Pham 289228

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51: Omnicron_77
52: Gengar_74
53: Rando14_76
54: SoSeph_74 + 1
55: OkiRoe_75
56: SirPhilip_80
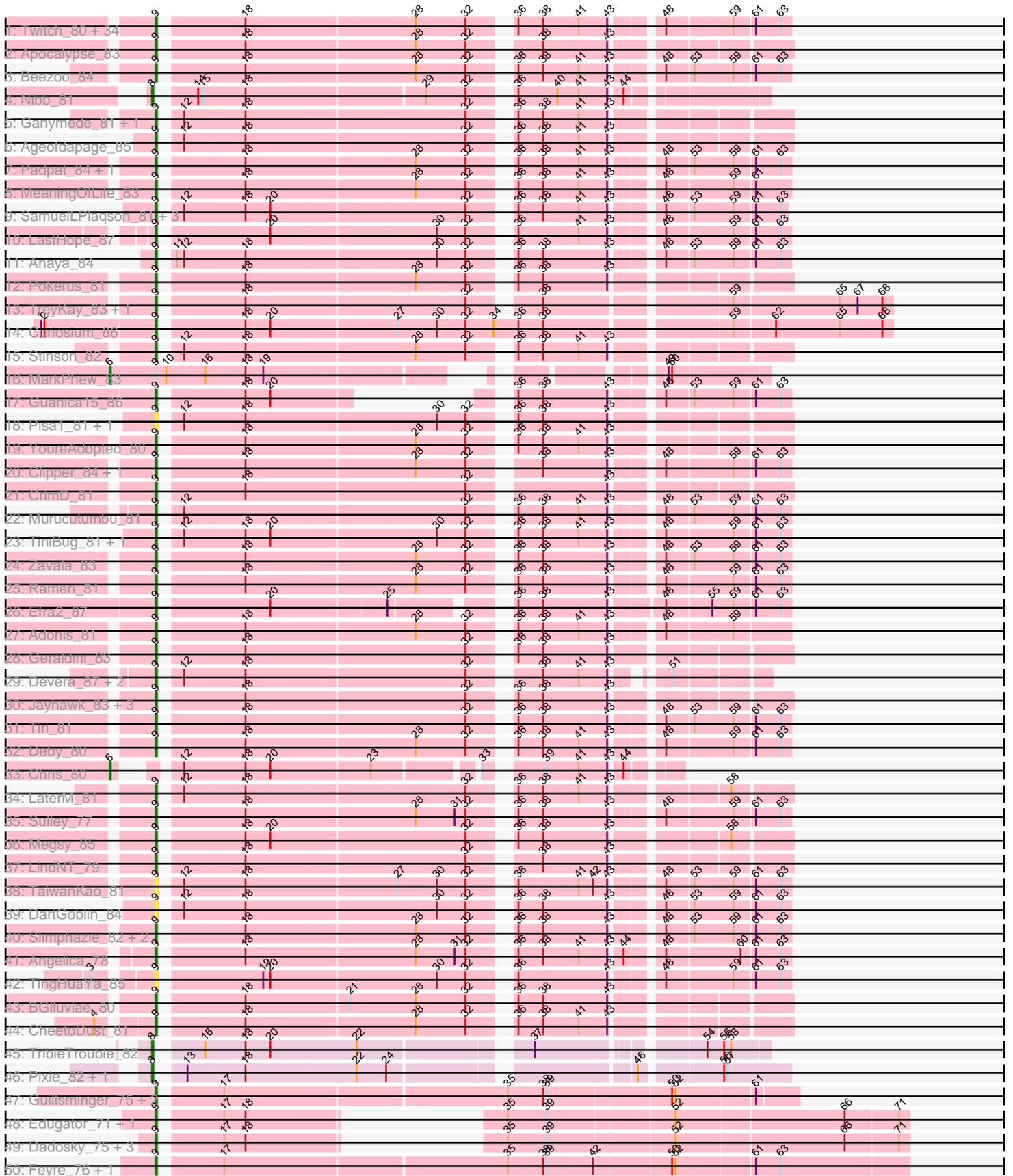
Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly 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 289228 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289228 has 115 members, 7 are drafts.

Phages represented in each track:
• Track 1 : Twitch_80, ShiaSurprise_81, Jeckyll_80, HedwigODU_80, Belladonna_80, Zabiza_76, BaghaKamala_79, Llorens_80, Jarvi_80, Rosmarinus_80, Blizzard_80, Lunahalos_80, Durfee_80, Boiiii_80, Hyperbowlee_79, Adephagia_79, Atiba_81, Homura_79, Spock_80, ActinUp_81, CaseJules_82, Padfoot_80, BEEST_80, TruffulaTree_82, Inky_80, Capricorn_80, CallaLilly_80, Asayake_80, Joy99_81, Peel_80, Piatt_79, CREW_79, Topper_80, Dalmuri_80, Tachez_80
• Track 2 : Apocalypse_83
• Track 3 : Beezoo_84
• Track 4 : Nibb_81
• Track 5 : Ganymede_81, QuincyRose_79
• Track 6 : Ageofdapage_85
• Track 7 : Padpat_84, Emerson_83
• Track 8 : MeaningOfLife_83
• Track 9 : SamuelLPlaqson_81, DrHayes_81, Urkel_81, Anma_81
• Track 10 : LastHope_87
• Track 11 : Anaya_84
• Track 12 : Pokerus_81
• Track 13 : TreyKay_83, Prithvi_83
• Track 14 : Curiosium_86
• Track 15 : Stinson_82
• Track 16 : MarkPhew_83
• Track 17 : Guanica15_86
• Track 18 : Pisa1_81, Pisa4_75
• Track 19 : YoureAdopted_80
• Track 20 : Clipper_84, MacKat_76
• Track 21 : CrimD_81
• Track 22 : Murucutumbu_81
• Track 23 : TiniBug_81, Bella96_82
• Track 24 : Zavala_83
• Track 25 : Ramen_81
• Track 26 : Efra2_87
• Track 27 : Adonis_81
• Track 28 : Geraldini_83
• Track 29 : Devera_87, Dole_84, Illumine_85
• Track 30 : Jayhawk_83, Rapunzel97_83, BarrelRoll_81, Mynx_82
• Track 31 : Tiri_81
• Track 32 : Deby_80

• Track 33 : Chris_80
• Track 34 : LaterM_81
• Track 35 : Sulley_77
• Track 36 : Megsy_85
• Track 37 : LindNT_79
• Track 38 : TaiwanKao_81
• Track 39 : DartGoblin_84
• Track 40 : Slimphazie_82, JAWS_79, Veliki_81
• Track 41 : Angelica_78
• Track 42 : TingHuaYa_85
• Track 43 : BGlluviae_80
• Track 44 : CheetoDust_81
• Track 45 : TribleTrouble_82
• Track 46 : Pixie_82, TBond007_79
• Track 47 : Guillsminger_75, Leston_74, Paola_74
• Track 48 : Edugator_71, AlleyCat_75
• Track 49 : Dadosky_75, Psycho_73, Larva_74, Neighly_75
• Track 50 : Feyre_76, Miryou_77
• Track 51 : Omnicron_77
• Track 52 : Gengar_74
• Track 53 : Rando14_76
• Track 54 : SoSeph_74, Heftyboy_74
• Track 55 : OkiRoe_75
• Track 56 : SirPhilip_80

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

The start number called the most often in the published annotations is 9, it was called in 101 of the 108 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ActinUp_81, Adephagia_79, Adonis_81, Ageofdapage_85, AlleyCat_75, Anaya_84, Angelica_78, Anma_81, Apocalypse_83, Asayake_80, Atiba_81, BEEST_80, BGlluviae_80, BaghaKamala_79, BarrelRoll_81, Beezoo_84, Bella96_82, Belladonna_80, Blizzard_80, Boiiii_80, CREW_79, CallaLilly_80, Capricorn_80, CaseJules_82, CheetoDust_81, Clipper_84, CrimD_81, Curiosium_86, Dadosky_75, Dalmuri_80, DartGoblin_84, Deby_80, Devera_87, Dole_84, DrHayes_81, Durfee_80, Edugator_71, Efra2_87, Emerson_83, Feyre_76, Ganymede_81, Gengar_74, Geraldini_83, Guanica15_86, Guillsminger_75, HedwigODU_80, Heftyboy_74, Homura_79, Hyperbowlee_79, Illumine_85, Inky_80, JAWS_79, Jarvi_80, Jayhawk_83, Jeckyll_80, Joy99_81, Larva_74, LastHope_87, LaterM_81, Leston_74, LindNT_79, Llorens_80, Lunahalos_80, MacKat_76, MeaningOfLife_83, Megsy_85, Miryou_77, Murucutumbu_81, Mynx_82, Neighly_75, OkiRoe_75, Padfoot_80, Padpat_84, Paola_74, Peel_80, Piatt_79, Pisa1_81, Pisa4_75, Pokerus_81, Prithvi_83, Psycho_73, QuincyRose_79, Ramen_81, Rando14_76, Rapunzel97_83, Rosmarinus_80, SamuelLPlaqson_81, ShiaSurprise_81, SirPhilip_80, Slimphazie_82, SoSeph_74, Spock_80, Stinson_82, Sulley_77, Tachez_80, TaiwanKao_81, TingHuaYa_85, TiniBug_81, Tiri_81, Topper_80, TreyKay_83, TruffulaTree_82, Twitch_80, Urkel_81, Veliki_81, YoureAdopted_80, Zabiza_76, Zavala_83,

Genes that have the "Most Annotated" start but do not call it:
• MarkPhew_83, Omnicron_77,

Genes that do not have the "Most Annotated" start:
• Chris_80, Nibb_81, Pixie_82, TBond007_79, TribleTrouble_82,

Summary by start number:

Start 6:
• Found in 2 of 115 (1.7%) of genes in pham
• Manual Annotations of this start: 2 of 108
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Chris_80 (K1), MarkPhew_83 (K1),

Start 8:
• Found in 5 of 115 (4.3%) of genes in pham
• Manual Annotations of this start: 5 of 108
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Nibb_81 (K1), Omnicron_77 (K5), Pixie_82 (K3), TBond007_79 (K3), TribleTrouble_82 (K3),

Start 9:
• Found in 110 of 115 (95.7%) of genes in pham
• Manual Annotations of this start: 101 of 108
• Called 98.2% of time when present
• Phage (with cluster) where this start called: ActinUp_81 (K1), Adephagia_79 (K1), Adonis_81 (K1), Ageofdapage_85 (K1), AlleyCat_75 (K5), Anaya_84 (K1), Angelica_78 (K1), Anma_81 (K1), Apocalypse_83 (K1), Asayake_80 (K1), Atiba_81 (K1), BEEST_80 (K1), BGlluviae_80 (K1), BaghaKamala_79 (K1), BarrelRoll_81 (K1), Beezoo_84 (K1), Bella96_82 (K1), Belladonna_80 (K1), Blizzard_80 (K1), Boiiii_80 (K1), CREW_79 (K1), CallaLilly_80 (K1), Capricorn_80 (K1), CaseJules_82 (K1), CheetoDust_81 (K1), Clipper_84 (K1), CrimD_81 (K1), Curiosium_86 (K1), Dadosky_75 (K5), Dalmuri_80 (K1), DartGoblin_84 (K1), Deby_80 (K1), Devera_87 (K1), Dole_84 (K1), DrHayes_81 (K1), Durfee_80 (K1), Edugator_71 (K5), Efra2_87 (K1), Emerson_83 (K1), Feyre_76 (K5), Ganymede_81 (K1), Gengar_74 (K5), Geraldini_83 (K1), Guanica15_86 (K1), Guillsminger_75 (K5), HedwigODU_80 (K1), Heftyboy_74 (K5), Homura_79 (K1), Hyperbowlee_79 (K1), Illumine_85 (K1), Inky_80 (K1), JAWS_79 (K1), Jarvi_80 (K1), Jayhawk_83 (K1), Jeckyll_80 (K1), Joy99_81 (K1), Larva_74 (K5), LastHope_87 (K1), LaterM_81 (K1), Leston_74 (K5), LindNT_79 (K1), Llorens_80 (K1), Lunahalos_80 (K1), MacKat_76 (K1), MeaningOfLife_83 (K1), Megsy_85 (K1), Miryou_77 (K5), Murucutumbu_81 (K1), Mynx_82 (K1), Neighly_75 (K3), OkiRoe_75 (K5), Padfoot_80 (K1), Padpat_84 (K1), Paola_74 (K5), Peel_80 (K1), Piatt_79 (K1), Pisa1_81 (K1), Pisa4_75 (K1), Pokerus_81 (K1), Prithvi_83 (K1), Psycho_73 (K5), QuincyRose_79 (K1), Ramen_81 (K1), Rando14_76 (K5), Rapunzel97_83 (K1), Rosmarinus_80 (K1), SamuelLPlaqson_81 (K1), ShiaSurprise_81 (K1), SirPhilip_80 (K6), Slimphazie_82 (K1), SoSeph_74 (K5), Spock_80 (K1), Stinson_82 (K1), Sulley_77 (K1), Tachez_80 (K1), TaiwanKao_81 (K1), TingHuaYa_85 (K1), TiniBug_81 (K1), Tiri_81 (K1), Topper_80 (K1), TreyKay_83 (K1), TruffulaTree_82 (K1), Twitch_80 (K1), Urkel_81 (K1), Veliki_81 (K1), YoureAdopted_80 (K1), Zabiza_76 (K1), Zavala_83 (K1),

Summary by clusters:

There are 4 clusters represented in this pham: K3, K1, K6, K5,

Info for manual annotations of cluster K1:
•Start number 6 was manually annotated 2 times for cluster K1.
•Start number 8 was manually annotated 1 time for cluster K1.
•Start number 9 was manually annotated 85 times for cluster K1.

Info for manual annotations of cluster K3:
•Start number 8 was manually annotated 3 times for cluster K3.

Info for manual annotations of cluster K5:
•Start number 8 was manually annotated 1 time for cluster K5.
•Start number 9 was manually annotated 15 times for cluster K5.

Info for manual annotations of cluster K6:
•Start number 9 was manually annotated 1 time for cluster K6.

Gene Information:

Gene: ActinUp_81 Start: 52478, Stop: 52954, Start Num: 9
Candidate Starts for ActinUp_81:
(Start: 9 @52478 has 101 MA's), (18, 52541), (28, 52679), (32, 52721), (36, 52748), (38, 52769), (41, 52799), (43, 52823), (48, 52856), (59, 52910), (61, 52925), (63, 52946),

Gene: Adephagia_79 Start: 52315, Stop: 52791, Start Num: 9
Candidate Starts for Adephagia_79:
(Start: 9 @52315 has 101 MA's), (18, 52378), (28, 52516), (32, 52558), (36, 52585), (38, 52606), (41, 52636), (43, 52660), (48, 52693), (59, 52747), (61, 52762), (63, 52783),

Gene: Adonis_81 Start: 52782, Stop: 53258, Start Num: 9
Candidate Starts for Adonis_81:
(Start: 9 @52782 has 101 MA's), (18, 52845), (28, 52983), (32, 53025), (36, 53052), (38, 53073), (41, 53103), (43, 53127), (48, 53160), (59, 53214),

Gene: Ageofdapage_85 Start: 53683, Stop: 54159, Start Num: 9
Candidate Starts for Ageofdapage_85:
(Start: 9 @53683 has 101 MA's), (12, 53695), (18, 53746), (32, 53926), (36, 53953), (38, 53974), (41, 54004), (43, 54028),

Gene: AlleyCat_75 Start: 49520, Stop: 50002, Start Num: 9
Candidate Starts for AlleyCat_75:
(Start: 9 @49520 has 101 MA's), (17, 49565), (18, 49583), (35, 49679), (39, 49712), (52, 49814), (66, 49952), (71, 49994),

Gene: Anaya_84 Start: 53360, Stop: 53836, Start Num: 9
Candidate Starts for Anaya_84:
(Start: 9 @53360 has 101 MA's), (11, 53366), (12, 53372), (18, 53423), (30, 53579), (32, 53603), (36, 53630), (38, 53651), (43, 53705), (48, 53738), (53, 53759), (59, 53792), (61, 53807), (63, 53828),

Gene: Angelica_78 Start: 51899, Stop: 52375, Start Num: 9
Candidate Starts for Angelica_78:

(Start: 9 @51899 has 101 MA's), (18, 51962), (28, 52100), (31, 52133), (32, 52142), (36, 52169), (38, 52190), (41, 52220), (43, 52244), (44, 52253), (48, 52277), (60, 52337), (61, 52346), (63, 52367),

Gene: Anma_81 Start: 52928, Stop: 53401, Start Num: 9
Candidate Starts for Anma_81:
(Start: 9 @52928 has 101 MA's), (12, 52940), (18, 52991), (20, 53012), (32, 53171), (36, 53198), (38, 53219), (41, 53249), (43, 53273), (48, 53306), (53, 53327), (59, 53360), (61, 53375), (63, 53396),

Gene: Apocalypse_83 Start: 53113, Stop: 53589, Start Num: 9
Candidate Starts for Apocalypse_83:
(Start: 9 @53113 has 101 MA's), (18, 53176), (28, 53314), (32, 53356), (38, 53404), (43, 53458),

Gene: Asayake_80 Start: 52630, Stop: 53106, Start Num: 9
Candidate Starts for Asayake_80:
(Start: 9 @52630 has 101 MA's), (18, 52693), (28, 52831), (32, 52873), (36, 52900), (38, 52921), (41, 52951), (43, 52975), (48, 53008), (59, 53062), (61, 53077), (63, 53098),

Gene: Atiba_81 Start: 52278, Stop: 52754, Start Num: 9
Candidate Starts for Atiba_81:
(Start: 9 @52278 has 101 MA's), (18, 52341), (28, 52479), (32, 52521), (36, 52548), (38, 52569), (41, 52599), (43, 52623), (48, 52656), (59, 52710), (61, 52725), (63, 52746),

Gene: BEEST_80 Start: 52630, Stop: 53106, Start Num: 9
Candidate Starts for BEEST_80:
(Start: 9 @52630 has 101 MA's), (18, 52693), (28, 52831), (32, 52873), (36, 52900), (38, 52921), (41, 52951), (43, 52975), (48, 53008), (59, 53062), (61, 53077), (63, 53098),

Gene: BGlluviae_80 Start: 52433, Stop: 52909, Start Num: 9
Candidate Starts for BGlluviae_80:
(Start: 9 @52433 has 101 MA's), (18, 52496), (21, 52580), (28, 52634), (32, 52676), (36, 52703), (38, 52724), (43, 52778),

Gene: BaghaKamala_79 Start: 51864, Stop: 52340, Start Num: 9
Candidate Starts for BaghaKamala_79:
(Start: 9 @51864 has 101 MA's), (18, 51927), (28, 52065), (32, 52107), (36, 52134), (38, 52155), (41, 52185), (43, 52209), (48, 52242), (59, 52296), (61, 52311), (63, 52332),

Gene: BarrelRoll_81 Start: 52830, Stop: 53306, Start Num: 9
Candidate Starts for BarrelRoll_81:
(Start: 9 @52830 has 101 MA's), (18, 52893), (32, 53073), (36, 53100), (38, 53121), (43, 53175),

Gene: Beezoo_84 Start: 53443, Stop: 53919, Start Num: 9
Candidate Starts for Beezoo_84:
(Start: 9 @53443 has 101 MA's), (18, 53506), (28, 53644), (32, 53686), (36, 53713), (38, 53734), (41, 53764), (43, 53788), (48, 53821), (53, 53842), (59, 53875), (61, 53890), (63, 53911),

Gene: Bella96_82 Start: 52804, Stop: 53280, Start Num: 9
Candidate Starts for Bella96_82:
(Start: 9 @52804 has 101 MA's), (12, 52816), (18, 52867), (20, 52888), (30, 53023), (32, 53047), (36, 53074), (38, 53095), (41, 53125), (43, 53149), (48, 53182), (59, 53236), (61, 53251), (63, 53272),

Gene: Belladonna_80 Start: 52433, Stop: 52909, Start Num: 9
Candidate Starts for Belladonna_80:

(Start: 9 @52433 has 101 MA's), (18, 52496), (28, 52634), (32, 52676), (36, 52703), (38, 52724), (41, 52754), (43, 52778), (48, 52811), (59, 52865), (61, 52880), (63, 52901),

Gene: Blizzard_80 Start: 52630, Stop: 53106, Start Num: 9
Candidate Starts for Blizzard_80:
(Start: 9 @52630 has 101 MA's), (18, 52693), (28, 52831), (32, 52873), (36, 52900), (38, 52921), (41, 52951), (43, 52975), (48, 53008), (59, 53062), (61, 53077), (63, 53098),

Gene: Boiiii_80 Start: 52632, Stop: 53108, Start Num: 9
Candidate Starts for Boiiii_80:
(Start: 9 @52632 has 101 MA's), (18, 52695), (28, 52833), (32, 52875), (36, 52902), (38, 52923), (41, 52953), (43, 52977), (48, 53010), (59, 53064), (61, 53079), (63, 53100),

Gene: CREW_79 Start: 52433, Stop: 52909, Start Num: 9
Candidate Starts for CREW_79:
(Start: 9 @52433 has 101 MA's), (18, 52496), (28, 52634), (32, 52676), (36, 52703), (38, 52724), (41, 52754), (43, 52778), (48, 52811), (59, 52865), (61, 52880), (63, 52901),

Gene: CallaLilly_80 Start: 52356, Stop: 52832, Start Num: 9
Candidate Starts for CallaLilly_80:
(Start: 9 @52356 has 101 MA's), (18, 52419), (28, 52557), (32, 52599), (36, 52626), (38, 52647), (41, 52677), (43, 52701), (48, 52734), (59, 52788), (61, 52803), (63, 52824),

Gene: Capricorn_80 Start: 52433, Stop: 52909, Start Num: 9
Candidate Starts for Capricorn_80:
(Start: 9 @52433 has 101 MA's), (18, 52496), (28, 52634), (32, 52676), (36, 52703), (38, 52724), (41, 52754), (43, 52778), (48, 52811), (59, 52865), (61, 52880), (63, 52901),

Gene: CaseJules_82 Start: 52630, Stop: 53106, Start Num: 9
Candidate Starts for CaseJules_82:
(Start: 9 @52630 has 101 MA's), (18, 52693), (28, 52831), (32, 52873), (36, 52900), (38, 52921), (41, 52951), (43, 52975), (48, 53008), (59, 53062), (61, 53077), (63, 53098),

Gene: CheetoDust_81 Start: 52251, Stop: 52727, Start Num: 9
Candidate Starts for CheetoDust_81:
(4, 52212), (Start: 9 @52251 has 101 MA's), (18, 52314), (28, 52452), (32, 52494), (36, 52521), (38, 52542), (41, 52572), (43, 52596),

Gene: Chris_80 Start: 52508, Stop: 52897, Start Num: 6
Candidate Starts for Chris_80:
(Start: 6 @52508 has 2 MA's), (12, 52535), (18, 52586), (20, 52607), (23, 52688), (33, 52763), (39, 52799), (41, 52826), (43, 52850), (44, 52859),

Gene: Clipper_84 Start: 52996, Stop: 53472, Start Num: 9
Candidate Starts for Clipper_84:
(Start: 9 @52996 has 101 MA's), (18, 53059), (28, 53197), (32, 53239), (38, 53287), (43, 53341), (48, 53374), (59, 53428), (61, 53443), (63, 53464),

Gene: CrimD_81 Start: 52883, Stop: 53359, Start Num: 9
Candidate Starts for CrimD_81:
(Start: 9 @52883 has 101 MA's), (18, 52946), (32, 53126), (43, 53228),

Gene: Curiosium_86 Start: 52181, Stop: 52765, Start Num: 9

Candidate Starts for Curiosium_86:
(1, 52091), (2, 52094), (Start: 9 @52181 has 101 MA's), (18, 52244), (20, 52265), (27, 52367), (30, 52400), (32, 52424), (34, 52448), (36, 52469), (38, 52490), (59, 52634), (62, 52667), (65, 52721), (68, 52757),

Gene: Dadosky_75 Start: 49521, Stop: 50003, Start Num: 9
Candidate Starts for Dadosky_75:
(Start: 9 @49521 has 101 MA's), (17, 49566), (18, 49584), (35, 49680), (39, 49713), (52, 49815), (66, 49953), (71, 49995),

Gene: Dalmuri_80 Start: 52433, Stop: 52909, Start Num: 9
Candidate Starts for Dalmuri_80:
(Start: 9 @52433 has 101 MA's), (18, 52496), (28, 52634), (32, 52676), (36, 52703), (38, 52724), (41, 52754), (43, 52778), (48, 52811), (59, 52865), (61, 52880), (63, 52901),

Gene: DartGoblin_84 Start: 52767, Stop: 53243, Start Num: 9
Candidate Starts for DartGoblin_84:
(Start: 9 @52767 has 101 MA's), (12, 52779), (18, 52830), (30, 52986), (32, 53010), (36, 53037), (38, 53058), (43, 53112), (48, 53145), (53, 53166), (59, 53199), (61, 53214), (63, 53235),

Gene: Deby_80 Start: 52797, Stop: 53273, Start Num: 9
Candidate Starts for Deby_80:
(Start: 9 @52797 has 101 MA's), (18, 52860), (28, 52998), (32, 53040), (36, 53067), (38, 53088), (41, 53118), (43, 53142), (48, 53175), (59, 53229), (61, 53244), (63, 53265),

Gene: Devera_87 Start: 53666, Stop: 54112, Start Num: 9
Candidate Starts for Devera_87:
(Start: 9 @53666 has 101 MA's), (12, 53678), (18, 53729), (32, 53909), (38, 53957), (41, 53987), (43, 54011), (51, 54041),

Gene: Dole_84 Start: 53669, Stop: 54115, Start Num: 9
Candidate Starts for Dole_84:
(Start: 9 @53669 has 101 MA's), (12, 53681), (18, 53732), (32, 53912), (38, 53960), (41, 53990), (43, 54014), (51, 54044),

Gene: DrHayes_81 Start: 52928, Stop: 53401, Start Num: 9
Candidate Starts for DrHayes_81:
(Start: 9 @52928 has 101 MA's), (12, 52940), (18, 52991), (20, 53012), (32, 53171), (36, 53198), (38, 53219), (41, 53249), (43, 53273), (48, 53306), (53, 53327), (59, 53360), (61, 53375), (63, 53396),

Gene: Durfee_80 Start: 52630, Stop: 53106, Start Num: 9
Candidate Starts for Durfee_80:
(Start: 9 @52630 has 101 MA's), (18, 52693), (28, 52831), (32, 52873), (36, 52900), (38, 52921), (41, 52951), (43, 52975), (48, 53008), (59, 53062), (61, 53077), (63, 53098),

Gene: Edugator_71 Start: 50692, Stop: 51174, Start Num: 9
Candidate Starts for Edugator_71:
(Start: 9 @50692 has 101 MA's), (17, 50737), (18, 50755), (35, 50851), (39, 50884), (52, 50986), (66, 51124), (71, 51166),

Gene: Efra2_87 Start: 53234, Stop: 53698, Start Num: 9
Candidate Starts for Efra2_87:

(Start: 9 @53234 has 101 MA's), (20, 53318), (25, 53408), (36, 53486), (38, 53507), (43, 53561), (48, 53600), (55, 53636), (59, 53654), (61, 53669), (63, 53690),

Gene: Emerson_83 Start: 52849, Stop: 53325, Start Num: 9
Candidate Starts for Emerson_83:
(Start: 9 @52849 has 101 MA's), (18, 52912), (28, 53050), (32, 53092), (36, 53119), (38, 53140), (41, 53170), (43, 53194), (48, 53227), (53, 53248), (59, 53281), (61, 53296), (63, 53317),

Gene: Feyre_76 Start: 52938, Stop: 53537, Start Num: 9
Candidate Starts for Feyre_76:
(Start: 9 @52938 has 101 MA's), (17, 52983), (35, 53214), (38, 53244), (39, 53247), (42, 53286), (50, 53346), (52, 53349), (61, 53412), (63, 53433),

Gene: Ganymede_81 Start: 52871, Stop: 53347, Start Num: 9
Candidate Starts for Ganymede_81:
(Start: 9 @52871 has 101 MA's), (12, 52883), (18, 52934), (32, 53114), (36, 53141), (38, 53162), (41, 53192), (43, 53216),

Gene: Gengar_74 Start: 51188, Stop: 51751, Start Num: 9
Candidate Starts for Gengar_74:
(Start: 9 @51188 has 101 MA's), (17, 51233), (35, 51464), (38, 51494), (39, 51497), (50, 51596), (52, 51599),

Gene: Geraldini_83 Start: 52891, Stop: 53367, Start Num: 9
Candidate Starts for Geraldini_83:
(Start: 9 @52891 has 101 MA's), (18, 52954), (32, 53134), (36, 53161), (38, 53182), (43, 53236),

Gene: Guanica15_86 Start: 53021, Stop: 53395, Start Num: 9
Candidate Starts for Guanica15_86:
(Start: 9 @53021 has 101 MA's), (18, 53084), (20, 53105), (36, 53189), (38, 53210), (43, 53264), (48, 53297), (53, 53318), (59, 53351), (61, 53366), (63, 53387),

Gene: Guillsminger_75 Start: 51109, Stop: 51615, Start Num: 9
Candidate Starts for Guillsminger_75:
(Start: 9 @51109 has 101 MA's), (17, 51154), (35, 51385), (38, 51415), (39, 51418), (50, 51517), (52, 51520), (61, 51583),

Gene: HedwigODU_80 Start: 52478, Stop: 52954, Start Num: 9
Candidate Starts for HedwigODU_80:
(Start: 9 @52478 has 101 MA's), (18, 52541), (28, 52679), (32, 52721), (36, 52748), (38, 52769), (41, 52799), (43, 52823), (48, 52856), (59, 52910), (61, 52925), (63, 52946),

Gene: Heftyboy_74 Start: 51216, Stop: 51815, Start Num: 9
Candidate Starts for Heftyboy_74:
(Start: 9 @51216 has 101 MA's), (17, 51261), (35, 51492), (38, 51522), (39, 51525), (50, 51624), (52, 51627), (61, 51690), (63, 51711), (66, 51765), (71, 51807),

Gene: Homura_79 Start: 52433, Stop: 52909, Start Num: 9
Candidate Starts for Homura_79:
(Start: 9 @52433 has 101 MA's), (18, 52496), (28, 52634), (32, 52676), (36, 52703), (38, 52724), (41, 52754), (43, 52778), (48, 52811), (59, 52865), (61, 52880), (63, 52901),

Gene: Hyperbowlee_79 Start: 52630, Stop: 53106, Start Num: 9

Candidate Starts for Hyperbowlee_79:
(Start: 9 @52630 has 101 MA's), (18, 52693), (28, 52831), (32, 52873), (36, 52900), (38, 52921), (41, 52951), (43, 52975), (48, 53008), (59, 53062), (61, 53077), (63, 53098),

Gene: Illumine_85 Start: 53668, Stop: 54114, Start Num: 9
Candidate Starts for Illumine_85:
(Start: 9 @53668 has 101 MA's), (12, 53680), (18, 53731), (32, 53911), (38, 53959), (41, 53989), (43, 54013), (51, 54043),

Gene: Inky_80 Start: 52433, Stop: 52909, Start Num: 9
Candidate Starts for Inky_80:
(Start: 9 @52433 has 101 MA's), (18, 52496), (28, 52634), (32, 52676), (36, 52703), (38, 52724), (41, 52754), (43, 52778), (48, 52811), (59, 52865), (61, 52880), (63, 52901),

Gene: JAWS_79 Start: 52395, Stop: 52871, Start Num: 9
Candidate Starts for JAWS_79:
(Start: 9 @52395 has 101 MA's), (18, 52458), (28, 52596), (32, 52638), (36, 52665), (38, 52686), (43, 52740), (48, 52773), (53, 52794), (59, 52827), (61, 52842), (63, 52863),

Gene: Jarvi_80 Start: 52433, Stop: 52909, Start Num: 9
Candidate Starts for Jarvi_80:
(Start: 9 @52433 has 101 MA's), (18, 52496), (28, 52634), (32, 52676), (36, 52703), (38, 52724), (41, 52754), (43, 52778), (48, 52811), (59, 52865), (61, 52880), (63, 52901),

Gene: Jayhawk_83 Start: 52890, Stop: 53366, Start Num: 9
Candidate Starts for Jayhawk_83:
(Start: 9 @52890 has 101 MA's), (18, 52953), (32, 53133), (36, 53160), (38, 53181), (43, 53235),

Gene: Jeckyll_80 Start: 52433, Stop: 52909, Start Num: 9
Candidate Starts for Jeckyll_80:
(Start: 9 @52433 has 101 MA's), (18, 52496), (28, 52634), (32, 52676), (36, 52703), (38, 52724), (41, 52754), (43, 52778), (48, 52811), (59, 52865), (61, 52880), (63, 52901),

Gene: Joy99_81 Start: 52562, Stop: 53038, Start Num: 9
Candidate Starts for Joy99_81:
(Start: 9 @52562 has 101 MA's), (18, 52625), (28, 52763), (32, 52805), (36, 52832), (38, 52853), (41, 52883), (43, 52907), (48, 52940), (59, 52994), (61, 53009), (63, 53030),

Gene: Larva_74 Start: 50393, Stop: 50875, Start Num: 9
Candidate Starts for Larva_74:
(Start: 9 @50393 has 101 MA's), (17, 50438), (18, 50456), (35, 50552), (39, 50585), (52, 50687), (66, 50825), (71, 50867),

Gene: LastHope_87 Start: 53015, Stop: 53491, Start Num: 9
Candidate Starts for LastHope_87:
(Start: 9 @53015 has 101 MA's), (20, 53099), (30, 53234), (32, 53258), (36, 53285), (41, 53336), (43, 53360), (48, 53393), (59, 53447), (61, 53462), (63, 53483),

Gene: LaterM_81 Start: 53110, Stop: 53586, Start Num: 9
Candidate Starts for LaterM_81:
(Start: 9 @53110 has 101 MA's), (12, 53122), (18, 53173), (32, 53353), (36, 53380), (38, 53401), (41, 53431), (43, 53455), (58, 53539),

Gene: Leston_74 Start: 51226, Stop: 51732, Start Num: 9
Candidate Starts for Leston_74:
(Start: 9 @51226 has 101 MA's), (17, 51271), (35, 51502), (38, 51532), (39, 51535), (50, 51634), (52, 51637), (61, 51700),

Gene: LindNT_79 Start: 52889, Stop: 53365, Start Num: 9
Candidate Starts for LindNT_79:
(Start: 9 @52889 has 101 MA's), (18, 52952), (32, 53132), (38, 53180), (43, 53234),

Gene: Llorens_80 Start: 52433, Stop: 52909, Start Num: 9
Candidate Starts for Llorens_80:
(Start: 9 @52433 has 101 MA's), (18, 52496), (28, 52634), (32, 52676), (36, 52703), (38, 52724), (41, 52754), (43, 52778), (48, 52811), (59, 52865), (61, 52880), (63, 52901),

Gene: Lunahalos_80 Start: 52433, Stop: 52909, Start Num: 9
Candidate Starts for Lunahalos_80:
(Start: 9 @52433 has 101 MA's), (18, 52496), (28, 52634), (32, 52676), (36, 52703), (38, 52724), (41, 52754), (43, 52778), (48, 52811), (59, 52865), (61, 52880), (63, 52901),

Gene: MacKat_76 Start: 47880, Stop: 48356, Start Num: 9
Candidate Starts for MacKat_76:
(Start: 9 @47880 has 101 MA's), (18, 47943), (28, 48081), (32, 48123), (38, 48171), (43, 48225), (48, 48258), (59, 48312), (61, 48327), (63, 48348),

Gene: MarkPhew_83 Start: 52994, Stop: 53452, Start Num: 6
Candidate Starts for MarkPhew_83:
(Start: 6 @52994 has 2 MA's), (Start: 9 @53033 has 101 MA's), (10, 53042), (16, 53075), (18, 53108), (19, 53123), (49, 53372), (50, 53375),

Gene: MeaningOfLife_83 Start: 53420, Stop: 53896, Start Num: 9
Candidate Starts for MeaningOfLife_83:
(Start: 9 @53420 has 101 MA's), (18, 53483), (28, 53621), (32, 53663), (36, 53690), (38, 53711), (41, 53741), (43, 53765), (48, 53798), (59, 53852), (61, 53867),

Gene: Megsy_85 Start: 53058, Stop: 53534, Start Num: 9
Candidate Starts for Megsy_85:
(Start: 9 @53058 has 101 MA's), (18, 53121), (20, 53142), (32, 53301), (36, 53328), (38, 53349), (43, 53403), (58, 53487),

Gene: Miryou_77 Start: 53605, Stop: 54204, Start Num: 9
Candidate Starts for Miryou_77:
(Start: 9 @53605 has 101 MA's), (17, 53650), (35, 53881), (38, 53911), (39, 53914), (42, 53953), (50, 54013), (52, 54016), (61, 54079), (63, 54100),

Gene: Murucutumbu_81 Start: 53654, Stop: 54130, Start Num: 9
Candidate Starts for Murucutumbu_81:
(Start: 9 @53654 has 101 MA's), (12, 53666), (32, 53897), (36, 53924), (38, 53945), (41, 53975), (43, 53999), (48, 54032), (53, 54053), (59, 54086), (61, 54101), (63, 54122),

Gene: Mynx_82 Start: 53173, Stop: 53649, Start Num: 9
Candidate Starts for Mynx_82:
(Start: 9 @53173 has 101 MA's), (18, 53236), (32, 53416), (36, 53443), (38, 53464), (43, 53518),

Gene: Neighly_75 Start: 50392, Stop: 50874, Start Num: 9
Candidate Starts for Neighly_75:
(Start: 9 @50392 has 101 MA's), (17, 50437), (18, 50455), (35, 50551), (39, 50584), (52, 50686), (66, 50824), (71, 50866),

Gene: Nibb_81 Start: 52309, Stop: 52764, Start Num: 8
Candidate Starts for Nibb_81:
(Start: 8 @52309 has 5 MA's), (14, 52333), (15, 52336), (18, 52372), (29, 52516), (32, 52549), (36, 52576), (40, 52609), (41, 52627), (43, 52651), (44, 52660),

Gene: OkiRoe_75 Start: 51530, Stop: 52093, Start Num: 9
Candidate Starts for OkiRoe_75:
(Start: 9 @51530 has 101 MA's), (17, 51575), (35, 51806), (38, 51836), (39, 51839), (42, 51878), (50, 51938), (52, 51941),

Gene: Omnicron_77 Start: 52284, Stop: 52922, Start Num: 8
Candidate Starts for Omnicron_77:
(Start: 8 @52284 has 5 MA's), (Start: 9 @52287 has 101 MA's), (17, 52332), (45, 52608), (50, 52647), (52, 52650), (61, 52713), (63, 52734), (64, 52779), (66, 52788), (69, 52821), (72, 52842), (73, 52890), (74, 52914),

Gene: Padfoot_80 Start: 52630, Stop: 53106, Start Num: 9
Candidate Starts for Padfoot_80:
(Start: 9 @52630 has 101 MA's), (18, 52693), (28, 52831), (32, 52873), (36, 52900), (38, 52921), (41, 52951), (43, 52975), (48, 53008), (59, 53062), (61, 53077), (63, 53098),

Gene: Padpat_84 Start: 52849, Stop: 53325, Start Num: 9
Candidate Starts for Padpat_84:
(Start: 9 @52849 has 101 MA's), (18, 52912), (28, 53050), (32, 53092), (36, 53119), (38, 53140), (41, 53170), (43, 53194), (48, 53227), (53, 53248), (59, 53281), (61, 53296), (63, 53317),

Gene: Paola_74 Start: 51109, Stop: 51615, Start Num: 9
Candidate Starts for Paola_74:
(Start: 9 @51109 has 101 MA's), (17, 51154), (35, 51385), (38, 51415), (39, 51418), (50, 51517), (52, 51520), (61, 51583),

Gene: Peel_80 Start: 52435, Stop: 52911, Start Num: 9
Candidate Starts for Peel_80:
(Start: 9 @52435 has 101 MA's), (18, 52498), (28, 52636), (32, 52678), (36, 52705), (38, 52726), (41, 52756), (43, 52780), (48, 52813), (59, 52867), (61, 52882), (63, 52903),

Gene: Piatt_79 Start: 52630, Stop: 53106, Start Num: 9
Candidate Starts for Piatt_79:
(Start: 9 @52630 has 101 MA's), (18, 52693), (28, 52831), (32, 52873), (36, 52900), (38, 52921), (41, 52951), (43, 52975), (48, 53008), (59, 53062), (61, 53077), (63, 53098),

Gene: Pisa1_81 Start: 53110, Stop: 53586, Start Num: 9
Candidate Starts for Pisa1_81:
(Start: 9 @53110 has 101 MA's), (12, 53122), (18, 53173), (30, 53329), (32, 53353), (36, 53380), (38, 53401), (43, 53455),

Gene: Pisa4_75 Start: 48479, Stop: 48955, Start Num: 9
Candidate Starts for Pisa4_75:

(Start: 9 @48479 has 101 MA's), (12, 48491), (18, 48542), (30, 48698), (32, 48722), (36, 48749), (38, 48770), (43, 48824),

Gene: Pixie_82 Start: 53179, Stop: 53658, Start Num: 8
Candidate Starts for Pixie_82:
(Start: 8 @53179 has 5 MA's), (13, 53194), (18, 53242), (22, 53335), (24, 53359), (46, 53539), (56, 53602), (57, 53605),

Gene: Pokerus_81 Start: 52873, Stop: 53349, Start Num: 9
Candidate Starts for Pokerus_81:
(Start: 9 @52873 has 101 MA's), (18, 52936), (28, 53074), (32, 53116), (36, 53143), (38, 53164), (43, 53218),

Gene: Prithvi_83 Start: 52889, Stop: 53455, Start Num: 9
Candidate Starts for Prithvi_83:
(Start: 9 @52889 has 101 MA's), (18, 52952), (32, 53132), (38, 53180), (59, 53324), (65, 53411), (67, 53426), (68, 53447),

Gene: Psycho_73 Start: 49518, Stop: 50000, Start Num: 9
Candidate Starts for Psycho_73:
(Start: 9 @49518 has 101 MA's), (17, 49563), (18, 49581), (35, 49677), (39, 49710), (52, 49812), (66, 49950), (71, 49992),

Gene: QuincyRose_79 Start: 52871, Stop: 53347, Start Num: 9
Candidate Starts for QuincyRose_79:
(Start: 9 @52871 has 101 MA's), (12, 52883), (18, 52934), (32, 53114), (36, 53141), (38, 53162), (41, 53192), (43, 53216),

Gene: Ramen_81 Start: 52203, Stop: 52679, Start Num: 9
Candidate Starts for Ramen_81:
(Start: 9 @52203 has 101 MA's), (18, 52266), (28, 52404), (32, 52446), (36, 52473), (38, 52494), (43, 52548), (48, 52581), (59, 52635), (61, 52650), (63, 52671),

Gene: Rando14_76 Start: 50969, Stop: 51520, Start Num: 9
Candidate Starts for Rando14_76:
(5, 50924), (7, 50951), (Start: 9 @50969 has 101 MA's), (17, 51014), (45, 51290), (50, 51329), (52, 51332), (61, 51395), (63, 51416), (70, 51509),

Gene: Rapunzel97_83 Start: 52845, Stop: 53321, Start Num: 9
Candidate Starts for Rapunzel97_83:
(Start: 9 @52845 has 101 MA's), (18, 52908), (32, 53088), (36, 53115), (38, 53136), (43, 53190),

Gene: Rosmarinus_80 Start: 52421, Stop: 52897, Start Num: 9
Candidate Starts for Rosmarinus_80:
(Start: 9 @52421 has 101 MA's), (18, 52484), (28, 52622), (32, 52664), (36, 52691), (38, 52712), (41, 52742), (43, 52766), (48, 52799), (59, 52853), (61, 52868), (63, 52889),

Gene: SamuelLPlaqson_81 Start: 52928, Stop: 53401, Start Num: 9
Candidate Starts for SamuelLPlaqson_81:
(Start: 9 @52928 has 101 MA's), (12, 52940), (18, 52991), (20, 53012), (32, 53171), (36, 53198), (38, 53219), (41, 53249), (43, 53273), (48, 53306), (53, 53327), (59, 53360), (61, 53375), (63, 53396),

Gene: ShiaSurprise_81 Start: 52630, Stop: 53106, Start Num: 9

Candidate Starts for ShiaSurprise_81:
(Start: 9 @52630 has 101 MA's), (18, 52693), (28, 52831), (32, 52873), (36, 52900), (38, 52921), (41, 52951), (43, 52975), (48, 53008), (59, 53062), (61, 53077), (63, 53098),

Gene: SirPhilip_80 Start: 52804, Stop: 53241, Start Num: 9
Candidate Starts for SirPhilip_80:
(Start: 9 @52804 has 101 MA's), (18, 52867), (26, 52984), (29, 53011), (32, 53044), (47, 53158), (49, 53161),

Gene: Slimphazie_82 Start: 52845, Stop: 53321, Start Num: 9
Candidate Starts for Slimphazie_82:
(Start: 9 @52845 has 101 MA's), (18, 52908), (28, 53046), (32, 53088), (36, 53115), (38, 53136), (43, 53190), (48, 53223), (53, 53244), (59, 53277), (61, 53292), (63, 53313),

Gene: SoSeph_74 Start: 51216, Stop: 51815, Start Num: 9
Candidate Starts for SoSeph_74:
(Start: 9 @51216 has 101 MA's), (17, 51261), (35, 51492), (38, 51522), (39, 51525), (50, 51624), (52, 51627), (61, 51690), (63, 51711), (66, 51765), (71, 51807),

Gene: Spock_80 Start: 52434, Stop: 52910, Start Num: 9
Candidate Starts for Spock_80:
(Start: 9 @52434 has 101 MA's), (18, 52497), (28, 52635), (32, 52677), (36, 52704), (38, 52725), (41, 52755), (43, 52779), (48, 52812), (59, 52866), (61, 52881), (63, 52902),

Gene: Stinson_82 Start: 53036, Stop: 53512, Start Num: 9
Candidate Starts for Stinson_82:
(Start: 9 @53036 has 101 MA's), (12, 53048), (18, 53099), (28, 53237), (32, 53279), (36, 53306), (38, 53327), (41, 53357), (43, 53381),

Gene: Sulley_77 Start: 51894, Stop: 52370, Start Num: 9
Candidate Starts for Sulley_77:
(Start: 9 @51894 has 101 MA's), (18, 51957), (28, 52095), (31, 52128), (32, 52137), (36, 52164), (38, 52185), (43, 52239), (48, 52272), (59, 52326), (61, 52341), (63, 52362),

Gene: TBond007_79 Start: 53177, Stop: 53656, Start Num: 8
Candidate Starts for TBond007_79:
(Start: 8 @53177 has 5 MA's), (13, 53192), (18, 53240), (22, 53333), (24, 53357), (46, 53537), (56, 53600), (57, 53603),

Gene: Tachez_80 Start: 52278, Stop: 52754, Start Num: 9
Candidate Starts for Tachez_80:
(Start: 9 @52278 has 101 MA's), (18, 52341), (28, 52479), (32, 52521), (36, 52548), (38, 52569), (41, 52599), (43, 52623), (48, 52656), (59, 52710), (61, 52725), (63, 52746),

Gene: TaiwanKao_81 Start: 52410, Stop: 52886, Start Num: 9
Candidate Starts for TaiwanKao_81:
(Start: 9 @52410 has 101 MA's), (12, 52422), (18, 52473), (27, 52596), (30, 52629), (32, 52653), (36, 52680), (41, 52731), (42, 52743), (43, 52755), (48, 52788), (53, 52809), (59, 52842), (61, 52857), (63, 52878),

Gene: TingHuaYa_85 Start: 53323, Stop: 53799, Start Num: 9
Candidate Starts for TingHuaYa_85:

(3, 53284), (Start: 9 @53323 has 101 MA's), (19, 53401), (20, 53407), (30, 53542), (32, 53566), (36, 53593), (43, 53668), (48, 53701), (59, 53755), (61, 53770), (63, 53791),

Gene: TiniBug_81 Start: 52936, Stop: 53412, Start Num: 9
Candidate Starts for TiniBug_81:
(Start: 9 @52936 has 101 MA's), (12, 52948), (18, 52999), (20, 53020), (30, 53155), (32, 53179), (36, 53206), (38, 53227), (41, 53257), (43, 53281), (48, 53314), (59, 53368), (61, 53383), (63, 53404),

Gene: Tiri_81 Start: 52363, Stop: 52839, Start Num: 9
Candidate Starts for Tiri_81:
(Start: 9 @52363 has 101 MA's), (18, 52426), (32, 52606), (36, 52633), (38, 52654), (43, 52708), (48, 52741), (53, 52762), (59, 52795), (61, 52810), (63, 52831),

Gene: Topper_80 Start: 52433, Stop: 52909, Start Num: 9
Candidate Starts for Topper_80:
(Start: 9 @52433 has 101 MA's), (18, 52496), (28, 52634), (32, 52676), (36, 52703), (38, 52724), (41, 52754), (43, 52778), (48, 52811), (59, 52865), (61, 52880), (63, 52901),

Gene: TreyKay_83 Start: 52889, Stop: 53455, Start Num: 9
Candidate Starts for TreyKay_83:
(Start: 9 @52889 has 101 MA's), (18, 52952), (32, 53132), (38, 53180), (59, 53324), (65, 53411), (67, 53426), (68, 53447),

Gene: TribleTrouble_82 Start: 53396, Stop: 53845, Start Num: 8
Candidate Starts for TribleTrouble_82:
(Start: 8 @53396 has 5 MA's), (16, 53426), (18, 53459), (20, 53480), (22, 53552), (37, 53678), (54, 53798), (56, 53810), (58, 53816),

Gene: TruffulaTree_82 Start: 52841, Stop: 53317, Start Num: 9
Candidate Starts for TruffulaTree_82:
(Start: 9 @52841 has 101 MA's), (18, 52904), (28, 53042), (32, 53084), (36, 53111), (38, 53132), (41, 53162), (43, 53186), (48, 53219), (59, 53273), (61, 53288), (63, 53309),

Gene: Twitch_80 Start: 52435, Stop: 52911, Start Num: 9
Candidate Starts for Twitch_80:
(Start: 9 @52435 has 101 MA's), (18, 52498), (28, 52636), (32, 52678), (36, 52705), (38, 52726), (41, 52756), (43, 52780), (48, 52813), (59, 52867), (61, 52882), (63, 52903),

Gene: Urkel_81 Start: 52928, Stop: 53401, Start Num: 9
Candidate Starts for Urkel_81:
(Start: 9 @52928 has 101 MA's), (12, 52940), (18, 52991), (20, 53012), (32, 53171), (36, 53198), (38, 53219), (41, 53249), (43, 53273), (48, 53306), (53, 53327), (59, 53360), (61, 53375), (63, 53396),

Gene: Veliki_81 Start: 52386, Stop: 52856, Start Num: 9
Candidate Starts for Veliki_81:
(Start: 9 @52386 has 101 MA's), (18, 52449), (28, 52581), (32, 52623), (36, 52650), (38, 52671), (43, 52725), (48, 52758), (53, 52779), (59, 52812), (61, 52827), (63, 52848),

Gene: YoureAdopted_80 Start: 52656, Stop: 53132, Start Num: 9
Candidate Starts for YoureAdopted_80:
(Start: 9 @52656 has 101 MA's), (18, 52719), (28, 52857), (32, 52899), (36, 52926), (38, 52947), (41, 52977), (43, 53001),

Gene: Zabiza_76 Start: 48783, Stop: 49259, Start Num: 9
Candidate Starts for Zabiza_76:
(Start: 9 @48783 has 101 MA's), (18, 48846), (28, 48984), (32, 49026), (36, 49053), (38, 49074), (41, 49104), (43, 49128), (48, 49161), (59, 49215), (61, 49230), (63, 49251),

Gene: Zavala_83 Start: 52919, Stop: 53395, Start Num: 9
Candidate Starts for Zavala_83:
(Start: 9 @52919 has 101 MA's), (18, 52982), (28, 53120), (32, 53162), (36, 53189), (38, 53210), (43, 53264), (48, 53297), (53, 53318), (59, 53351), (61, 53366), (63, 53387),