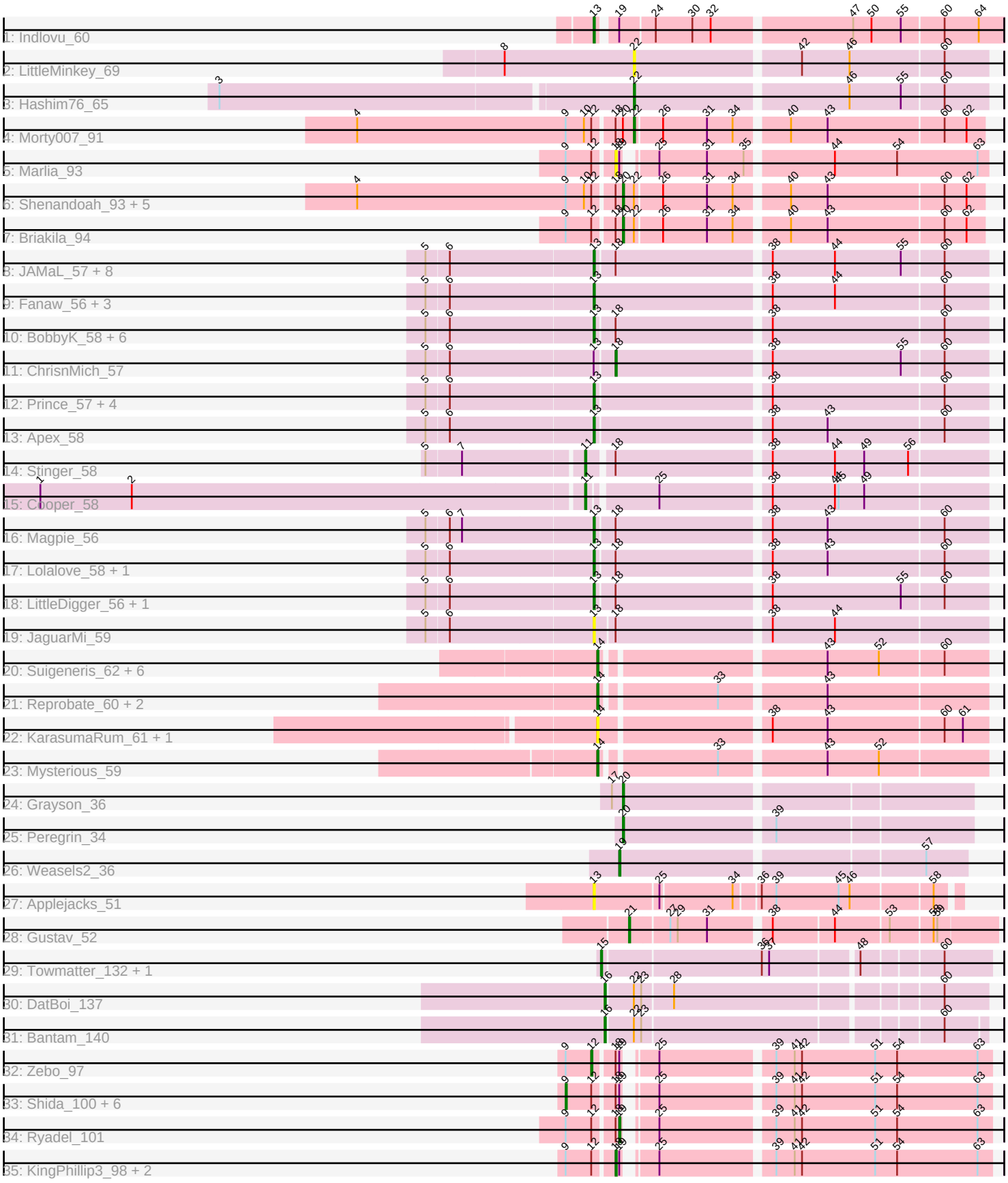
Pham 347524


1: Indlovu_60
2: LittleMinkey_69
3: Hashim76_65
4: Morty007_91
5: Marlia_93
6: Shenandoah_93 + 5
7: Briakila_94
8: JAMaL_57 + 8
9: Fanaw_56 + 3
10: BobbyK_58 + 6
11: ChrisnMich_57
12: Prince_57 + 4
13: Apex_58
14: Stinger_58
15: Cooper_58
16: Magpie_56
17: Lolalove_58 + 1
18: LittleDigger_56 + 1
19: JaguarMi_59
20: Suigeneris_62 + 6
21: Reprobate_60 + 2
22: KarasumaRum_61 + 1
23: Mysterious_59
24: Grayson_36
25: Peregrin_34
26: Weasels2_36
27: Applejacks_51
28: Gustav_52
29: Towmatter_132 + 1
30: DatBoi_137
31: Bantam_140
32: Zebo_97
33: Shida_100 + 6
34: Ryadel_101
35: KingPhillip3_98 + 2

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 347524 Report

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

Pham number 347524 has 81 members, 19 are drafts.

Phages represented in each track:
• Track 1 : Indlovu_60
• Track 2 : LittleMinkey_69
• Track 3 : Hashim76_65
• Track 4 : Morty007_91
• Track 5 : Marlia_93
• Track 6 : Shenandoah_93, Deenasa_94, RagingRooster_93, Chalmers_93, Neos5_92, SynergyX_94
• Track 7 : Briakila_94
• Track 8 : JAMaL_57, Epah_56, Hally898_56, Antihero_56, GinPorsche_57, Poster_56, Ahwei_56, Nanao_56, Lambano_56
• Track 9 : Fanaw_56, Fortunato_58, QueenPie_55, RawrgerThat_58
• Track 10 : BobbyK_58, Waleliano_57, JoyceMaria_57, Frederick_58, BrownCNA_59, Zemanar_58, Hangman_57
• Track 11 : ChrisnMich_57
• Track 12 : Prince_57, Heath_56, Austelle_58, Hydro_57, Mudslide_57
• Track 13 : Apex_58
• Track 14 : Stinger_58
• Track 15 : Cooper_58
• Track 16 : Magpie_56
• Track 17 : Lolalove_58, VioletZ_59
• Track 18 : LittleDigger_56, Renkei_56
• Track 19 : JaguarMi_59
• Track 20 : Suigeneris_62, SirJeffery_60, Rita130_60, EastView9101_60, Reccee_61, Acadian_61, Donny_62
• Track 21 : Reprobate_60, Nehemiah_60, Phelemich_59
• Track 22 : KarasumaRum_61, StinkyVeggy_61
• Track 23 : Mysterious_59
• Track 24 : Grayson_36
• Track 25 : Peregrin_34
• Track 26 : Weasels2_36
• Track 27 : Applejacks_51
• Track 28 : Gustav_52
• Track 29 : Towmatter_132, Daredevil_135
• Track 30 : DatBoi_137
• Track 31 : Bantam_140
• Track 32 : Zebo_97

• Track 33 : Shida_100, Catdawg_99, Krili_100, TelAviv_95, SchoolBus_97, Idergollasper_100, Familton_99
• Track 34 : Ryadel_101
• Track 35 : KingPhillip3_98, YoyoKar_95, Bora_97

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

The start number called the most often in the published annotations is 13, it was called in 23 of the 62 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Ahwei_56, Antihero_56, Apex_58, Applejacks_51, Austelle_58, BobbyK_58, BrownCNA_59, Epah_56, Fanaw_56, Fortunato_58, Frederick_58, GinPorsche_57, Hally898_56, Hangman_57, Heath_56, Hydro_57, Indlovu_60, JAMaL_57, JaguarMi_59, JoyceMaria_57, Lambano_56, LittleDigger_56, Lolalove_58, Magpie_56, Mudslide_57, Nanao_56, Poster_56, Prince_57, QueenPie_55, RawrgerThat_58, Renkei_56, VioletZ_59, Waleliano_57, Zemanar_58,

Genes that have the "Most Annotated" start but do not call it:
• ChrisnMich_57,

Genes that do not have the "Most Annotated" start:
• Acadian_61, Bantam_140, Bora_97, Briakila_94, Catdawg_99, Chalmers_93, Cooper_58, Daredevil_135, DatBoi_137, Deenasa_94, Donny_62, EastView9101_60, Familton_99, Grayson_36, Gustav_52, Hashim76_65, Idergollasper_100, KarasumaRum_61, KingPhillip3_98, Krili_100, LittleMinkey_69, Marlia_93, Morty007_91, Mysterious_59, Nehemiah_60, Neos5_92, Peregrin_34, Phelemich_59, RagingRooster_93, Reccee_61, Reprobate_60, Rita130_60, Ryadel_101, SchoolBus_97, Shenandoah_93, Shida_100, SirJeffery_60, Stinger_58, StinkyVeggy_61, Suigeneris_62, SynergyX_94, TelAviv_95, Towmatter_132, Weasels2_36, YoyoKar_95, Zebo_97,

Summary by start number:

Start 9:
• Found in 21 of 81 (25.9%) of genes in pham
• Manual Annotations of this start: 7 of 62
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Catdawg_99 (O), Familton_99 (O), Idergollasper_100 (O), Krili_100 (O), SchoolBus_97 (O), Shida_100 (O), TelAviv_95 (O),

Start 11:
• Found in 2 of 81 (2.5%) of genes in pham
• Manual Annotations of this start: 2 of 62
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Cooper_58 (B4), Stinger_58 (B4),

Start 12:
• Found in 21 of 81 (25.9%) of genes in pham

• Manual Annotations of this start: 1 of 62
• Called 4.8% of time when present
• Phage (with cluster) where this start called: Zebo_97 (O),

Start 13:
• Found in 35 of 81 (43.2%) of genes in pham
• Manual Annotations of this start: 23 of 62
• Called 97.1% of time when present
• Phage (with cluster) where this start called: Ahwei_56 (B4), Antihero_56 (B4), Apex_58 (B4), Applejacks_51 (CD), Austelle_58 (B4), BobbyK_58 (B4), BrownCNA_59 (B4), Epah_56 (B4), Fanaw_56 (B4), Fortunato_58 (B4), Frederick_58 (B4), GinPorsche_57 (B4), Hally898_56 (B4), Hangman_57 (B4), Heath_56 (B4), Hydro_57 (B4), Indlovu_60 (B11), JAMaL_57 (B4), JaguarMi_59 (B4), JoyceMaria_57 (B4), Lambano_56 (B4), LittleDigger_56 (B4), Lolalove_58 (B4), Magpie_56 (B4), Mudslide_57 (B4), Nanao_56 (B4), Poster_56 (B4), Prince_57 (B4), QueenPie_55 (B4), RawrgerThat_58 (B4), Renkei_56 (B4), VioletZ_59 (B4), Waleliano_57 (B4), Zemanar_58 (B4),

Start 14:
• Found in 13 of 81 (16.0%) of genes in pham
• Manual Annotations of this start: 8 of 62
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Acadian_61 (B5), Donny_62 (B5), EastView9101_60 (B5), KarasumaRum_61 (B5), Mysterious_59 (B5), Nehemiah_60 (B5), Phelemich_59 (B5), Reccee_61 (B5), Reprobate_60 (B5), Rita130_60 (B5), SirJeffery_60 (B5), StinkyVeggy_61 (B5), Suigeneris_62 (B5),

Start 15:
• Found in 2 of 81 (2.5%) of genes in pham
• Manual Annotations of this start: 2 of 62
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Daredevil_135 (DL), Towmatter_132 (DL),

Start 16:
• Found in 2 of 81 (2.5%) of genes in pham
• Manual Annotations of this start: 2 of 62
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bantam_140 (DL), DatBoi_137 (DL),

Start 18:
• Found in 45 of 81 (55.6%) of genes in pham
• Manual Annotations of this start: 3 of 62
• Called 11.1% of time when present
• Phage (with cluster) where this start called: Bora_97 (O), ChrisnMich_57 (B4), KingPhillip3_98 (O), Marlia_93 (B3), YoyoKar_95 (O),

Start 19:
• Found in 15 of 81 (18.5%) of genes in pham
• Manual Annotations of this start: 2 of 62
• Called 13.3% of time when present
• Phage (with cluster) where this start called: Ryadel_101 (O), Weasels2_36 (CB),

Start 20:
• Found in 10 of 81 (12.3%) of genes in pham
• Manual Annotations of this start: 9 of 62
• Called 90.0% of time when present
• Phage (with cluster) where this start called: Briakila_94 (B3), Chalmers_93 (B3), Deenasa_94 (B3), Grayson_36 (CB), Neos5_92 (B3), Peregrin_34 (CB), RagingRooster_93 (B3), Shenandoah_93 (B3), SynergyX_94 (B3),

Start 21:
• Found in 1 of 81 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 62
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gustav_52 (CD),

Start 22:
• Found in 12 of 81 (14.8%) of genes in pham
• Manual Annotations of this start: 2 of 62
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Hashim76_65 (B13), LittleMinkey_69 (B13), Morty007_91 (B3),

Summary by clusters:

There are 9 clusters represented in this pham: DL, CB, B11, O, CD, B4, B5, B13, B3,

Info for manual annotations of cluster B11:
•Start number 13 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B13:
•Start number 22 was manually annotated 1 time for cluster B13.

Info for manual annotations of cluster B3:
•Start number 20 was manually annotated 7 times for cluster B3.
•Start number 22 was manually annotated 1 time for cluster B3.

Info for manual annotations of cluster B4:
•Start number 11 was manually annotated 2 times for cluster B4.
•Start number 13 was manually annotated 22 times for cluster B4.
•Start number 18 was manually annotated 1 time for cluster B4.

Info for manual annotations of cluster B5:
•Start number 14 was manually annotated 8 times for cluster B5.

Info for manual annotations of cluster CB:
•Start number 19 was manually annotated 1 time for cluster CB.
•Start number 20 was manually annotated 2 times for cluster CB.

Info for manual annotations of cluster CD:
•Start number 21 was manually annotated 1 time for cluster CD.

Info for manual annotations of cluster DL:
•Start number 15 was manually annotated 2 times for cluster DL.
•Start number 16 was manually annotated 2 times for cluster DL.

Info for manual annotations of cluster O:
•Start number 9 was manually annotated 7 times for cluster O.
•Start number 12 was manually annotated 1 time for cluster O.
•Start number 18 was manually annotated 2 times for cluster O.
•Start number 19 was manually annotated 1 time for cluster O.

Gene Information:

Gene: Acadian_61 Start: 55866, Stop: 55570, Start Num: 14
Candidate Starts for Acadian_61:
(Start: 14 @55866 has 8 MA's), (43, 55698), (52, 55656), (60, 55605),

Gene: Ahwei_56 Start: 55057, Stop: 54749, Start Num: 13
Candidate Starts for Ahwei_56:
(5, 55189), (6, 55171), (Start: 13 @55057 has 23 MA's), (Start: 18 @55042 has 3 MA's), (38, 54922), (44, 54871), (55, 54817), (60, 54784),

Gene: Antihero_56 Start: 55055, Stop: 54747, Start Num: 13
Candidate Starts for Antihero_56:
(5, 55187), (6, 55169), (Start: 13 @55055 has 23 MA's), (Start: 18 @55040 has 3 MA's), (38, 54920), (44, 54869), (55, 54815), (60, 54782),

Gene: Apex_58 Start: 56278, Stop: 55970, Start Num: 13
Candidate Starts for Apex_58:
(5, 56410), (6, 56392), (Start: 13 @56278 has 23 MA's), (38, 56143), (43, 56098), (60, 56005),

Gene: Applejacks_51 Start: 36820, Stop: 36542, Start Num: 13
Candidate Starts for Applejacks_51:
(Start: 13 @36820 has 23 MA's), (25, 36769), (34, 36712), (36, 36694), (39, 36682), (45, 36631), (46, 36622), (58, 36559),

Gene: Austelle_58 Start: 56734, Stop: 56426, Start Num: 13
Candidate Starts for Austelle_58:
(5, 56866), (6, 56848), (Start: 13 @56734 has 23 MA's), (38, 56599), (60, 56461),

Gene: Bantam_140 Start: 81437, Stop: 81150, Start Num: 16
Candidate Starts for Bantam_140:
(Start: 16 @81437 has 2 MA's), (Start: 22 @81416 has 2 MA's), (23, 81410), (60, 81182),

Gene: BobbyK_58 Start: 56044, Stop: 55736, Start Num: 13
Candidate Starts for BobbyK_58:
(5, 56176), (6, 56158), (Start: 13 @56044 has 23 MA's), (Start: 18 @56029 has 3 MA's), (38, 55909), (60, 55771),

Gene: Bora_97 Start: 61792, Stop: 61508, Start Num: 18
Candidate Starts for Bora_97:
(Start: 9 @61828 has 7 MA's), (Start: 12 @61807 has 1 MA's), (Start: 18 @61792 has 3 MA's), (Start: 19 @61789 has 2 MA's), (25, 61771), (39, 61684), (41, 61669), (42, 61663), (51, 61603), (54, 61585), (63, 61519),

Gene: Briakila_94 Start: 65038, Stop: 64757, Start Num: 20
Candidate Starts for Briakila_94:
(Start: 9 @65080 has 7 MA's), (Start: 12 @65059 has 1 MA's), (Start: 18 @65044 has 3 MA's), (Start: 20 @65038 has 9 MA's), (Start: 22 @65029 has 2 MA's), (26, 65008), (31, 64972), (34, 64951), (40, 64912), (43, 64882), (60, 64789), (62, 64771),

Gene: BrownCNA_59 Start: 56401, Stop: 56093, Start Num: 13
Candidate Starts for BrownCNA_59:
(5, 56533), (6, 56515), (Start: 13 @56401 has 23 MA's), (Start: 18 @56386 has 3 MA's), (38, 56266), (60, 56128),

Gene: Catdawg_99 Start: 62098, Stop: 61778, Start Num: 9
Candidate Starts for Catdawg_99:
(Start: 9 @62098 has 7 MA's), (Start: 12 @62077 has 1 MA's), (Start: 18 @62062 has 3 MA's), (Start: 19 @62059 has 2 MA's), (25, 62041), (39, 61954), (41, 61939), (42, 61933), (51, 61873), (54, 61855), (63, 61789),

Gene: Chalmers_93 Start: 65285, Stop: 65004, Start Num: 20
Candidate Starts for Chalmers_93:
(4, 65498), (Start: 9 @65327 has 7 MA's), (10, 65312), (Start: 12 @65306 has 1 MA's), (Start: 18 @65291 has 3 MA's), (Start: 20 @65285 has 9 MA's), (Start: 22 @65276 has 2 MA's), (26, 65255), (31, 65219), (34, 65198), (40, 65159), (43, 65129), (60, 65036), (62, 65018),

Gene: ChrisnMich_57 Start: 55054, Stop: 54761, Start Num: 18
Candidate Starts for ChrisnMich_57:
(5, 55201), (6, 55183), (Start: 13 @55069 has 23 MA's), (Start: 18 @55054 has 3 MA's), (38, 54934), (55, 54829), (60, 54796),

Gene: Cooper_58 Start: 55230, Stop: 54922, Start Num: 11
Candidate Starts for Cooper_58:
(1, 55668), (2, 55593), (Start: 11 @55230 has 2 MA's), (25, 55179), (38, 55095), (44, 55044), (45, 55041), (49, 55020),

Gene: Daredevil_135 Start: 78519, Stop: 78223, Start Num: 15
Candidate Starts for Daredevil_135:
(Start: 15 @78519 has 2 MA's), (36, 78393), (37, 78387), (48, 78321), (60, 78261),

Gene: DatBoi_137 Start: 80432, Stop: 80142, Start Num: 16
Candidate Starts for DatBoi_137:
(Start: 16 @80432 has 2 MA's), (Start: 22 @80411 has 2 MA's), (23, 80405), (28, 80381), (60, 80177),

Gene: Deenasa_94 Start: 65761, Stop: 65480, Start Num: 20
Candidate Starts for Deenasa_94:
(4, 65974), (Start: 9 @65803 has 7 MA's), (10, 65788), (Start: 12 @65782 has 1 MA's), (Start: 18 @65767 has 3 MA's), (Start: 20 @65761 has 9 MA's), (Start: 22 @65752 has 2 MA's), (26, 65731), (31, 65695), (34, 65674), (40, 65635), (43, 65605), (60, 65512), (62, 65494),

Gene: Donny_62 Start: 55912, Stop: 55616, Start Num: 14
Candidate Starts for Donny_62:
(Start: 14 @55912 has 8 MA's), (43, 55744), (52, 55702), (60, 55651),

Gene: EastView9101_60 Start: 55721, Stop: 55425, Start Num: 14
Candidate Starts for EastView9101_60:

(Start: 14 @55721 has 8 MA's), (43, 55553), (52, 55511), (60, 55460),

Gene: Epah_56 Start: 55055, Stop: 54747, Start Num: 13
Candidate Starts for Epah_56:
(5, 55187), (6, 55169), (Start: 13 @55055 has 23 MA's), (Start: 18 @55040 has 3 MA's), (38, 54920), (44, 54869), (55, 54815), (60, 54782),

Gene: Familton_99 Start: 61510, Stop: 61190, Start Num: 9
Candidate Starts for Familton_99:
(Start: 9 @61510 has 7 MA's), (Start: 12 @61489 has 1 MA's), (Start: 18 @61474 has 3 MA's), (Start: 19 @61471 has 2 MA's), (25, 61453), (39, 61366), (41, 61351), (42, 61345), (51, 61285), (54, 61267), (63, 61201),

Gene: Fanaw_56 Start: 55956, Stop: 55645, Start Num: 13
Candidate Starts for Fanaw_56:
(5, 56088), (6, 56070), (Start: 13 @55956 has 23 MA's), (38, 55818), (44, 55767), (60, 55680),

Gene: Fortunato_58 Start: 56096, Stop: 55785, Start Num: 13
Candidate Starts for Fortunato_58:
(5, 56228), (6, 56210), (Start: 13 @56096 has 23 MA's), (38, 55958), (44, 55907), (60, 55820),

Gene: Frederick_58 Start: 55987, Stop: 55679, Start Num: 13
Candidate Starts for Frederick_58:
(5, 56119), (6, 56101), (Start: 13 @55987 has 23 MA's), (Start: 18 @55972 has 3 MA's), (38, 55852), (60, 55714),

Gene: GinPorsche_57 Start: 55055, Stop: 54747, Start Num: 13
Candidate Starts for GinPorsche_57:
(5, 55187), (6, 55169), (Start: 13 @55055 has 23 MA's), (Start: 18 @55040 has 3 MA's), (38, 54920), (44, 54869), (55, 54815), (60, 54782),

Gene: Grayson_36 Start: 10802, Stop: 10530, Start Num: 20
Candidate Starts for Grayson_36:
(17, 10811), (Start: 20 @10802 has 9 MA's),

Gene: Gustav_52 Start: 37684, Stop: 37406, Start Num: 21
Candidate Starts for Gustav_52:
(Start: 21 @37684 has 1 MA's), (27, 37654), (29, 37648), (31, 37624), (38, 37579), (44, 37531), (53, 37489), (58, 37456), (59, 37453),

Gene: Hally898_56 Start: 55070, Stop: 54762, Start Num: 13
Candidate Starts for Hally898_56:
(5, 55202), (6, 55184), (Start: 13 @55070 has 23 MA's), (Start: 18 @55055 has 3 MA's), (38, 54935), (44, 54884), (55, 54830), (60, 54797),

Gene: Hangman_57 Start: 56144, Stop: 55836, Start Num: 13
Candidate Starts for Hangman_57:
(5, 56276), (6, 56258), (Start: 13 @56144 has 23 MA's), (Start: 18 @56129 has 3 MA's), (38, 56009), (60, 55871),

Gene: Hashim76_65 Start: 56241, Stop: 55963, Start Num: 22
Candidate Starts for Hashim76_65:
(3, 56568), (Start: 22 @56241 has 2 MA's), (46, 56073), (55, 56031), (60, 55998),

Gene: Heath_56 Start: 55770, Stop: 55462, Start Num: 13
Candidate Starts for Heath_56:
(5, 55902), (6, 55884), (Start: 13 @55770 has 23 MA's), (38, 55635), (60, 55497),

Gene: Hydro_57 Start: 56121, Stop: 55813, Start Num: 13
Candidate Starts for Hydro_57:
(5, 56253), (6, 56235), (Start: 13 @56121 has 23 MA's), (38, 55986), (60, 55848),

Gene: Idergollasper_100 Start: 62058, Stop: 61738, Start Num: 9
Candidate Starts for Idergollasper_100:
(Start: 9 @62058 has 7 MA's), (Start: 12 @62037 has 1 MA's), (Start: 18 @62022 has 3 MA's), (Start: 19 @62019 has 2 MA's), (25, 62001), (39, 61914), (41, 61899), (42, 61893), (51, 61833), (54, 61815), (63, 61749),

Gene: Indlovu_60 Start: 56251, Stop: 55940, Start Num: 13
Candidate Starts for Indlovu_60:
(Start: 13 @56251 has 23 MA's), (Start: 19 @56239 has 2 MA's), (24, 56212), (30, 56182), (32, 56167), (47, 56059), (50, 56044), (55, 56020), (60, 55987), (64, 55960),

Gene: JAMaL_57 Start: 56162, Stop: 55854, Start Num: 13
Candidate Starts for JAMaL_57:
(5, 56294), (6, 56276), (Start: 13 @56162 has 23 MA's), (Start: 18 @56147 has 3 MA's), (38, 56027), (44, 55976), (55, 55922), (60, 55889),

Gene: JaguarMi_59 Start: 57188, Stop: 56880, Start Num: 13
Candidate Starts for JaguarMi_59:
(5, 57320), (6, 57302), (Start: 13 @57188 has 23 MA's), (Start: 18 @57173 has 3 MA's), (38, 57053), (44, 57002),

Gene: JoyceMaria_57 Start: 56024, Stop: 55716, Start Num: 13
Candidate Starts for JoyceMaria_57:
(5, 56156), (6, 56138), (Start: 13 @56024 has 23 MA's), (Start: 18 @56009 has 3 MA's), (38, 55889), (60, 55751),

Gene: KarasumaRum_61 Start: 55996, Stop: 55694, Start Num: 14
Candidate Starts for KarasumaRum_61:
(Start: 14 @55996 has 8 MA's), (38, 55867), (43, 55822), (60, 55729), (61, 55714),

Gene: KingPhillip3_98 Start: 61722, Stop: 61438, Start Num: 18
Candidate Starts for KingPhillip3_98:
(Start: 9 @61758 has 7 MA's), (Start: 12 @61737 has 1 MA's), (Start: 18 @61722 has 3 MA's), (Start: 19 @61719 has 2 MA's), (25, 61701), (39, 61614), (41, 61599), (42, 61593), (51, 61533), (54, 61515), (63, 61449),

Gene: Krili_100 Start: 61607, Stop: 61287, Start Num: 9
Candidate Starts for Krili_100:
(Start: 9 @61607 has 7 MA's), (Start: 12 @61586 has 1 MA's), (Start: 18 @61571 has 3 MA's), (Start: 19 @61568 has 2 MA's), (25, 61550), (39, 61463), (41, 61448), (42, 61442), (51, 61382), (54, 61364), (63, 61298),

Gene: Lambano_56 Start: 55070, Stop: 54762, Start Num: 13
Candidate Starts for Lambano_56:

(5, 55202), (6, 55184), (Start: 13 @55070 has 23 MA's), (Start: 18 @55055 has 3 MA's), (38, 54935), (44, 54884), (55, 54830), (60, 54797),

Gene: LittleDigger_56 Start: 55080, Stop: 54772, Start Num: 13
Candidate Starts for LittleDigger_56:
(5, 55212), (6, 55194), (Start: 13 @55080 has 23 MA's), (Start: 18 @55065 has 3 MA's), (38, 54945), (55, 54840), (60, 54807),

Gene: LittleMinkey_69 Start: 56229, Stop: 55951, Start Num: 22
Candidate Starts for LittleMinkey_69:
(8, 56334), (Start: 22 @56229 has 2 MA's), (42, 56100), (46, 56061), (60, 55986),

Gene: Lolalove_58 Start: 56101, Stop: 55793, Start Num: 13
Candidate Starts for Lolalove_58:
(5, 56233), (6, 56215), (Start: 13 @56101 has 23 MA's), (Start: 18 @56086 has 3 MA's), (38, 55966), (43, 55921), (60, 55828),

Gene: Magpie_56 Start: 56026, Stop: 55718, Start Num: 13
Candidate Starts for Magpie_56:
(5, 56158), (6, 56140), (7, 56131), (Start: 13 @56026 has 23 MA's), (Start: 18 @56011 has 3 MA's), (38, 55891), (43, 55846), (60, 55753),

Gene: Marlia_93 Start: 64604, Stop: 64323, Start Num: 18
Candidate Starts for Marlia_93:
(Start: 9 @64640 has 7 MA's), (Start: 12 @64619 has 1 MA's), (Start: 18 @64604 has 3 MA's), (Start: 19 @64601 has 2 MA's), (25, 64583), (31, 64544), (35, 64514), (44, 64448), (54, 64397), (63, 64331),

Gene: Morty007_91 Start: 65294, Stop: 65022, Start Num: 22
Candidate Starts for Morty007_91:
(4, 65516), (Start: 9 @65345 has 7 MA's), (10, 65330), (Start: 12 @65324 has 1 MA's), (Start: 18 @65309 has 3 MA's), (Start: 20 @65303 has 9 MA's), (Start: 22 @65294 has 2 MA's), (26, 65273), (31, 65237), (34, 65216), (40, 65177), (43, 65147), (60, 65054), (62, 65036),

Gene: Mudslide_57 Start: 56366, Stop: 56058, Start Num: 13
Candidate Starts for Mudslide_57:
(5, 56498), (6, 56480), (Start: 13 @56366 has 23 MA's), (38, 56231), (60, 56093),

Gene: Mysterious_59 Start: 55986, Stop: 55690, Start Num: 14
Candidate Starts for Mysterious_59:
(Start: 14 @55986 has 8 MA's), (33, 55899), (43, 55818), (52, 55776),

Gene: Nanao_56 Start: 55060, Stop: 54752, Start Num: 13
Candidate Starts for Nanao_56:
(5, 55192), (6, 55174), (Start: 13 @55060 has 23 MA's), (Start: 18 @55045 has 3 MA's), (38, 54925), (44, 54874), (55, 54820), (60, 54787),

Gene: Nehemiah_60 Start: 55986, Stop: 55690, Start Num: 14
Candidate Starts for Nehemiah_60:
(Start: 14 @55986 has 8 MA's), (33, 55899), (43, 55818),

Gene: Neos5_92 Start: 64759, Stop: 64478, Start Num: 20
Candidate Starts for Neos5_92:

(4, 64972), (Start: 9 @64801 has 7 MA's), (10, 64786), (Start: 12 @64780 has 1 MA's), (Start: 18 @64765 has 3 MA's), (Start: 20 @64759 has 9 MA's), (Start: 22 @64750 has 2 MA's), (26, 64729), (31, 64693), (34, 64672), (40, 64633), (43, 64603), (60, 64510), (62, 64492),

Gene: Peregrin_34 Start: 10116, Stop: 9844, Start Num: 20
Candidate Starts for Peregrin_34:
(Start: 20 @10116 has 9 MA's), (39, 9999),

Gene: Phelemich_59 Start: 55981, Stop: 55685, Start Num: 14
Candidate Starts for Phelemich_59:
(Start: 14 @55981 has 8 MA's), (33, 55894), (43, 55813),

Gene: Poster_56 Start: 55061, Stop: 54753, Start Num: 13
Candidate Starts for Poster_56:
(5, 55193), (6, 55175), (Start: 13 @55061 has 23 MA's), (Start: 18 @55046 has 3 MA's), (38, 54926), (44, 54875), (55, 54821), (60, 54788),

Gene: Prince_57 Start: 56279, Stop: 55971, Start Num: 13
Candidate Starts for Prince_57:
(5, 56411), (6, 56393), (Start: 13 @56279 has 23 MA's), (38, 56144), (60, 56006),

Gene: QueenPie_55 Start: 55794, Stop: 55486, Start Num: 13
Candidate Starts for QueenPie_55:
(5, 55926), (6, 55908), (Start: 13 @55794 has 23 MA's), (38, 55659), (44, 55608), (60, 55521),

Gene: RagingRooster_93 Start: 64543, Stop: 64262, Start Num: 20
Candidate Starts for RagingRooster_93:
(4, 64756), (Start: 9 @64585 has 7 MA's), (10, 64570), (Start: 12 @64564 has 1 MA's), (Start: 18 @64549 has 3 MA's), (Start: 20 @64543 has 9 MA's), (Start: 22 @64534 has 2 MA's), (26, 64513), (31, 64477), (34, 64456), (40, 64417), (43, 64387), (60, 64294), (62, 64276),

Gene: RawrgerThat_58 Start: 56119, Stop: 55811, Start Num: 13
Candidate Starts for RawrgerThat_58:
(5, 56251), (6, 56233), (Start: 13 @56119 has 23 MA's), (38, 55984), (44, 55933), (60, 55846),

Gene: Reccee_61 Start: 55995, Stop: 55699, Start Num: 14
Candidate Starts for Reccee_61:
(Start: 14 @55995 has 8 MA's), (43, 55827), (52, 55785), (60, 55734),

Gene: Renkei_56 Start: 55074, Stop: 54766, Start Num: 13
Candidate Starts for Renkei_56:
(5, 55206), (6, 55188), (Start: 13 @55074 has 23 MA's), (Start: 18 @55059 has 3 MA's), (38, 54939), (55, 54834), (60, 54801),

Gene: Reprobate_60 Start: 55986, Stop: 55690, Start Num: 14
Candidate Starts for Reprobate_60:
(Start: 14 @55986 has 8 MA's), (33, 55899), (43, 55818),

Gene: Rita130_60 Start: 55808, Stop: 55512, Start Num: 14
Candidate Starts for Rita130_60:
(Start: 14 @55808 has 8 MA's), (43, 55640), (52, 55598), (60, 55547),

Gene: Ryadel_101 Start: 62070, Stop: 61789, Start Num: 19

Candidate Starts for Ryadel_101:
(Start: 9 @62109 has 7 MA's), (Start: 12 @62088 has 1 MA's), (Start: 18 @62073 has 3 MA's), (Start: 19 @62070 has 2 MA's), (25, 62052), (39, 61965), (41, 61950), (42, 61944), (51, 61884), (54, 61866), (63, 61800),

Gene: SchoolBus_97 Start: 61227, Stop: 60907, Start Num: 9
Candidate Starts for SchoolBus_97:
(Start: 9 @61227 has 7 MA's), (Start: 12 @61206 has 1 MA's), (Start: 18 @61191 has 3 MA's), (Start: 19 @61188 has 2 MA's), (25, 61170), (39, 61083), (41, 61068), (42, 61062), (51, 61002), (54, 60984), (63, 60918),

Gene: Shenandoah_93 Start: 64463, Stop: 64182, Start Num: 20
Candidate Starts for Shenandoah_93:
(4, 64676), (Start: 9 @64505 has 7 MA's), (10, 64490), (Start: 12 @64484 has 1 MA's), (Start: 18 @64469 has 3 MA's), (Start: 20 @64463 has 9 MA's), (Start: 22 @64454 has 2 MA's), (26, 64433), (31, 64397), (34, 64376), (40, 64337), (43, 64307), (60, 64214), (62, 64196),

Gene: Shida_100 Start: 61728, Stop: 61408, Start Num: 9
Candidate Starts for Shida_100:
(Start: 9 @61728 has 7 MA's), (Start: 12 @61707 has 1 MA's), (Start: 18 @61692 has 3 MA's), (Start: 19 @61689 has 2 MA's), (25, 61671), (39, 61584), (41, 61569), (42, 61563), (51, 61503), (54, 61485), (63, 61419),

Gene: SirJeffery_60 Start: 55943, Stop: 55647, Start Num: 14
Candidate Starts for SirJeffery_60:
(Start: 14 @55943 has 8 MA's), (43, 55775), (52, 55733), (60, 55682),

Gene: Stinger_58 Start: 54992, Stop: 54681, Start Num: 11
Candidate Starts for Stinger_58:
(5, 55112), (7, 55085), (Start: 11 @54992 has 2 MA's), (Start: 18 @54974 has 3 MA's), (38, 54854), (44, 54803), (49, 54779), (56, 54743),

Gene: StinkyVeggy_61 Start: 55996, Stop: 55694, Start Num: 14
Candidate Starts for StinkyVeggy_61:
(Start: 14 @55996 has 8 MA's), (38, 55867), (43, 55822), (60, 55729), (61, 55714),

Gene: Suigeneris_62 Start: 56064, Stop: 55768, Start Num: 14
Candidate Starts for Suigeneris_62:
(Start: 14 @56064 has 8 MA's), (43, 55896), (52, 55854), (60, 55803),

Gene: SynergyX_94 Start: 64853, Stop: 64572, Start Num: 20
Candidate Starts for SynergyX_94:
(4, 65066), (Start: 9 @64895 has 7 MA's), (10, 64880), (Start: 12 @64874 has 1 MA's), (Start: 18 @64859 has 3 MA's), (Start: 20 @64853 has 9 MA's), (Start: 22 @64844 has 2 MA's), (26, 64823), (31, 64787), (34, 64766), (40, 64727), (43, 64697), (60, 64604), (62, 64586),

Gene: TelAviv_95 Start: 61453, Stop: 61133, Start Num: 9
Candidate Starts for TelAviv_95:
(Start: 9 @61453 has 7 MA's), (Start: 12 @61432 has 1 MA's), (Start: 18 @61417 has 3 MA's), (Start: 19 @61414 has 2 MA's), (25, 61396), (39, 61309), (41, 61294), (42, 61288), (51, 61228), (54, 61210), (63, 61144),

Gene: Towmatter_132 Start: 78600, Stop: 78304, Start Num: 15

Candidate Starts for Towmatter_132:
(Start: 15 @78600 has 2 MA's), (36, 78474), (37, 78468), (48, 78402), (60, 78342),

Gene: VioletZ_59 Start: 56192, Stop: 55884, Start Num: 13
Candidate Starts for VioletZ_59:
(5, 56324), (6, 56306), (Start: 13 @56192 has 23 MA's), (Start: 18 @56177 has 3 MA's), (38, 56057), (43, 56012), (60, 55919),

Gene: Waleliano_57 Start: 56133, Stop: 55825, Start Num: 13
Candidate Starts for Waleliano_57:
(5, 56265), (6, 56247), (Start: 13 @56133 has 23 MA's), (Start: 18 @56118 has 3 MA's), (38, 55998), (60, 55860),

Gene: Weasels2_36 Start: 11088, Stop: 10819, Start Num: 19
Candidate Starts for Weasels2_36:
(Start: 19 @11088 has 2 MA's), (57, 10851),

Gene: YoyoKar_95 Start: 60753, Stop: 60469, Start Num: 18
Candidate Starts for YoyoKar_95:
(Start: 9 @60789 has 7 MA's), (Start: 12 @60768 has 1 MA's), (Start: 18 @60753 has 3 MA's), (Start: 19 @60750 has 2 MA's), (25, 60732), (39, 60645), (41, 60630), (42, 60624), (51, 60564), (54, 60546), (63, 60480),

Gene: Zebo_97 Start: 61206, Stop: 60907, Start Num: 12
Candidate Starts for Zebo_97:
(Start: 9 @61227 has 7 MA's), (Start: 12 @61206 has 1 MA's), (Start: 18 @61191 has 3 MA's), (Start: 19 @61188 has 2 MA's), (25, 61170), (39, 61083), (41, 61068), (42, 61062), (51, 61002), (54, 60984), (63, 60918),

Gene: Zemanar_58 Start: 55965, Stop: 55657, Start Num: 13
Candidate Starts for Zemanar_58:
(5, 56097), (6, 56079), (Start: 13 @55965 has 23 MA's), (Start: 18 @55950 has 3 MA's), (38, 55830), (60, 55692),