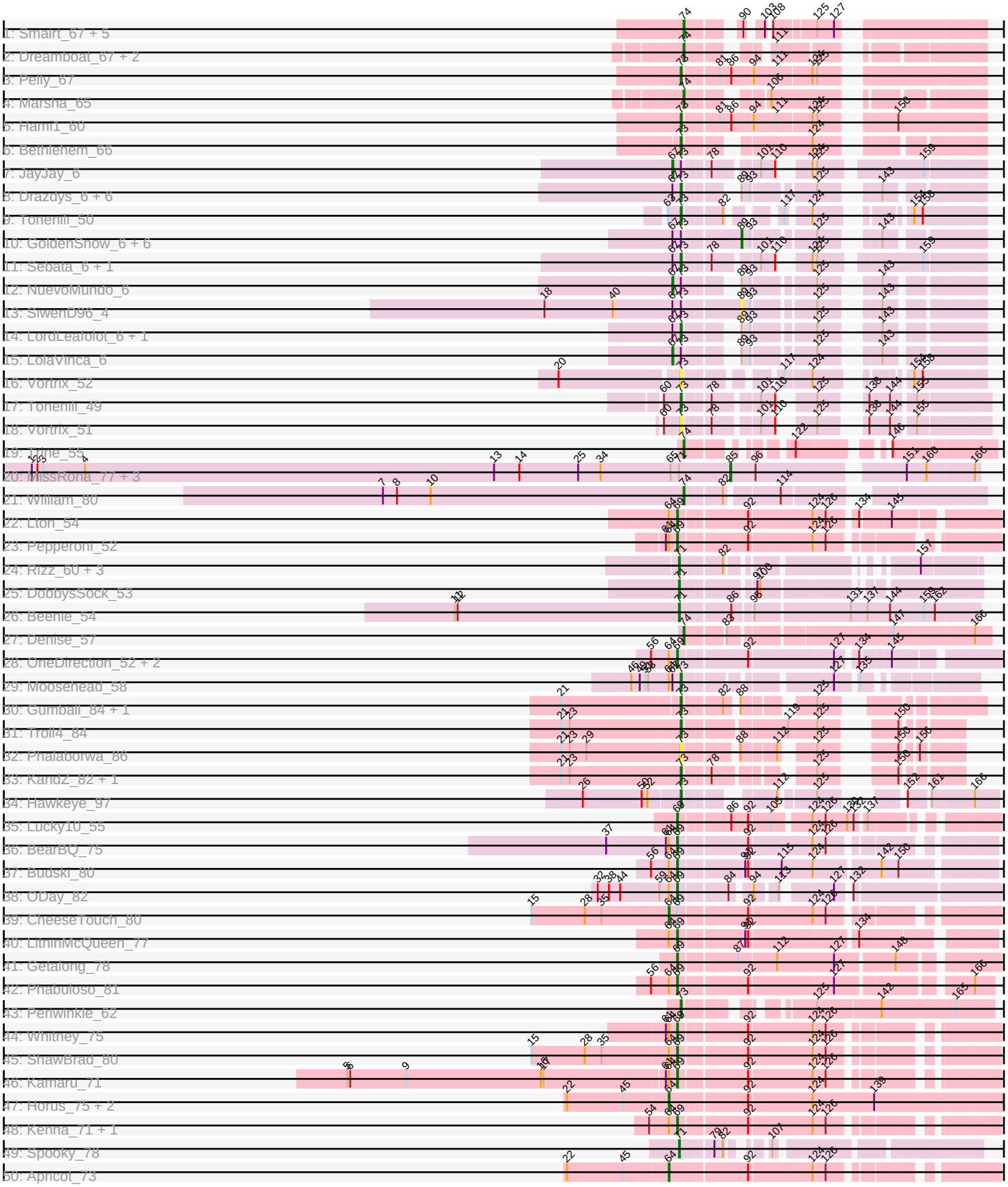
Pham 347220


1: Smairt_67 + 5
2: Dreamboat_67 + 2
3: Pelly_67
4: Marsha_65
5: Hamri_60
6: Bethlehem_66
7: JayJay_6
8: Drazdys_6 + 6
9: Tonehill_50
10: GoldenSnow_6 + 6
11: Sebata_6 + 1
12: NuevoMundo_6
13: SiwenD96_4
14: LordLeafolot_6 + 1
15: LolaVinca_6
16: Vortrix_52
17: Tonehill_49
18: Vortrix_51
19: Irine_55
20: MissRona_77 + 3
21: William_80
22: Lton_54
23: Pepperoni_52
24: Rizz_60 + 3
25: DobbysSock_53
26: Beenie_54
27: Denise_57
28: OneDirection_52 + 2
29: Moosehead_58
30: Gumball_84 + 1
31: Troll4_84
32: Phalaborwa_86
33: Kandz_82 + 1
34: Hawkeye_97
35: Lucky10_55
36: BearBQ_75
37: Budski_80
38: ODay_82
39: CheeseTouch_80
40: LilninMcQueen_77
41: Getalong_78
42: Phabulos0_81
43: Periwinkle_62
44: Whitney_75
45: ShawBrad_80
46: Kamaru_71
47: Horus_75 + 2
48: Kenna_71 + 1
49: Spooky_78
50: Apricot_73

Pham 347220


51: Kuwabara_76
52: GMA2_107
53: Heinz_57
54: DonkeyMan_58 + 1
55: Moonbeam_48 + 14
56: Bipolar_49 + 4
57: Gandalph_55 + 1
58: OldBen_70 + 18
59: Poehanya_52 + 5
60: Job42_55
61: Chuckly_55 + 6
62: Whatsaplecost_53
63: Doug_55 + 7
64: Sassafras_50 + 4
65: DeadP_58 + 3
66: Toplatin_58
67: BuzzLyseyear_44
68: Phanphagia_47
69: Hegedechwindu_72 + 1
70: Seabastian_39 + 9
71: Byougenkin_50
72: Mozy_62
73: Bobi_72
74: PhesterPhotato_75
75: JaiFarm20_60
76: Spikelee_42
77: SG4_49
78: Yoshi_64
79: Demsculpinboyz_75
80: Yoshi_77
81: Renaud18_70
82: MetaBob_69
83: Renaud18_71
84: Bagrid_146 + 14
85: Kalan2_136 + 11
86: MiaZeal_144 + 2
87: Nibley_71 + 1
88: Rando14_64
89: VanLee_59
90: Douge_118
91: Venti_53 + 7
92: Polkaroo_55
93: Nazo_58
94: BigNuz_57
95: Phayonce_59
96: Purky_63
97: FellMaine_7
98: PhaoMing_61
99: Stellammi_132
100: Gaia_56

Pham 347220


101: Gaia_57
102: Gudmit_51
103: GMA1_52
104: GAL1_58
73
75
104
164
166
74
79
82
107
157
36
41
48
60
70
71
129

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 347220 Report

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

Pham number 347220 has 246 members, 24 are drafts.

Phages represented in each track:
• Track 1 : Smairt_67, PhrostyMug_65, Sunshine924_70, Mule_62, Aeneas_68, BaconJack_70
• Track 2 : Dreamboat_67, PherrisBueller_66, Jasper_66
• Track 3 : Pelly_67
• Track 4 : Marsha_65
• Track 5 : Hami1_60
• Track 6 : Bethlehem_66
• Track 7 : JayJay_6
• Track 8 : Drazdys_6, Dandelion_5, Tyke_6, DTDevon_6, Specks_6, Pier_6, Nappy_5
• Track 9 : Tonenili_50
• Track 10 : GoldenSnow_6, PharkleMinkus_6, Maguvora_6, Tainan_6, InterFolia_6, Puhon_6, Pupusa_6
• Track 11 : Sebata_6, LinStu_6
• Track 12 : NuevoMundo_6
• Track 13 : SiwenD96_4
• Track 14 : LordLeafolot_6, FrayBell_6
• Track 15 : LolaVinca_6
• Track 16 : Vortrix_52
• Track 17 : Tonenili_49
• Track 18 : Vortrix_51
• Track 19 : Trine_55
• Track 20 : MissRona_77, Azula_77, Blueberry_76, Gambino_79
• Track 21 : William_80
• Track 22 : Lton_54
• Track 23 : Pepperoni_52
• Track 24 : Rizz_60, Samman98_60, Invectra_62, Clark_59
• Track 25 : DobbysSock_53
• Track 26 : Beenie_54
• Track 27 : Denise_57
• Track 28 : OneDirection_52, Leroy_74, Holliday_79
• Track 29 : Moosehead_58
• Track 30 : Gumball_84, SirHarley_86
• Track 31 : Troll4_84
• Track 32 : Phalaborwa_86
• Track 33 : KandZ_82, Helpful_87
• Track 34 : Hawkeye_97

• Track 35 : Lucky10_55
• Track 36 : BearBQ_75
• Track 37 : Budski_80
• Track 38 : ODay_82
• Track 39 : CheeseTouch_80
• Track 40 : LitninMcQueen_77
• Track 41 : Getalong_78
• Track 42 : Phabuloso_81
• Track 43 : Periwinkle_62
• Track 44 : Whitney_75
• Track 45 : ShawBrad_80
• Track 46 : Kamaru_71
• Track 47 : Horus_75, Phistory_72, Crater_73
• Track 48 : Kenna_71, Lutum_77
• Track 49 : Spooky_78
• Track 50 : Apricot_73
• Track 51 : Kuwabara_76
• Track 52 : GMA2_107
• Track 53 : Heinz_57
• Track 54 : DonkeyMan_58, Tarzan_58
• Track 55 : Moonbeam_48, DLane_48, XFactor_50, Ardmore_44, Hamulus_53, Batiatus_50, Melissauren88_50, CaptainTrips_49, Royals2015_55, MinionDave_51, Phalconet_51, Tweety_52, Madiba_50, PhesterPhotato_54, MilleniumForce_52
• Track 56 : Bipolar_49, ShroomBoi_52, Kenuha5_50, SuperGrey_52, KristaRAM_51
• Track 57 : Gandalph_55, Polka14_51
• Track 58 : OldBen_70, JoeyJr_73, Doomphist_76, PHappiness_73, Poenanya_76, Nimbo_65, KingMidas_72, Empress_71, Geralt_66, Inventum_71, RedBird_74, Dorothy_74, Polka14_77, Deb65_66, Daenerys_72, Leperchaun_71, RitaG_73, Scottish_71, Sassafras_74
• Track 59 : Poenanya_52, Cornucopia_55, DotProduct_48, OwlsT2W_53, Doomphist_52, GigiOuiOui_49
• Track 60 : Job42_55
• Track 61 : Chuckly_55, Ogopogo_57, Clank_57, Sparkdehlily_60, Aubs_53, TDanisky_60, Phasih_51
• Track 62 : Whatsapiecost_53
• Track 63 : Doug_55, Firehouse51_53, Chevrolet_59, Mwanjiwa_58, RockyHorror_53, ArcusAngelus_56, Zerg_52, Che8_55
• Track 64 : Sassafras_50, Dante_53, DaWorst_54, DaddyRickover_52, Inventum_47
• Track 65 : DeadP_58, Renaud18_58, Taj_56, Wee_55
• Track 66 : Topiatin_58
• Track 67 : BuzzLyseyear_44
• Track 68 : Phanphagia_47
• Track 69 : Hegedechwinu_72, SG4_69
• Track 70 : Seabastian_39, Ochi17_37, OfUltron_39, Yoshi_44, Llama_39, Nichirin_39, Jinglebell_38, Modragons_38, Oksu_39, AlpineSix_39
• Track 71 : Byougenkin_50
• Track 72 : Mozy_62
• Track 73 : Bobi_72
• Track 74 : PhesterPhotato_75
• Track 75 : JalFarm20_60
• Track 76 : Spikelee_42
• Track 77 : SG4_49
• Track 78 : Yoshi_64

• Track 79 : Demsculpinboyz_75
• Track 80 : Yoshi_77
• Track 81 : Renaud18_70
• Track 82 : ThetaBob_69
• Track 83 : Renaud18_71
• Track 84 : Bagrid_146, Optimus_136, Ejimix_138, ThreeRngTarjay_140, DmpstrDiver_146, Duke13_141, BAKA_145, Hughesyang_144, EricMillard_137, Halley_147, Dallas_146, Pound_137, Schatzie_141, Phoebus_145, Constella_139
• Track 85 : Kalah2_136, Klein_143, Dove_131, HokkenD_138, Redno2_140, Beem_147, Odette_149, KashFlow_144, Yeet_139, NihilNomen_147, JuicyJay_141, Bombitas_133
• Track 86 : MiaZeal_144, Porcelain_141, Lucky2013_137
• Track 87 : Nibley_71, Nekros_77
• Track 88 : Rando14_64
• Track 89 : VanLee_59
• Track 90 : Douge_118
• Track 91 : Venti_53, Kari_52, FirstPlacePfu_54, Etoile_52, Langerak_53, Chubbello_52, Fishburne_52, Bartholomew_52
• Track 92 : Polkaroo_55
• Track 93 : Nazo_58
• Track 94 : BigNuz_57
• Track 95 : Phayonce_59
• Track 96 : Purky_63
• Track 97 : FeliMaine_7
• Track 98 : PhaoMing_61
• Track 99 : Stellammi_132
• Track 100 : Gaia_56
• Track 101 : Gaia_57
• Track 102 : Gudmit_51
• Track 103 : GMA1_52
• Track 104 : GAL1_58

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

The start number called the most often in the published annotations is 73, it was called in 131 of the 222 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AlpineSix_39, ArcusAngelus_56, Ardmore_44, Aubs_53, Bartholomew_52, Batiatus_50, Bethlehem_66, BigNuz_57, Bipolar_49, Bobi_72, BuzzLyseyear_44, CaptainTrips_49, Che8_55, Chevrolet_59, Chubbello_52, Chuckly_55, Clank_57, Cornucopia_55, DLane_48, DTDevon_6, DaWorst_54, DaddyRickover_52, Daenerys_72, Dandelion_5, Dante_53, DeadP_58, Deb65_66, Demsculpinboyz_75, Doomphist_52, Doomphist_76, Dorothy_74, DotProduct_48, Doug_55, Douge_118, Drazdys_6, Empress_71, Etoile_52, Firehouse51_53, FirstPlacePfu_54, Fishburne_52, FrayBell_6, Gaia_56, Gaia_57, Gandalph_55, Geralt_66, GigiOuiOui_49, Gumball_84, Hami1_60, Hamulus_53, Hawkeye_97, Hegedechwinu_72, Helpful_87, Inventum_47, Inventum_71, JalFarm20_60, Jinglebell_38, Job42_55, JoeyJr_73, KandZ_82, Kari_52, Kenuha5_50, KingMidas_72, KristaRAM_51, Langerak_53, Leperchaun_71, LinStu_6, Llama_39,

LordLeafolot_6, Madiba_50, Melissauren88_50, MilleniumForce_52, MinionDave_51, Modragons_38, Moonbeam_48, Moosehead_58, Mozy_62, Mwanjiwa_58, Nappy_5, Nazo_58, Nekros_77, Nibley_71, Nichirin_39, Nimbo_65, Ochi17_37, OfUltron_39, Ogopogo_57, Oksu_39, OldBen_70, OwlsT2W_53, PHappiness_73, Pelly_67, Periwinkle_62, Phalaborwa_86, Phalconet_51, Phanphagia_47, Phasih_51, PhesterPhotato_54, PhesterPhotato_75, Pier_6, Poenanya_52, Poenanya_76, Polka14_51, Polka14_77, Polkaroo_55, Purky_63, RedBird_74, Renaud18_58, Renaud18_70, Renaud18_71, RitaG_73, RockyHorror_53, Royals2015_55, SG4_49, SG4_69, Sassafras_50, Sassafras_74, Scottish_71, Seabastian_39, Sebata_6, ShroomBoi_52, SirHarley_86, Sparkdehlily_60, Specks_6, Stellammi_132, SuperGrey_52, TDanisky_60, Taj_56, Tonenili_49, Tonenili_50, Topiatin_58, Troll4_84, Tweety_52, Tyke_6, Venti_53, Vortrix_51, Vortrix_52, Wee_55, Whatsapiecost_53, XFactor_50, Yoshi_44, Yoshi_77, Zerg_52,

Genes that have the "Most Annotated" start but do not call it:
• Byougenkin_50, GoldenSnow_6, InterFolia_6, JayJay_6, LolaVinca_6, Maguvora_6, NuevoMundo_6, PharkleMinkus_6, Puhon_6, Pupusa_6, SiwenD96_4, Spikelee_42, Tainan_6, ThetaBob_69,

Genes that do not have the "Most Annotated" start:
• Aeneas_68, Apricot_73, Azula_77, BAKA_145, BaconJack_70, Bagrid_146, BearBQ_75, Beem_147, Beenie_54, Blueberry_76, Bombitas_133, Budski_80, CheeseTouch_80, Clark_59, Constella_139, Crater_73, Dallas_146, Denise_57, DmpstrDiver_146, DobbysSock_53, DonkeyMan_58, Dove_131, Dreamboat_67, Duke13_141, Ejimix_138, EricMillard_137, FeliMaine_7, GAL1_58, GMA1_52, GMA2_107, Gambino_79, Getalong_78, Gudmit_51, Halley_147, Heinz_57, HokkenD_138, Holliday_79, Horus_75, Hughesyang_144, Invectra_62, Jasper_66, JuicyJay_141, Kalah2_136, Kamaru_71, KashFlow_144, Kenna_71, Klein_143, Kuwabara_76, Leroy_74, LitninMcQueen_77, Lton_54, Lucky10_55, Lucky2013_137, Lutum_77, Marsha_65, MiaZeal_144, MissRona_77, Mule_62, NihilNomen_147, ODay_82, Odette_149, OneDirection_52, Optimus_136, Pepperoni_52, Phabuloso_81, PhaoMing_61, Phayonce_59, PherrisBueller_66, Phistory_72, Phoebus_145, PhrostyMug_65, Porcelain_141, Pound_137, Rando14_64, Redno2_140, Rizz_60, Samman98_60, Schatzie_141, ShawBrad_80, Smairt_67, Spooky_78, Sunshine924_70, Tarzan_58, ThreeRngTarjay_140, Trine_55, VanLee_59, Whitney_75, William_80, Yeet_139, Yoshi_64,

Summary by start number:

Start 50:
• Found in 4 of 246 (1.6%) of genes in pham
• Manual Annotations of this start: 1 of 222
• Called 25.0% of time when present
• Phage (with cluster) where this start called: FeliMaine_7 (S),

Start 55:
• Found in 42 of 246 (17.1%) of genes in pham
• Manual Annotations of this start: 1 of 222
• Called 2.4% of time when present
• Phage (with cluster) where this start called: Byougenkin_50 (F1),

Start 58:
• Found in 27 of 246 (11.0%) of genes in pham

• Manual Annotations of this start: 1 of 222
• Called 3.7% of time when present
• Phage (with cluster) where this start called: Spikelee_42 (F1),

Start 61:
• Found in 5 of 246 (2.0%) of genes in pham
• No Manual Annotations of this start.
• Called 20.0% of time when present
• Phage (with cluster) where this start called: PhaoMing_61 (UNK),

Start 64:
• Found in 23 of 246 (9.3%) of genes in pham
• Manual Annotations of this start: 5 of 222
• Called 21.7% of time when present
• Phage (with cluster) where this start called: Apricot_73 (DN3), CheeseTouch_80 (DN1), Crater_73 (DN3), Horus_75 (DN1), Phistory_72 (DN1),

Start 67:
• Found in 24 of 246 (9.8%) of genes in pham
• Manual Annotations of this start: 4 of 222
• Called 16.7% of time when present
• Phage (with cluster) where this start called: JayJay_6 (C1), LolaVinca_6 (C1), NuevoMundo_6 (C1), Rando14_64 (K5),

Start 69:
• Found in 20 of 246 (8.1%) of genes in pham
• Manual Annotations of this start: 18 of 222
• Called 90.0% of time when present
• Phage (with cluster) where this start called: BearBQ_75 (DN), Budski_80 (DN), Getalong_78 (DN1), Holliday_79 (DN1), Kamaru_71 (DN1), Kenna_71 (DN1), Kuwabara_76 (DN4), Leroy_74 (DN1), LitninMcQueen_77 (DN1), Lton_54 (CZ), Lucky10_55 (DH), Lutum_77 (DN1), ODay_82 (DN), OneDirection_52 (CZ6), Pepperoni_52 (CZ), Phabuloso_81 (DN1), ShawBrad_80 (DN1), Whitney_75 (DN1),

Start 70:
• Found in 2 of 246 (0.8%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GMA1_52 (singleton), GMA2_107 (DS),

Start 71:
• Found in 14 of 246 (5.7%) of genes in pham
• Manual Annotations of this start: 8 of 222
• Called 71.4% of time when present
• Phage (with cluster) where this start called: Beenie_54 (CZ4), Clark_59 (CZ4), DobbysSock_53 (CZ4), GAL1_58 (singleton), Gudmit_51 (singleton), Invectra_62 (CZ4), Rizz_60 (CZ4), Samman98_60 (CZ4), Spooky_78 (DN2), VanLee_59 (KA),

Start 72:
• Found in 1 of 246 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 222
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Yoshi_64 (F2),

Start 73:
• Found in 156 of 246 (63.4%) of genes in pham
• Manual Annotations of this start: 131 of 222
• Called 91.0% of time when present
• Phage (with cluster) where this start called: AlpineSix_39 (F1), ArcusAngelus_56 (F1), Ardmore_44 (F1), Aubs_53 (F1), Bartholomew_52 (P1), Batiatus_50 (F1), Bethlehem_66 (A1), BigNuz_57 (P4), Bipolar_49 (F1), Bobi_72 (F1), BuzzLyseyear_44 (F1), CaptainTrips_49 (F1), Che8_55 (F1), Chevrolet_59 (F1), Chubbello_52 (P1), Chuckly_55 (F1), Clank_57 (F), Cornucopia_55 (F1), DLane_48 (F1), DTDevon_6 (C1), DaWorst_54 (F1), DaddyRickover_52 (F1), Daenerys_72 (F1), Dandelion_5 (C1), Dante_53 (F1), DeadP_58 (F1), Deb65_66 (F1), Demsculpinboyz_75 (F2), Doomphist_52 (F1), Doomphist_76 (F1), Dorothy_74 (F1), DotProduct_48 (F1), Doug_55 (F1), Douge_118 (L4), Drazdys_6 (C1), Empress_71 (F1), Etoile_52 (P1), Firehouse51_53 (F1), FirstPlacePfu_54 (P1), Fishburne_52 (P1), FrayBell_6 (C1), Gaia_56 (X), Gaia_57 (X), Gandalph_55 (F1), Geralt_66 (F1), GigiOuiOui_49 (F1), Gumball_84 (D1), Hami1_60 (A1), Hamulus_53 (F1), Hawkeye_97 (D2), Hegedechwinu_72 (F1), Helpful_87 (D1), Inventum_47 (F1), Inventum_71 (F1), JalFarm20_60 (F1), Jinglebell_38 (F1), Job42_55 (F1), JoeyJr_73 (F1), KandZ_82 (D1), Kari_52 (P1), Kenuha5_50 (F1), KingMidas_72 (F1), KristaRAM_51 (F1), Langerak_53 (P1), Leperchaun_71 (F1), LinStu_6 (C1), Llama_39 (F1), LordLeafolot_6 (C1), Madiba_50 (F1), Melissauren88_50 (F1), MilleniumForce_52 (F1), MinionDave_51 (F1), Modragons_38 (F1), Moonbeam_48 (F1), Moosehead_58 (CZ6), Mozy_62 (F1), Mwanjiwa_58 (F1), Nappy_5 (C1), Nazo_58 (P4), Nekros_77 (J), Nibley_71 (J), Nichirin_39 (F1), Nimbo_65 (F1), Ochi17_37 (F1), OfUltron_39 (F1), Ogopogo_57 (F1), Oksu_39 (F1), OldBen_70 (F1), OwlsT2W_53 (F1), PHappiness_73 (F1), Pelly_67 (A1), Periwinkle_62 (DN1), Phalaborwa_86 (D1), Phalconet_51 (F1), Phanphagia_47 (F1), Phasih_51 (F1), PhesterPhotato_54 (F1), PhesterPhotato_75 (F1), Pier_6 (C1), Poenanya_52 (F1), Poenanya_76 (F1), Polka14_51 (F1), Polka14_77 (F1), Polkaroo_55 (P1), Purky_63 (P6), RedBird_74 (F1), Renaud18_58 (F4), Renaud18_70 (F4), Renaud18_71 (F4), RitaG_73 (F1), RockyHorror_53 (F1), Royals2015_55 (F1), SG4_49 (F1), SG4_69 (F1), Sassafras_50 (F1), Sassafras_74 (F1), Scottish_71 (F1), Seabastian_39 (F1), Sebata_6 (C1), ShroomBoi_52 (F1), SirHarley_86 (D1), Sparkdehlily_60 (F1), Specks_6 (C1), Stellammi_132 (UNK), SuperGrey_52 (F1), TDanisky_60 (F1), Taj_56 (F1), Tonenili_49 (C1), Tonenili_50 (C1), Topiatin_58 (F1), Troll4_84 (D1), Tweety_52 (F1), Tyke_6 (C1), Venti_53 (P1), Vortrix_51 (C1), Vortrix_52 (C1), Wee_55 (F1), Whatsapiecost_53 (F1), XFactor_50 (F1), Yoshi_44 (F2), Yoshi_77 (F2), Zerg_52 (F1),

Start 74:
• Found in 16 of 246 (6.5%) of genes in pham
• Manual Annotations of this start: 16 of 222
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aeneas_68 (A1), BaconJack_70 (A1), Denise_57 (CZ5), DonkeyMan_58 (DY), Dreamboat_67 (A1), Heinz_57 (DY), Jasper_66 (A1), Marsha_65 (A1), Mule_62 (A1), PherrisBueller_66 (A1), PhrostyMug_65 (A1), Smairt_67 (A1), Sunshine924_70 (A1), Tarzan_58 (DY), Trine_55 (CD), William_80 (CV),

Start 80:
• Found in 31 of 246 (12.6%) of genes in pham
• Manual Annotations of this start: 29 of 222

• Called 100.0% of time when present
• Phage (with cluster) where this start called: BAKA_145 (J), Bagrid_146 (J), Beem_147 (J), Bombitas_133 (J), Constella_139 (J), Dallas_146 (J), DmpstrDiver_146 (J), Dove_131 (J), Duke13_141 (J), Ejimix_138 (J), EricMillard_137 (J), Halley_147 (J), HokkenD_138 (J), Hughesyang_144 (J), JuicyJay_141 (J), Kalah2_136 (J), KashFlow_144 (J), Klein_143 (J), Lucky2013_137 (J), MiaZeal_144 (J), NihilNomen_147 (J), Odette_149 (J), Optimus_136 (J), Phayonce_59 (P5), Phoebus_145 (J), Porcelain_141 (J), Pound_137 (J), Redno2_140 (J), Schatzie_141 (J), ThreeRngTarjay_140 (J), Yeet_139 (J),

Start 85:
• Found in 4 of 246 (1.6%) of genes in pham
• Manual Annotations of this start: 4 of 222
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Azula_77 (CV), Blueberry_76 (CV), Gambino_79 (CV), MissRona_77 (CV),

Start 86:
• Found in 7 of 246 (2.8%) of genes in pham
• Manual Annotations of this start: 1 of 222
• Called 14.3% of time when present
• Phage (with cluster) where this start called: ThetaBob_69 (F4),

Start 89:
• Found in 37 of 246 (15.0%) of genes in pham
• Manual Annotations of this start: 2 of 222
• Called 21.6% of time when present
• Phage (with cluster) where this start called: GoldenSnow_6 (C1), InterFolia_6 (C1), Maguvora_6 (C1), PharkleMinkus_6 (C1), Puhon_6 (C1), Pupusa_6 (C1), SiwenD96_4 (C1), Tainan_6 (C1),

Summary by clusters:

There are 34 clusters represented in this pham: DN, singleton, DH, CZ6, CZ4, CZ5, K5, DY, DS, F, A1, DN4, DN1, DN3, DN2, C1, P1, P6, P4, P5, J, KA, CD, CZ, S, X, UNK, CV, F1, F2, F4, L4, D2, D1,

Info for manual annotations of cluster A1:
•Start number 73 was manually annotated 3 times for cluster A1.
•Start number 74 was manually annotated 10 times for cluster A1.

Info for manual annotations of cluster C1:
•Start number 67 was manually annotated 3 times for cluster C1.
•Start number 73 was manually annotated 13 times for cluster C1.
•Start number 89 was manually annotated 2 times for cluster C1.

Info for manual annotations of cluster CD:
•Start number 74 was manually annotated 1 time for cluster CD.

Info for manual annotations of cluster CV:
•Start number 74 was manually annotated 1 time for cluster CV.
•Start number 85 was manually annotated 4 times for cluster CV.

Info for manual annotations of cluster CZ:
•Start number 69 was manually annotated 2 times for cluster CZ.

Info for manual annotations of cluster CZ4:
•Start number 71 was manually annotated 5 times for cluster CZ4.

Info for manual annotations of cluster CZ5:
•Start number 74 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:
•Start number 69 was manually annotated 1 time for cluster CZ6.
•Start number 73 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster D1:
•Start number 73 was manually annotated 5 times for cluster D1.

Info for manual annotations of cluster D2:
•Start number 73 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster DH:
•Start number 69 was manually annotated 1 time for cluster DH.

Info for manual annotations of cluster DN:
•Start number 69 was manually annotated 3 times for cluster DN.

Info for manual annotations of cluster DN1:
•Start number 64 was manually annotated 3 times for cluster DN1.
•Start number 69 was manually annotated 10 times for cluster DN1.
•Start number 73 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DN2:
•Start number 71 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster DN3:
•Start number 64 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DN4:
•Start number 69 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster DY:
•Start number 74 was manually annotated 3 times for cluster DY.

Info for manual annotations of cluster F1:
•Start number 55 was manually annotated 1 time for cluster F1.
•Start number 58 was manually annotated 1 time for cluster F1.
•Start number 73 was manually annotated 87 times for cluster F1.

Info for manual annotations of cluster F2:
•Start number 72 was manually annotated 1 time for cluster F2.
•Start number 73 was manually annotated 3 times for cluster F2.

Info for manual annotations of cluster F4:
•Start number 73 was manually annotated 3 times for cluster F4.
•Start number 86 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster J:
•Start number 80 was manually annotated 28 times for cluster J.

Info for manual annotations of cluster K5:
•Start number 67 was manually annotated 1 time for cluster K5.

Info for manual annotations of cluster KA:
•Start number 71 was manually annotated 1 time for cluster KA.

Info for manual annotations of cluster L4:
•Start number 73 was manually annotated 1 time for cluster L4.

Info for manual annotations of cluster P1:
•Start number 73 was manually annotated 7 times for cluster P1.

Info for manual annotations of cluster P4:
•Start number 73 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:
•Start number 80 was manually annotated 1 time for cluster P5.

Info for manual annotations of cluster P6:
•Start number 73 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster S:
•Start number 50 was manually annotated 1 time for cluster S.

Info for manual annotations of cluster UNK:
•Start number 73 was manually annotated 1 time for cluster UNK.

Info for manual annotations of cluster X:
•Start number 73 was manually annotated 2 times for cluster X.

Gene Information:

Gene: Aeneas_68 Start: 44278, Stop: 44033, Start Num: 74
Candidate Starts for Aeneas_68:
(Start: 74 @44278 has 16 MA's), (90, 44236), (103, 44224), (108, 44221), (125, 44182), (127, 44164),

Gene: AlpineSix_39 Start: 31200, Stop: 31009, Start Num: 73
Candidate Starts for AlpineSix_39:
(Start: 73 @31200 has 131 MA's), (128, 31110),

Gene: Apricot_73 Start: 42951, Stop: 43250, Start Num: 64
Candidate Starts for Apricot_73:
(22, 42846), (45, 42906), (Start: 64 @42951 has 5 MA's), (92, 43029), (124, 43095), (126, 43107),

Gene: ArcusAngelus_56 Start: 38441, Stop: 38683, Start Num: 73
Candidate Starts for ArcusAngelus_56:
(Start: 55 @38411 has 1 MA's), (Start: 73 @38441 has 131 MA's), (125, 38552),

Gene: Ardmore_44 Start: 35217, Stop: 35447, Start Num: 73
Candidate Starts for Ardmore_44:
(Start: 55 @35187 has 1 MA's), (Start: 73 @35217 has 131 MA's), (Start: 89 @35253 has 2 MA's), (124, 35313), (125, 35316),

Gene: Aubs_53 Start: 37222, Stop: 37464, Start Num: 73
Candidate Starts for Aubs_53:
(68, 37216), (Start: 73 @37222 has 131 MA's), (125, 37333),

Gene: Azula_77 Start: 48141, Stop: 48380, Start Num: 85
Candidate Starts for Azula_77:
(1, 47394), (2, 47400), (3, 47406), (4, 47451), (13, 47889), (14, 47916), (25, 47979), (34, 48003), (65, 48078), (Start: 71 @48087 has 8 MA's), (Start: 85 @48141 has 4 MA's), (96, 48168), (151, 48306), (160, 48327), (166, 48375),

Gene: BAKA_145 Start: 76447, Stop: 76692, Start Num: 80
Candidate Starts for BAKA_145:
(26, 76312), (Start: 58 @76387 has 1 MA's), (66, 76402), (Start: 80 @76447 has 29 MA's), (119, 76519), (121, 76522),

Gene: BaconJack_70 Start: 45368, Stop: 45123, Start Num: 74
Candidate Starts for BaconJack_70:
(Start: 74 @45368 has 16 MA's), (90, 45326), (103, 45314), (108, 45311), (125, 45272), (127, 45254),

Gene: Bagrid_146 Start: 77142, Stop: 77387, Start Num: 80
Candidate Starts for Bagrid_146:
(26, 77007), (Start: 58 @77082 has 1 MA's), (66, 77097), (Start: 80 @77142 has 29 MA's), (119, 77214), (121, 77217),

Gene: Bartholomew_52 Start: 36036, Stop: 36263, Start Num: 73
Candidate Starts for Bartholomew_52:
(39, 35973), (Start: 73 @36036 has 131 MA's), (126, 36135),

Gene: Batiatus_50 Start: 37046, Stop: 37276, Start Num: 73
Candidate Starts for Batiatus_50:
(Start: 55 @37016 has 1 MA's), (Start: 73 @37046 has 131 MA's), (Start: 89 @37082 has 2 MA's), (124, 37142), (125, 37145),

Gene: BearBQ_75 Start: 45677, Stop: 45961, Start Num: 69
Candidate Starts for BearBQ_75:
(37, 45602), (61, 45665), (Start: 64 @45668 has 5 MA's), (Start: 69 @45677 has 18 MA's), (92, 45743), (124, 45809), (126, 45821),

Gene: Beem_147 Start: 78045, Stop: 78290, Start Num: 80
Candidate Starts for Beem_147:
(26, 77910), (66, 78000), (Start: 80 @78045 has 29 MA's), (119, 78117), (121, 78120),

Gene: Beenie_54 Start: 39845, Stop: 40141, Start Num: 71
Candidate Starts for Beenie_54:

(11, 39605), (12, 39608), (Start: 71 @39845 has 8 MA's), (Start: 86 @39893 has 1 MA's), (95, 39911), (131, 40007), (137, 40025), (144, 40049), (159, 40085), (162, 40097),

Gene: Bethlehem_66 Start: 44024, Stop: 43779, Start Num: 73
Candidate Starts for Bethlehem_66:
(Start: 73 @44024 has 131 MA's), (124, 43916),

Gene: BigNuz_57 Start: 39875, Stop: 40117, Start Num: 73
Candidate Starts for BigNuz_57:
(39, 39812), (Start: 73 @39875 has 131 MA's), (98, 39920), (118, 39941), (123, 39965), (164, 40085),

Gene: Bipolar_49 Start: 36854, Stop: 37099, Start Num: 73
Candidate Starts for Bipolar_49:
(33, 36770), (42, 36788), (Start: 58 @36830 has 1 MA's), (Start: 73 @36854 has 131 MA's), (125, 36965),

Gene: Blueberry_76 Start: 48141, Stop: 48380, Start Num: 85
Candidate Starts for Blueberry_76:
(1, 47394), (2, 47400), (3, 47406), (4, 47451), (13, 47889), (14, 47916), (25, 47979), (34, 48003), (65, 48078), (Start: 71 @48087 has 8 MA's), (Start: 85 @48141 has 4 MA's), (96, 48168), (151, 48306), (160, 48327), (166, 48375),

Gene: Bobi_72 Start: 44458, Stop: 44685, Start Num: 73
Candidate Starts for Bobi_72:
(19, 44317), (39, 44383), (Start: 73 @44458 has 131 MA's), (126, 44557),

Gene: Bombitas_133 Start: 75456, Stop: 75701, Start Num: 80
Candidate Starts for Bombitas_133:
(26, 75321), (66, 75411), (Start: 80 @75456 has 29 MA's), (119, 75528), (121, 75531),

Gene: Budski_80 Start: 45490, Stop: 45795, Start Num: 69
Candidate Starts for Budski_80:
(56, 45463), (Start: 64 @45481 has 5 MA's), (Start: 69 @45490 has 18 MA's), (91, 45553), (92, 45556), (115, 45589), (124, 45622), (142, 45685), (150, 45703),

Gene: BuzzLyseyear_44 Start: 32289, Stop: 32008, Start Num: 73
Candidate Starts for BuzzLyseyear_44:
(30, 32382), (31, 32379), (33, 32376), (Start: 50 @32331 has 1 MA's), (Start: 58 @32316 has 1 MA's), (62, 32304), (Start: 73 @32289 has 131 MA's), (Start: 89 @32229 has 2 MA's), (116, 32187), (124, 32163), (141, 32115),

Gene: Byougenkin_50 Start: 36870, Stop: 37133, Start Num: 55
Candidate Starts for Byougenkin_50:
(Start: 55 @36870 has 1 MA's), (Start: 73 @36900 has 131 MA's), (78, 36924), (109, 36966), (122, 36981), (124, 36999), (125, 37002),

Gene: CaptainTrips_49 Start: 36066, Stop: 36296, Start Num: 73
Candidate Starts for CaptainTrips_49:
(Start: 55 @36036 has 1 MA's), (Start: 73 @36066 has 131 MA's), (Start: 89 @36102 has 2 MA's), (124, 36162), (125, 36165),

Gene: Che8_55 Start: 38308, Stop: 38550, Start Num: 73
Candidate Starts for Che8_55:

(Start: 55 @38278 has 1 MA's), (Start: 73 @38308 has 131 MA's), (125, 38419),

Gene: CheeseTouch_80 Start: 40886, Stop: 41182, Start Num: 64
Candidate Starts for CheeseTouch_80:
(15, 40742), (28, 40799), (35, 40817), (Start: 64 @40886 has 5 MA's), (Start: 69 @40895 has 18 MA's), (92, 40961), (124, 41027), (126, 41039),

Gene: Chevrolet_59 Start: 38442, Stop: 38684, Start Num: 73
Candidate Starts for Chevrolet_59:
(Start: 55 @38412 has 1 MA's), (Start: 73 @38442 has 131 MA's), (125, 38553),

Gene: Chubbello_52 Start: 36032, Stop: 36259, Start Num: 73
Candidate Starts for Chubbello_52:
(39, 35969), (Start: 73 @36032 has 131 MA's), (126, 36131),

Gene: Chuckly_55 Start: 37799, Stop: 38041, Start Num: 73
Candidate Starts for Chuckly_55:
(68, 37793), (Start: 73 @37799 has 131 MA's), (125, 37910),

Gene: Clank_57 Start: 38129, Stop: 38371, Start Num: 73
Candidate Starts for Clank_57:
(68, 38123), (Start: 73 @38129 has 131 MA's), (125, 38240),

Gene: Clark_59 Start: 39693, Stop: 39938, Start Num: 71
Candidate Starts for Clark_59:
(Start: 71 @39693 has 8 MA's), (82, 39732), (157, 39882),

Gene: Constella_139 Start: 76698, Stop: 76943, Start Num: 80
Candidate Starts for Constella_139:
(26, 76563), (Start: 58 @76638 has 1 MA's), (66, 76653), (Start: 80 @76698 has 29 MA's), (119, 76770), (121, 76773),

Gene: Cornucopia_55 Start: 38144, Stop: 38386, Start Num: 73
Candidate Starts for Cornucopia_55:
(Start: 55 @38114 has 1 MA's), (Start: 73 @38144 has 131 MA's), (124, 38252),

Gene: Crater_73 Start: 43346, Stop: 43687, Start Num: 64
Candidate Starts for Crater_73:
(22, 43241), (45, 43301), (Start: 64 @43346 has 5 MA's), (92, 43424), (124, 43490), (139, 43553),

Gene: DLane_48 Start: 36148, Stop: 36381, Start Num: 73
Candidate Starts for DLane_48:
(Start: 55 @36118 has 1 MA's), (Start: 73 @36148 has 131 MA's), (Start: 89 @36184 has 2 MA's), (124, 36244), (125, 36247),

Gene: DTDevon_6 Start: 1888, Stop: 2115, Start Num: 73
Candidate Starts for DTDevon_6:
(Start: 67 @1879 has 4 MA's), (Start: 73 @1888 has 131 MA's), (Start: 89 @1924 has 2 MA's), (93, 1933), (125, 1987), (143, 2026),

Gene: DaWorst_54 Start: 38043, Stop: 38276, Start Num: 73
Candidate Starts for DaWorst_54:

(Start: 55 @38013 has 1 MA's), (Start: 73 @38043 has 131 MA's), (78, 38067), (109, 38109), (122, 38124), (124, 38142), (125, 38145),

Gene: DaddyRickover_52 Start: 37670, Stop: 37903, Start Num: 73
Candidate Starts for DaddyRickover_52:
(Start: 55 @37640 has 1 MA's), (Start: 73 @37670 has 131 MA's), (78, 37694), (109, 37736), (122, 37751), (124, 37769), (125, 37772),

Gene: Daenerys_72 Start: 47067, Stop: 47294, Start Num: 73
Candidate Starts for Daenerys_72:
(Start: 73 @47067 has 131 MA's), (126, 47166),

Gene: Dallas_146 Start: 77512, Stop: 77757, Start Num: 80
Candidate Starts for Dallas_146:
(26, 77377), (Start: 58 @77452 has 1 MA's), (66, 77467), (Start: 80 @77512 has 29 MA's), (119, 77584), (121, 77587),

Gene: Dandelion_5 Start: 1888, Stop: 2115, Start Num: 73
Candidate Starts for Dandelion_5:
(Start: 67 @1879 has 4 MA's), (Start: 73 @1888 has 131 MA's), (Start: 89 @1924 has 2 MA's), (93, 1933), (125, 1987), (143, 2026),

Gene: Dante_53 Start: 37036, Stop: 37266, Start Num: 73
Candidate Starts for Dante_53:
(Start: 55 @37006 has 1 MA's), (Start: 73 @37036 has 131 MA's), (78, 37060), (109, 37099), (122, 37114), (124, 37132), (125, 37135),

Gene: DeadP_58 Start: 38932, Stop: 39159, Start Num: 73
Candidate Starts for DeadP_58:
(Start: 55 @38902 has 1 MA's), (Start: 73 @38932 has 131 MA's), (81, 38965), (111, 38989), (124, 39022),

Gene: Deb65_66 Start: 44788, Stop: 45015, Start Num: 73
Candidate Starts for Deb65_66:
(Start: 73 @44788 has 131 MA's), (126, 44887),

Gene: Demsculpinboyz_75 Start: 41100, Stop: 41363, Start Num: 73
Candidate Starts for Demsculpinboyz_75:
(52, 41073), (Start: 73 @41100 has 131 MA's), (81, 41133), (Start: 86 @41145 has 1 MA's), (94, 41166), (111, 41190), (125, 41229),

Gene: Denise_57 Start: 36623, Stop: 36913, Start Num: 74
Candidate Starts for Denise_57:
(Start: 74 @36623 has 16 MA's), (83, 36659), (147, 36815), (166, 36896),

Gene: DmpstrDiver_146 Start: 77431, Stop: 77676, Start Num: 80
Candidate Starts for DmpstrDiver_146:
(26, 77296), (Start: 58 @77371 has 1 MA's), (66, 77386), (Start: 80 @77431 has 29 MA's), (119, 77503), (121, 77506),

Gene: DobbysSock_53 Start: 39107, Stop: 39373, Start Num: 71
Candidate Starts for DobbysSock_53:
(Start: 71 @39107 has 8 MA's), (97, 39173), (100, 39176),

Gene: DonkeyMan_58 Start: 38401, Stop: 38625, Start Num: 74
Candidate Starts for DonkeyMan_58:
(Start: 74 @38401 has 16 MA's), (84, 38437), (136, 38530), (156, 38578),

Gene: Doomphist_76 Start: 46880, Stop: 47107, Start Num: 73
Candidate Starts for Doomphist_76:
(Start: 73 @46880 has 131 MA's), (126, 46979),

Gene: Doomphist_52 Start: 38179, Stop: 38421, Start Num: 73
Candidate Starts for Doomphist_52:
(Start: 55 @38149 has 1 MA's), (Start: 73 @38179 has 131 MA's), (124, 38287),

Gene: Dorothy_74 Start: 45505, Stop: 45732, Start Num: 73
Candidate Starts for Dorothy_74:
(Start: 73 @45505 has 131 MA's), (126, 45604),

Gene: DotProduct_48 Start: 36209, Stop: 36451, Start Num: 73
Candidate Starts for DotProduct_48:
(Start: 55 @36179 has 1 MA's), (Start: 73 @36209 has 131 MA's), (124, 36317),

Gene: Doug_55 Start: 38300, Stop: 38542, Start Num: 73
Candidate Starts for Doug_55:
(Start: 55 @38270 has 1 MA's), (Start: 73 @38300 has 131 MA's), (125, 38411),

Gene: Douge_118 Start: 64670, Stop: 64912, Start Num: 73
Candidate Starts for Douge_118:
(Start: 73 @64670 has 131 MA's), (75, 64682), (128, 64778), (164, 64865), (166, 64886),

Gene: Dove_131 Start: 73030, Stop: 73275, Start Num: 80
Candidate Starts for Dove_131:
(26, 72895), (66, 72985), (Start: 80 @73030 has 29 MA's), (119, 73102), (121, 73105),

Gene: Drazdys_6 Start: 1888, Stop: 2115, Start Num: 73
Candidate Starts for Drazdys_6:
(Start: 67 @1879 has 4 MA's), (Start: 73 @1888 has 131 MA's), (Start: 89 @1924 has 2 MA's), (93, 1933), (125, 1987), (143, 2026),

Gene: Dreamboat_67 Start: 41780, Stop: 41553, Start Num: 74
Candidate Starts for Dreamboat_67:
(Start: 74 @41780 has 16 MA's), (111, 41720),

Gene: Duke13_141 Start: 74732, Stop: 74977, Start Num: 80
Candidate Starts for Duke13_141:
(26, 74597), (Start: 58 @74672 has 1 MA's), (66, 74687), (Start: 80 @74732 has 29 MA's), (119, 74804), (121, 74807),

Gene: Ejimix_138 Start: 77580, Stop: 77825, Start Num: 80
Candidate Starts for Ejimix_138:
(26, 77445), (Start: 58 @77520 has 1 MA's), (66, 77535), (Start: 80 @77580 has 29 MA's), (119, 77652), (121, 77655),

Gene: Empress_71 Start: 45691, Stop: 45918, Start Num: 73

Candidate Starts for Empress_71:
(Start: 73 @45691 has 131 MA's), (126, 45790),

Gene: EricMillard_137 Start: 76084, Stop: 76329, Start Num: 80
Candidate Starts for EricMillard_137:
(26, 75949), (Start: 58 @76024 has 1 MA's), (66, 76039), (Start: 80 @76084 has 29 MA's), (119, 76156), (121, 76159),

Gene: Etoile_52 Start: 36036, Stop: 36263, Start Num: 73
Candidate Starts for Etoile_52:
(39, 35973), (Start: 73 @36036 has 131 MA's), (126, 36135),

Gene: FeliMaine_7 Start: 2312, Stop: 2584, Start Num: 50
Candidate Starts for FeliMaine_7:
(Start: 50 @2312 has 1 MA's), (77, 2375), (111, 2417),

Gene: Firehouse51_53 Start: 39958, Stop: 40203, Start Num: 73
Candidate Starts for Firehouse51_53:
(Start: 55 @39928 has 1 MA's), (Start: 73 @39958 has 131 MA's), (125, 40069),

Gene: FirstPlacePfu_54 Start: 36068, Stop: 36295, Start Num: 73
Candidate Starts for FirstPlacePfu_54:
(39, 36005), (Start: 73 @36068 has 131 MA's), (126, 36167),

Gene: Fishburne_52 Start: 36036, Stop: 36263, Start Num: 73
Candidate Starts for Fishburne_52:
(39, 35973), (Start: 73 @36036 has 131 MA's), (126, 36135),

Gene: FrayBell_6 Start: 1888, Stop: 2115, Start Num: 73
Candidate Starts for FrayBell_6:
(Start: 67 @1879 has 4 MA's), (Start: 73 @1888 has 131 MA's), (Start: 89 @1924 has 2 MA's), (93, 1933), (125, 1987), (143, 2026),

Gene: GAL1_58 Start: 39448, Stop: 39708, Start Num: 71
Candidate Starts for GAL1_58:
(Start: 71 @39448 has 8 MA's), (129, 39592),

Gene: GMA1_52 Start: 32897, Stop: 33145, Start Num: 70
Candidate Starts for GMA1_52:
(36, 32816), (41, 32828), (48, 32855), (60, 32882), (70, 32897),

Gene: GMA2_107 Start: 94211, Stop: 93939, Start Num: 70
Candidate Starts for GMA2_107:
(70, 94211), (149, 94031),

Gene: Gaia_56 Start: 40287, Stop: 40042, Start Num: 73
Candidate Starts for Gaia_56:
(Start: 73 @40287 has 131 MA's), (99, 40230), (163, 40089),

Gene: Gaia_57 Start: 40635, Stop: 40414, Start Num: 73
Candidate Starts for Gaia_57:
(Start: 73 @40635 has 131 MA's), (75, 40623), (104, 40581), (164, 40443), (166, 40422),

Gene: Gambino_79 Start: 48141, Stop: 48380, Start Num: 85
Candidate Starts for Gambino_79:
(1, 47394), (2, 47400), (3, 47406), (4, 47451), (13, 47889), (14, 47916), (25, 47979), (34, 48003), (65, 48078), (Start: 71 @48087 has 8 MA's), (Start: 85 @48141 has 4 MA's), (96, 48168), (151, 48306), (160, 48327), (166, 48375),

Gene: Gandalph_55 Start: 37415, Stop: 37660, Start Num: 73
Candidate Starts for Gandalph_55:
(Start: 73 @37415 has 131 MA's), (124, 37523),

Gene: Geralt_66 Start: 44787, Stop: 45014, Start Num: 73
Candidate Starts for Geralt_66:
(Start: 73 @44787 has 131 MA's), (126, 44886),

Gene: Getalong_78 Start: 45864, Stop: 46163, Start Num: 69
Candidate Starts for Getalong_78:
(Start: 69 @45864 has 18 MA's), (87, 45918), (112, 45957), (127, 46014), (148, 46071),

Gene: GigiOuiOui_49 Start: 36354, Stop: 36596, Start Num: 73
Candidate Starts for GigiOuiOui_49:
(Start: 55 @36324 has 1 MA's), (Start: 73 @36354 has 131 MA's), (124, 36462),

Gene: GoldenSnow_6 Start: 1924, Stop: 2115, Start Num: 89
Candidate Starts for GoldenSnow_6:
(Start: 67 @1879 has 4 MA's), (Start: 73 @1888 has 131 MA's), (Start: 89 @1924 has 2 MA's), (93, 1933), (125, 1987), (143, 2026),

Gene: Gudmit_51 Start: 32451, Stop: 32681, Start Num: 71
Candidate Starts for Gudmit_51:
(Start: 71 @32451 has 8 MA's), (79, 32481), (82, 32490), (107, 32514), (157, 32625),

Gene: Gumball_84 Start: 60133, Stop: 60360, Start Num: 73
Candidate Starts for Gumball_84:
(21, 60010), (Start: 73 @60133 has 131 MA's), (82, 60169), (88, 60178), (125, 60232),

Gene: Halley_147 Start: 77896, Stop: 78141, Start Num: 80
Candidate Starts for Halley_147:
(26, 77761), (Start: 58 @77836 has 1 MA's), (66, 77851), (Start: 80 @77896 has 29 MA's), (119, 77968), (121, 77971),

Gene: Hami1_60 Start: 38171, Stop: 37893, Start Num: 73
Candidate Starts for Hami1_60:
(Start: 73 @38171 has 131 MA's), (81, 38138), (Start: 86 @38126 has 1 MA's), (94, 38105), (111, 38081), (124, 38045), (125, 38042), (150, 37982),

Gene: Hamulus_53 Start: 37796, Stop: 38026, Start Num: 73
Candidate Starts for Hamulus_53:
(Start: 55 @37766 has 1 MA's), (Start: 73 @37796 has 131 MA's), (Start: 89 @37832 has 2 MA's), (124, 37892), (125, 37895),

Gene: Hawkeye_97 Start: 61659, Stop: 61895, Start Num: 73
Candidate Starts for Hawkeye_97:

(26, 61557), (Start: 50 @61620 has 1 MA's), (52, 61626), (Start: 73 @61659 has 131 MA's), (112, 61728), (125, 61758), (152, 61809), (161, 61830), (166, 61872),

Gene: Hegedechwinu_72 Start: 43105, Stop: 43332, Start Num: 73
Candidate Starts for Hegedechwinu_72:
(Start: 73 @43105 has 131 MA's), (126, 43204),

Gene: Heinz_57 Start: 37331, Stop: 37591, Start Num: 74
Candidate Starts for Heinz_57:
(Start: 74 @37331 has 16 MA's), (136, 37496), (156, 37544),

Gene: Helpful_87 Start: 60143, Stop: 60346, Start Num: 73
Candidate Starts for Helpful_87:
(21, 60017), (23, 60026), (Start: 73 @60143 has 131 MA's), (78, 60167), (125, 60245), (150, 60296),

Gene: HokkenD_138 Start: 77055, Stop: 77300, Start Num: 80
Candidate Starts for HokkenD_138:
(26, 76920), (66, 77010), (Start: 80 @77055 has 29 MA's), (119, 77127), (121, 77130),

Gene: Holliday_79 Start: 47725, Stop: 48021, Start Num: 69
Candidate Starts for Holliday_79:
(56, 47698), (Start: 64 @47716 has 5 MA's), (Start: 69 @47725 has 18 MA's), (92, 47791), (127, 47878), (134, 47896), (145, 47923),

Gene: Horus_75 Start: 45413, Stop: 45754, Start Num: 64
Candidate Starts for Horus_75:
(22, 45308), (45, 45368), (Start: 64 @45413 has 5 MA's), (92, 45491), (124, 45557), (139, 45620),

Gene: Hughesyang_144 Start: 77666, Stop: 77911, Start Num: 80
Candidate Starts for Hughesyang_144:
(26, 77531), (Start: 58 @77606 has 1 MA's), (66, 77621), (Start: 80 @77666 has 29 MA's), (119, 77738), (121, 77741),

Gene: InterFolia_6 Start: 1924, Stop: 2115, Start Num: 89
Candidate Starts for InterFolia_6:
(Start: 67 @1879 has 4 MA's), (Start: 73 @1888 has 131 MA's), (Start: 89 @1924 has 2 MA's), (93, 1933), (125, 1987), (143, 2026),

Gene: Invectra_62 Start: 41266, Stop: 41511, Start Num: 71
Candidate Starts for Invectra_62:
(Start: 71 @41266 has 8 MA's), (82, 41305), (157, 41455),

Gene: Inventum_71 Start: 45703, Stop: 45930, Start Num: 73
Candidate Starts for Inventum_71:
(Start: 73 @45703 has 131 MA's), (126, 45802),

Gene: Inventum_47 Start: 36162, Stop: 36395, Start Num: 73
Candidate Starts for Inventum_47:
(Start: 55 @36132 has 1 MA's), (Start: 73 @36162 has 131 MA's), (78, 36186), (109, 36228), (122, 36243), (124, 36261), (125, 36264),

Gene: JalFarm20_60 Start: 39595, Stop: 39840, Start Num: 73
Candidate Starts for JalFarm20_60:

(Start: 58 @39571 has 1 MA's), (Start: 73 @39595 has 131 MA's), (125, 39706),

Gene: Jasper_66 Start: 41666, Stop: 41439, Start Num: 74
Candidate Starts for Jasper_66:
(Start: 74 @41666 has 16 MA's), (111, 41606),

Gene: JayJay_6 Start: 1730, Stop: 1996, Start Num: 67
Candidate Starts for JayJay_6:
(Start: 67 @1730 has 4 MA's), (Start: 73 @1739 has 131 MA's), (78, 1763), (101, 1805), (110, 1820), (124, 1838), (125, 1841), (159, 1937),

Gene: Jinglebell_38 Start: 31199, Stop: 31008, Start Num: 73
Candidate Starts for Jinglebell_38:
(Start: 73 @31199 has 131 MA's), (128, 31109),

Gene: Job42_55 Start: 39394, Stop: 39636, Start Num: 73
Candidate Starts for Job42_55:
(24, 39280), (27, 39292), (43, 39328), (62, 39379), (Start: 73 @39394 has 131 MA's), (125, 39505),

Gene: JoeyJr_73 Start: 46692, Stop: 46919, Start Num: 73
Candidate Starts for JoeyJr_73:
(Start: 73 @46692 has 131 MA's), (126, 46791),

Gene: JuicyJay_141 Start: 79181, Stop: 79426, Start Num: 80
Candidate Starts for JuicyJay_141:
(26, 79046), (66, 79136), (Start: 80 @79181 has 29 MA's), (119, 79253), (121, 79256),

Gene: Kalah2_136 Start: 76787, Stop: 77032, Start Num: 80
Candidate Starts for Kalah2_136:
(26, 76652), (66, 76742), (Start: 80 @76787 has 29 MA's), (119, 76859), (121, 76862),

Gene: Kamaru_71 Start: 43317, Stop: 43604, Start Num: 69
Candidate Starts for Kamaru_71:
(5, 42969), (6, 42972), (9, 43032), (16, 43176), (17, 43179), (61, 43305), (Start: 64 @43308 has 5 MA's), (Start: 69 @43317 has 18 MA's), (92, 43383), (124, 43449), (126, 43461),

Gene: KandZ_82 Start: 59971, Stop: 60174, Start Num: 73
Candidate Starts for KandZ_82:
(21, 59845), (23, 59854), (Start: 73 @59971 has 131 MA's), (78, 59995), (125, 60073), (150, 60124),

Gene: Kari_52 Start: 36033, Stop: 36260, Start Num: 73
Candidate Starts for Kari_52:
(39, 35970), (Start: 73 @36033 has 131 MA's), (126, 36132),

Gene: KashFlow_144 Start: 76087, Stop: 76332, Start Num: 80
Candidate Starts for KashFlow_144:
(26, 75952), (66, 76042), (Start: 80 @76087 has 29 MA's), (119, 76159), (121, 76162),

Gene: Kenna_71 Start: 43390, Stop: 43677, Start Num: 69
Candidate Starts for Kenna_71:
(54, 43363), (Start: 64 @43381 has 5 MA's), (Start: 69 @43390 has 18 MA's), (92, 43456), (124, 43522), (126, 43534),

Gene: Kenuha5_50 Start: 36123, Stop: 36365, Start Num: 73
Candidate Starts for Kenuha5_50:
(33, 36039), (42, 36057), (Start: 58 @36099 has 1 MA's), (Start: 73 @36123 has 131 MA's), (125, 36234),

Gene: KingMidas_72 Start: 46106, Stop: 46333, Start Num: 73
Candidate Starts for KingMidas_72:
(Start: 73 @46106 has 131 MA's), (126, 46205),

Gene: Klein_143 Start: 75389, Stop: 75634, Start Num: 80
Candidate Starts for Klein_143:
(26, 75254), (66, 75344), (Start: 80 @75389 has 29 MA's), (119, 75461), (121, 75464),

Gene: KristaRAM_51 Start: 38223, Stop: 38468, Start Num: 73
Candidate Starts for KristaRAM_51:
(33, 38139), (42, 38157), (Start: 58 @38199 has 1 MA's), (Start: 73 @38223 has 131 MA's), (125, 38334),

Gene: Kuwabara_76 Start: 45678, Stop: 45968, Start Num: 69
Candidate Starts for Kuwabara_76:
(Start: 64 @45669 has 5 MA's), (Start: 69 @45678 has 18 MA's), (92, 45744), (124, 45810), (126, 45822), (130, 45843), (132, 45849), (137, 45858),

Gene: Langerak_53 Start: 36052, Stop: 36279, Start Num: 73
Candidate Starts for Langerak_53:
(39, 35989), (Start: 73 @36052 has 131 MA's), (126, 36151),

Gene: Leperchaun_71 Start: 45926, Stop: 46153, Start Num: 73
Candidate Starts for Leperchaun_71:
(Start: 73 @45926 has 131 MA's), (126, 46025),

Gene: Leroy_74 Start: 43665, Stop: 43955, Start Num: 69
Candidate Starts for Leroy_74:
(56, 43638), (Start: 64 @43656 has 5 MA's), (Start: 69 @43665 has 18 MA's), (92, 43731), (127, 43818), (134, 43836), (145, 43863),

Gene: LinStu_6 Start: 2738, Stop: 2995, Start Num: 73
Candidate Starts for LinStu_6:
(Start: 67 @2729 has 4 MA's), (Start: 73 @2738 has 131 MA's), (78, 2762), (101, 2804), (110, 2819), (124, 2837), (125, 2840), (159, 2936),

Gene: LitninMcQueen_77 Start: 44377, Stop: 44670, Start Num: 69
Candidate Starts for LitninMcQueen_77:
(Start: 64 @44368 has 5 MA's), (Start: 69 @44377 has 18 MA's), (91, 44440), (92, 44443), (134, 44548),

Gene: Llama_39 Start: 31198, Stop: 31007, Start Num: 73
Candidate Starts for Llama_39:
(Start: 73 @31198 has 131 MA's), (128, 31108),

Gene: LolaVinca_6 Start: 1879, Stop: 2115, Start Num: 67
Candidate Starts for LolaVinca_6:

(Start: 67 @1879 has 4 MA's), (Start: 73 @1888 has 131 MA's), (Start: 89 @1924 has 2 MA's), (93, 1933), (125, 1987), (143, 2026),

Gene: LordLeafolot_6 Start: 1888, Stop: 2115, Start Num: 73
Candidate Starts for LordLeafolot_6:
(Start: 67 @1879 has 4 MA's), (Start: 73 @1888 has 131 MA's), (Start: 89 @1924 has 2 MA's), (93, 1933), (125, 1987), (143, 2026),

Gene: Lton_54 Start: 33162, Stop: 33458, Start Num: 69
Candidate Starts for Lton_54:
(Start: 64 @33153 has 5 MA's), (Start: 69 @33162 has 18 MA's), (92, 33228), (124, 33294), (126, 33306), (134, 33333), (145, 33360),

Gene: Lucky10_55 Start: 35945, Stop: 36226, Start Num: 69
Candidate Starts for Lucky10_55:
(Start: 69 @35945 has 18 MA's), (Start: 86 @35993 has 1 MA's), (92, 36011), (105, 36032), (124, 36068), (126, 36080), (130, 36101), (132, 36107), (137, 36116),

Gene: Lucky2013_137 Start: 73141, Stop: 73386, Start Num: 80
Candidate Starts for Lucky2013_137:
(26, 73006), (Start: 58 @73081 has 1 MA's), (66, 73096), (Start: 80 @73141 has 29 MA's), (119, 73213), (121, 73216), (122, 73219),

Gene: Lutum_77 Start: 44553, Stop: 44840, Start Num: 69
Candidate Starts for Lutum_77:
(54, 44526), (Start: 64 @44544 has 5 MA's), (Start: 69 @44553 has 18 MA's), (92, 44619), (124, 44685), (126, 44697),

Gene: Madiba_50 Start: 35664, Stop: 35894, Start Num: 73
Candidate Starts for Madiba_50:
(Start: 55 @35634 has 1 MA's), (Start: 73 @35664 has 131 MA's), (Start: 89 @35700 has 2 MA's), (124, 35760), (125, 35763),

Gene: Maguvora_6 Start: 1924, Stop: 2115, Start Num: 89
Candidate Starts for Maguvora_6:
(Start: 67 @1879 has 4 MA's), (Start: 73 @1888 has 131 MA's), (Start: 89 @1924 has 2 MA's), (93, 1933), (125, 1987), (143, 2026),

Gene: Marsha_65 Start: 43596, Stop: 43360, Start Num: 74
Candidate Starts for Marsha_65:
(Start: 74 @43596 has 16 MA's), (106, 43536),

Gene: Melissauren88_50 Start: 36304, Stop: 36534, Start Num: 73
Candidate Starts for Melissauren88_50:
(Start: 55 @36274 has 1 MA's), (Start: 73 @36304 has 131 MA's), (Start: 89 @36340 has 2 MA's), (124, 36400), (125, 36403),

Gene: MiaZeal_144 Start: 74280, Stop: 74525, Start Num: 80
Candidate Starts for MiaZeal_144:
(26, 74145), (Start: 58 @74220 has 1 MA's), (66, 74235), (Start: 80 @74280 has 29 MA's), (119, 74352), (121, 74355), (122, 74358),

Gene: MilleniumForce_52 Start: 38325, Stop: 38558, Start Num: 73

Candidate Starts for MilleniumForce_52:
(Start: 55 @38295 has 1 MA's), (Start: 73 @38325 has 131 MA's), (Start: 89 @38361 has 2 MA's), (124, 38421), (125, 38424),

Gene: MinionDave_51 Start: 36841, Stop: 37071, Start Num: 73
Candidate Starts for MinionDave_51:
(Start: 55 @36811 has 1 MA's), (Start: 73 @36841 has 131 MA's), (Start: 89 @36877 has 2 MA's), (124, 36937), (125, 36940),

Gene: MissRona_77 Start: 48142, Stop: 48381, Start Num: 85
Candidate Starts for MissRona_77:
(1, 47395), (2, 47401), (3, 47407), (4, 47452), (13, 47890), (14, 47917), (25, 47980), (34, 48004), (65, 48079), (Start: 71 @48088 has 8 MA's), (Start: 85 @48142 has 4 MA's), (96, 48169), (151, 48307), (160, 48328), (166, 48376),

Gene: Modragons_38 Start: 31043, Stop: 30852, Start Num: 73
Candidate Starts for Modragons_38:
(Start: 73 @31043 has 131 MA's), (128, 30953),

Gene: Moonbeam_48 Start: 36361, Stop: 36591, Start Num: 73
Candidate Starts for Moonbeam_48:
(Start: 55 @36331 has 1 MA's), (Start: 73 @36361 has 131 MA's), (Start: 89 @36397 has 2 MA's), (124, 36457), (125, 36460),

Gene: Moosehead_58 Start: 34673, Stop: 34924, Start Num: 73
Candidate Starts for Moosehead_58:
(46, 34622), (49, 34631), (51, 34637), (53, 34640), (Start: 64 @34661 has 5 MA's), (Start: 67 @34664 has 4 MA's), (Start: 73 @34673 has 131 MA's), (127, 34805), (135, 34823),

Gene: Mozy_62 Start: 39946, Stop: 40173, Start Num: 73
Candidate Starts for Mozy_62:
(Start: 55 @39916 has 1 MA's), (Start: 73 @39946 has 131 MA's), (78, 39970), (101, 40012), (110, 40027), (124, 40045), (125, 40048), (140, 40078),

Gene: Mule_62 Start: 41651, Stop: 41406, Start Num: 74
Candidate Starts for Mule_62:
(Start: 74 @41651 has 16 MA's), (90, 41609), (103, 41597), (108, 41594), (125, 41555), (127, 41537),

Gene: Mwanjiwa_58 Start: 37785, Stop: 38027, Start Num: 73
Candidate Starts for Mwanjiwa_58:
(Start: 55 @37755 has 1 MA's), (Start: 73 @37785 has 131 MA's), (125, 37896),

Gene: Nappy_5 Start: 1734, Stop: 1961, Start Num: 73
Candidate Starts for Nappy_5:
(Start: 67 @1725 has 4 MA's), (Start: 73 @1734 has 131 MA's), (Start: 89 @1770 has 2 MA's), (93, 1779), (125, 1833), (143, 1872),

Gene: Nazo_58 Start: 40075, Stop: 40302, Start Num: 73
Candidate Starts for Nazo_58:
(39, 40012), (Start: 73 @40075 has 131 MA's), (126, 40174), (158, 40237),

Gene: Nekros_77 Start: 50383, Stop: 50132, Start Num: 73
Candidate Starts for Nekros_77:

(Start: 73 @50383 has 131 MA's), (167, 50146),

Gene: Nibley_71 Start: 47231, Stop: 46980, Start Num: 73
Candidate Starts for Nibley_71:
(Start: 73 @47231 has 131 MA's), (167, 46994),

Gene: Nichirin_39 Start: 31227, Stop: 31036, Start Num: 73
Candidate Starts for Nichirin_39:
(Start: 73 @31227 has 131 MA's), (128, 31137),

Gene: NihilNomen_147 Start: 77126, Stop: 77371, Start Num: 80
Candidate Starts for NihilNomen_147:
(26, 76991), (66, 77081), (Start: 80 @77126 has 29 MA's), (119, 77198), (121, 77201),

Gene: Nimbo_65 Start: 44790, Stop: 45017, Start Num: 73
Candidate Starts for Nimbo_65:
(Start: 73 @44790 has 131 MA's), (126, 44889),

Gene: NuevoMundo_6 Start: 1876, Stop: 2112, Start Num: 67
Candidate Starts for NuevoMundo_6:
(Start: 67 @1876 has 4 MA's), (Start: 73 @1885 has 131 MA's), (Start: 89 @1921 has 2 MA's), (93, 1930), (125, 1984), (143, 2023),

Gene: ODay_82 Start: 46976, Stop: 47251, Start Num: 69
Candidate Starts for ODay_82:
(32, 46892), (38, 46904), (44, 46916), (59, 46958), (Start: 64 @46967 has 5 MA's), (Start: 69 @46976 has 18 MA's), (84, 47021), (94, 47036), (113, 47057), (127, 47099), (132, 47111),

Gene: Ochi17_37 Start: 30650, Stop: 30459, Start Num: 73
Candidate Starts for Ochi17_37:
(Start: 73 @30650 has 131 MA's), (128, 30560),

Gene: Odette_149 Start: 79269, Stop: 79514, Start Num: 80
Candidate Starts for Odette_149:
(26, 79134), (66, 79224), (Start: 80 @79269 has 29 MA's), (119, 79341), (121, 79344),

Gene: OfUltron_39 Start: 31199, Stop: 31008, Start Num: 73
Candidate Starts for OfUltron_39:
(Start: 73 @31199 has 131 MA's), (128, 31109),

Gene: Ogopogo_57 Start: 37928, Stop: 38170, Start Num: 73
Candidate Starts for Ogopogo_57:
(68, 37922), (Start: 73 @37928 has 131 MA's), (125, 38039),

Gene: Oksu_39 Start: 31043, Stop: 30852, Start Num: 73
Candidate Starts for Oksu_39:
(Start: 73 @31043 has 131 MA's), (128, 30953),

Gene: OldBen_70 Start: 46182, Stop: 46409, Start Num: 73
Candidate Starts for OldBen_70:
(Start: 73 @46182 has 131 MA's), (126, 46281),

Gene: OneDirection_52 Start: 33066, Stop: 33362, Start Num: 69

Candidate Starts for OneDirection_52:
(56, 33039), (Start: 64 @33057 has 5 MA's), (Start: 69 @33066 has 18 MA's), (92, 33132), (127, 33219), (134, 33237), (145, 33264),

Gene: Optimus_136 Start: 74406, Stop: 74651, Start Num: 80
Candidate Starts for Optimus_136:
(26, 74271), (Start: 58 @74346 has 1 MA's), (66, 74361), (Start: 80 @74406 has 29 MA's), (119, 74478), (121, 74481),

Gene: OwlsT2W_53 Start: 37646, Stop: 37888, Start Num: 73
Candidate Starts for OwlsT2W_53:
(Start: 55 @37616 has 1 MA's), (Start: 73 @37646 has 131 MA's), (124, 37754),

Gene: PHappiness_73 Start: 47011, Stop: 47238, Start Num: 73
Candidate Starts for PHappiness_73:
(Start: 73 @47011 has 131 MA's), (126, 47110),

Gene: Pelly_67 Start: 44535, Stop: 44257, Start Num: 73
Candidate Starts for Pelly_67:
(Start: 73 @44535 has 131 MA's), (81, 44502), (Start: 86 @44490 has 1 MA's), (94, 44469), (111, 44445), (124, 44409), (125, 44406),

Gene: Pepperoni_52 Start: 34463, Stop: 34750, Start Num: 69
Candidate Starts for Pepperoni_52:
(61, 34451), (Start: 64 @34454 has 5 MA's), (Start: 69 @34463 has 18 MA's), (92, 34529), (124, 34595), (126, 34607),

Gene: Periwinkle_62 Start: 38089, Stop: 38367, Start Num: 73
Candidate Starts for Periwinkle_62:
(Start: 73 @38089 has 131 MA's), (125, 38185), (142, 38251), (165, 38329),

Gene: Phabuloso_81 Start: 45523, Stop: 45816, Start Num: 69
Candidate Starts for Phabuloso_81:
(56, 45496), (Start: 64 @45514 has 5 MA's), (Start: 69 @45523 has 18 MA's), (92, 45589), (127, 45676), (166, 45799),

Gene: Phalaborwa_86 Start: 60456, Stop: 60659, Start Num: 73
Candidate Starts for Phalaborwa_86:
(21, 60330), (23, 60339), (29, 60357), (Start: 73 @60456 has 131 MA's), (88, 60501), (112, 60534), (125, 60558), (150, 60609), (156, 60621),

Gene: Phalconet_51 Start: 36608, Stop: 36838, Start Num: 73
Candidate Starts for Phalconet_51:
(Start: 55 @36578 has 1 MA's), (Start: 73 @36608 has 131 MA's), (Start: 89 @36644 has 2 MA's), (124, 36704), (125, 36707),

Gene: Phanphagia_47 Start: 36555, Stop: 36800, Start Num: 73
Candidate Starts for Phanphagia_47:
(47, 36510), (Start: 58 @36531 has 1 MA's), (Start: 73 @36555 has 131 MA's), (125, 36666),

Gene: PhaoMing_61 Start: 40801, Stop: 41079, Start Num: 61
Candidate Starts for PhaoMing_61:
(61, 40801), (Start: 64 @40804 has 5 MA's), (Start: 69 @40813 has 18 MA's), (117, 40885),

Gene: PharkleMinkus_6 Start: 1924, Stop: 2115, Start Num: 89
Candidate Starts for PharkleMinkus_6:
(Start: 67 @1879 has 4 MA's), (Start: 73 @1888 has 131 MA's), (Start: 89 @1924 has 2 MA's), (93, 1933), (125, 1987), (143, 2026),

Gene: Phasih_51 Start: 37693, Stop: 37935, Start Num: 73
Candidate Starts for Phasih_51:
(68, 37687), (Start: 73 @37693 has 131 MA's), (125, 37804),

Gene: Phayonce_59 Start: 40788, Stop: 41024, Start Num: 80
Candidate Starts for Phayonce_59:
(17, 40608), (Start: 80 @40788 has 29 MA's), (124, 40881), (141, 40929), (153, 40959), (164, 40989), (166, 41010),

Gene: PherrisBueller_66 Start: 41317, Stop: 41090, Start Num: 74
Candidate Starts for PherrisBueller_66:
(Start: 74 @41317 has 16 MA's), (111, 41257),

Gene: PhesterPhotato_75 Start: 45749, Stop: 45976, Start Num: 73
Candidate Starts for PhesterPhotato_75:
(39, 45686), (Start: 73 @45749 has 131 MA's), (126, 45848),

Gene: PhesterPhotato_54 Start: 37593, Stop: 37826, Start Num: 73
Candidate Starts for PhesterPhotato_54:
(Start: 55 @37563 has 1 MA's), (Start: 73 @37593 has 131 MA's), (Start: 89 @37629 has 2 MA's), (124, 37689), (125, 37692),

Gene: Phistory_72 Start: 42511, Stop: 42852, Start Num: 64
Candidate Starts for Phistory_72:
(22, 42406), (45, 42466), (Start: 64 @42511 has 5 MA's), (92, 42589), (124, 42655), (139, 42718),

Gene: Phoebus_145 Start: 79020, Stop: 79265, Start Num: 80
Candidate Starts for Phoebus_145:
(26, 78885), (Start: 58 @78960 has 1 MA's), (66, 78975), (Start: 80 @79020 has 29 MA's), (119, 79092), (121, 79095),

Gene: PhrostyMug_65 Start: 43825, Stop: 43580, Start Num: 74
Candidate Starts for PhrostyMug_65:
(Start: 74 @43825 has 16 MA's), (90, 43783), (103, 43771), (108, 43768), (125, 43729), (127, 43711),

Gene: Pier_6 Start: 1888, Stop: 2115, Start Num: 73
Candidate Starts for Pier_6:
(Start: 67 @1879 has 4 MA's), (Start: 73 @1888 has 131 MA's), (Start: 89 @1924 has 2 MA's), (93, 1933), (125, 1987), (143, 2026),

Gene: Poenanya_52 Start: 38179, Stop: 38421, Start Num: 73
Candidate Starts for Poenanya_52:
(Start: 55 @38149 has 1 MA's), (Start: 73 @38179 has 131 MA's), (124, 38287),

Gene: Poenanya_76 Start: 46880, Stop: 47107, Start Num: 73
Candidate Starts for Poenanya_76:
(Start: 73 @46880 has 131 MA's), (126, 46979),

Gene: Polka14_77 Start: 47670, Stop: 47897, Start Num: 73
Candidate Starts for Polka14_77:
(Start: 73 @47670 has 131 MA's), (126, 47769),

Gene: Polka14_51 Start: 36782, Stop: 37027, Start Num: 73
Candidate Starts for Polka14_51:
(Start: 73 @36782 has 131 MA's), (124, 36890),

Gene: Polkaroo_55 Start: 37375, Stop: 37602, Start Num: 73
Candidate Starts for Polkaroo_55:
(39, 37312), (Start: 73 @37375 has 131 MA's), (126, 37474),

Gene: Porcelain_141 Start: 74087, Stop: 74332, Start Num: 80
Candidate Starts for Porcelain_141:
(26, 73952), (Start: 58 @74027 has 1 MA's), (66, 74042), (Start: 80 @74087 has 29 MA's), (119, 74159), (121, 74162), (122, 74165),

Gene: Pound_137 Start: 76839, Stop: 77084, Start Num: 80
Candidate Starts for Pound_137:
(26, 76704), (Start: 58 @76779 has 1 MA's), (66, 76794), (Start: 80 @76839 has 29 MA's), (119, 76911), (121, 76914),

Gene: Puhon_6 Start: 1924, Stop: 2115, Start Num: 89
Candidate Starts for Puhon_6:
(Start: 67 @1879 has 4 MA's), (Start: 73 @1888 has 131 MA's), (Start: 89 @1924 has 2 MA's), (93, 1933), (125, 1987), (143, 2026),

Gene: Pupusa_6 Start: 1924, Stop: 2115, Start Num: 89
Candidate Starts for Pupusa_6:
(Start: 67 @1879 has 4 MA's), (Start: 73 @1888 has 131 MA's), (Start: 89 @1924 has 2 MA's), (93, 1933), (125, 1987), (143, 2026),

Gene: Purky_63 Start: 41280, Stop: 41552, Start Num: 73
Candidate Starts for Purky_63:
(Start: 73 @41280 has 131 MA's), (76, 41295), (120, 41364), (124, 41388), (133, 41421), (139, 41439), (164, 41517), (166, 41538),

Gene: Rando14_64 Start: 42240, Stop: 42497, Start Num: 67
Candidate Starts for Rando14_64:
(56, 42219), (Start: 67 @42240 has 4 MA's), (90, 42300), (125, 42360), (136, 42390), (153, 42435),

Gene: RedBird_74 Start: 45372, Stop: 45599, Start Num: 73
Candidate Starts for RedBird_74:
(Start: 73 @45372 has 131 MA's), (126, 45471),

Gene: Redno2_140 Start: 75128, Stop: 75373, Start Num: 80
Candidate Starts for Redno2_140:
(26, 74993), (66, 75083), (Start: 80 @75128 has 29 MA's), (119, 75200), (121, 75203),

Gene: Renaud18_58 Start: 38221, Stop: 38445, Start Num: 73
Candidate Starts for Renaud18_58:

(Start: 55 @38191 has 1 MA's), (Start: 73 @38221 has 131 MA's), (81, 38254), (111, 38278), (124, 38311),

Gene: Renaud18_70 Start: 41973, Stop: 42221, Start Num: 73
Candidate Starts for Renaud18_70:
(57, 41946), (Start: 73 @41973 has 131 MA's), (119, 42069), (124, 42093), (140, 42126),

Gene: Renaud18_71 Start: 42261, Stop: 42503, Start Num: 73
Candidate Starts for Renaud18_71:
(Start: 73 @42261 has 131 MA's), (76, 42276), (125, 42354), (150, 42414),

Gene: RitaG_73 Start: 46813, Stop: 47040, Start Num: 73
Candidate Starts for RitaG_73:
(Start: 73 @46813 has 131 MA's), (126, 46912),

Gene: Rizz_60 Start: 40479, Stop: 40724, Start Num: 71
Candidate Starts for Rizz_60:
(Start: 71 @40479 has 8 MA's), (82, 40518), (157, 40668),

Gene: RockyHorror_53 Start: 37057, Stop: 37299, Start Num: 73
Candidate Starts for RockyHorror_53:
(Start: 55 @37027 has 1 MA's), (Start: 73 @37057 has 131 MA's), (125, 37168),

Gene: Royals2015_55 Start: 37315, Stop: 37545, Start Num: 73
Candidate Starts for Royals2015_55:
(Start: 55 @37285 has 1 MA's), (Start: 73 @37315 has 131 MA's), (Start: 89 @37351 has 2 MA's), (124, 37411), (125, 37414),

Gene: SG4_69 Start: 43478, Stop: 43705, Start Num: 73
Candidate Starts for SG4_69:
(Start: 73 @43478 has 131 MA's), (126, 43577),

Gene: SG4_49 Start: 36037, Stop: 36267, Start Num: 73
Candidate Starts for SG4_49:
(52, 36004), (Start: 55 @36007 has 1 MA's), (Start: 73 @36037 has 131 MA's), (Start: 89 @36073 has 2 MA's), (124, 36133), (125, 36136),

Gene: Samman98_60 Start: 39796, Stop: 40041, Start Num: 71
Candidate Starts for Samman98_60:
(Start: 71 @39796 has 8 MA's), (82, 39835), (157, 39985),

Gene: Sassafras_50 Start: 36161, Stop: 36394, Start Num: 73
Candidate Starts for Sassafras_50:
(Start: 55 @36131 has 1 MA's), (Start: 73 @36161 has 131 MA's), (78, 36185), (109, 36227), (122, 36242), (124, 36260), (125, 36263),

Gene: Sassafras_74 Start: 45702, Stop: 45929, Start Num: 73
Candidate Starts for Sassafras_74:
(Start: 73 @45702 has 131 MA's), (126, 45801),

Gene: Schatzie_141 Start: 77688, Stop: 77933, Start Num: 80
Candidate Starts for Schatzie_141:

(26, 77553), (Start: 58 @77628 has 1 MA's), (66, 77643), (Start: 80 @77688 has 29 MA's), (119, 77760), (121, 77763),

Gene: Scottish_71 Start: 45361, Stop: 45588, Start Num: 73
Candidate Starts for Scottish_71:
(Start: 73 @45361 has 131 MA's), (126, 45460),

Gene: Seabastian_39 Start: 31199, Stop: 31008, Start Num: 73
Candidate Starts for Seabastian_39:
(Start: 73 @31199 has 131 MA's), (128, 31109),

Gene: Sebata_6 Start: 2738, Stop: 2995, Start Num: 73
Candidate Starts for Sebata_6:
(Start: 67 @2729 has 4 MA's), (Start: 73 @2738 has 131 MA's), (78, 2762), (101, 2804), (110, 2819), (124, 2837), (125, 2840), (159, 2936),

Gene: ShawBrad_80 Start: 44287, Stop: 44574, Start Num: 69
Candidate Starts for ShawBrad_80:
(15, 44134), (28, 44191), (35, 44209), (Start: 64 @44278 has 5 MA's), (Start: 69 @44287 has 18 MA's), (92, 44353), (124, 44419), (126, 44431),

Gene: ShroomBoi_52 Start: 36993, Stop: 37238, Start Num: 73
Candidate Starts for ShroomBoi_52:
(33, 36909), (42, 36927), (Start: 58 @36969 has 1 MA's), (Start: 73 @36993 has 131 MA's), (125, 37104),

Gene: SirHarley_86 Start: 60117, Stop: 60344, Start Num: 73
Candidate Starts for SirHarley_86:
(21, 59994), (Start: 73 @60117 has 131 MA's), (82, 60153), (88, 60162), (125, 60216),

Gene: SiwenD96_4 Start: 1375, Stop: 1566, Start Num: 89
Candidate Starts for SiwenD96_4:
(18, 1198), (40, 1270), (Start: 67 @1330 has 4 MA's), (Start: 73 @1339 has 131 MA's), (Start: 89 @1375 has 2 MA's), (93, 1384), (125, 1438), (143, 1477),

Gene: Smairt_67 Start: 44819, Stop: 44574, Start Num: 74
Candidate Starts for Smairt_67:
(Start: 74 @44819 has 16 MA's), (90, 44777), (103, 44765), (108, 44762), (125, 44723), (127, 44705),

Gene: Sparkdehlily_60 Start: 38797, Stop: 39039, Start Num: 73
Candidate Starts for Sparkdehlily_60:
(68, 38791), (Start: 73 @38797 has 131 MA's), (125, 38908),

Gene: Specks_6 Start: 1888, Stop: 2115, Start Num: 73
Candidate Starts for Specks_6:
(Start: 67 @1879 has 4 MA's), (Start: 73 @1888 has 131 MA's), (Start: 89 @1924 has 2 MA's), (93, 1933), (125, 1987), (143, 2026),

Gene: Spikelee_42 Start: 31774, Stop: 31466, Start Num: 58
Candidate Starts for Spikelee_42:
(30, 31840), (31, 31837), (33, 31834), (Start: 50 @31789 has 1 MA's), (Start: 58 @31774 has 1 MA's), (62, 31762), (Start: 73 @31747 has 131 MA's), (Start: 89 @31687 has 2 MA's), (116, 31645), (124, 31621), (141, 31573),

Gene: Spooky_78 Start: 45719, Stop: 45976, Start Num: 71
Candidate Starts for Spooky_78:
(Start: 71 @45719 has 8 MA's), (79, 45749), (82, 45758), (107, 45782),

Gene: Stellammi_132 Start: 62378, Stop: 62599, Start Num: 73
Candidate Starts for Stellammi_132:
(Start: 73 @62378 has 131 MA's), (125, 62471),

Gene: Sunshine924_70 Start: 43095, Stop: 42850, Start Num: 74
Candidate Starts for Sunshine924_70:
(Start: 74 @43095 has 16 MA's), (90, 43053), (103, 43041), (108, 43038), (125, 42999), (127, 42981),

Gene: SuperGrey_52 Start: 37962, Stop: 38207, Start Num: 73
Candidate Starts for SuperGrey_52:
(33, 37878), (42, 37896), (Start: 58 @37938 has 1 MA's), (Start: 73 @37962 has 131 MA's), (125, 38073),

Gene: TDanisky_60 Start: 38797, Stop: 39039, Start Num: 73
Candidate Starts for TDanisky_60:
(68, 38791), (Start: 73 @38797 has 131 MA's), (125, 38908),

Gene: Tainan_6 Start: 1924, Stop: 2115, Start Num: 89
Candidate Starts for Tainan_6:
(Start: 67 @1879 has 4 MA's), (Start: 73 @1888 has 131 MA's), (Start: 89 @1924 has 2 MA's), (93, 1933), (125, 1987), (143, 2026),

Gene: Taj_56 Start: 38142, Stop: 38369, Start Num: 73
Candidate Starts for Taj_56:
(Start: 55 @38112 has 1 MA's), (Start: 73 @38142 has 131 MA's), (81, 38175), (111, 38199), (124, 38232),

Gene: Tarzan_58 Start: 37656, Stop: 37880, Start Num: 74
Candidate Starts for Tarzan_58:
(Start: 74 @37656 has 16 MA's), (84, 37692), (136, 37785), (156, 37833),

Gene: ThetaBob_69 Start: 42635, Stop: 42865, Start Num: 86
Candidate Starts for ThetaBob_69:
(52, 42563), (Start: 73 @42590 has 131 MA's), (81, 42623), (Start: 86 @42635 has 1 MA's), (94, 42656), (111, 42680), (124, 42716), (125, 42719), (167, 42851),

Gene: ThreeRngTarjay_140 Start: 77611, Stop: 77856, Start Num: 80
Candidate Starts for ThreeRngTarjay_140:
(26, 77476), (Start: 58 @77551 has 1 MA's), (66, 77566), (Start: 80 @77611 has 29 MA's), (119, 77683), (121, 77686),

Gene: Tonenili_50 Start: 15803, Stop: 16036, Start Num: 73
Candidate Starts for Tonenili_50:
(63, 15797), (Start: 73 @15803 has 131 MA's), (82, 15839), (117, 15875), (124, 15896), (154, 15962), (158, 15971),

Gene: Tonenili_49 Start: 15568, Stop: 15810, Start Num: 73
Candidate Starts for Tonenili_49:

(60, 15550), (Start: 73 @15568 has 131 MA's), (78, 15592), (101, 15634), (110, 15649), (125, 15670), (138, 15700), (144, 15718), (155, 15739),

Gene: Topiatin_58 Start: 38825, Stop: 39058, Start Num: 73
Candidate Starts for Topiatin_58:
(Start: 55 @38795 has 1 MA's), (Start: 73 @38825 has 131 MA's), (102, 38879), (125, 38927),

Gene: Trine_55 Start: 39935, Stop: 39684, Start Num: 74
Candidate Starts for Trine_55:
(Start: 74 @39935 has 16 MA's), (122, 39860), (146, 39788),

Gene: Troll4_84 Start: 59937, Stop: 60161, Start Num: 73
Candidate Starts for Troll4_84:
(21, 59811), (23, 59820), (Start: 73 @59937 has 131 MA's), (119, 60033), (125, 60060), (150, 60111),

Gene: Tweety_52 Start: 37774, Stop: 38004, Start Num: 73
Candidate Starts for Tweety_52:
(Start: 55 @37744 has 1 MA's), (Start: 73 @37774 has 131 MA's), (Start: 89 @37810 has 2 MA's), (124, 37870), (125, 37873),

Gene: Tyke_6 Start: 1888, Stop: 2115, Start Num: 73
Candidate Starts for Tyke_6:
(Start: 67 @1879 has 4 MA's), (Start: 73 @1888 has 131 MA's), (Start: 89 @1924 has 2 MA's), (93, 1933), (125, 1987), (143, 2026),

Gene: VanLee_59 Start: 39559, Stop: 39819, Start Num: 71
Candidate Starts for VanLee_59:
(Start: 71 @39559 has 8 MA's),

Gene: Venti_53 Start: 36036, Stop: 36263, Start Num: 73
Candidate Starts for Venti_53:
(39, 35973), (Start: 73 @36036 has 131 MA's), (126, 36135),

Gene: Vortrix_52 Start: 16078, Stop: 16320, Start Num: 73
Candidate Starts for Vortrix_52:
(20, 15955), (Start: 73 @16078 has 131 MA's), (117, 16153), (124, 16180), (154, 16246), (158, 16255),

Gene: Vortrix_51 Start: 15836, Stop: 16081, Start Num: 73
Candidate Starts for Vortrix_51:
(60, 15818), (Start: 73 @15836 has 131 MA's), (78, 15860), (101, 15902), (110, 15917), (125, 15938), (138, 15968), (144, 15986), (155, 16007),

Gene: Wee_55 Start: 38414, Stop: 38641, Start Num: 73
Candidate Starts for Wee_55:
(Start: 55 @38384 has 1 MA's), (Start: 73 @38414 has 131 MA's), (81, 38447), (111, 38471), (124, 38504),

Gene: Whatsapiecost_53 Start: 36689, Stop: 36931, Start Num: 73
Candidate Starts for Whatsapiecost_53:
(Start: 73 @36689 has 131 MA's), (125, 36800),

Gene: Whitney_75 Start: 45513, Stop: 45800, Start Num: 69
Candidate Starts for Whitney_75:

(61, 45501), (Start: 64 @45504 has 5 MA's), (Start: 69 @45513 has 18 MA's), (92, 45579), (124, 45645), (126, 45657),

Gene: William_80 Start: 49369, Stop: 49632, Start Num: 74
Candidate Starts for William_80:
(7, 49048), (8, 49063), (10, 49099), (Start: 74 @49369 has 16 MA's), (82, 49405), (114, 49456),

Gene: XFactor_50 Start: 36012, Stop: 36242, Start Num: 73
Candidate Starts for XFactor_50:
(Start: 55 @35982 has 1 MA's), (Start: 73 @36012 has 131 MA's), (Start: 89 @36048 has 2 MA's), (124, 36108), (125, 36111),

Gene: Yeet_139 Start: 77084, Stop: 77329, Start Num: 80
Candidate Starts for Yeet_139:
(26, 76949), (66, 77039), (Start: 80 @77084 has 29 MA's), (119, 77156), (121, 77159),

Gene: Yoshi_64 Start: 38747, Stop: 38995, Start Num: 72
Candidate Starts for Yoshi_64:
(53, 38717), (Start: 72 @38747 has 1 MA's), (119, 38843), (124, 38867), (140, 38900),

Gene: Yoshi_77 Start: 42854, Stop: 43129, Start Num: 73
Candidate Starts for Yoshi_77:
(52, 42827), (Start: 73 @42854 has 131 MA's), (81, 42887), (Start: 86 @42899 has 1 MA's), (94, 42920), (111, 42944), (124, 42980), (125, 42983), (167, 43115),

Gene: Yoshi_44 Start: 30151, Stop: 29960, Start Num: 73
Candidate Starts for Yoshi_44:
(Start: 73 @30151 has 131 MA's), (128, 30061),

Gene: Zerg_52 Start: 37166, Stop: 37408, Start Num: 73
Candidate Starts for Zerg_52:
(Start: 55 @37136 has 1 MA's), (Start: 73 @37166 has 131 MA's), (125, 37277),