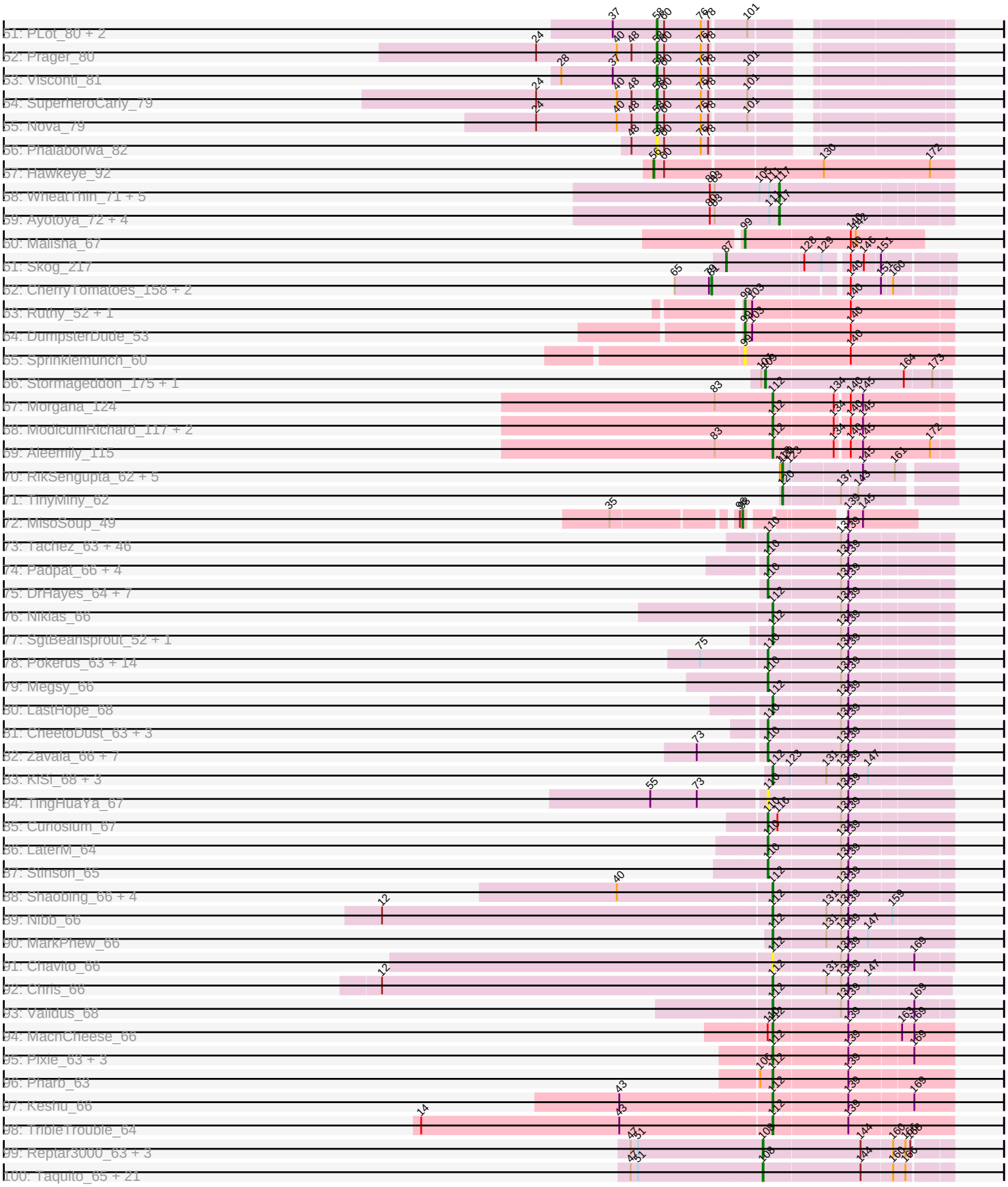
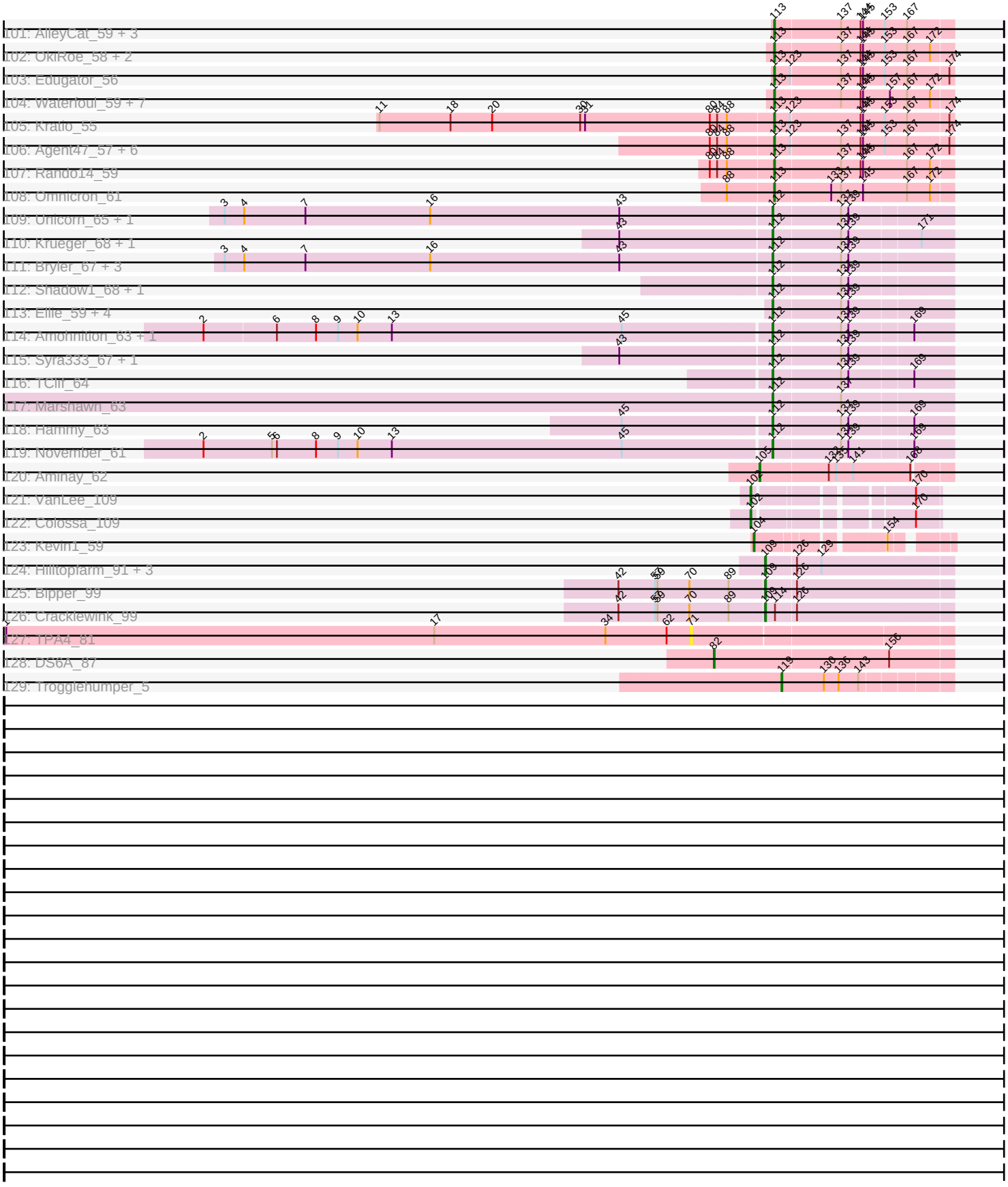
Pham 347123


1: Settecandela_126 + 1
2: MrMiyagi_94
3: Indiulamithi_87
4: Fowlmouth_95
5: Cuke_99
6: Tiff81_46 + 5
7: Vopal_52
8: MidnightRain_51
9: Gorpy_49 + 1
10: Nyilah_48
11: LeBruni_48
12: Kabloowy_50
13: Sporco_51
14: BlueShadow_48
15: DarwinJr_52
16: AbbyDaisy_49
17: HayZem_81 + 4
18: Yarn_46 + 2
19: RedBaron_53
20: BillDoor_49
21: Burnsey_49 + 4
22: Emalyn_48 + 5
23: RSchmalzi_50 + 6
24: ChickenTender_51
25: Hexbug_56 + 2
26: SketchMex_50 + 7
27: GTE2_40
28: Button_51 + 4
29: GoldHunter_49
30: SteamedHams_49
31: Yakult_51
32: Marteena_52 + 3
33: Pollux_56 + 1
34: Jablanski_57 + 1
35: Madavieve_51 + 3
36: Ryzer_62
37: Agueybana_55
38: Nymphadora_57 + 6
39: ThankyouJordi_56 + 1
40: BaxterFox_57 + 4
41: Yeezy_53
42: Hortense_55 + 5
43: Thimann_54 + 3
44: Powerball_51 + 1
45: Annalisa_51
46: Denise_48
47: Mooseneau_50
48: Sidious_53
49: Giuseppe_81 + 4
50: Erk16_80 + 9

Pham 347123


51: PLot_80 + 2
52: Prager_80
53: Visconti_81
54: SuperheroCarly_79
55: Nova_79
56: Phalaborwa_82
57: Hawkeye_92
58: WheatThin_71 + 5
59: Ayotoya_72 + 4
60: Malisha_67
61: Skog_217
62: CherryTomatoes_158 + 2
63: Ruthy_52 + 1
64: DumpsterDude_53
65: Sprinklemunch_60
66: Stormageddon_175 + 1
67: Morgana_124
68: ModicumRichard_117 + 2
69: Aleemily_115
70: RikSengupta_62 + 5
71: TinyMiny_62
72: MisoSoup_49
73: Tachez_63 + 46
74: Padpat_66 + 4
75: DrHayes_64 + 7
76: Niklas_66
77: SgtBeansprout_52 + 1
78: Pokerus_63 + 14
79: Megsy_66
80: LastHope_68
81: CheetoDust_63 + 3
82: Zavala_66 + 7
83: KISI_68 + 3
84: TingHuaYa_67
85: Curiosium_67
86: LaterM_64
87: Stinson_65
88: Shaobing_66 + 4
89: Nibb_66
90: MarkPhew_66
91: Chavito_66
92: Chris_66
93: Validus_68
94: MacnCheese_66
95: Pixie_63 + 3
96: Pharb_63
97: Keshu_66
98: TribleTrouble_64
99: Reptar3000_63 + 3
100: Taquito_65 + 21

Pham 347123


I01: AlleyCat_59 + 3
I02: OkiRoe_58 + 2
I03: Edugator_56
I04: Waterhoul_59 + 7
I05: Kratio_55
I06: Agent47_57 + 6
I07: Rando14_59
I08: Omnicron_61
I09: Unicorn_65 + 1
I10: Krueger_68 + 1
I11: Bryler_67 + 3
I12: Shadow1_68 + 1
I13: Ellie_59 + 4
I14: Amonmtion_63 + 1
I15: Syra333_67 + 1
I16: TCM_64
I17: Marshawn_63
I18: Hammy_63
I19: November_61
I20: Aminay_62
I21: VanLee_109
I22: Colossa_109
I23: Kevin1_59
I24: Hilltopfarm_91 + 3
I25: Bipper_99
I26: Cracklewink_99
I27: TPA4_81
I28: DS6A_87
I29: Trogglehumper_5

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 347123 Report

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

Pham number 347123 has 382 members, 26 are drafts.

Phages represented in each track:
• Track 1 : Settecandela_126, Phrappuccino_126
• Track 2 : MrMiyagi_94
• Track 3 : Indlulamithi_87
• Track 4 : Fowlmouth_95
• Track 5 : Cuke_99
• Track 6 : Tiff81_46, YoungHarleezy_50, Mapleville_46, Isolde_49, Auxilium_46, Raphaella_49
• Track 7 : Vopal_52
• Track 8 : MidnightRain_51
• Track 9 : Gorpy_49, Sakai_48
• Track 10 : Nyilah_48
• Track 11 : LeBruni_48
• Track 12 : Kabloowy_50
• Track 13 : Sporco_51
• Track 14 : BlueShadow_48
• Track 15 : DarwinJr_52
• Track 16 : AbbyDaisy_49
• Track 17 : HayZem_81, Amore2_80, GMA7_69, GTE7_68, Austin_79
• Track 18 : Yarn_46, AndPeggy_46, Tolls_50
• Track 19 : RedBaron_53
• Track 20 : BillDoor_49
• Track 21 : Burnsey_49, Axym_48, Agatha_49, Cozz_47, Typhonomachy_48
• Track 22 : Emalyn_48, Amok_50, CanesSauce_48, AikoCarson_50, ChocoMunchkin_48, CaramelLatte_48
• Track 23 : RSchmailzl_50, Bubble_47, MunkgeeRoachy_47, Socotra_50, Quasar_49, Nina_48, SweatNTears_51
• Track 24 : ChickenTender_51
• Track 25 : Hexbug_56, Nodigi_56, Orla_56
• Track 26 : SketchMex_50, MScarn_54, Troje_52, Horseradish_52, Buttrmlkdreams_52, Yummy_52, Biskit_52, Blondies_53
• Track 27 : GTE2_40
• Track 28 : Button_51, Jamzy_53, GiKK_53, Margaret_54, RanchParmCat_53
• Track 29 : GoldHunter_49
• Track 30 : SteamedHams_49
• Track 31 : Yakult_51
• Track 32 : Marteena_52, BoyNamedSue_55, AlumE_55, EMsquaredA_53
• Track 33 : Pollux_56, Floral_54

• Track 34 : Jablanski_57, Pytheas_57
• Track 35 : Madavieve_51, SushiChef_53, Bunnybear_49, Maridalia_57
• Track 36 : Hyzer_62
• Track 37 : Agueybana_55
• Track 38 : Nymphadora_57, TimTam_57, Eviarto_57, PantheRoc_57, Hugley_53, Herod_55, BatStarr_56
• Track 39 : ThankyouJordi_56, WelcomeAyanna_56
• Track 40 : BaxterFox_57, Cashline_53, Ohgeesy_54, Ebert_54, Madeline_54
• Track 41 : Yeezy_53
• Track 42 : Hortense_55, Mcklovin_51, Twinkle_54, Adora_52, Shlim410_53, Howe_55
• Track 43 : Thimann_54, Oregano_54, Easley_49, Tuti_49
• Track 44 : Powerball_51, PhriskyACE_49
• Track 45 : Annalisa_51
• Track 46 : Denise_48
• Track 47 : Moosehead_50
• Track 48 : Sidious_53
• Track 49 : Giuseppe_81, Mopey_81, Troll4_79, Helpful_82, KandZ_77
• Track 50 : Erk16_80, BigMama_78, Penelope2018_80, WaldoWhy_82, Chill_82, Adjutor_78, Delton_80, Butterscotch_78, Thoth_80, PBI1_76
• Track 51 : PLot_80, SirHarley_82, Gumball_80
• Track 52 : Prager_80
• Track 53 : Visconti_81
• Track 54 : SuperheroCarly_79
• Track 55 : Nova_79
• Track 56 : Phalaborwa_82
• Track 57 : Hawkeye_92
• Track 58 : WheatThin_71, Brylie_71, Nadeem_71, Mulch_71, SussRoloMann_72, Parada_71
• Track 59 : Ayotoya_72, Hamood_73, DelRio_72, Chop_73, GrandSlam_73
• Track 60 : Malisha_67
• Track 61 : Skog_217
• Track 62 : CherryTomatoes_158, SCentae_156, Pupper_157
• Track 63 : Ruthy_52, ArchiDore_52
• Track 64 : DumpsterDude_53
• Track 65 : Sprinklemunch_60
• Track 66 : Stormageddon_175, RedWattleHog_174
• Track 67 : Morgana_124
• Track 68 : ModicumRichard_117, ObLaDi_116, Cafasso_117
• Track 69 : Aleemily_115
• Track 70 : RikSengupta_62, Bramble_62, LordBart_62, Ajin_62, Kors_62, Sparcetus_62
• Track 71 : TinyMiny_62
• Track 72 : MisoSoup_49
• Track 73 : Tachez_63, Blizzard_63, Ramen_64, Homura_63, Rosmarinus_63, ShiaSurprise_64, Lunahalos_63, ActinUp_63, Joy99_63, Peel_63, Belladonna_63, Padfoot_63, Angelica_63, Inky_63, CallaLilly_63, Jeckyll_63, HedwigODU_63, Geraldini_66, BGlluviae_63, Llorens_63, Zabiza_58, CaseJules_65, Boiiii_63, Apocalypse_66, Piatt_63, Beezoo_65, Asayake_63, Ganymede_64, BEEST_63, Jarvi_63, Twitch_63, Adephagia_63, Kheparia_63, Pisa1_63, CREW_63, Atiba_64, Hyperbowlee_63, Spock_63, QuincyRose_62, Durfee_63, Sulley_63, Tiri_64, Adonis_63, Topper_63, Dalmuri_63, Capricorn_63, MeaningOfLife_64
• Track 74 : Padpat_66, Clipper_67, Emerson_65, MacKat_59, Ageofdapage_67

• Track 75 : DrHayes_64, TiniBug_64, Anma_64, Urkel_64, Bella96_64, DartGoblin_65, SamuelLPlaqson_64, Anaya_66
• Track 76 : Niklas_66
• Track 77 : SgtBeansprout_52, LilPharaoh_52
• Track 78 : Pokerus_63, TreyKay_65, Prithvi_65, Devera_71, Rapunzel97_65, YoureAdopted_63, TaiwanKao_66, Murucutumbu_65, BarrelRoll_64, TruffulaTree_64, CrimD_65, Dole_69, Slimphazie_64, LindNT_63, Illumine_69
• Track 79 : Megsy_66
• Track 80 : LastHope_68
• Track 81 : CheetoDust_63, Jayhawk_65, Deby_64, Bern_65
• Track 82 : Zavala_66, Veliki_65, Yunkel11_68, BaghaKamala_63, Mynx_65, JAWS_64, Efra2_69, Guanica15_68
• Track 83 : KiSi_68, Scarlett_68, LeMond_67, Oscar_67
• Track 84 : TingHuaYa_67
• Track 85 : Curiosium_67
• Track 86 : LaterM_64
• Track 87 : Stinson_65
• Track 88 : Shaobing_66, McMater_66, Peanam_66, Richo_66, Dartin_66
• Track 89 : Nibb_66
• Track 90 : MarkPhew_66
• Track 91 : Chavito_66
• Track 92 : Chris_66
• Track 93 : Validus_68
• Track 94 : MacnCheese_66
• Track 95 : Pixie_63, Hurricane_64, Lea83_64, ShedlockHolmes_65
• Track 96 : Pharb_63
• Track 97 : Keshu_66
• Track 98 : TribleTrouble_64
• Track 99 : Reptar3000_63, MissDaisy_63, Bobquesha_67, Patt_62
• Track 100 : Taquito_65, Slarp_66, Mitti_66, Kraw_66, Juliette_68, DanSyl44_69, Qhanda_68, Chancellor_66, OmniCritical_65, Cheetobro_66, Ruthiejr_67, Y10_64, Wintermute_66, Lebo14_65, Nolwazi_68, Eponine_68, Y2_64, Malthus_67, YasnayaPolyana_65, Fionnbharth_66, JF1_66, SamScheppers_64
• Track 101 : AlleyCat_59, Psycho_57, Dadosky_59, Larva_58
• Track 102 : OkiRoe_58, Miryou_61, Gengar_57
• Track 103 : Edugator_56
• Track 104 : Waterfoul_59, SoSeph_58, Heftyboy_58, Paola_57, Guillsminger_58, Thyatira_60, Leston_57, Feyre_60
• Track 105 : Kratio_55
• Track 106 : Agent47_57, ViviJ_56, DoubleChamp_54, LilDirt_56, Collard_55, BananenDer11_57, InvictusManeo_55
• Track 107 : Rando14_59
• Track 108 : Omnicron_61
• Track 109 : Unicorn_65, PhelpsODU_65
• Track 110 : Krueger_68, Tigress9_68
• Track 111 : Bryler_67, Tierra_67, Cain_67, Phrank_67
• Track 112 : Shadow1_68, Sunflower1121_69
• Track 113 : Ellie_59, Applecrisp_60, Fefferhead_61, Lavahound_61, Amgine_62
• Track 114 : Amohnition_63, DarthP_63
• Track 115 : Syra333_67, Ximenita_69
• Track 116 : TClif_64
• Track 117 : Marshawn_63
• Track 118 : Hammy_63

• Track 119 : November_61
• Track 120 : Aminay_62
• Track 121 : VanLee_109
• Track 122 : Colossa_109
• Track 123 : Kevin1_59
• Track 124 : Hilltopfarm_91, AuntGwenStacy_90, Typha_89, Faiyaz_91
• Track 125 : Bipper_99
• Track 126 : Cracklewink_99
• Track 127 : TPA4_81
• Track 128 : DS6A_87
• Track 129 : Trogglehumper_5

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

The start number called the most often in the published annotations is 110, it was called in 88 of the 356 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ActinUp_63, Adephagia_63, Adonis_63, Ageofdapage_67, Anaya_66, Angelica_63, Anma_64, Apocalypse_66, Asayake_63, Atiba_64, BEEST_63, BGlluviae_63, BaghaKamala_63, BarrelRoll_64, Beezoo_65, Bella96_64, Belladonna_63, Bern_65, Blizzard_63, Boiiii_63, CREW_63, CallaLilly_63, Capricorn_63, CaseJules_65, CheetoDust_63, Clipper_67, CrimD_65, Curiosium_67, Dalmuri_63, DartGoblin_65, Deby_64, Devera_71, Dole_69, DrHayes_64, Durfee_63, Efra2_69, Emerson_65, Ganymede_64, Geraldini_66, Guanica15_68, HedwigODU_63, Homura_63, Hyperbowlee_63, Illumine_69, Inky_63, JAWS_64, Jarvi_63, Jayhawk_65, Jeckyll_63, Joy99_63, Kheparia_63, LaterM_64, LindNT_63, Llorens_63, Lunahalos_63, MacKat_59, MeaningOfLife_64, Megsy_66, Murucutumbu_65, Mynx_65, Padfoot_63, Padpat_66, Peel_63, Piatt_63, Pisa1_63, Pokerus_63, Prithvi_65, QuincyRose_62, Ramen_64, Rapunzel97_65, Rosmarinus_63, SamuelLPlaqson_64, ShiaSurprise_64, Slimphazie_64, Spock_63, Stinson_65, Sulley_63, Tachez_63, TaiwanKao_66, TingHuaYa_67, TiniBug_64, Tiri_64, Topper_63, TreyKay_65, TruffulaTree_64, Twitch_63, Urkel_64, Veliki_65, YoureAdopted_63, Yunkel11_68, Zabiza_58, Zavala_66,

Genes that have the "Most Annotated" start but do not call it:
• MacnCheese_66,

Genes that do not have the "Most Annotated" start:
• AbbyDaisy_49, Adjutor_78, Adora_52, Agatha_49, Agent47_57, Agueybana_55, AikoCarson_50, Ajin_62, Aleemily_115, AlleyCat_59, AlumE_55, Amgine_62, Aminay_62, Amohnition_63, Amok_50, Amore2_80, AndPeggy_46, Annalisa_51, Applecrisp_60, ArchiDore_52, AuntGwenStacy_90, Austin_79, Auxilium_46, Axym_48, Ayotoya_72, BananenDer11_57, BatStarr_56, BaxterFox_57, BigMama_78, BillDoor_49, Bipper_99, Biskit_52, Blondies_53, BlueShadow_48, Bobquesha_67, BoyNamedSue_55, Bramble_62, Bryler_67, Brylie_71, Bubble_47, Bunnybear_49, Burnsey_49, Butterscotch_78, Button_51, Buttrmlkdreams_52, Cafasso_117, Cain_67, CanesSauce_48, CaramelLatte_48, Cashline_53, Chancellor_66, Chavito_66, Cheetobro_66, CherryTomatoes_158, ChickenTender_51, Chill_82, ChocoMunchkin_48, Chop_73, Chris_66, Collard_55,

Colossa_109, Cozz_47, Cracklewink_99, Cuke_99, DS6A_87, Dadosky_59, DanSyl44_69, DarthP_63, Dartin_66, DarwinJr_52, DelRio_72, Delton_80, Denise_48, DoubleChamp_54, DumpsterDude_53, EMsquaredA_53, Easley_49, Ebert_54, Edugator_56, Ellie_59, Emalyn_48, Eponine_68, Erk16_80, Eviarto_57, Faiyaz_91, Fefferhead_61, Feyre_60, Fionnbharth_66, Floral_54, Fowlmouth_95, GMA7_69, GTE2_40, GTE7_68, Gengar_57, GiKK_53, Giuseppe_81, GoldHunter_49, Gorpy_49, GrandSlam_73, Guillsminger_58, Gumball_80, Hammy_63, Hamood_73, Hawkeye_92, HayZem_81, Heftyboy_58, Helpful_82, Herod_55, Hexbug_56, Hilltopfarm_91, Horseradish_52, Hortense_55, Howe_55, Hugley_53, Hurricane_64, Hyzer_62, Indlulamithi_87, InvictusManeo_55, Isolde_49, JF1_66, Jablanski_57, Jamzy_53, Juliette_68, Kabloowy_50, KandZ_77, Keshu_66, Kevin1_59, KiSi_68, Kors_62, Kratio_55, Kraw_66, Krueger_68, Larva_58, LastHope_68, Lavahound_61, LeBruni_48, LeMond_67, Lea83_64, Lebo14_65, Leston_57, LilDirt_56, LilPharaoh_52, LordBart_62, MScarn_54, Madavieve_51, Madeline_54, Malisha_67, Malthus_67, Mapleville_46, Margaret_54, Maridalia_57, MarkPhew_66, Marshawn_63, Marteena_52, McMater_66, Mcklovin_51, MidnightRain_51, Miryou_61, MisoSoup_49, MissDaisy_63, Mitti_66, ModicumRichard_117, Moosehead_50, Mopey_81, Morgana_124, MrMiyagi_94, Mulch_71, MunkgeeRoachy_47, Nadeem_71, Nibb_66, Niklas_66, Nina_48, Nodigi_56, Nolwazi_68, Nova_79, November_61, Nyilah_48, Nymphadora_57, ObLaDi_116, Ohgeesy_54, OkiRoe_58, OmniCritical_65, Omnicron_61, Oregano_54, Orla_56, Oscar_67, PBI1_76, PLot_80, PantheRoc_57, Paola_57, Parada_71, Patt_62, Peanam_66, Penelope2018_80, Phalaborwa_82, Pharb_63, PhelpsODU_65, Phrank_67, Phrappuccino_126, PhriskyACE_49, Pixie_63, Pollux_56, Powerball_51, Prager_80, Psycho_57, Pupper_157, Pytheas_57, Qhanda_68, Quasar_49, RSchmailzl_50, RanchParmCat_53, Rando14_59, Raphaella_49, RedBaron_53, RedWattleHog_174, Reptar3000_63, Richo_66, RikSengupta_62, Ruthiejr_67, Ruthy_52, SCentae_156, Sakai_48, SamScheppers_64, Scarlett_68, Settecandela_126, SgtBeansprout_52, Shadow1_68, Shaobing_66, ShedlockHolmes_65, Shlim410_53, Sidious_53, SirHarley_82, SketchMex_50, Skog_217, Slarp_66, SoSeph_58, Socotra_50, Sparcetus_62, Sporco_51, Sprinklemunch_60, SteamedHams_49, Stormageddon_175, Sunflower1121_69, SuperheroCarly_79, SushiChef_53, SussRoloMann_72, SweatNTears_51, Syra333_67, TClif_64, TPA4_81, Taquito_65, ThankyouJordi_56, Thimann_54, Thoth_80, Thyatira_60, Tierra_67, Tiff81_46, Tigress9_68, TimTam_57, TinyMiny_62, Tolls_50, TribleTrouble_64, Trogglehumper_5, Troje_52, Troll4_79, Tuti_49, Twinkle_54, Typha_89, Typhonomachy_48, Unicorn_65, Validus_68, VanLee_109, Visconti_81, ViviJ_56, Vopal_52, WaldoWhy_82, Waterfoul_59, WelcomeAyanna_56, WheatThin_71, Wintermute_66, Ximenita_69, Y10_64, Y2_64, Yakult_51, Yarn_46, YasnayaPolyana_65, Yeezy_53, YoungHarleezy_50, Yummy_52,

Summary by start number:

Start 56:
• Found in 1 of 382 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 356
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Hawkeye_92 (D2),

Start 58:
• Found in 23 of 382 (6.0%) of genes in pham
• Manual Annotations of this start: 22 of 356

• Called 100.0% of time when present
• Phage (with cluster) where this start called: Adjutor_78 (D1), BigMama_78 (D1), Butterscotch_78 (D1), Chill_82 (D1), Delton_80 (D1), Erk16_80 (D1), Giuseppe_81 (D1), Gumball_80 (D1), Helpful_82 (D1), KandZ_77 (D1), Mopey_81 (D1), Nova_79 (D1), PBI1_76 (D1), PLot_80 (D1), Penelope2018_80 (D1), Phalaborwa_82 (D1), Prager_80 (D1), SirHarley_82 (D1), SuperheroCarly_79 (D1), Thoth_80 (D1), Troll4_79 (D1), Visconti_81 (D1), WaldoWhy_82 (D1),

Start 60:
• Found in 26 of 382 (6.8%) of genes in pham
• Manual Annotations of this start: 1 of 356
• Called 3.8% of time when present
• Phage (with cluster) where this start called: Indlulamithi_87 (AC),

Start 62:
• Found in 4 of 382 (1.0%) of genes in pham
• Manual Annotations of this start: 3 of 356
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Cuke_99 (AC), Fowlmouth_95 (AC), MrMiyagi_94 (AC),

Start 71:
• Found in 1 of 382 (0.3%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: TPA4_81 (singleton),

Start 81:
• Found in 3 of 382 (0.8%) of genes in pham
• Manual Annotations of this start: 3 of 356
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CherryTomatoes_158 (DO), Pupper_157 (DO), SCentae_156 (DO),

Start 82:
• Found in 1 of 382 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 356
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DS6A_87 (singleton),

Start 87:
• Found in 1 of 382 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 356
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Skog_217 (DO),

Start 92:
• Found in 2 of 382 (0.5%) of genes in pham
• Manual Annotations of this start: 2 of 356
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Phrappuccino_126 (AA), Settecandela_126 (AA),

Start 97:
• Found in 35 of 382 (9.2%) of genes in pham
• Manual Annotations of this start: 30 of 356
• Called 97.1% of time when present
• Phage (with cluster) where this start called: Agatha_49 (CT), AikoCarson_50 (CT), Amok_50 (CT), AndPeggy_46 (CT), Axym_48 (CT), BillDoor_49 (CT), Biskit_52 (CT), Blondies_53 (CT), Bubble_47 (CT), Burnsey_49 (CT), Buttrmlkdreams_52 (CT), CanesSauce_48 (CT), CaramelLatte_48 (CT), ChickenTender_51 (CT), ChocoMunchkin_48 (CT), Cozz_47 (CT), Emalyn_48 (CT), GoldHunter_49 (CT), Horseradish_52 (CT), MScarn_54 (CT), MunkgeeRoachy_47 (CT), Nina_48 (CT), Quasar_49 (CT), RSchmailzl_50 (CT), RedBaron_53 (CT), SketchMex_50 (CT), Socotra_50 (CT), SteamedHams_49 (CT), SweatNTears_51 (CT), Tolls_50 (CT), Troje_52 (CT), Typhonomachy_48 (CT), Yarn_46 (CT), Yummy_52 (CT),

Start 98:
• Found in 1 of 382 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 356
• Called 100.0% of time when present
• Phage (with cluster) where this start called: MisoSoup_49 (GM),

Start 99:
• Found in 50 of 382 (13.1%) of genes in pham
• Manual Annotations of this start: 46 of 356
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Adora_52 (CZ4), Agueybana_55 (CZ1), AlumE_55 (CZ1), Annalisa_51 (CZ4), ArchiDore_52 (DW), BatStarr_56 (CZ1), BaxterFox_57 (CZ3), BoyNamedSue_55 (CZ1), Bunnybear_49 (CZ), Cashline_53 (CY6), Denise_48 (CZ5), DumpsterDude_53 (DW), EMsquaredA_53 (CY1), Easley_49 (CZ4), Ebert_54 (CZ2), Eviarto_57 (CZ1), Floral_54 (CY1), Herod_55 (CZ1), Hortense_55 (CZ4), Howe_55 (CZ4), Hugley_53 (CZ1), Hyzer_62 (CZ1), Jablanski_57 (CY3), Madavieve_51 (CZ1), Madeline_54 (CZ1), Malisha_67 (DN), Maridalia_57 (CZ1), Marteena_52 (CY1), Mcklovin_51 (CZ4), Moosehead_50 (CZ6), Nymphadora_57 (CZ1), Ohgeesy_54 (CZ), Oregano_54 (CZ4), PantheRoc_57 (CZ3), PhriskyACE_49 (CZ4), Pollux_56 (CY1), Powerball_51 (CZ4), Pytheas_57 (CY3), Ruthy_52 (DW), Shlim410_53 (CZ4), Sidious_53 (CZ7), Sprinklemunch_60 (DW), SushiChef_53 (CZ), ThankyouJordi_56 (CZ1), Thimann_54 (CZ4), TimTam_57 (CZ1), Tuti_49 (CZ4), Twinkle_54 (CZ4), WelcomeAyanna_56 (CZ1), Yeezy_53 (CZ3),

Start 100:
• Found in 16 of 382 (4.2%) of genes in pham
• Manual Annotations of this start: 3 of 356
• Called 37.5% of time when present
• Phage (with cluster) where this start called: Amore2_80 (CS1), Austin_79 (CS1), GMA7_69 (CS1), GTE2_40 (CT), GTE7_68 (CS1), HayZem_81 (CS1),

Start 102:
• Found in 2 of 382 (0.5%) of genes in pham
• Manual Annotations of this start: 2 of 356
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Colossa_109 (KA), VanLee_109 (KA),

Start 104:

• Found in 2 of 382 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 356
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Kevin1_59 (N),

Start 105:
• Found in 7 of 382 (1.8%) of genes in pham
• Manual Annotations of this start: 1 of 356
• Called 14.3% of time when present
• Phage (with cluster) where this start called: Aminay_62 (K7),

Start 108:
• Found in 26 of 382 (6.8%) of genes in pham
• Manual Annotations of this start: 22 of 356
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bobquesha_67 (K4), Chancellor_66 (K4), Cheetobro_66 (K4), DanSyl44_69 (K4), Eponine_68 (K4), Fionnbharth_66 (K4), JF1_66 (K4), Juliette_68 (K4), Kraw_66 (K4), Lebo14_65 (K4), Malthus_67 (K4), MissDaisy_63 (K4), Mitti_66 (K4), Nolwazi_68 (K4), OmniCritical_65 (K4), Patt_62 (K4), Qhanda_68 (K4), Reptar3000_63 (K4), Ruthiejr_67 (K4), SamScheppers_64 (K4), Slarp_66 (K4), Taquito_65 (K4), Wintermute_66 (K4), Y10_64 (K4), Y2_64 (K4), YasnayaPolyana_65 (K4),

Start 109:
• Found in 8 of 382 (2.1%) of genes in pham
• Manual Annotations of this start: 8 of 356
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AuntGwenStacy_90 (Y), Bipper_99 (Y), Cracklewink_99 (Y), Faiyaz_91 (Y), Hilltopfarm_91 (Y), RedWattleHog_174 (DX), Stormageddon_175 (DX), Typha_89 (Y),

Start 110:
• Found in 93 of 382 (24.3%) of genes in pham
• Manual Annotations of this start: 88 of 356
• Called 98.9% of time when present
• Phage (with cluster) where this start called: ActinUp_63 (K1), Adephagia_63 (K1), Adonis_63 (K1), Ageofdapage_67 (K1), Anaya_66 (K1), Angelica_63 (K1), Anma_64 (K1), Apocalypse_66 (K1), Asayake_63 (K1), Atiba_64 (K1), BEEST_63 (K1), BGlluviae_63 (K1), BaghaKamala_63 (K1), BarrelRoll_64 (K1), Beezoo_65 (K1), Bella96_64 (K1), Belladonna_63 (K1), Bern_65 (K1), Blizzard_63 (K1), Boiiii_63 (K1), CREW_63 (K1), CallaLilly_63 (K1), Capricorn_63 (K1), CaseJules_65 (K1), CheetoDust_63 (K1), Clipper_67 (K1), CrimD_65 (K1), Curiosium_67 (K1), Dalmuri_63 (K1), DartGoblin_65 (K1), Deby_64 (K1), Devera_71 (K1), Dole_69 (K1), DrHayes_64 (K1), Durfee_63 (K1), Efra2_69 (K1), Emerson_65 (K1), Ganymede_64 (K1), Geraldini_66 (K1), Guanica15_68 (K1), HedwigODU_63 (K1), Homura_63 (K1), Hyperbowlee_63 (K1), Illumine_69 (K1), Inky_63 (K1), JAWS_64 (K1), Jarvi_63 (K1), Jayhawk_65 (K1), Jeckyll_63 (K1), Joy99_63 (K1), Kheparia_63 (K1), LaterM_64 (K1), LindNT_63 (K1), Llorens_63 (K1), Lunahalos_63 (K1), MacKat_59 (K1), MeaningOfLife_64 (K1), Megsy_66 (K1), Murucutumbu_65 (K1), Mynx_65 (K1), Padfoot_63 (K1), Padpat_66 (K1), Peel_63 (K1), Piatt_63 (K1), Pisa1_63 (K1), Pokerus_63 (K1), Prithvi_65 (K1), QuincyRose_62 (K1), Ramen_64 (K1), Rapunzel97_65 (K1), Rosmarinus_63 (K1), SamuelLPlaqson_64 (K1), ShiaSurprise_64 (K1), Slimphazie_64 (K1), Spock_63 (K1), Stinson_65 (K1),

Sulley_63 (K1), Tachez_63 (K1), TaiwanKao_66 (K1), TingHuaYa_67 (K1), TiniBug_64 (K1), Tiri_64 (K1), Topper_63 (K1), TreyKay_65 (K1), TruffulaTree_64 (K1), Twitch_63 (K1), Urkel_64 (K1), Veliki_65 (K1), YoureAdopted_63 (K1), Yunkel11_68 (K1), Zabiza_58 (K1), Zavala_66 (K1),

Start 112:
• Found in 54 of 382 (14.1%) of genes in pham
• Manual Annotations of this start: 53 of 356
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aleemily_115 (DZ), Amgine_62 (K6), Amohnition_63 (K6), Applecrisp_60 (K6), Bryler_67 (K6), Cafasso_117 (DZ), Cain_67 (K6), Chavito_66 (K1), Chris_66 (K1), DarthP_63 (K6), Dartin_66 (K1), Ellie_59 (K6), Fefferhead_61 (K6), Hammy_63 (K6), Hurricane_64 (K3), Keshu_66 (K3), KiSi_68 (K1), Krueger_68 (K6), LastHope_68 (K1), Lavahound_61 (K6), LeMond_67 (K1), Lea83_64 (K3), LilPharaoh_52 (K1), MacnCheese_66 (K3), MarkPhew_66 (K1), Marshawn_63 (K6), McMater_66 (K1), ModicumRichard_117 (DZ), Morgana_124 (DZ), Nibb_66 (K1), Niklas_66 (K1), November_61 (K6), ObLaDi_116 (DZ), Oscar_67 (K1), Peanam_66 (K1), Pharb_63 (K3), PhelpsODU_65 (K6), Phrank_67 (K6), Pixie_63 (K3), Richo_66 (K1), Scarlett_68 (K1), SgtBeansprout_52 (K1), Shadow1_68 (K6), Shaobing_66 (K1), ShedlockHolmes_65 (K3), Sunflower1121_69 (K6), Syra333_67 (K6), TClif_64 (K6), Tierra_67 (K6), Tigress9_68 (K6), TribleTrouble_64 (K3), Unicorn_65 (K6), Validus_68 (K1), Ximenita_69 (K6),

Start 113:
• Found in 26 of 382 (6.8%) of genes in pham
• Manual Annotations of this start: 25 of 356
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Agent47_57 (K5), AlleyCat_59 (K5), BananenDer11_57 (K5), Collard_55 (K5), Dadosky_59 (K5), DoubleChamp_54 (K5), Edugator_56 (K5), Feyre_60 (K5), Gengar_57 (K5), Guillsminger_58 (K5), Heftyboy_58 (K5), InvictusManeo_55 (K5), Kratio_55 (K5), Larva_58 (K5), Leston_57 (K5), LilDirt_56 (K5), Miryou_61 (K5), OkiRoe_58 (K5), Omnicron_61 (K5), Paola_57 (K5), Psycho_57 (K5), Rando14_59 (K5), SoSeph_58 (K5), Thyatira_60 (K5), ViviJ_56 (K5), Waterfoul_59 (K5),

Start 115:
• Found in 9 of 382 (2.4%) of genes in pham
• Manual Annotations of this start: 8 of 356
• Called 88.9% of time when present
• Phage (with cluster) where this start called: Button_51 (CT), GiKK_53 (CT), Hexbug_56 (CT), Jamzy_53 (CT), Margaret_54 (CT), Nodigi_56 (CT), Orla_56 (CT), RanchParmCat_53 (CT),

Start 117:
• Found in 11 of 382 (2.9%) of genes in pham
• Manual Annotations of this start: 10 of 356
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ayotoya_72 (DI), Brylie_71 (DI), Chop_73 (DI), DelRio_72 (DI), GrandSlam_73 (DI), Hamood_73 (DI), Mulch_71 (DI), Nadeem_71 (DI), Parada_71 (DI), SussRoloMann_72 (DI), WheatThin_71 (DI),

Start 119:
• Found in 1 of 382 (0.3%) of genes in pham

• Manual Annotations of this start: 1 of 356
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Trogglehumper_5 (singleton),

Start 120:
• Found in 24 of 382 (6.3%) of genes in pham
• Manual Annotations of this start: 22 of 356
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AbbyDaisy_49 (AY), Ajin_62 (EF), Auxilium_46 (AY), BlueShadow_48 (AY), Bramble_62 (EF), DarwinJr_52 (AY), Gorpy_49 (AY), Isolde_49 (AY), Kabloowy_50 (AY), Kors_62 (EF), LeBruni_48 (AY), LordBart_62 (EF), Mapleville_46 (AY), MidnightRain_51 (AY), Nyilah_48 (AY), Raphaella_49 (AY), RikSengupta_62 (EF), Sakai_48 (AY), Sparcetus_62 (EF), Sporco_51 (AY), Tiff81_46 (AY), TinyMiny_62 (EF), Vopal_52 (AY), YoungHarleezy_50 (AY),

Start 125:
• Found in 9 of 382 (2.4%) of genes in pham
• Manual Annotations of this start: 1 of 356
• Called 11.1% of time when present
• Phage (with cluster) where this start called: Yakult_51 (CT),

Summary by clusters:

There are 36 clusters represented in this pham: DN, DO, singleton, DX, DI, CZ2, CZ3, CZ1, CZ6, CY1, CZ4, CZ5, K3, Y, K1, DZ, K6, K5, K4, DW, CY3, CS1, AA, AC, CY6, EF, CZ7, CZ, AY, GM, N, CT, KA, K7, D2, D1,

Info for manual annotations of cluster AA:
•Start number 92 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster AC:
•Start number 60 was manually annotated 1 time for cluster AC.
•Start number 62 was manually annotated 3 times for cluster AC.

Info for manual annotations of cluster AY:
•Start number 120 was manually annotated 15 times for cluster AY.

Info for manual annotations of cluster CS1:
•Start number 100 was manually annotated 3 times for cluster CS1.

Info for manual annotations of cluster CT:
•Start number 97 was manually annotated 30 times for cluster CT.
•Start number 115 was manually annotated 8 times for cluster CT.
•Start number 125 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster CY1:
•Start number 99 was manually annotated 4 times for cluster CY1.

Info for manual annotations of cluster CY3:
•Start number 99 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY6:

•Start number 99 was manually annotated 1 time for cluster CY6.

Info for manual annotations of cluster CZ:
•Start number 99 was manually annotated 2 times for cluster CZ.

Info for manual annotations of cluster CZ1:
•Start number 99 was manually annotated 13 times for cluster CZ1.

Info for manual annotations of cluster CZ2:
•Start number 99 was manually annotated 1 time for cluster CZ2.

Info for manual annotations of cluster CZ3:
•Start number 99 was manually annotated 3 times for cluster CZ3.

Info for manual annotations of cluster CZ4:
•Start number 99 was manually annotated 13 times for cluster CZ4.

Info for manual annotations of cluster CZ5:
•Start number 99 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:
•Start number 99 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster CZ7:
•Start number 99 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster D1:
•Start number 58 was manually annotated 22 times for cluster D1.

Info for manual annotations of cluster D2:
•Start number 56 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster DI:
•Start number 117 was manually annotated 10 times for cluster DI.

Info for manual annotations of cluster DN:
•Start number 99 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DO:
•Start number 81 was manually annotated 3 times for cluster DO.
•Start number 87 was manually annotated 1 time for cluster DO.

Info for manual annotations of cluster DW:
•Start number 99 was manually annotated 3 times for cluster DW.

Info for manual annotations of cluster DX:
•Start number 109 was manually annotated 2 times for cluster DX.

Info for manual annotations of cluster DZ:
•Start number 112 was manually annotated 5 times for cluster DZ.

Info for manual annotations of cluster EF:
•Start number 120 was manually annotated 7 times for cluster EF.

Info for manual annotations of cluster GM:
•Start number 98 was manually annotated 1 time for cluster GM.

Info for manual annotations of cluster K1:
•Start number 110 was manually annotated 88 times for cluster K1.
•Start number 112 was manually annotated 17 times for cluster K1.

Info for manual annotations of cluster K3:
•Start number 112 was manually annotated 8 times for cluster K3.

Info for manual annotations of cluster K4:
•Start number 108 was manually annotated 22 times for cluster K4.

Info for manual annotations of cluster K5:
•Start number 113 was manually annotated 25 times for cluster K5.

Info for manual annotations of cluster K6:
•Start number 112 was manually annotated 23 times for cluster K6.

Info for manual annotations of cluster K7:
•Start number 105 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster KA:
•Start number 102 was manually annotated 2 times for cluster KA.

Info for manual annotations of cluster N:
•Start number 104 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster Y:
•Start number 109 was manually annotated 6 times for cluster Y.

Gene Information:

Gene: AbbyDaisy_49 Start: 31179, Stop: 31364, Start Num: 120
Candidate Starts for AbbyDaisy_49:
(93, 31122), (Start: 120 @31179 has 22 MA's), (133, 31236), (140, 31257), (145, 31272),

Gene: ActinUp_63 Start: 42440, Stop: 42655, Start Num: 110
Candidate Starts for ActinUp_63:
(Start: 110 @42440 has 88 MA's), (137, 42527), (139, 42536),

Gene: Adephagia_63 Start: 42477, Stop: 42692, Start Num: 110
Candidate Starts for Adephagia_63:
(Start: 110 @42477 has 88 MA's), (137, 42564), (139, 42573),

Gene: Adjutor_78 Start: 58520, Stop: 58834, Start Num: 58
Candidate Starts for Adjutor_78:
(28, 58403), (37, 58466), (Start: 58 @58520 has 22 MA's), (Start: 60 @58529 has 1 MA's), (76, 58574), (78, 58583),

Gene: Adonis_63 Start: 42712, Stop: 42927, Start Num: 110
Candidate Starts for Adonis_63:
(Start: 110 @42712 has 88 MA's), (137, 42799), (139, 42808),

Gene: Adora_52 Start: 38735, Stop: 38977, Start Num: 99
Candidate Starts for Adora_52:
(Start: 99 @38735 has 46 MA's), (140, 38861),

Gene: Agatha_49 Start: 36030, Stop: 35797, Start Num: 97
Candidate Starts for Agatha_49:
(Start: 97 @36030 has 30 MA's), (129, 35946), (149, 35886),

Gene: Agent47_57 Start: 39612, Stop: 39824, Start Num: 113
Candidate Starts for Agent47_57:
(80, 39537), (84, 39546), (88, 39558), (Start: 113 @39612 has 25 MA's), (123, 39630), (137, 39690), (144, 39714), (145, 39717), (153, 39744), (167, 39771), (174, 39819),

Gene: Ageofdapage_67 Start: 43868, Stop: 44083, Start Num: 110
Candidate Starts for Ageofdapage_67:
(Start: 110 @43868 has 88 MA's), (137, 43955), (139, 43964),

Gene: Agueybana_55 Start: 39414, Stop: 39656, Start Num: 99
Candidate Starts for Agueybana_55:
(Start: 99 @39414 has 46 MA's), (140, 39540),

Gene: AikoCarson_50 Start: 36349, Stop: 36098, Start Num: 97
Candidate Starts for AikoCarson_50:
(Start: 97 @36349 has 30 MA's), (Start: 100 @36343 has 3 MA's), (140, 36220), (154, 36175),

Gene: Ajin_62 Start: 42356, Stop: 42547, Start Num: 120
Candidate Starts for Ajin_62:
(118, 42353), (Start: 120 @42356 has 22 MA's), (123, 42365), (145, 42446), (161, 42485),

Gene: Aleemily_115 Start: 64180, Stop: 63974, Start Num: 112
Candidate Starts for Aleemily_115:
(83, 64249), (Start: 112 @64180 has 53 MA's), (134, 64108), (140, 64093), (145, 64078), (172, 64000),

Gene: AlleyCat_59 Start: 39910, Stop: 40122, Start Num: 113
Candidate Starts for AlleyCat_59:
(Start: 113 @39910 has 25 MA's), (137, 39988), (144, 40012), (145, 40015), (153, 40042), (167, 40069),

Gene: AlumE_55 Start: 39196, Stop: 39438, Start Num: 99
Candidate Starts for AlumE_55:
(Start: 99 @39196 has 46 MA's), (131, 39292), (140, 39322),

Gene: Amgine_62 Start: 43547, Stop: 43759, Start Num: 112
Candidate Starts for Amgine_62:
(Start: 112 @43547 has 53 MA's), (137, 43628), (139, 43637),

Gene: Aminay_62 Start: 41845, Stop: 42069, Start Num: 105
Candidate Starts for Aminay_62:
(Start: 105 @41845 has 1 MA's), (132, 41926), (135, 41935), (141, 41956), (168, 42025),

Gene: Amohnition_63 Start: 43082, Stop: 43294, Start Num: 112
Candidate Starts for Amohnition_63:
(2, 42395), (6, 42482), (8, 42530), (9, 42557), (10, 42581), (13, 42623), (45, 42905), (Start: 112 @43082 has 53 MA's), (137, 43163), (139, 43172), (169, 43247),

Gene: Amok_50 Start: 36274, Stop: 36023, Start Num: 97
Candidate Starts for Amok_50:
(Start: 97 @36274 has 30 MA's), (Start: 100 @36268 has 3 MA's), (140, 36145), (154, 36100),

Gene: Amore2_80 Start: 61514, Stop: 61275, Start Num: 100
Candidate Starts for Amore2_80:
(36, 61679), (Start: 100 @61514 has 3 MA's), (151, 61355),

Gene: Anaya_66 Start: 43420, Stop: 43638, Start Num: 110
Candidate Starts for Anaya_66:
(Start: 110 @43420 has 88 MA's), (137, 43507), (139, 43516),

Gene: AndPeggy_46 Start: 35560, Stop: 35309, Start Num: 97
Candidate Starts for AndPeggy_46:
(Start: 97 @35560 has 30 MA's), (Start: 100 @35554 has 3 MA's), (140, 35431), (154, 35386),

Gene: Angelica_63 Start: 42629, Stop: 42844, Start Num: 110
Candidate Starts for Angelica_63:
(Start: 110 @42629 has 88 MA's), (137, 42716), (139, 42725),

Gene: Anma_64 Start: 43328, Stop: 43543, Start Num: 110
Candidate Starts for Anma_64:
(Start: 110 @43328 has 88 MA's), (137, 43415), (139, 43424),

Gene: Annalisa_51 Start: 35580, Stop: 35795, Start Num: 99
Candidate Starts for Annalisa_51:
(22, 35316), (26, 35352), (38, 35424), (Start: 99 @35580 has 46 MA's), (140, 35679),

Gene: Apocalypse_66 Start: 43395, Stop: 43610, Start Num: 110
Candidate Starts for Apocalypse_66:
(Start: 110 @43395 has 88 MA's), (137, 43482), (139, 43491),

Gene: Applecrisp_60 Start: 42677, Stop: 42889, Start Num: 112
Candidate Starts for Applecrisp_60:
(Start: 112 @42677 has 53 MA's), (137, 42758), (139, 42767),

Gene: ArchiDore_52 Start: 39524, Stop: 39766, Start Num: 99
Candidate Starts for ArchiDore_52:
(Start: 99 @39524 has 46 MA's), (103, 39533), (140, 39650),

Gene: Asayake_63 Start: 42792, Stop: 43007, Start Num: 110
Candidate Starts for Asayake_63:
(Start: 110 @42792 has 88 MA's), (137, 42879), (139, 42888),

Gene: Atiba_64 Start: 42440, Stop: 42655, Start Num: 110
Candidate Starts for Atiba_64:
(Start: 110 @42440 has 88 MA's), (137, 42527), (139, 42536),

Gene: AuntGwenStacy_90 Start: 58871, Stop: 59092, Start Num: 109
Candidate Starts for AuntGwenStacy_90:
(Start: 109 @58871 has 8 MA's), (126, 58907), (129, 58937),

Gene: Austin_79 Start: 61512, Stop: 61273, Start Num: 100
Candidate Starts for Austin_79:
(36, 61677), (Start: 100 @61512 has 3 MA's), (151, 61353),

Gene: Auxilium_46 Start: 28442, Stop: 28633, Start Num: 120
Candidate Starts for Auxilium_46:
(Start: 120 @28442 has 22 MA's),

Gene: Axym_48 Start: 35927, Stop: 35694, Start Num: 97
Candidate Starts for Axym_48:
(Start: 97 @35927 has 30 MA's), (129, 35843), (149, 35783),

Gene: Ayotoya_72 Start: 48939, Stop: 49139, Start Num: 117
Candidate Starts for Ayotoya_72:
(80, 48855), (83, 48861), (111, 48927), (Start: 117 @48939 has 10 MA's),

Gene: BEEST_63 Start: 42792, Stop: 43007, Start Num: 110
Candidate Starts for BEEST_63:
(Start: 110 @42792 has 88 MA's), (137, 42879), (139, 42888),

Gene: BGlluviae_63 Start: 42595, Stop: 42810, Start Num: 110
Candidate Starts for BGlluviae_63:
(Start: 110 @42595 has 88 MA's), (137, 42682), (139, 42691),

Gene: BaghaKamala_63 Start: 42253, Stop: 42471, Start Num: 110
Candidate Starts for BaghaKamala_63:
(73, 42175), (Start: 110 @42253 has 88 MA's), (137, 42340), (139, 42349),

Gene: BananenDer11_57 Start: 39573, Stop: 39785, Start Num: 113
Candidate Starts for BananenDer11_57:
(80, 39498), (84, 39507), (88, 39519), (Start: 113 @39573 has 25 MA's), (123, 39591), (137, 39651),
(144, 39675), (145, 39678), (153, 39705), (167, 39732), (174, 39780),

Gene: BarrelRoll_64 Start: 42877, Stop: 43092, Start Num: 110
Candidate Starts for BarrelRoll_64:
(75, 42799), (Start: 110 @42877 has 88 MA's), (137, 42964), (139, 42973),

Gene: BatStarr_56 Start: 40720, Stop: 40962, Start Num: 99
Candidate Starts for BatStarr_56:
(Start: 99 @40720 has 46 MA's), (140, 40846),

Gene: BaxterFox_57 Start: 40474, Stop: 40716, Start Num: 99
Candidate Starts for BaxterFox_57:
(Start: 99 @40474 has 46 MA's), (140, 40600),

Gene: Beezoo_65 Start: 43389, Stop: 43604, Start Num: 110
Candidate Starts for Beezoo_65:
(Start: 110 @43389 has 88 MA's), (137, 43476), (139, 43485),

Gene: Bella96_64 Start: 43173, Stop: 43388, Start Num: 110
Candidate Starts for Bella96_64:
(Start: 110 @43173 has 88 MA's), (137, 43260), (139, 43269),

Gene: Belladonna_63 Start: 42595, Stop: 42810, Start Num: 110
Candidate Starts for Belladonna_63:
(Start: 110 @42595 has 88 MA's), (137, 42682), (139, 42691),

Gene: Bern_65 Start: 41846, Stop: 42064, Start Num: 110
Candidate Starts for Bern_65:
(Start: 110 @41846 has 88 MA's), (137, 41933), (139, 41942),

Gene: BigMama_78 Start: 58605, Stop: 58919, Start Num: 58
Candidate Starts for BigMama_78:
(28, 58488), (37, 58551), (Start: 58 @58605 has 22 MA's), (Start: 60 @58614 has 1 MA's), (76, 58659), (78, 58668),

Gene: BillDoor_49 Start: 35229, Stop: 34978, Start Num: 97
Candidate Starts for BillDoor_49:
(53, 35346), (Start: 97 @35229 has 30 MA's), (Start: 100 @35223 has 3 MA's), (114, 35187), (140, 35100), (154, 35055),

Gene: Bipper_99 Start: 62157, Stop: 62378, Start Num: 109
Candidate Starts for Bipper_99:
(42, 61980), (57, 62025), (59, 62028), (70, 62067), (89, 62115), (Start: 109 @62157 has 8 MA's), (126, 62193),

Gene: Biskit_52 Start: 36207, Stop: 35971, Start Num: 97
Candidate Starts for Biskit_52:
(86, 36225), (Start: 97 @36207 has 30 MA's), (149, 36060), (154, 36048), (157, 36045),

Gene: Blizzard_63 Start: 42792, Stop: 43007, Start Num: 110
Candidate Starts for Blizzard_63:
(Start: 110 @42792 has 88 MA's), (137, 42879), (139, 42888),

Gene: Blondies_53 Start: 36524, Stop: 36288, Start Num: 97
Candidate Starts for Blondies_53:
(86, 36542), (Start: 97 @36524 has 30 MA's), (149, 36377), (154, 36365), (157, 36362),

Gene: BlueShadow_48 Start: 30488, Stop: 30679, Start Num: 120
Candidate Starts for BlueShadow_48:
(29, 30227), (74, 30389), (Start: 120 @30488 has 22 MA's),

Gene: Bobquesha_67 Start: 40811, Stop: 41029, Start Num: 108
Candidate Starts for Bobquesha_67:
(47, 40652), (51, 40661), (Start: 108 @40811 has 22 MA's), (144, 40928), (160, 40964), (166, 40979), (168, 40985),

Gene: Boiiii_63 Start: 42794, Stop: 43009, Start Num: 110
Candidate Starts for Boiiii_63:
(Start: 110 @42794 has 88 MA's), (137, 42881), (139, 42890),

Gene: BoyNamedSue_55 Start: 39196, Stop: 39438, Start Num: 99
Candidate Starts for BoyNamedSue_55:
(Start: 99 @39196 has 46 MA's), (131, 39292), (140, 39322),

Gene: Bramble_62 Start: 42368, Stop: 42559, Start Num: 120
Candidate Starts for Bramble_62:
(118, 42365), (Start: 120 @42368 has 22 MA's), (123, 42377), (145, 42458), (161, 42497),

Gene: Bryler_67 Start: 42423, Stop: 42635, Start Num: 112
Candidate Starts for Bryler_67:
(3, 41757), (4, 41781), (7, 41856), (16, 42009), (43, 42240), (Start: 112 @42423 has 53 MA's), (137, 42504), (139, 42513),

Gene: Brylie_71 Start: 47955, Stop: 48155, Start Num: 117
Candidate Starts for Brylie_71:
(80, 47871), (83, 47877), (Start: 105 @47931 has 1 MA's), (111, 47943), (Start: 117 @47955 has 10 MA's),

Gene: Bubble_47 Start: 35617, Stop: 35384, Start Num: 97
Candidate Starts for Bubble_47:
(Start: 97 @35617 has 30 MA's), (129, 35533), (149, 35473),

Gene: Bunnybear_49 Start: 37204, Stop: 37446, Start Num: 99
Candidate Starts for Bunnybear_49:
(Start: 99 @37204 has 46 MA's), (140, 37330),

Gene: Burnsey_49 Start: 36021, Stop: 35788, Start Num: 97
Candidate Starts for Burnsey_49:
(Start: 97 @36021 has 30 MA's), (129, 35937), (149, 35877),

Gene: Butterscotch_78 Start: 58571, Stop: 58885, Start Num: 58
Candidate Starts for Butterscotch_78:
(28, 58454), (37, 58517), (Start: 58 @58571 has 22 MA's), (Start: 60 @58580 has 1 MA's), (76, 58625), (78, 58634),

Gene: Button_51 Start: 36058, Stop: 35855, Start Num: 115
Candidate Starts for Button_51:
(Start: 115 @36058 has 8 MA's), (121, 36046), (Start: 125 @36037 has 1 MA's), (127, 36031), (138, 35980), (145, 35956),

Gene: Buttrmlkdreams_52 Start: 36654, Stop: 36418, Start Num: 97
Candidate Starts for Buttrmlkdreams_52:
(86, 36672), (Start: 97 @36654 has 30 MA's), (149, 36507), (154, 36495), (157, 36492),

Gene: CREW_63 Start: 42595, Stop: 42810, Start Num: 110
Candidate Starts for CREW_63:
(Start: 110 @42595 has 88 MA's), (137, 42682), (139, 42691),

Gene: Cafasso_117 Start: 64785, Stop: 64579, Start Num: 112
Candidate Starts for Cafasso_117:
(Start: 112 @64785 has 53 MA's), (134, 64713), (140, 64698), (145, 64683),

Gene: Cain_67 Start: 42411, Stop: 42623, Start Num: 112

Candidate Starts for Cain_67:
(3, 41745), (4, 41769), (7, 41844), (16, 41997), (43, 42228), (Start: 112 @42411 has 53 MA's), (137, 42492), (139, 42501),

Gene: CallaLilly_63 Start: 42518, Stop: 42733, Start Num: 110
Candidate Starts for CallaLilly_63:
(Start: 110 @42518 has 88 MA's), (137, 42605), (139, 42614),

Gene: CanesSauce_48 Start: 35730, Stop: 35479, Start Num: 97
Candidate Starts for CanesSauce_48:
(Start: 97 @35730 has 30 MA's), (Start: 100 @35724 has 3 MA's), (140, 35601), (154, 35556),

Gene: Capricorn_63 Start: 42595, Stop: 42810, Start Num: 110
Candidate Starts for Capricorn_63:
(Start: 110 @42595 has 88 MA's), (137, 42682), (139, 42691),

Gene: CaramelLatte_48 Start: 35730, Stop: 35479, Start Num: 97
Candidate Starts for CaramelLatte_48:
(Start: 97 @35730 has 30 MA's), (Start: 100 @35724 has 3 MA's), (140, 35601), (154, 35556),

Gene: CaseJules_65 Start: 42792, Stop: 43007, Start Num: 110
Candidate Starts for CaseJules_65:
(Start: 110 @42792 has 88 MA's), (137, 42879), (139, 42888),

Gene: Cashline_53 Start: 39714, Stop: 39956, Start Num: 99
Candidate Starts for Cashline_53:
(Start: 99 @39714 has 46 MA's), (140, 39840),

Gene: Chancellor_66 Start: 41921, Stop: 42139, Start Num: 108
Candidate Starts for Chancellor_66:
(47, 41762), (51, 41771), (Start: 108 @41921 has 22 MA's), (144, 42038), (160, 42074), (166, 42089),

Gene: Chavito_66 Start: 43632, Stop: 43841, Start Num: 112
Candidate Starts for Chavito_66:
(Start: 112 @43632 has 53 MA's), (137, 43713), (139, 43722), (169, 43797),

Gene: CheetoDust_63 Start: 42300, Stop: 42518, Start Num: 110
Candidate Starts for CheetoDust_63:
(Start: 110 @42300 has 88 MA's), (137, 42387), (139, 42396),

Gene: Cheetobro_66 Start: 41918, Stop: 42136, Start Num: 108
Candidate Starts for Cheetobro_66:
(47, 41759), (51, 41768), (Start: 108 @41918 has 22 MA's), (144, 42035), (160, 42071), (166, 42086),

Gene: CherryTomatoes_158 Start: 111644, Stop: 111907, Start Num: 81
Candidate Starts for CherryTomatoes_158:
(65, 111599), (79, 111641), (Start: 81 @111644 has 3 MA's), (140, 111794), (151, 111830), (160, 111842),

Gene: ChickenTender_51 Start: 35574, Stop: 35341, Start Num: 97
Candidate Starts for ChickenTender_51:
(23, 35829), (47, 35706), (68, 35649), (Start: 97 @35574 has 30 MA's), (124, 35514), (129, 35490), (154, 35418),

Gene: Chill_82 Start: 58548, Stop: 58862, Start Num: 58
Candidate Starts for Chill_82:
(28, 58431), (37, 58494), (Start: 58 @58548 has 22 MA's), (Start: 60 @58557 has 1 MA's), (76, 58602), (78, 58611),

Gene: ChocoMunchkin_48 Start: 35730, Stop: 35479, Start Num: 97
Candidate Starts for ChocoMunchkin_48:
(Start: 97 @35730 has 30 MA's), (Start: 100 @35724 has 3 MA's), (140, 35601), (154, 35556),

Gene: Chop_73 Start: 49004, Stop: 49204, Start Num: 117
Candidate Starts for Chop_73:
(80, 48920), (83, 48926), (111, 48992), (Start: 117 @49004 has 10 MA's),

Gene: Chris_66 Start: 43655, Stop: 43864, Start Num: 112
Candidate Starts for Chris_66:
(12, 43181), (Start: 112 @43655 has 53 MA's), (131, 43718), (137, 43736), (139, 43745), (147, 43769),

Gene: Clipper_67 Start: 43491, Stop: 43709, Start Num: 110
Candidate Starts for Clipper_67:
(Start: 110 @43491 has 88 MA's), (137, 43578), (139, 43587),

Gene: Collard_55 Start: 39573, Stop: 39785, Start Num: 113
Candidate Starts for Collard_55:
(80, 39498), (84, 39507), (88, 39519), (Start: 113 @39573 has 25 MA's), (123, 39591), (137, 39651), (144, 39675), (145, 39678), (153, 39705), (167, 39732), (174, 39780),

Gene: Colossa_109 Start: 57696, Stop: 57887, Start Num: 102
Candidate Starts for Colossa_109:
(Start: 102 @57696 has 2 MA's), (170, 57861),

Gene: Cozz_47 Start: 35618, Stop: 35385, Start Num: 97
Candidate Starts for Cozz_47:
(Start: 97 @35618 has 30 MA's), (129, 35534), (149, 35474),

Gene: Cracklewink_99 Start: 61392, Stop: 61613, Start Num: 109
Candidate Starts for Cracklewink_99:
(42, 61215), (57, 61260), (59, 61263), (70, 61302), (89, 61350), (Start: 109 @61392 has 8 MA's), (114, 61404), (126, 61428),

Gene: CrimD_65 Start: 43416, Stop: 43631, Start Num: 110
Candidate Starts for CrimD_65:
(75, 43338), (Start: 110 @43416 has 88 MA's), (137, 43503), (139, 43512),

Gene: Cuke_99 Start: 56679, Stop: 56984, Start Num: 62
Candidate Starts for Cuke_99:
(33, 56601), (37, 56613), (Start: 60 @56676 has 1 MA's), (Start: 62 @56679 has 3 MA's), (94, 56766), (122, 56823), (155, 56910), (172, 56958),

Gene: Curiosium_67 Start: 42105, Stop: 42323, Start Num: 110
Candidate Starts for Curiosium_67:
(Start: 110 @42105 has 88 MA's), (116, 42117), (137, 42192), (139, 42201),

Gene: DS6A_87 Start: 56210, Stop: 56485, Start Num: 82
Candidate Starts for DS6A_87:
(Start: 82 @56210 has 1 MA's), (156, 56414),

Gene: Dadosky_59 Start: 39912, Stop: 40124, Start Num: 113
Candidate Starts for Dadosky_59:
(Start: 113 @39912 has 25 MA's), (137, 39990), (144, 40014), (145, 40017), (153, 40044), (167, 40071),

Gene: Dalmuri_63 Start: 42595, Stop: 42810, Start Num: 110
Candidate Starts for Dalmuri_63:
(Start: 110 @42595 has 88 MA's), (137, 42682), (139, 42691),

Gene: DanSyl44_69 Start: 43112, Stop: 43330, Start Num: 108
Candidate Starts for DanSyl44_69:
(47, 42953), (51, 42962), (Start: 108 @43112 has 22 MA's), (144, 43229), (160, 43265), (166, 43280),

Gene: DartGoblin_65 Start: 43145, Stop: 43360, Start Num: 110
Candidate Starts for DartGoblin_65:
(Start: 110 @43145 has 88 MA's), (137, 43232), (139, 43241),

Gene: DarthP_63 Start: 42936, Stop: 43148, Start Num: 112
Candidate Starts for DarthP_63:
(2, 42249), (6, 42336), (8, 42384), (9, 42411), (10, 42435), (13, 42477), (45, 42759), (Start: 112 @42936 has 53 MA's), (137, 43017), (139, 43026), (169, 43101),

Gene: Dartin_66 Start: 43084, Stop: 43293, Start Num: 112
Candidate Starts for Dartin_66:
(40, 42904), (Start: 112 @43084 has 53 MA's), (137, 43165), (139, 43174),

Gene: DarwinJr_52 Start: 31842, Stop: 32027, Start Num: 120
Candidate Starts for DarwinJr_52:
(44, 31647), (63, 31707), (67, 31716), (91, 31785), (Start: 120 @31842 has 22 MA's), (133, 31899), (145, 31935),

Gene: Deby_64 Start: 43078, Stop: 43293, Start Num: 110
Candidate Starts for Deby_64:
(Start: 110 @43078 has 88 MA's), (137, 43165), (139, 43174),

Gene: DelRio_72 Start: 49046, Stop: 49246, Start Num: 117
Candidate Starts for DelRio_72:
(80, 48962), (83, 48968), (111, 49034), (Start: 117 @49046 has 10 MA's),

Gene: Delton_80 Start: 58981, Stop: 59295, Start Num: 58
Candidate Starts for Delton_80:
(28, 58864), (37, 58927), (Start: 58 @58981 has 22 MA's), (Start: 60 @58990 has 1 MA's), (76, 59035), (78, 59044),

Gene: Denise_48 Start: 33091, Stop: 33306, Start Num: 99
Candidate Starts for Denise_48:
(Start: 99 @33091 has 46 MA's), (140, 33190), (150, 33223),

Gene: Devera_71 Start: 44431, Stop: 44646, Start Num: 110

Candidate Starts for Devera_71:
(75, 44353), (Start: 110 @44431 has 88 MA's), (137, 44518), (139, 44527),

Gene: Dole_69 Start: 44434, Stop: 44649, Start Num: 110
Candidate Starts for Dole_69:
(75, 44356), (Start: 110 @44434 has 88 MA's), (137, 44521), (139, 44530),

Gene: DoubleChamp_54 Start: 39573, Stop: 39785, Start Num: 113
Candidate Starts for DoubleChamp_54:
(80, 39498), (84, 39507), (88, 39519), (Start: 113 @39573 has 25 MA's), (123, 39591), (137, 39651), (144, 39675), (145, 39678), (153, 39705), (167, 39732), (174, 39780),

Gene: DrHayes_64 Start: 43328, Stop: 43543, Start Num: 110
Candidate Starts for DrHayes_64:
(Start: 110 @43328 has 88 MA's), (137, 43415), (139, 43424),

Gene: DumpsterDude_53 Start: 41558, Stop: 41800, Start Num: 99
Candidate Starts for DumpsterDude_53:
(Start: 99 @41558 has 46 MA's), (103, 41567), (140, 41684),

Gene: Durfee_63 Start: 42792, Stop: 43007, Start Num: 110
Candidate Starts for Durfee_63:
(Start: 110 @42792 has 88 MA's), (137, 42879), (139, 42888),

Gene: EMsquaredA_53 Start: 38371, Stop: 38613, Start Num: 99
Candidate Starts for EMsquaredA_53:
(Start: 99 @38371 has 46 MA's), (131, 38467), (140, 38497),

Gene: Easley_49 Start: 35528, Stop: 35743, Start Num: 99
Candidate Starts for Easley_49:
(Start: 99 @35528 has 46 MA's), (140, 35627),

Gene: Ebert_54 Start: 34571, Stop: 34813, Start Num: 99
Candidate Starts for Ebert_54:
(Start: 99 @34571 has 46 MA's), (140, 34697),

Gene: Edugator_56 Start: 41333, Stop: 41545, Start Num: 113
Candidate Starts for Edugator_56:
(Start: 113 @41333 has 25 MA's), (123, 41351), (137, 41411), (144, 41435), (145, 41438), (153, 41465), (167, 41492), (174, 41540),

Gene: Efra2_69 Start: 43158, Stop: 43376, Start Num: 110
Candidate Starts for Efra2_69:
(73, 43080), (Start: 110 @43158 has 88 MA's), (137, 43245), (139, 43254),

Gene: Ellie_59 Start: 42407, Stop: 42619, Start Num: 112
Candidate Starts for Ellie_59:
(Start: 112 @42407 has 53 MA's), (137, 42488), (139, 42497),

Gene: Emalyn_48 Start: 35066, Stop: 34815, Start Num: 97
Candidate Starts for Emalyn_48:
(Start: 97 @35066 has 30 MA's), (Start: 100 @35060 has 3 MA's), (140, 34937), (154, 34892),

Gene: Emerson_65 Start: 42909, Stop: 43127, Start Num: 110
Candidate Starts for Emerson_65:
(Start: 110 @42909 has 88 MA's), (137, 42996), (139, 43005),

Gene: Eponine_68 Start: 42764, Stop: 42982, Start Num: 108
Candidate Starts for Eponine_68:
(47, 42605), (51, 42614), (Start: 108 @42764 has 22 MA's), (144, 42881), (160, 42917), (166, 42932),

Gene: Erk16_80 Start: 58641, Stop: 58955, Start Num: 58
Candidate Starts for Erk16_80:
(28, 58524), (37, 58587), (Start: 58 @58641 has 22 MA's), (Start: 60 @58650 has 1 MA's), (76, 58695), (78, 58704),

Gene: Eviarto_57 Start: 40695, Stop: 40937, Start Num: 99
Candidate Starts for Eviarto_57:
(Start: 99 @40695 has 46 MA's), (140, 40821),

Gene: Faiyaz_91 Start: 58877, Stop: 59098, Start Num: 109
Candidate Starts for Faiyaz_91:
(Start: 109 @58877 has 8 MA's), (126, 58913), (129, 58943),

Gene: Fefferhead_61 Start: 42316, Stop: 42528, Start Num: 112
Candidate Starts for Fefferhead_61:
(Start: 112 @42316 has 53 MA's), (137, 42397), (139, 42406),

Gene: Feyre_60 Start: 43292, Stop: 43504, Start Num: 113
Candidate Starts for Feyre_60:
(Start: 113 @43292 has 25 MA's), (137, 43370), (144, 43394), (145, 43397), (157, 43430), (167, 43451), (172, 43478),

Gene: Fionnbharth_66 Start: 42162, Stop: 42380, Start Num: 108
Candidate Starts for Fionnbharth_66:
(47, 42003), (51, 42012), (Start: 108 @42162 has 22 MA's), (144, 42279), (160, 42315), (166, 42330),

Gene: Floral_54 Start: 40277, Stop: 40519, Start Num: 99
Candidate Starts for Floral_54:
(Start: 99 @40277 has 46 MA's), (140, 40403),

Gene: Fowlmouth_95 Start: 57786, Stop: 58094, Start Num: 62
Candidate Starts for Fowlmouth_95:
(Start: 62 @57786 has 3 MA's), (78, 57837), (94, 57873), (101, 57885), (122, 57930), (158, 58020),

Gene: GMA7_69 Start: 55728, Stop: 55489, Start Num: 100
Candidate Starts for GMA7_69:
(36, 55893), (Start: 100 @55728 has 3 MA's), (151, 55569),

Gene: GTE2_40 Start: 35662, Stop: 35417, Start Num: 100
Candidate Starts for GTE2_40:
(53, 35785), (Start: 97 @35668 has 30 MA's), (Start: 100 @35662 has 3 MA's), (114, 35626), (129, 35575), (140, 35539), (154, 35494), (169, 35461),

Gene: GTE7_68 Start: 55759, Stop: 55520, Start Num: 100
Candidate Starts for GTE7_68:

(36, 55924), (Start: 100 @55759 has 3 MA's), (151, 55600),

Gene: Ganymede_64 Start: 42817, Stop: 43032, Start Num: 110
Candidate Starts for Ganymede_64:
(Start: 110 @42817 has 88 MA's), (137, 42904), (139, 42913),

Gene: Gengar_57 Start: 41311, Stop: 41523, Start Num: 113
Candidate Starts for Gengar_57:
(Start: 113 @41311 has 25 MA's), (137, 41389), (144, 41413), (145, 41416), (153, 41443), (167, 41470), (172, 41497),

Gene: Geraldini_66 Start: 43474, Stop: 43689, Start Num: 110
Candidate Starts for Geraldini_66:
(Start: 110 @43474 has 88 MA's), (137, 43561), (139, 43570),

Gene: GiKK_53 Start: 36382, Stop: 36179, Start Num: 115
Candidate Starts for GiKK_53:
(Start: 115 @36382 has 8 MA's), (121, 36370), (Start: 125 @36361 has 1 MA's), (127, 36355), (138, 36304), (145, 36280),

Gene: Giuseppe_81 Start: 58355, Stop: 58669, Start Num: 58
Candidate Starts for Giuseppe_81:
(24, 58211), (40, 58310), (48, 58328), (Start: 58 @58355 has 22 MA's), (Start: 60 @58364 has 1 MA's), (76, 58409), (78, 58418), (101, 58460),

Gene: GoldHunter_49 Start: 36030, Stop: 35797, Start Num: 97
Candidate Starts for GoldHunter_49:
(Start: 97 @36030 has 30 MA's), (129, 35946), (149, 35886),

Gene: Gorpy_49 Start: 31480, Stop: 31674, Start Num: 120
Candidate Starts for Gorpy_49:
(Start: 120 @31480 has 22 MA's), (137, 31549), (165, 31627),

Gene: GrandSlam_73 Start: 49004, Stop: 49204, Start Num: 117
Candidate Starts for GrandSlam_73:
(80, 48920), (83, 48926), (111, 48992), (Start: 117 @49004 has 10 MA's),

Gene: Guanica15_68 Start: 42899, Stop: 43117, Start Num: 110
Candidate Starts for Guanica15_68:
(73, 42821), (Start: 110 @42899 has 88 MA's), (137, 42986), (139, 42995),

Gene: Guillsminger_58 Start: 41282, Stop: 41494, Start Num: 113
Candidate Starts for Guillsminger_58:
(Start: 113 @41282 has 25 MA's), (137, 41360), (144, 41384), (145, 41387), (157, 41420), (167, 41441), (172, 41468),

Gene: Gumball_80 Start: 58986, Stop: 59300, Start Num: 58
Candidate Starts for Gumball_80:
(37, 58932), (Start: 58 @58986 has 22 MA's), (Start: 60 @58995 has 1 MA's), (76, 59040), (78, 59049), (101, 59091),

Gene: Hammy_63 Start: 42924, Stop: 43136, Start Num: 112
Candidate Starts for Hammy_63:

(45, 42747), (Start: 112 @42924 has 53 MA's), (137, 43005), (139, 43014), (169, 43089),

Gene: Hamood_73 Start: 49004, Stop: 49204, Start Num: 117
Candidate Starts for Hamood_73:
(80, 48920), (83, 48926), (111, 48992), (Start: 117 @49004 has 10 MA's),

Gene: Hawkeye_92 Start: 60485, Stop: 60838, Start Num: 56
Candidate Starts for Hawkeye_92:
(Start: 56 @60485 has 1 MA's), (Start: 60 @60497 has 1 MA's), (130, 60683), (172, 60809),

Gene: HayZem_81 Start: 61512, Stop: 61273, Start Num: 100
Candidate Starts for HayZem_81:
(36, 61677), (Start: 100 @61512 has 3 MA's), (151, 61353),

Gene: HedwigODU_63 Start: 42440, Stop: 42655, Start Num: 110
Candidate Starts for HedwigODU_63:
(Start: 110 @42440 has 88 MA's), (137, 42527), (139, 42536),

Gene: Heftyboy_58 Start: 41654, Stop: 41866, Start Num: 113
Candidate Starts for Heftyboy_58:
(Start: 113 @41654 has 25 MA's), (137, 41732), (144, 41756), (145, 41759), (157, 41792), (167, 41813), (172, 41840),

Gene: Helpful_82 Start: 58743, Stop: 59057, Start Num: 58
Candidate Starts for Helpful_82:
(24, 58599), (40, 58698), (48, 58716), (Start: 58 @58743 has 22 MA's), (Start: 60 @58752 has 1 MA's), (76, 58797), (78, 58806), (101, 58848),

Gene: Herod_55 Start: 40739, Stop: 40981, Start Num: 99
Candidate Starts for Herod_55:
(Start: 99 @40739 has 46 MA's), (140, 40865),

Gene: Hexbug_56 Start: 38441, Stop: 38238, Start Num: 115
Candidate Starts for Hexbug_56:
(Start: 115 @38441 has 8 MA's), (Start: 125 @38420 has 1 MA's), (145, 38339), (151, 38318), (158, 38309), (169, 38282),

Gene: Hilltopfarm_91 Start: 59257, Stop: 59478, Start Num: 109
Candidate Starts for Hilltopfarm_91:
(Start: 109 @59257 has 8 MA's), (126, 59293), (129, 59323),

Gene: Homura_63 Start: 42595, Stop: 42810, Start Num: 110
Candidate Starts for Homura_63:
(Start: 110 @42595 has 88 MA's), (137, 42682), (139, 42691),

Gene: Horseradish_52 Start: 36140, Stop: 35904, Start Num: 97
Candidate Starts for Horseradish_52:
(86, 36158), (Start: 97 @36140 has 30 MA's), (149, 35993), (154, 35981), (157, 35978),

Gene: Hortense_55 Start: 40090, Stop: 40332, Start Num: 99
Candidate Starts for Hortense_55:
(Start: 99 @40090 has 46 MA's), (140, 40216),

Gene: Howe_55 Start: 40090, Stop: 40332, Start Num: 99
Candidate Starts for Howe_55:
(Start: 99 @40090 has 46 MA's), (140, 40216),

Gene: Hugley_53 Start: 40719, Stop: 40961, Start Num: 99
Candidate Starts for Hugley_53:
(Start: 99 @40719 has 46 MA's), (140, 40845),

Gene: Hurricane_64 Start: 42910, Stop: 43122, Start Num: 112
Candidate Starts for Hurricane_64:
(Start: 112 @42910 has 53 MA's), (139, 43000), (169, 43075),

Gene: Hyperbowlee_63 Start: 42792, Stop: 43007, Start Num: 110
Candidate Starts for Hyperbowlee_63:
(Start: 110 @42792 has 88 MA's), (137, 42879), (139, 42888),

Gene: Hyzer_62 Start: 42111, Stop: 42353, Start Num: 99
Candidate Starts for Hyzer_62:
(Start: 99 @42111 has 46 MA's), (140, 42237),

Gene: Illumine_69 Start: 44433, Stop: 44648, Start Num: 110
Candidate Starts for Illumine_69:
(75, 44355), (Start: 110 @44433 has 88 MA's), (137, 44520), (139, 44529),

Gene: Indlulamithi_87 Start: 59764, Stop: 60048, Start Num: 60
Candidate Starts for Indlulamithi_87:
(Start: 60 @59764 has 1 MA's), (64, 59773), (76, 59809), (101, 59860), (106, 59872), (145, 59956),

Gene: Inky_63 Start: 42595, Stop: 42810, Start Num: 110
Candidate Starts for Inky_63:
(Start: 110 @42595 has 88 MA's), (137, 42682), (139, 42691),

Gene: InvictusManeo_55 Start: 39616, Stop: 39828, Start Num: 113
Candidate Starts for InvictusManeo_55:
(80, 39541), (84, 39550), (88, 39562), (Start: 113 @39616 has 25 MA's), (123, 39634), (137, 39694),
(144, 39718), (145, 39721), (153, 39748), (167, 39775), (174, 39823),

Gene: Isolde_49 Start: 30525, Stop: 30716, Start Num: 120
Candidate Starts for Isolde_49:
(Start: 120 @30525 has 22 MA's),

Gene: JAWS_64 Start: 42868, Stop: 43086, Start Num: 110
Candidate Starts for JAWS_64:
(73, 42790), (Start: 110 @42868 has 88 MA's), (137, 42955), (139, 42964),

Gene: JF1_66 Start: 42079, Stop: 42297, Start Num: 108
Candidate Starts for JF1_66:
(47, 41920), (51, 41929), (Start: 108 @42079 has 22 MA's), (144, 42196), (160, 42232), (166, 42247),

Gene: Jablanski_57 Start: 41777, Stop: 42019, Start Num: 99
Candidate Starts for Jablanski_57:
(15, 41396), (Start: 99 @41777 has 46 MA's), (140, 41903),

Gene: Jamzy_53 Start: 36362, Stop: 36159, Start Num: 115
Candidate Starts for Jamzy_53:
(Start: 115 @36362 has 8 MA's), (121, 36350), (Start: 125 @36341 has 1 MA's), (127, 36335), (138, 36284), (145, 36260),

Gene: Jarvi_63 Start: 42595, Stop: 42810, Start Num: 110
Candidate Starts for Jarvi_63:
(Start: 110 @42595 has 88 MA's), (137, 42682), (139, 42691),

Gene: Jayhawk_65 Start: 42937, Stop: 43152, Start Num: 110
Candidate Starts for Jayhawk_65:
(Start: 110 @42937 has 88 MA's), (137, 43024), (139, 43033),

Gene: Jeckyll_63 Start: 42595, Stop: 42810, Start Num: 110
Candidate Starts for Jeckyll_63:
(Start: 110 @42595 has 88 MA's), (137, 42682), (139, 42691),

Gene: Joy99_63 Start: 42524, Stop: 42739, Start Num: 110
Candidate Starts for Joy99_63:
(Start: 110 @42524 has 88 MA's), (137, 42611), (139, 42620),

Gene: Juliette_68 Start: 42226, Stop: 42444, Start Num: 108
Candidate Starts for Juliette_68:
(47, 42067), (51, 42076), (Start: 108 @42226 has 22 MA's), (144, 42343), (160, 42379), (166, 42394),

Gene: Kabloowy_50 Start: 31539, Stop: 31730, Start Num: 120
Candidate Starts for Kabloowy_50:
(67, 31413), (90, 31482), (Start: 120 @31539 has 22 MA's),

Gene: KandZ_77 Start: 58571, Stop: 58885, Start Num: 58
Candidate Starts for KandZ_77:
(24, 58427), (40, 58526), (48, 58544), (Start: 58 @58571 has 22 MA's), (Start: 60 @58580 has 1 MA's), (76, 58625), (78, 58634), (101, 58676),

Gene: Keshu_66 Start: 43008, Stop: 43220, Start Num: 112
Candidate Starts for Keshu_66:
(43, 42825), (Start: 112 @43008 has 53 MA's), (139, 43098), (169, 43173),

Gene: Kevin1_59 Start: 36836, Stop: 37027, Start Num: 104
Candidate Starts for Kevin1_59:
(Start: 104 @36836 has 1 MA's), (154, 36968),

Gene: Kheparia_63 Start: 40413, Stop: 40628, Start Num: 110
Candidate Starts for Kheparia_63:
(Start: 110 @40413 has 88 MA's), (137, 40500), (139, 40509),

Gene: KiSi_68 Start: 43636, Stop: 43845, Start Num: 112
Candidate Starts for KiSi_68:
(Start: 112 @43636 has 53 MA's), (123, 43657), (131, 43699), (137, 43717), (139, 43726), (147, 43750),

Gene: Kors_62 Start: 42441, Stop: 42632, Start Num: 120
Candidate Starts for Kors_62:

(118, 42438), (Start: 120 @42441 has 22 MA's), (123, 42450), (145, 42531), (161, 42570),

Gene: Kratio_55 Start: 39352, Stop: 39564, Start Num: 113
Candidate Starts for Kratio_55:
(11, 38872), (18, 38959), (20, 39010), (30, 39118), (31, 39124), (80, 39277), (84, 39286), (88, 39298), (Start: 113 @39352 has 25 MA's), (123, 39370), (144, 39454), (145, 39457), (153, 39484), (167, 39511), (174, 39559),

Gene: Kraw_66 Start: 41914, Stop: 42132, Start Num: 108
Candidate Starts for Kraw_66:
(47, 41755), (51, 41764), (Start: 108 @41914 has 22 MA's), (144, 42031), (160, 42067), (166, 42082),

Gene: Krueger_68 Start: 42699, Stop: 42911, Start Num: 112
Candidate Starts for Krueger_68:
(43, 42516), (Start: 112 @42699 has 53 MA's), (137, 42780), (139, 42789), (171, 42873),

Gene: Larva_58 Start: 40784, Stop: 40996, Start Num: 113
Candidate Starts for Larva_58:
(Start: 113 @40784 has 25 MA's), (137, 40862), (144, 40886), (145, 40889), (153, 40916), (167, 40943),

Gene: LastHope_68 Start: 42025, Stop: 42237, Start Num: 112
Candidate Starts for LastHope_68:
(Start: 112 @42025 has 53 MA's), (137, 42106), (139, 42115),

Gene: LaterM_64 Start: 43287, Stop: 43502, Start Num: 110
Candidate Starts for LaterM_64:
(Start: 110 @43287 has 88 MA's), (137, 43374), (139, 43383),

Gene: Lavahound_61 Start: 43684, Stop: 43896, Start Num: 112
Candidate Starts for Lavahound_61:
(Start: 112 @43684 has 53 MA's), (137, 43765), (139, 43774),

Gene: LeBruni_48 Start: 29822, Stop: 30013, Start Num: 120
Candidate Starts for LeBruni_48:
(Start: 120 @29822 has 22 MA's),

Gene: LeMond_67 Start: 43270, Stop: 43479, Start Num: 112
Candidate Starts for LeMond_67:
(Start: 112 @43270 has 53 MA's), (123, 43291), (131, 43333), (137, 43351), (139, 43360), (147, 43384),

Gene: Lea83_64 Start: 42945, Stop: 43157, Start Num: 112
Candidate Starts for Lea83_64:
(Start: 112 @42945 has 53 MA's), (139, 43035), (169, 43110),

Gene: Lebo14_65 Start: 42247, Stop: 42465, Start Num: 108
Candidate Starts for Lebo14_65:
(47, 42088), (51, 42097), (Start: 108 @42247 has 22 MA's), (144, 42364), (160, 42400), (166, 42415),

Gene: Leston_57 Start: 41411, Stop: 41623, Start Num: 113
Candidate Starts for Leston_57:

(Start: 113 @41411 has 25 MA's), (137, 41489), (144, 41513), (145, 41516), (157, 41549), (167, 41570), (172, 41597),

Gene: LilDirt_56 Start: 39374, Stop: 39586, Start Num: 113
Candidate Starts for LilDirt_56:
(80, 39299), (84, 39308), (88, 39320), (Start: 113 @39374 has 25 MA's), (123, 39392), (137, 39452), (144, 39476), (145, 39479), (153, 39506), (167, 39533), (174, 39581),

Gene: LilPharaoh_52 Start: 39482, Stop: 39691, Start Num: 112
Candidate Starts for LilPharaoh_52:
(Start: 112 @39482 has 53 MA's), (137, 39563), (139, 39572),

Gene: LindNT_63 Start: 43082, Stop: 43297, Start Num: 110
Candidate Starts for LindNT_63:
(75, 43004), (Start: 110 @43082 has 88 MA's), (137, 43169), (139, 43178),

Gene: Llorens_63 Start: 42595, Stop: 42810, Start Num: 110
Candidate Starts for Llorens_63:
(Start: 110 @42595 has 88 MA's), (137, 42682), (139, 42691),

Gene: LordBart_62 Start: 42338, Stop: 42529, Start Num: 120
Candidate Starts for LordBart_62:
(118, 42335), (Start: 120 @42338 has 22 MA's), (123, 42347), (145, 42428), (161, 42467),

Gene: Lunahalos_63 Start: 42595, Stop: 42810, Start Num: 110
Candidate Starts for Lunahalos_63:
(Start: 110 @42595 has 88 MA's), (137, 42682), (139, 42691),

Gene: MScarn_54 Start: 36322, Stop: 36086, Start Num: 97
Candidate Starts for MScarn_54:
(86, 36340), (Start: 97 @36322 has 30 MA's), (149, 36175), (154, 36163), (157, 36160),

Gene: MacKat_59 Start: 38375, Stop: 38593, Start Num: 110
Candidate Starts for MacKat_59:
(Start: 110 @38375 has 88 MA's), (137, 38462), (139, 38471),

Gene: MacnCheese_66 Start: 43527, Stop: 43739, Start Num: 112
Candidate Starts for MacnCheese_66:
(Start: 110 @43521 has 88 MA's), (Start: 112 @43527 has 53 MA's), (139, 43617), (163, 43677), (169, 43692),

Gene: Madavieve_51 Start: 38160, Stop: 38402, Start Num: 99
Candidate Starts for Madavieve_51:
(Start: 99 @38160 has 46 MA's), (140, 38286),

Gene: Madeline_54 Start: 39604, Stop: 39846, Start Num: 99
Candidate Starts for Madeline_54:
(Start: 99 @39604 has 46 MA's), (140, 39730),

Gene: Malisha_67 Start: 41399, Stop: 41608, Start Num: 99
Candidate Starts for Malisha_67:
(Start: 99 @41399 has 46 MA's), (140, 41525), (142, 41531),

Gene: Malthus_67 Start: 41914, Stop: 42132, Start Num: 108
Candidate Starts for Malthus_67:
(47, 41755), (51, 41764), (Start: 108 @41914 has 22 MA's), (144, 42031), (160, 42067), (166, 42082),

Gene: Mapleville_46 Start: 30349, Stop: 30540, Start Num: 120
Candidate Starts for Mapleville_46:
(Start: 120 @30349 has 22 MA's),

Gene: Margaret_54 Start: 37114, Stop: 36911, Start Num: 115
Candidate Starts for Margaret_54:
(Start: 115 @37114 has 8 MA's), (121, 37102), (Start: 125 @37093 has 1 MA's), (127, 37087), (138, 37036), (145, 37012),

Gene: Maridalia_57 Start: 38950, Stop: 39192, Start Num: 99
Candidate Starts for Maridalia_57:
(Start: 99 @38950 has 46 MA's), (140, 39076),

Gene: MarkPhew_66 Start: 42770, Stop: 42982, Start Num: 112
Candidate Starts for MarkPhew_66:
(Start: 112 @42770 has 53 MA's), (131, 42833), (137, 42851), (139, 42860), (147, 42884),

Gene: Marshawn_63 Start: 43120, Stop: 43332, Start Num: 112
Candidate Starts for Marshawn_63:
(Start: 112 @43120 has 53 MA's), (137, 43201),

Gene: Marteena_52 Start: 38371, Stop: 38613, Start Num: 99
Candidate Starts for Marteena_52:
(Start: 99 @38371 has 46 MA's), (131, 38467), (140, 38497),

Gene: McMater_66 Start: 43084, Stop: 43293, Start Num: 112
Candidate Starts for McMater_66:
(40, 42904), (Start: 112 @43084 has 53 MA's), (137, 43165), (139, 43174),

Gene: Mcklovin_51 Start: 41557, Stop: 41799, Start Num: 99
Candidate Starts for Mcklovin_51:
(Start: 99 @41557 has 46 MA's), (140, 41683),

Gene: MeaningOfLife_64 Start: 43347, Stop: 43562, Start Num: 110
Candidate Starts for MeaningOfLife_64:
(Start: 110 @43347 has 88 MA's), (137, 43434), (139, 43443),

Gene: Megsy_66 Start: 43003, Stop: 43218, Start Num: 110
Candidate Starts for Megsy_66:
(Start: 110 @43003 has 88 MA's), (137, 43090), (139, 43099),

Gene: MidnightRain_51 Start: 31618, Stop: 31809, Start Num: 120
Candidate Starts for MidnightRain_51:
(89, 31558), (Start: 120 @31618 has 22 MA's), (162, 31756),

Gene: Miryou_61 Start: 44008, Stop: 44220, Start Num: 113
Candidate Starts for Miryou_61:
(Start: 113 @44008 has 25 MA's), (137, 44086), (144, 44110), (145, 44113), (153, 44140), (167, 44167), (172, 44194),

Gene: MisoSoup_49 Start: 32203, Stop: 32030, Start Num: 98
Candidate Starts for MisoSoup_49:
(35, 32338), (96, 32206), (Start: 98 @32203 has 1 MA's), (139, 32110), (145, 32092),

Gene: MissDaisy_63 Start: 40826, Stop: 41044, Start Num: 108
Candidate Starts for MissDaisy_63:
(47, 40667), (51, 40676), (Start: 108 @40826 has 22 MA's), (144, 40943), (160, 40979), (166, 40994), (168, 41000),

Gene: Mitti_66 Start: 42093, Stop: 42311, Start Num: 108
Candidate Starts for Mitti_66:
(47, 41934), (51, 41943), (Start: 108 @42093 has 22 MA's), (144, 42210), (160, 42246), (166, 42261),

Gene: ModicumRichard_117 Start: 65073, Stop: 64867, Start Num: 112
Candidate Starts for ModicumRichard_117:
(Start: 112 @65073 has 53 MA's), (134, 65001), (140, 64986), (145, 64971),

Gene: Moosehead_50 Start: 31430, Stop: 31645, Start Num: 99
Candidate Starts for Moosehead_50:
(Start: 99 @31430 has 46 MA's), (140, 31529), (169, 31601),

Gene: Mopey_81 Start: 58381, Stop: 58695, Start Num: 58
Candidate Starts for Mopey_81:
(24, 58237), (40, 58336), (48, 58354), (Start: 58 @58381 has 22 MA's), (Start: 60 @58390 has 1 MA's), (76, 58435), (78, 58444), (101, 58486),

Gene: Morgana_124 Start: 67243, Stop: 67037, Start Num: 112
Candidate Starts for Morgana_124:
(83, 67312), (Start: 112 @67243 has 53 MA's), (134, 67171), (140, 67156), (145, 67141),

Gene: MrMiyagi_94 Start: 58054, Stop: 58362, Start Num: 62
Candidate Starts for MrMiyagi_94:
(Start: 62 @58054 has 3 MA's), (78, 58105), (94, 58141), (122, 58198), (158, 58288),

Gene: Mulch_71 Start: 47994, Stop: 48194, Start Num: 117
Candidate Starts for Mulch_71:
(80, 47910), (83, 47916), (Start: 105 @47970 has 1 MA's), (111, 47982), (Start: 117 @47994 has 10 MA's),

Gene: MunkgeeRoachy_47 Start: 35379, Stop: 35146, Start Num: 97
Candidate Starts for MunkgeeRoachy_47:
(Start: 97 @35379 has 30 MA's), (129, 35295), (149, 35235),

Gene: Murucutumbu_65 Start: 43862, Stop: 44077, Start Num: 110
Candidate Starts for Murucutumbu_65:
(75, 43784), (Start: 110 @43862 has 88 MA's), (137, 43949), (139, 43958),

Gene: Mynx_65 Start: 43204, Stop: 43422, Start Num: 110
Candidate Starts for Mynx_65:
(73, 43126), (Start: 110 @43204 has 88 MA's), (137, 43291), (139, 43300),

Gene: Nadeem_71 Start: 47982, Stop: 48182, Start Num: 117

Candidate Starts for Nadeem_71:
(80, 47898), (83, 47904), (Start: 105 @47958 has 1 MA's), (111, 47970), (Start: 117 @47982 has 10 MA's),

Gene: Nibb_66 Start: 42981, Stop: 43193, Start Num: 112
Candidate Starts for Nibb_66:
(12, 42507), (Start: 112 @42981 has 53 MA's), (131, 43044), (137, 43062), (139, 43071), (159, 43122),

Gene: Niklas_66 Start: 43145, Stop: 43354, Start Num: 112
Candidate Starts for Niklas_66:
(Start: 112 @43145 has 53 MA's), (137, 43226), (139, 43235),

Gene: Nina_48 Start: 36199, Stop: 35966, Start Num: 97
Candidate Starts for Nina_48:
(Start: 97 @36199 has 30 MA's), (129, 36115), (149, 36055),

Gene: Nodigi_56 Start: 38471, Stop: 38268, Start Num: 115
Candidate Starts for Nodigi_56:
(Start: 115 @38471 has 8 MA's), (Start: 125 @38450 has 1 MA's), (145, 38369), (151, 38348), (158, 38339), (169, 38312),

Gene: Nolwazi_68 Start: 42060, Stop: 42278, Start Num: 108
Candidate Starts for Nolwazi_68:
(47, 41901), (51, 41910), (Start: 108 @42060 has 22 MA's), (144, 42177), (160, 42213), (166, 42228),

Gene: Nova_79 Start: 58848, Stop: 59162, Start Num: 58
Candidate Starts for Nova_79:
(24, 58704), (40, 58803), (48, 58821), (Start: 58 @58848 has 22 MA's), (Start: 60 @58857 has 1 MA's), (76, 58902), (78, 58911), (101, 58953),

Gene: November_61 Start: 42834, Stop: 43046, Start Num: 112
Candidate Starts for November_61:
(2, 42144), (5, 42228), (6, 42234), (8, 42282), (9, 42309), (10, 42333), (13, 42375), (45, 42657), (Start: 112 @42834 has 53 MA's), (137, 42915), (139, 42924), (169, 42999),

Gene: Nyilah_48 Start: 29132, Stop: 29323, Start Num: 120
Candidate Starts for Nyilah_48:
(Start: 104 @29102 has 1 MA's), (Start: 120 @29132 has 22 MA's), (137, 29201),

Gene: Nymphadora_57 Start: 40719, Stop: 40961, Start Num: 99
Candidate Starts for Nymphadora_57:
(Start: 99 @40719 has 46 MA's), (140, 40845),

Gene: ObLaDi_116 Start: 64475, Stop: 64269, Start Num: 112
Candidate Starts for ObLaDi_116:
(Start: 112 @64475 has 53 MA's), (134, 64403), (140, 64388), (145, 64373),

Gene: Ohgeesy_54 Start: 38818, Stop: 39060, Start Num: 99
Candidate Starts for Ohgeesy_54:
(Start: 99 @38818 has 46 MA's), (140, 38944),

Gene: OkiRoe_58 Start: 41679, Stop: 41891, Start Num: 113
Candidate Starts for OkiRoe_58:

(Start: 113 @41679 has 25 MA's), (137, 41757), (144, 41781), (145, 41784), (153, 41811), (167, 41838), (172, 41865),

Gene: OmniCritical_65 Start: 41983, Stop: 42201, Start Num: 108
Candidate Starts for OmniCritical_65:
(47, 41824), (51, 41833), (Start: 108 @41983 has 22 MA's), (144, 42100), (160, 42136), (166, 42151),

Gene: Omnicron_61 Start: 41791, Stop: 42003, Start Num: 113
Candidate Starts for Omnicron_61:
(88, 41737), (Start: 113 @41791 has 25 MA's), (133, 41857), (137, 41869), (145, 41896), (167, 41950), (172, 41977),

Gene: Oregano_54 Start: 36212, Stop: 36427, Start Num: 99
Candidate Starts for Oregano_54:
(Start: 99 @36212 has 46 MA's), (140, 36311),

Gene: Orla_56 Start: 38400, Stop: 38197, Start Num: 115
Candidate Starts for Orla_56:
(Start: 115 @38400 has 8 MA's), (Start: 125 @38379 has 1 MA's), (145, 38298), (151, 38277), (158, 38268), (169, 38241),

Gene: Oscar_67 Start: 43187, Stop: 43396, Start Num: 112
Candidate Starts for Oscar_67:
(Start: 112 @43187 has 53 MA's), (123, 43208), (131, 43250), (137, 43268), (139, 43277), (147, 43301),

Gene: PBI1_76 Start: 58502, Stop: 58816, Start Num: 58
Candidate Starts for PBI1_76:
(28, 58385), (37, 58448), (Start: 58 @58502 has 22 MA's), (Start: 60 @58511 has 1 MA's), (76, 58556), (78, 58565),

Gene: PLot_80 Start: 58539, Stop: 58853, Start Num: 58
Candidate Starts for PLot_80:
(37, 58485), (Start: 58 @58539 has 22 MA's), (Start: 60 @58548 has 1 MA's), (76, 58593), (78, 58602), (101, 58644),

Gene: Padfoot_63 Start: 42792, Stop: 43007, Start Num: 110
Candidate Starts for Padfoot_63:
(Start: 110 @42792 has 88 MA's), (137, 42879), (139, 42888),

Gene: Padpat_66 Start: 42909, Stop: 43127, Start Num: 110
Candidate Starts for Padpat_66:
(Start: 110 @42909 has 88 MA's), (137, 42996), (139, 43005),

Gene: PantheRoc_57 Start: 39540, Stop: 39782, Start Num: 99
Candidate Starts for PantheRoc_57:
(Start: 99 @39540 has 46 MA's), (140, 39666),

Gene: Paola_57 Start: 41282, Stop: 41494, Start Num: 113
Candidate Starts for Paola_57:
(Start: 113 @41282 has 25 MA's), (137, 41360), (144, 41384), (145, 41387), (157, 41420), (167, 41441), (172, 41468),

Gene: Parada_71 Start: 47994, Stop: 48194, Start Num: 117
Candidate Starts for Parada_71:
(80, 47910), (83, 47916), (Start: 105 @47970 has 1 MA's), (111, 47982), (Start: 117 @47994 has 10 MA's),

Gene: Patt_62 Start: 40550, Stop: 40768, Start Num: 108
Candidate Starts for Patt_62:
(47, 40391), (51, 40400), (Start: 108 @40550 has 22 MA's), (144, 40667), (160, 40703), (166, 40718), (168, 40724),

Gene: Peanam_66 Start: 43103, Stop: 43312, Start Num: 112
Candidate Starts for Peanam_66:
(40, 42923), (Start: 112 @43103 has 53 MA's), (137, 43184), (139, 43193),

Gene: Peel_63 Start: 42597, Stop: 42812, Start Num: 110
Candidate Starts for Peel_63:
(Start: 110 @42597 has 88 MA's), (137, 42684), (139, 42693),

Gene: Penelope2018_80 Start: 58570, Stop: 58884, Start Num: 58
Candidate Starts for Penelope2018_80:
(28, 58453), (37, 58516), (Start: 58 @58570 has 22 MA's), (Start: 60 @58579 has 1 MA's), (76, 58624), (78, 58633),

Gene: Phalaborwa_82 Start: 59041, Stop: 59355, Start Num: 58
Candidate Starts for Phalaborwa_82:
(48, 59011), (Start: 58 @59041 has 22 MA's), (Start: 60 @59050 has 1 MA's), (76, 59095), (78, 59104),

Gene: Pharb_63 Start: 42257, Stop: 42469, Start Num: 112
Candidate Starts for Pharb_63:
(106, 42242), (Start: 112 @42257 has 53 MA's), (139, 42347),

Gene: PhelpsODU_65 Start: 42337, Stop: 42549, Start Num: 112
Candidate Starts for PhelpsODU_65:
(3, 41674), (4, 41698), (7, 41770), (16, 41923), (43, 42154), (Start: 112 @42337 has 53 MA's), (137, 42418), (139, 42427),

Gene: Phrank_67 Start: 42401, Stop: 42613, Start Num: 112
Candidate Starts for Phrank_67:
(3, 41735), (4, 41759), (7, 41834), (16, 41987), (43, 42218), (Start: 112 @42401 has 53 MA's), (137, 42482), (139, 42491),

Gene: Phrappuccino_126 Start: 92677, Stop: 92982, Start Num: 92
Candidate Starts for Phrappuccino_126:
(21, 92419), (66, 92605), (77, 92638), (85, 92659), (Start: 92 @92677 has 2 MA's), (140, 92800), (148, 92824), (175, 92944), (176, 92977),

Gene: PhriskyACE_49 Start: 36177, Stop: 36419, Start Num: 99
Candidate Starts for PhriskyACE_49:
(19, 35853), (Start: 99 @36177 has 46 MA's), (140, 36303),

Gene: Piatt_63 Start: 42792, Stop: 43007, Start Num: 110
Candidate Starts for Piatt_63:
(Start: 110 @42792 has 88 MA's), (137, 42879), (139, 42888),

Gene: Pisa1_63 Start: 43410, Stop: 43625, Start Num: 110
Candidate Starts for Pisa1_63:
(Start: 110 @43410 has 88 MA's), (137, 43497), (139, 43506),

Gene: Pixie_63 Start: 42430, Stop: 42642, Start Num: 112
Candidate Starts for Pixie_63:
(Start: 112 @42430 has 53 MA's), (139, 42520), (169, 42595),

Gene: Pokerus_63 Start: 42937, Stop: 43152, Start Num: 110
Candidate Starts for Pokerus_63:
(75, 42859), (Start: 110 @42937 has 88 MA's), (137, 43024), (139, 43033),

Gene: Pollux_56 Start: 40277, Stop: 40519, Start Num: 99
Candidate Starts for Pollux_56:
(Start: 99 @40277 has 46 MA's), (140, 40403),

Gene: Powerball_51 Start: 36303, Stop: 36545, Start Num: 99
Candidate Starts for Powerball_51:
(19, 35979), (Start: 99 @36303 has 46 MA's), (140, 36429),

Gene: Prager_80 Start: 58475, Stop: 58789, Start Num: 58
Candidate Starts for Prager_80:
(24, 58331), (40, 58430), (48, 58448), (Start: 58 @58475 has 22 MA's), (Start: 60 @58484 has 1 MA's), (76, 58529), (78, 58538),

Gene: Prithvi_65 Start: 43082, Stop: 43297, Start Num: 110
Candidate Starts for Prithvi_65:
(75, 43004), (Start: 110 @43082 has 88 MA's), (137, 43169), (139, 43178),

Gene: Psycho_57 Start: 39909, Stop: 40121, Start Num: 113
Candidate Starts for Psycho_57:
(Start: 113 @39909 has 25 MA's), (137, 39987), (144, 40011), (145, 40014), (153, 40041), (167, 40068),

Gene: Pupper_157 Start: 111884, Stop: 112147, Start Num: 81
Candidate Starts for Pupper_157:
(65, 111839), (79, 111881), (Start: 81 @111884 has 3 MA's), (140, 112034), (151, 112070), (160, 112082),

Gene: Pytheas_57 Start: 41776, Stop: 42018, Start Num: 99
Candidate Starts for Pytheas_57:
(15, 41395), (Start: 99 @41776 has 46 MA's), (140, 41902),

Gene: Qhanda_68 Start: 41930, Stop: 42148, Start Num: 108
Candidate Starts for Qhanda_68:
(47, 41771), (51, 41780), (Start: 108 @41930 has 22 MA's), (144, 42047), (160, 42083), (166, 42098),

Gene: Quasar_49 Start: 36624, Stop: 36391, Start Num: 97
Candidate Starts for Quasar_49:
(Start: 97 @36624 has 30 MA's), (129, 36540), (149, 36480),

Gene: QuincyRose_62 Start: 42817, Stop: 43032, Start Num: 110

Candidate Starts for QuincyRose_62:
(Start: 110 @42817 has 88 MA's), (137, 42904), (139, 42913),

Gene: RSchmailzl_50 Start: 36067, Stop: 35834, Start Num: 97
Candidate Starts for RSchmailzl_50:
(Start: 97 @36067 has 30 MA's), (129, 35983), (149, 35923),

Gene: Ramen_64 Start: 42442, Stop: 42657, Start Num: 110
Candidate Starts for Ramen_64:
(Start: 110 @42442 has 88 MA's), (137, 42529), (139, 42538),

Gene: RanchParmCat_53 Start: 37255, Stop: 37052, Start Num: 115
Candidate Starts for RanchParmCat_53:
(Start: 115 @37255 has 8 MA's), (121, 37243), (Start: 125 @37234 has 1 MA's), (127, 37228), (138, 37177), (145, 37153),

Gene: Rando14_59 Start: 39518, Stop: 39730, Start Num: 113
Candidate Starts for Rando14_59:
(80, 39443), (84, 39452), (88, 39464), (Start: 113 @39518 has 25 MA's), (137, 39596), (144, 39620), (145, 39623), (167, 39677), (172, 39704),

Gene: Raphaella_49 Start: 30457, Stop: 30648, Start Num: 120
Candidate Starts for Raphaella_49:
(Start: 120 @30457 has 22 MA's),

Gene: Rapunzel97_65 Start: 42892, Stop: 43107, Start Num: 110
Candidate Starts for Rapunzel97_65:
(75, 42814), (Start: 110 @42892 has 88 MA's), (137, 42979), (139, 42988),

Gene: RedBaron_53 Start: 36246, Stop: 36013, Start Num: 97
Candidate Starts for RedBaron_53:
(Start: 97 @36246 has 30 MA's), (129, 36162),

Gene: RedWattleHog_174 Start: 111466, Stop: 111675, Start Num: 109
Candidate Starts for RedWattleHog_174:
(107, 111463), (Start: 109 @111466 has 8 MA's), (164, 111625), (173, 111655),

Gene: Reptar3000_63 Start: 40538, Stop: 40756, Start Num: 108
Candidate Starts for Reptar3000_63:
(47, 40379), (51, 40388), (Start: 108 @40538 has 22 MA's), (144, 40655), (160, 40691), (166, 40706), (168, 40712),

Gene: Richo_66 Start: 43084, Stop: 43293, Start Num: 112
Candidate Starts for Richo_66:
(40, 42904), (Start: 112 @43084 has 53 MA's), (137, 43165), (139, 43174),

Gene: RikSengupta_62 Start: 42469, Stop: 42660, Start Num: 120
Candidate Starts for RikSengupta_62:
(118, 42466), (Start: 120 @42469 has 22 MA's), (123, 42478), (145, 42559), (161, 42598),

Gene: Rosmarinus_63 Start: 42583, Stop: 42798, Start Num: 110
Candidate Starts for Rosmarinus_63:
(Start: 110 @42583 has 88 MA's), (137, 42670), (139, 42679),

Gene: Ruthiejr_67 Start: 41964, Stop: 42182, Start Num: 108
Candidate Starts for Ruthiejr_67:
(47, 41805), (51, 41814), (Start: 108 @41964 has 22 MA's), (144, 42081), (160, 42117), (166, 42132),

Gene: Ruthy_52 Start: 39090, Stop: 39332, Start Num: 99
Candidate Starts for Ruthy_52:
(Start: 99 @39090 has 46 MA's), (103, 39099), (140, 39216),

Gene: SCentae_156 Start: 112038, Stop: 112301, Start Num: 81
Candidate Starts for SCentae_156:
(65, 111993), (79, 112035), (Start: 81 @112038 has 3 MA's), (140, 112188), (151, 112224), (160, 112236),

Gene: Sakai_48 Start: 30191, Stop: 30385, Start Num: 120
Candidate Starts for Sakai_48:
(Start: 120 @30191 has 22 MA's), (137, 30260), (165, 30338),

Gene: SamScheppers_64 Start: 42393, Stop: 42611, Start Num: 108
Candidate Starts for SamScheppers_64:
(47, 42234), (51, 42243), (Start: 108 @42393 has 22 MA's), (144, 42510), (160, 42546), (166, 42561),

Gene: SamuelLPlaqson_64 Start: 43328, Stop: 43543, Start Num: 110
Candidate Starts for SamuelLPlaqson_64:
(Start: 110 @43328 has 88 MA's), (137, 43415), (139, 43424),

Gene: Scarlett_68 Start: 43514, Stop: 43726, Start Num: 112
Candidate Starts for Scarlett_68:
(Start: 112 @43514 has 53 MA's), (123, 43535), (131, 43577), (137, 43595), (139, 43604), (147, 43628),

Gene: Settecandela_126 Start: 92677, Stop: 92982, Start Num: 92
Candidate Starts for Settecandela_126:
(21, 92419), (66, 92605), (77, 92638), (85, 92659), (Start: 92 @92677 has 2 MA's), (140, 92800), (148, 92824), (175, 92944), (176, 92977),

Gene: SgtBeansprout_52 Start: 39754, Stop: 39963, Start Num: 112
Candidate Starts for SgtBeansprout_52:
(Start: 112 @39754 has 53 MA's), (137, 39835), (139, 39844),

Gene: Shadow1_68 Start: 42852, Stop: 43064, Start Num: 112
Candidate Starts for Shadow1_68:
(Start: 112 @42852 has 53 MA's), (137, 42933), (139, 42942),

Gene: Shaobing_66 Start: 43121, Stop: 43330, Start Num: 112
Candidate Starts for Shaobing_66:
(40, 42941), (Start: 112 @43121 has 53 MA's), (137, 43202), (139, 43211),

Gene: ShedlockHolmes_65 Start: 42949, Stop: 43161, Start Num: 112
Candidate Starts for ShedlockHolmes_65:
(Start: 112 @42949 has 53 MA's), (139, 43039), (169, 43114),

Gene: ShiaSurprise_64 Start: 42792, Stop: 43007, Start Num: 110

Candidate Starts for ShiaSurprise_64:
(Start: 110 @42792 has 88 MA's), (137, 42879), (139, 42888),

Gene: Shlim410_53 Start: 40090, Stop: 40332, Start Num: 99
Candidate Starts for Shlim410_53:
(Start: 99 @40090 has 46 MA's), (140, 40216),

Gene: Sidious_53 Start: 38484, Stop: 38726, Start Num: 99
Candidate Starts for Sidious_53:
(Start: 99 @38484 has 46 MA's), (140, 38610),

Gene: SirHarley_82 Start: 58970, Stop: 59284, Start Num: 58
Candidate Starts for SirHarley_82:
(37, 58916), (Start: 58 @58970 has 22 MA's), (Start: 60 @58979 has 1 MA's), (76, 59024), (78, 59033), (101, 59075),

Gene: SketchMex_50 Start: 36207, Stop: 35971, Start Num: 97
Candidate Starts for SketchMex_50:
(86, 36225), (Start: 97 @36207 has 30 MA's), (149, 36060), (154, 36048), (157, 36045),

Gene: Skog_217 Start: 141536, Stop: 141781, Start Num: 87
Candidate Starts for Skog_217:
(Start: 87 @141536 has 1 MA's), (128, 141623), (129, 141641), (140, 141668), (146, 141683), (151, 141701),

Gene: Slarp_66 Start: 41921, Stop: 42139, Start Num: 108
Candidate Starts for Slarp_66:
(47, 41762), (51, 41771), (Start: 108 @41921 has 22 MA's), (144, 42038), (160, 42074), (166, 42089),

Gene: Slimphazie_64 Start: 42892, Stop: 43107, Start Num: 110
Candidate Starts for Slimphazie_64:
(75, 42814), (Start: 110 @42892 has 88 MA's), (137, 42979), (139, 42988),

Gene: SoSeph_58 Start: 41654, Stop: 41866, Start Num: 113
Candidate Starts for SoSeph_58:
(Start: 113 @41654 has 25 MA's), (137, 41732), (144, 41756), (145, 41759), (157, 41792), (167, 41813), (172, 41840),

Gene: Socotra_50 Start: 36029, Stop: 35796, Start Num: 97
Candidate Starts for Socotra_50:
(Start: 97 @36029 has 30 MA's), (129, 35945), (149, 35885),

Gene: Sparcetus_62 Start: 42346, Stop: 42537, Start Num: 120
Candidate Starts for Sparcetus_62:
(118, 42343), (Start: 120 @42346 has 22 MA's), (123, 42355), (145, 42436), (161, 42475),

Gene: Spock_63 Start: 42596, Stop: 42811, Start Num: 110
Candidate Starts for Spock_63:
(Start: 110 @42596 has 88 MA's), (137, 42683), (139, 42692),

Gene: Sporco_51 Start: 30638, Stop: 30829, Start Num: 120
Candidate Starts for Sporco_51:

(25, 30344), (27, 30362), (30, 30392), (32, 30410), (39, 30434), (52, 30467), (54, 30470), (61, 30497), (93, 30581), (Start: 120 @30638 has 22 MA's),

Gene: Sprinklemunch_60 Start: 41643, Stop: 41885, Start Num: 99
Candidate Starts for Sprinklemunch_60:
(Start: 99 @41643 has 46 MA's), (140, 41769),

Gene: SteamedHams_49 Start: 35394, Stop: 35161, Start Num: 97
Candidate Starts for SteamedHams_49:
(46, 35529), (49, 35520), (50, 35517), (66, 35469), (69, 35457), (Start: 97 @35394 has 30 MA's), (129, 35310), (149, 35250),

Gene: Stinson_65 Start: 43220, Stop: 43435, Start Num: 110
Candidate Starts for Stinson_65:
(Start: 110 @43220 has 88 MA's), (137, 43307), (139, 43316),

Gene: Stormageddon_175 Start: 112431, Stop: 112640, Start Num: 109
Candidate Starts for Stormageddon_175:
(107, 112428), (Start: 109 @112431 has 8 MA's), (164, 112590), (173, 112620),

Gene: Sulley_63 Start: 42656, Stop: 42871, Start Num: 110
Candidate Starts for Sulley_63:
(Start: 110 @42656 has 88 MA's), (137, 42743), (139, 42752),

Gene: Sunflower1121_69 Start: 42998, Stop: 43210, Start Num: 112
Candidate Starts for Sunflower1121_69:
(Start: 112 @42998 has 53 MA's), (137, 43079), (139, 43088),

Gene: SuperheroCarly_79 Start: 58560, Stop: 58877, Start Num: 58
Candidate Starts for SuperheroCarly_79:
(24, 58416), (40, 58515), (48, 58533), (Start: 58 @58560 has 22 MA's), (Start: 60 @58569 has 1 MA's), (76, 58614), (78, 58623), (101, 58665),

Gene: SushiChef_53 Start: 39718, Stop: 39960, Start Num: 99
Candidate Starts for SushiChef_53:
(Start: 99 @39718 has 46 MA's), (140, 39844),

Gene: SussRoloMann_72 Start: 47994, Stop: 48194, Start Num: 117
Candidate Starts for SussRoloMann_72:
(80, 47910), (83, 47916), (Start: 105 @47970 has 1 MA's), (111, 47982), (Start: 117 @47994 has 10 MA's),

Gene: SweatNTears_51 Start: 36160, Stop: 35927, Start Num: 97
Candidate Starts for SweatNTears_51:
(Start: 97 @36160 has 30 MA's), (129, 36076), (149, 36016),

Gene: Syra333_67 Start: 42711, Stop: 42923, Start Num: 112
Candidate Starts for Syra333_67:
(43, 42528), (Start: 112 @42711 has 53 MA's), (137, 42792), (139, 42801),

Gene: TClif_64 Start: 42546, Stop: 42758, Start Num: 112
Candidate Starts for TClif_64:
(Start: 112 @42546 has 53 MA's), (137, 42627), (139, 42636), (169, 42711),

Gene: TPA4_81 Start: 53987, Stop: 54289, Start Num: 71
Candidate Starts for TPA4_81:
(1, 53147), (17, 53672), (34, 53882), (Start: 62 @53957 has 3 MA's), (71, 53987),

Gene: Tachez_63 Start: 42440, Stop: 42655, Start Num: 110
Candidate Starts for Tachez_63:
(Start: 110 @42440 has 88 MA's), (137, 42527), (139, 42536),

Gene: TaiwanKao_66 Start: 43144, Stop: 43359, Start Num: 110
Candidate Starts for TaiwanKao_66:
(75, 43066), (Start: 110 @43144 has 88 MA's), (137, 43231), (139, 43240),

Gene: Taquito_65 Start: 42156, Stop: 42374, Start Num: 108
Candidate Starts for Taquito_65:
(47, 41997), (51, 42006), (Start: 108 @42156 has 22 MA's), (144, 42273), (160, 42309), (166, 42324),

Gene: ThankyouJordi_56 Start: 40759, Stop: 41001, Start Num: 99
Candidate Starts for ThankyouJordi_56:
(41, 40612), (47, 40627), (51, 40636), (72, 40702), (Start: 99 @40759 has 46 MA's), (140, 40885),

Gene: Thimann_54 Start: 37092, Stop: 37307, Start Num: 99
Candidate Starts for Thimann_54:
(Start: 99 @37092 has 46 MA's), (140, 37191),

Gene: Thoth_80 Start: 58624, Stop: 58938, Start Num: 58
Candidate Starts for Thoth_80:
(28, 58507), (37, 58570), (Start: 58 @58624 has 22 MA's), (Start: 60 @58633 has 1 MA's), (76, 58678), (78, 58687),

Gene: Thyatira_60 Start: 43612, Stop: 43824, Start Num: 113
Candidate Starts for Thyatira_60:
(Start: 113 @43612 has 25 MA's), (137, 43690), (144, 43714), (145, 43717), (157, 43750), (167, 43771), (172, 43798),

Gene: Tierra_67 Start: 43212, Stop: 43424, Start Num: 112
Candidate Starts for Tierra_67:
(3, 42546), (4, 42570), (7, 42645), (16, 42798), (43, 43029), (Start: 112 @43212 has 53 MA's), (137, 43293), (139, 43302),

Gene: Tiff81_46 Start: 28970, Stop: 29161, Start Num: 120
Candidate Starts for Tiff81_46:
(Start: 120 @28970 has 22 MA's),

Gene: Tigress9_68 Start: 43028, Stop: 43240, Start Num: 112
Candidate Starts for Tigress9_68:
(43, 42845), (Start: 112 @43028 has 53 MA's), (137, 43109), (139, 43118), (171, 43202),

Gene: TimTam_57 Start: 40719, Stop: 40961, Start Num: 99
Candidate Starts for TimTam_57:
(Start: 99 @40719 has 46 MA's), (140, 40845),

Gene: TingHuaYa_67 Start: 42388, Stop: 42606, Start Num: 110

Candidate Starts for TingHuaYa_67:
(55, 42253), (73, 42310), (Start: 110 @42388 has 88 MA's), (137, 42475), (139, 42484),

Gene: TiniBug_64 Start: 43324, Stop: 43539, Start Num: 110
Candidate Starts for TiniBug_64:
(Start: 110 @43324 has 88 MA's), (137, 43411), (139, 43420),

Gene: TinyMiny_62 Start: 42368, Stop: 42559, Start Num: 120
Candidate Starts for TinyMiny_62:
(Start: 120 @42368 has 22 MA's), (137, 42434), (143, 42452),

Gene: Tiri_64 Start: 42728, Stop: 42943, Start Num: 110
Candidate Starts for Tiri_64:
(Start: 110 @42728 has 88 MA's), (137, 42815), (139, 42824),

Gene: Tolls_50 Start: 35802, Stop: 35551, Start Num: 97
Candidate Starts for Tolls_50:
(Start: 97 @35802 has 30 MA's), (Start: 100 @35796 has 3 MA's), (140, 35673), (154, 35628),

Gene: Topper_63 Start: 42595, Stop: 42810, Start Num: 110
Candidate Starts for Topper_63:
(Start: 110 @42595 has 88 MA's), (137, 42682), (139, 42691),

Gene: TreyKay_65 Start: 43082, Stop: 43297, Start Num: 110
Candidate Starts for TreyKay_65:
(75, 43004), (Start: 110 @43082 has 88 MA's), (137, 43169), (139, 43178),

Gene: TribleTrouble_64 Start: 43429, Stop: 43641, Start Num: 112
Candidate Starts for TribleTrouble_64:
(14, 43003), (43, 43246), (Start: 112 @43429 has 53 MA's), (139, 43519),

Gene: Trogglehumper_5 Start: 2263, Stop: 2457, Start Num: 119
Candidate Starts for Trogglehumper_5:
(Start: 119 @2263 has 1 MA's), (130, 2314), (136, 2332), (143, 2356),

Gene: Troje_52 Start: 36545, Stop: 36309, Start Num: 97
Candidate Starts for Troje_52:
(86, 36563), (Start: 97 @36545 has 30 MA's), (149, 36398), (154, 36386), (157, 36383),

Gene: Troll4_79 Start: 58537, Stop: 58851, Start Num: 58
Candidate Starts for Troll4_79:
(24, 58393), (40, 58492), (48, 58510), (Start: 58 @58537 has 22 MA's), (Start: 60 @58546 has 1 MA's),
(76, 58591), (78, 58600), (101, 58642),

Gene: TruffulaTree_64 Start: 42888, Stop: 43103, Start Num: 110
Candidate Starts for TruffulaTree_64:
(75, 42810), (Start: 110 @42888 has 88 MA's), (137, 42975), (139, 42984),

Gene: Tuti_49 Start: 36960, Stop: 37175, Start Num: 99
Candidate Starts for Tuti_49:
(Start: 99 @36960 has 46 MA's), (140, 37059),

Gene: Twinkle_54 Start: 41149, Stop: 41391, Start Num: 99

Candidate Starts for Twinkle_54:
(Start: 99 @41149 has 46 MA's), (140, 41275),

Gene: Twitch_63 Start: 42597, Stop: 42812, Start Num: 110
Candidate Starts for Twitch_63:
(Start: 110 @42597 has 88 MA's), (137, 42684), (139, 42693),

Gene: Typha_89 Start: 58872, Stop: 59093, Start Num: 109
Candidate Starts for Typha_89:
(Start: 109 @58872 has 8 MA's), (126, 58908), (129, 58938),

Gene: Typhonomachy_48 Start: 35740, Stop: 35507, Start Num: 97
Candidate Starts for Typhonomachy_48:
(Start: 97 @35740 has 30 MA's), (129, 35656), (149, 35596),

Gene: Unicorn_65 Start: 42337, Stop: 42549, Start Num: 112
Candidate Starts for Unicorn_65:
(3, 41674), (4, 41698), (7, 41770), (16, 41923), (43, 42154), (Start: 112 @42337 has 53 MA's), (137, 42418), (139, 42427),

Gene: Urkel_64 Start: 43328, Stop: 43543, Start Num: 110
Candidate Starts for Urkel_64:
(Start: 110 @43328 has 88 MA's), (137, 43415), (139, 43424),

Gene: Validus_68 Start: 43466, Stop: 43675, Start Num: 112
Candidate Starts for Validus_68:
(Start: 112 @43466 has 53 MA's), (137, 43547), (139, 43556), (169, 43631),

Gene: VanLee_109 Start: 57771, Stop: 57962, Start Num: 102
Candidate Starts for VanLee_109:
(Start: 102 @57771 has 2 MA's), (170, 57936),

Gene: Veliki_65 Start: 42859, Stop: 43077, Start Num: 110
Candidate Starts for Veliki_65:
(73, 42781), (Start: 110 @42859 has 88 MA's), (137, 42946), (139, 42955),

Gene: Visconti_81 Start: 58585, Stop: 58899, Start Num: 58
Candidate Starts for Visconti_81:
(28, 58468), (37, 58531), (Start: 58 @58585 has 22 MA's), (Start: 60 @58594 has 1 MA's), (76, 58639), (78, 58648), (101, 58690),

Gene: ViviJ_56 Start: 39373, Stop: 39585, Start Num: 113
Candidate Starts for ViviJ_56:
(80, 39298), (84, 39307), (88, 39319), (Start: 113 @39373 has 25 MA's), (123, 39391), (137, 39451), (144, 39475), (145, 39478), (153, 39505), (167, 39532), (174, 39580),

Gene: Vopal_52 Start: 33686, Stop: 33877, Start Num: 120
Candidate Starts for Vopal_52:
(Start: 120 @33686 has 22 MA's),

Gene: WaldoWhy_82 Start: 58548, Stop: 58862, Start Num: 58
Candidate Starts for WaldoWhy_82:

(28, 58431), (37, 58494), (Start: 58 @58548 has 22 MA's), (Start: 60 @58557 has 1 MA's), (76, 58602), (78, 58611),

Gene: Waterfoul_59 Start: 41716, Stop: 41928, Start Num: 113
Candidate Starts for Waterfoul_59:
(Start: 113 @41716 has 25 MA's), (137, 41794), (144, 41818), (145, 41821), (157, 41854), (167, 41875), (172, 41902),

Gene: WelcomeAyanna_56 Start: 40906, Stop: 41148, Start Num: 99
Candidate Starts for WelcomeAyanna_56:
(41, 40759), (47, 40774), (51, 40783), (72, 40849), (Start: 99 @40906 has 46 MA's), (140, 41032),

Gene: WheatThin_71 Start: 47982, Stop: 48182, Start Num: 117
Candidate Starts for WheatThin_71:
(80, 47898), (83, 47904), (Start: 105 @47958 has 1 MA's), (111, 47970), (Start: 117 @47982 has 10 MA's),

Gene: Wintermute_66 Start: 42151, Stop: 42369, Start Num: 108
Candidate Starts for Wintermute_66:
(47, 41992), (51, 42001), (Start: 108 @42151 has 22 MA's), (144, 42268), (160, 42304), (166, 42319),

Gene: Ximenita_69 Start: 43037, Stop: 43249, Start Num: 112
Candidate Starts for Ximenita_69:
(43, 42854), (Start: 112 @43037 has 53 MA's), (137, 43118), (139, 43127),

Gene: Y10_64 Start: 42079, Stop: 42297, Start Num: 108
Candidate Starts for Y10_64:
(47, 41920), (51, 41929), (Start: 108 @42079 has 22 MA's), (144, 42196), (160, 42232), (166, 42247),

Gene: Y2_64 Start: 42079, Stop: 42297, Start Num: 108
Candidate Starts for Y2_64:
(47, 41920), (51, 41929), (Start: 108 @42079 has 22 MA's), (144, 42196), (160, 42232), (166, 42247),

Gene: Yakult_51 Start: 37137, Stop: 36952, Start Num: 125
Candidate Starts for Yakult_51:
(95, 37200), (Start: 115 @37158 has 8 MA's), (Start: 125 @37137 has 1 MA's), (132, 37098), (145, 37056), (152, 37032), (169, 36996),

Gene: Yarn_46 Start: 35565, Stop: 35314, Start Num: 97
Candidate Starts for Yarn_46:
(Start: 97 @35565 has 30 MA's), (Start: 100 @35559 has 3 MA's), (140, 35436), (154, 35391),

Gene: YasnayaPolyana_65 Start: 42004, Stop: 42222, Start Num: 108
Candidate Starts for YasnayaPolyana_65:
(47, 41845), (51, 41854), (Start: 108 @42004 has 22 MA's), (144, 42121), (160, 42157), (166, 42172),

Gene: Yeezy_53 Start: 37368, Stop: 37610, Start Num: 99
Candidate Starts for Yeezy_53:
(Start: 99 @37368 has 46 MA's), (140, 37494),

Gene: YoungHarleezy_50 Start: 31023, Stop: 31214, Start Num: 120
Candidate Starts for YoungHarleezy_50:
(Start: 120 @31023 has 22 MA's),

Gene: YoureAdopted_63 Start: 43008, Stop: 43223, Start Num: 110
Candidate Starts for YoureAdopted_63:
(75, 42930), (Start: 110 @43008 has 88 MA's), (137, 43095), (139, 43104),

Gene: Yummy_52 Start: 36254, Stop: 36018, Start Num: 97
Candidate Starts for Yummy_52:
(86, 36272), (Start: 97 @36254 has 30 MA's), (149, 36107), (154, 36095), (157, 36092),

Gene: Yunkel11_68 Start: 42904, Stop: 43122, Start Num: 110
Candidate Starts for Yunkel11_68:
(73, 42826), (Start: 110 @42904 has 88 MA's), (137, 42991), (139, 43000),

Gene: Zabiza_58 Start: 38745, Stop: 38960, Start Num: 110
Candidate Starts for Zabiza_58:
(Start: 110 @38745 has 88 MA's), (137, 38832), (139, 38841),

Gene: Zavala_66 Start: 43164, Stop: 43382, Start Num: 110
Candidate Starts for Zavala_66:
(73, 43086), (Start: 110 @43164 has 88 MA's), (137, 43251), (139, 43260),