhazi_101 Start: 50454, Stop: 50266, Start Num: 33
Candidate Starts for VohminGhazi_101:
(Start: 33 @50454 has 49 MA's), (42, 50412), (44, 50403), (49, 50355), (53, 50340),

Gene: Wiks_101 Start: 50421, Stop: 50224, Start Num: 31
Candidate Starts for Wiks_101:
(Start: 31 @50421 has 14 MA's), (59, 50259),

Gene: Wolpertinger_97 Start: 50843, Stop: 50655, Start Num: 33
Candidate Starts for Wolpertinger_97:
(Start: 27 @50858 has 3 MA's), (Start: 33 @50843 has 49 MA's), (53, 50729), (55, 50720),

Gene: WorldCup_95 Start: 50989, Stop: 50759, Start Num: 22
Candidate Starts for WorldCup_95:
(Start: 22 @50989 has 2 MA's), (Start: 32 @50962 has 33 MA's), (43, 50908), (44, 50902), (51, 50848), (57, 50818), (61, 50773),

Gene: WunderPhul_90 Start: 47023, Stop: 46826, Start Num: 31
Candidate Starts for WunderPhul_90:
(Start: 31 @47023 has 14 MA's), (59, 46861),

Gene: Yecey3_99 Start: 51233, Stop: 51030, Start Num: 31
Candidate Starts for Yecey3_99:
(Start: 31 @51233 has 14 MA's), (63, 51035),

Gene: Yokurt_101 Start: 50421, Stop: 50224, Start Num: 31
Candidate Starts for Yokurt_101:
(Start: 31 @50421 has 14 MA's), (59, 50259),

Gene: Zaka_102 Start: 50421, Stop: 50224, Start Num: 31
Candidate Starts for Zaka_102:
(Start: 31 @50421 has 14 MA's), (59, 50259),

Gene: Zimmer_89 Start: 51230, Stop: 51024, Start Num: 40
Candidate Starts for Zimmer_89:
(16, 51275), (Start: 40 @51230 has 3 MA's), (43, 51200), (62, 51059),

Gene: Zulu_103 Start: 50798, Stop: 50601, Start Num: 31
Candidate Starts for Zulu_103:
(Start: 31 @50798 has 14 MA's), (59, 50636),