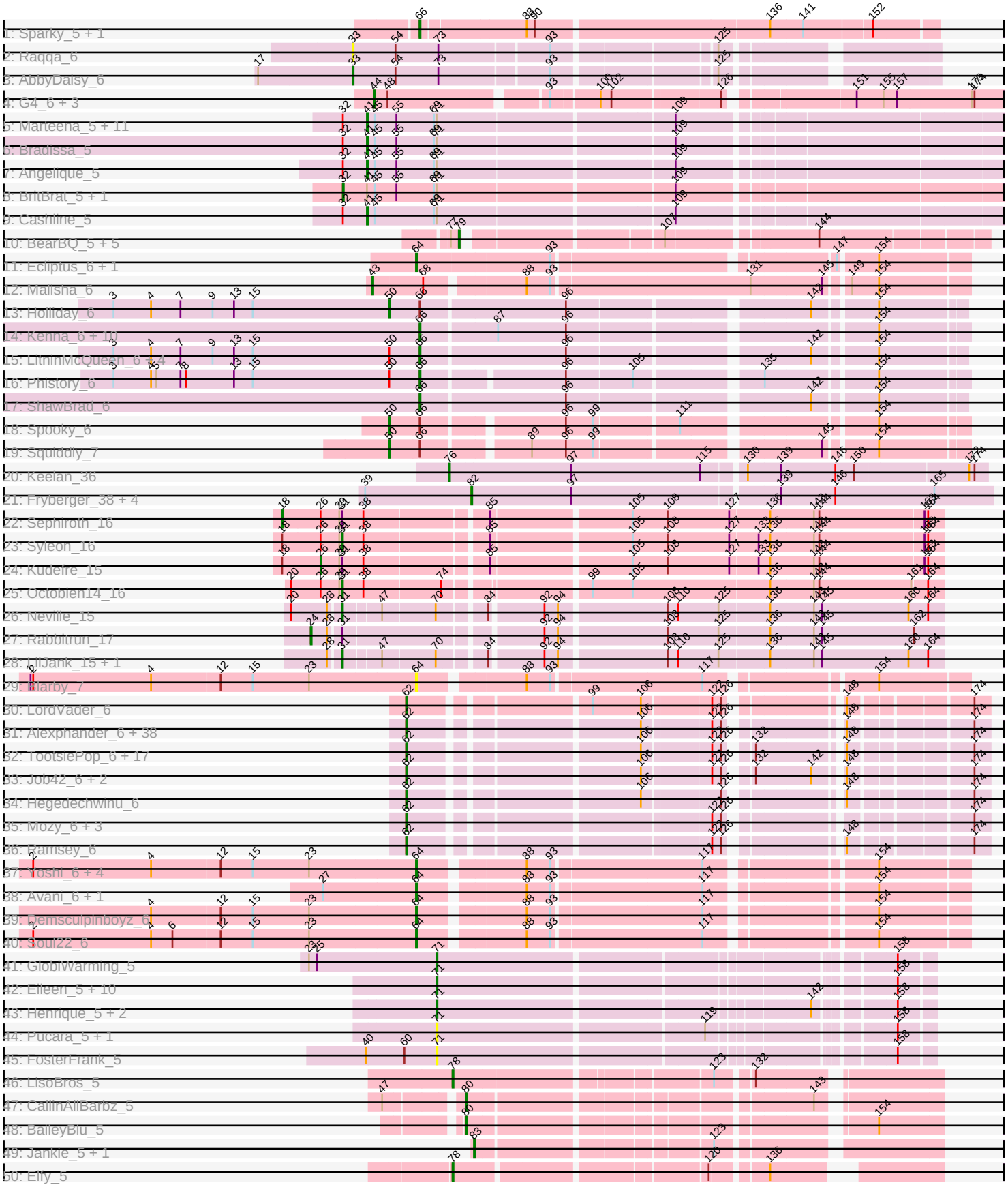
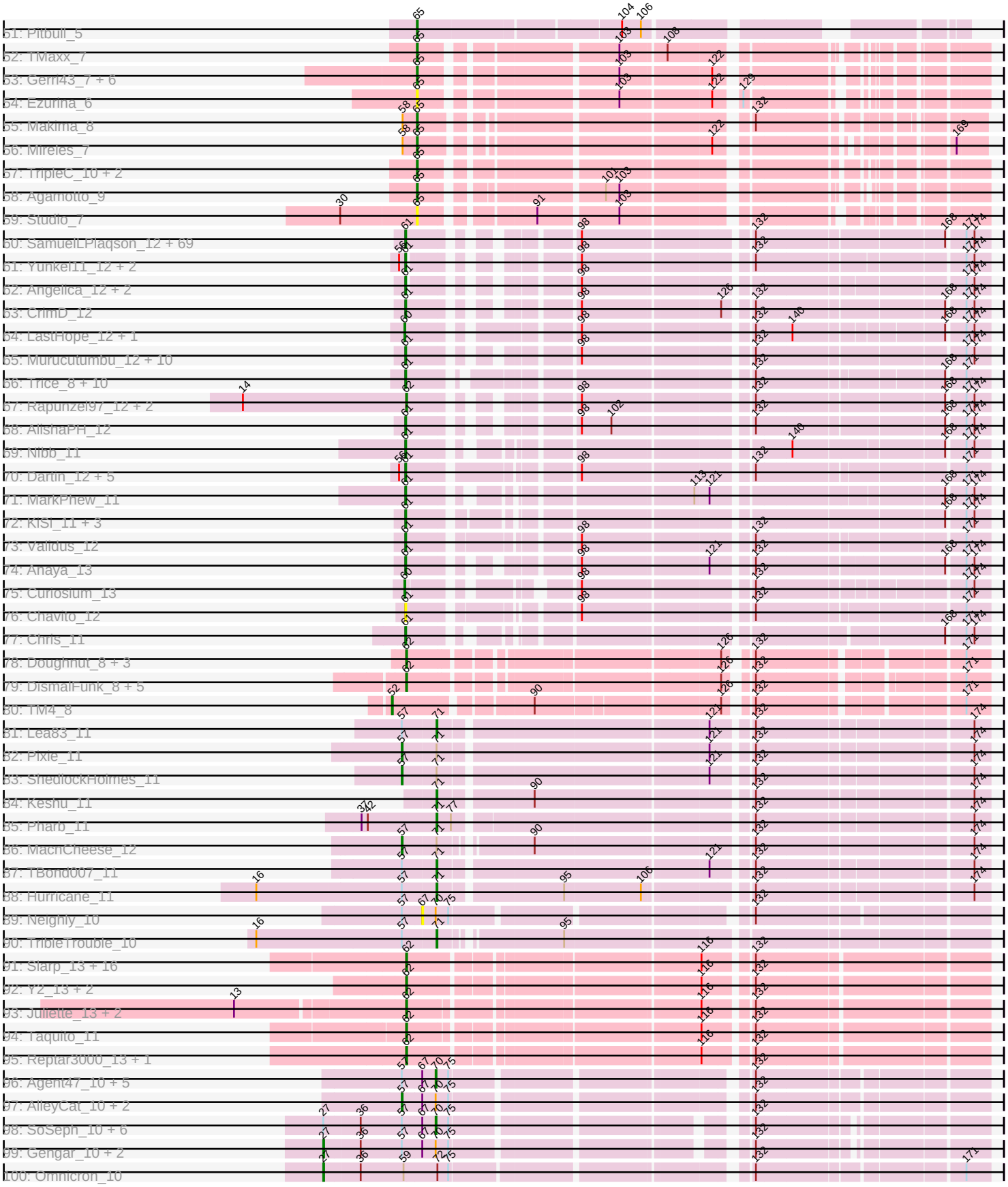
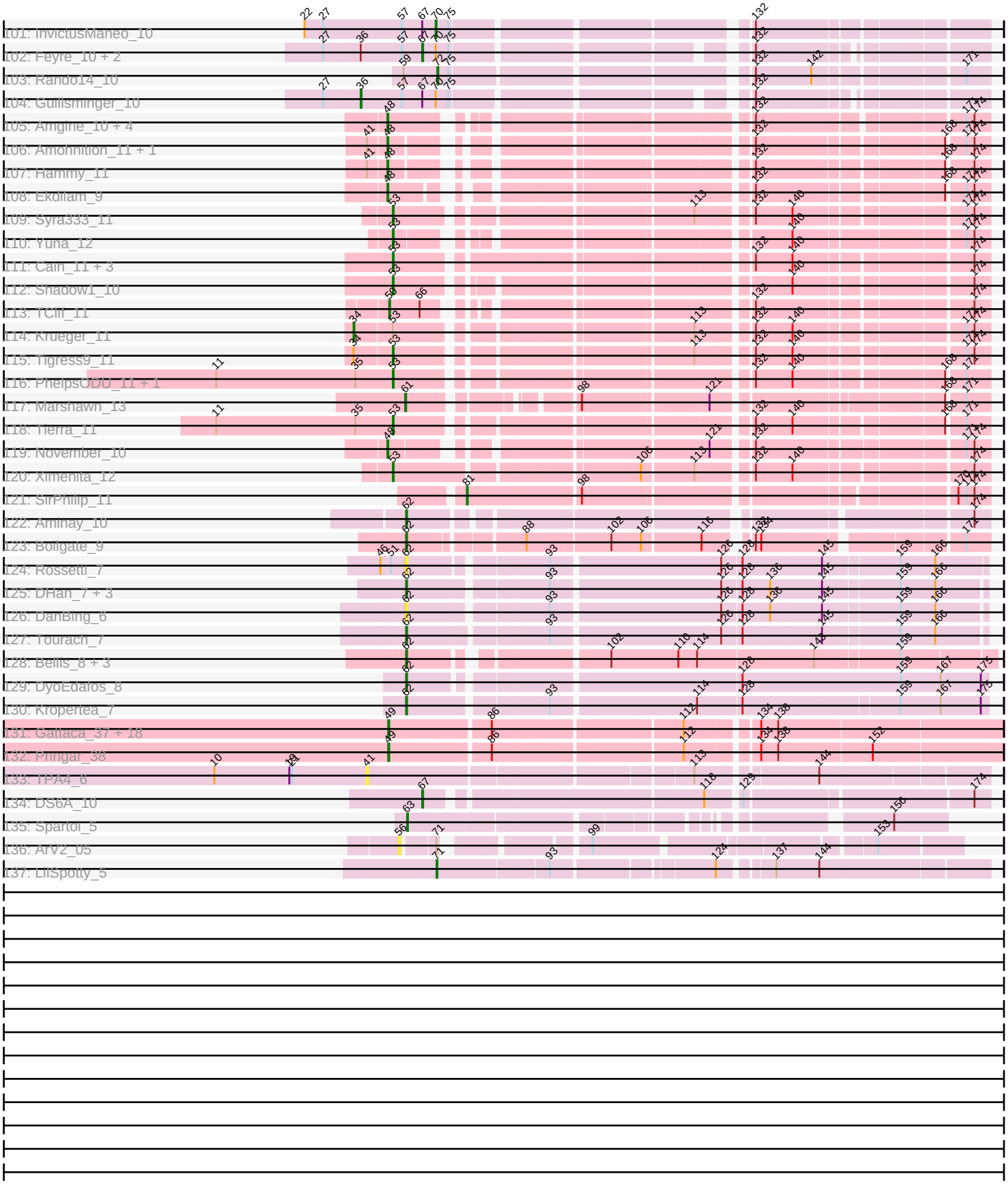
Pham 347097


1: Sparky_5 + 1
2: Raqqa_6
3: AbbyDaisy_6
4: G4_6 + 3
5: Marteena_5 + 11
6: Bradissa_5
7: Angelique_5
8: BritBrat_5 + 1
9: Cashline_5
10: BearBQ_5 + 5
11: Ecliptus_6 + 1
12: Malisha_6
13: Holliday_6
14: Kenna_6 + 10
15: LithinMcQueen_6 + 4
16: Phistory_6
17: ShawBrad_6
18: Spooky_6
19: Squiddly_7
20: Keelan_36
21: Fryberger_38 + 4
22: Sephiroth_16
23: Syleon_16
24: Kudeire_15
25: Octobien14_16
26: Neville_15
27: Rabbitrun_17
28: LilDank_15 + 1
29: Blarby_7
30: LordVader_6
31: Alexphander_6 + 38
32: TootsiePop_6 + 17
33: Job42_6 + 2
34: Hegedechwinu_6
35: Mozy_6 + 3
36: Ramsey_6
37: Yoshi_6 + 4
38: Avani_6 + 1
39: Demsculpinboyz_6
40: Soul22_6
41: GlobalWarming_5
42: Eileen_5 + 10
43: Henrique_5 + 2
44: Pucara_5 + 1
45: FosterFrank_5
46: LisoBros_5
47: CallmAllBarbz_5
48: BaileyBlu_5
49: Jankie_5 + 1
50: Elly_5

Pham 347097


51: Pitbull_5
52: TMaxx_7
53: Germ43_7 + 6
54: Ezurina_6
55: Makima_8
56: Mireles_7
57: TripleC_10 + 2
58: Agamotto_9
59: Studio_7
60: SamuelLPlaqson_12 + 69
61: Yunkel11_12 + 2
62: Angelica_12 + 2
63: CrimD_12
64: LastHope_12 + 1
65: Mururutumbu_12 + 10
66: Trice_8 + 10
67: Rapunzel97_12 + 2
68: AlishaPH_12
69: Nibb_11
70: Dartin_12 + 5
71: MarkPhew_11
72: KISI_11 + 3
73: Validus_12
74: Anaya_13
75: Curiosium_13
76: Chavito_12
77: Chris_11
78: Doughnut_8 + 3
79: DismalFunk_8 + 5
80: TM4_8
81: Lea83_11
82: Pixie_11
83: SherlockHolmes_11
84: Keshu_11
85: Pharb_11
86: MachCheese_12
87: TBond007_11
88: Hurricane_11
89: Neighly_10
90: TribleTrouble_10
91: Slarp_13 + 16
92: Y2_13 + 2
93: Juliette_13 + 2
94: Taquito_11
95: Reptar3000_13 + 1
96: Agent47_10 + 5
97: AlleyCat_10 + 2
98: SoSeph_10 + 6
99: Gengar_10 + 2
100: Omnicron_10

Pham 347097


I01: InvictusManeo_10
I02: Feyre_10 + 2
I03: Rando14_10
I04: Gullsminger_10
I05: Amgine_10 + 4
I06: Amohnition_11 + 1
I07: Hammy_11
I08: Ekuliam_9
I09: Syra333_11
I10: Yuna_12
I11: Cain_11 + 3
I12: Shadow1_10
I13: TCliff_11
I14: Krueger_11
I15: Tigress9_11
I16: PhelpsODO_11 + 1
I17: Marshawn_13
I18: Tierra_11
I19: November_10
I20: Ximenita_12
I21: SirPhilip_11
I22: Aminay_10
I23: Boilgate_9
I24: Rossetti_7
I25: DHan_7 + 3
I26: DanBing_6
I27: Tourach_7
I28: Bellis_8 + 3
I29: DyoEdafos_8
I30: Kropertea_7
I31: Gattaca_37 + 18
I32: Pringar_38
I33: TPA4_6
I34: DS6A_10
I35: Spartoi_5
I36: ArV2_05
I37: LilSpotty_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 347097 Report

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

Pham number 347097 has 448 members, 36 are drafts.

Phages represented in each track:
• Track 1 : Sparky_5, Farewell_5
• Track 2 : Raqqa_6
• Track 3 : AbbyDaisy_6
• Track 4 : G4_6, Doucette_6, E6_7, B22_6
• Track 5 : Marteena_5, EnalisNailo_5, Wrigley_5, Pytheas_5, Posh_5, Jablanski_5, Floral_5, EMsquaredA_5, Confidence_5, BeeGee_5, LonelyBoi_5, Lilas_5
• Track 6 : Bradissa_5
• Track 7 : Angelique_5
• Track 8 : BritBrat_5, Pollux_5
• Track 9 : Cashline_5
• Track 10 : BearBQ_5, MortyNRick_5, Apricot_5, Birdsong_5, Kuwabara_5, Crater_5
• Track 11 : Ecliptus_6, ODay_6
• Track 12 : Malisha_6
• Track 13 : Holliday_6
• Track 14 : Kenna_6, Asapag_6, Getalong_6, BotCity_6, Periwinkle_6, Whitney_6, Lutum_6, Leroy_6, Horus_6, BENtherdunthat_6, Frickyeah_6
• Track 15 : LitninMcQueen_6, Phabuloso_6, Kamaru_6, Budski_6, CheeseTouch_6
• Track 16 : Phistory_6
• Track 17 : ShawBrad_6
• Track 18 : Spooky_6
• Track 19 : Squiddly_7
• Track 20 : Keelan_36
• Track 21 : Fryberger_38, Ziko_41, Volt_40, Ronaldo_41, Guey18_43
• Track 22 : Sephiroth_16
• Track 23 : Syleon_16
• Track 24 : Kudefre_15
• Track 25 : Octobien14_16
• Track 26 : Neville_15
• Track 27 : Rabbitrun_17
• Track 28 : LilJank_15, Trax_15
• Track 29 : Blarby_7
• Track 30 : LordVader_6
• Track 31 : Alexphander_6, Leozinho_6, Brookers_6, Plumbus_6, Bobi_6, Kingsley_6, MulchExplorer_6, Cerasum_6, Beanstalk_6, UncleRicky_6, Kimberlium_6, Drago_6, Frankie_6, SimranZ1_6, LittleShirley_6, OwlsT2W_6, Enby_6, BuzzLyseyear_6, Squirty_6, Sarma624_6, DosHalletts_6, Brushbloom_6, Juice456_6, Boomer_6, Beakin_6, Lucia_6, Oksu_6, Velveteen_6, BigPhil_6,

Tchotchke_6, Lorde_6, RockyHorror_6, Seagreen_6, Doomslug_6, JalFarm20_6, Flathead_6, DirtMcgirt_6, Stap_6, Tootsieroll_6
• Track 32 : TootsiePop_6, Spikelee_6, Aloeri_6, Slim_6, DocMcStuffins_6, Peridot_6, Awesomesauce_6, Piper2020_6, Misha28_6, Totinger_6, Emmaloid_6, Starcevich_6, DaWorst_6, Coco12_6, Rialto_6, ChickenDinner_6, Pollywog_6, Mova_6
• Track 33 : Job42_6, Marker_6, Madiba_6
• Track 34 : Hegedechwinu_6
• Track 35 : Mozy_6, Girafales_6, Cornucopia_6, Quico_6
• Track 36 : Ramsey_6
• Track 37 : Yoshi_6, Zapner_7, Ogopogo_7, Jabbawokkie_7, Che9d_6
• Track 38 : Avani_6, SilverChicken_6
• Track 39 : Demsculpinboyz_6
• Track 40 : Soul22_6
• Track 41 : GlobiWarming_5
• Track 42 : Eileen_5, Constance_5, LilyBell_5, NikkiHotWheels_5, ChuckDuck_5, KayMoney_5, Judy_5, PeggyLeg03_5, Peas_5, NidoQ_5, LittleRon_5
• Track 43 : Henrique_5, Karkharias_5, Bridgette_5
• Track 44 : Pucara_5, HotPotato_5
• Track 45 : FosterFrank_5
• Track 46 : LisoBros_5
• Track 47 : CallinAllBarbz_5
• Track 48 : BaileyBlu_5
• Track 49 : Jankie_5, GrimEater_5
• Track 50 : Elfy_5
• Track 51 : Pitbull_5
• Track 52 : TMaxx_7
• Track 53 : Gerri43_7, ChipsNGuac_7, CardboardBox_7, Neuvillette_7, Roberts_7, AnnabelLee_7, ChamoyPickle_7
• Track 54 : Ezurina_6
• Track 55 : Makima_8
• Track 56 : Mireles_7
• Track 57 : TripleC_10, LastNadiia_10, Audell_10
• Track 58 : Agamotto_9
• Track 59 : Studio_7
• Track 60 : SamuelLPlaqson_12, Belladonna_12, CheetoDust_12, Ganymede_12, Rosmarinus_12, Peel_12, CREW_12, Inky_12, BaghaKamala_12, Zavala_12, Clipper_12, Capricorn_12, TreyKay_12, Atiba_12, CallaLilly_12, Lunahalos_12, Adephagia_12, Mynx_12, Beezoo_12, Durfee_12, Prithvi_12, Ramen_12, Jarvi_12, BGlluviae_12, Geraldini_12, Megsy_12, Piatt_12, Boiiii_12, Hyperbowlee_12, Zabiza_12, DartGoblin_12, Pokerus_11, YoureAdopted_11, Spock_12, Twitch_12, QuincyRose_11, Emerson_12, Llorens_12, BarrelRoll_12, CaseJules_12, Tiri_12, Anma_12, Asayake_12, MacKat_12, Padfoot_12, Apocalypse_12, Topper_12, Bella96_12, ActinUp_12, Urkel_12, Joy99_12, Padpat_12, JAWS_12, Tachez_12, Blizzard_12, Adonis_12, BEEST_12, HedwigODU_12, Homura_12, MeaningOfLife_12, TaiwanKao_12, ShiaSurprise_12, TruffulaTree_12, TiniBug_12, DrHayes_12, Lokum_12, Dalmuri_12, LindNT_12, Jeckyll_12, Veliki_12
• Track 61 : Yunkel11_12, Efra2_12, Guanica15_12
• Track 62 : Angelica_12, Sulley_12, Deby_12
• Track 63 : CrimD_12
• Track 64 : LastHope_12, TingHuaYa_12
• Track 65 : Murucutumbu_12, Illumine_12, Pisa4_11, LaterM_12, Kheparia_13, Pisa1_11, Devera_12, Stinson_12, Dole_12, Bern_12, Ageofdapage_12

• Track 66 : Trice_8, Amelie_8, Enkosi_8, SgtBeansprout_8, Teejan_8, Torres_8, Nutello_8, Nikao_8, Mdavu_8, LilPharaoh_8, Biglebops_8
• Track 67 : Rapunzel97_12, Slimphazie_12, Jayhawk_12
• Track 68 : AlishaPH_12
• Track 69 : Nibb_11
• Track 70 : Dartin_12, Peanam_12, Shaobing_12, Niklas_12, Richo_12, McMater_12
• Track 71 : MarkPhew_11
• Track 72 : KiSi_11, Scarlett_11, Oscar_11, LeMond_11
• Track 73 : Validus_12
• Track 74 : Anaya_13
• Track 75 : Curiosium_13
• Track 76 : Chavito_12
• Track 77 : Chris_11
• Track 78 : Doughnut_8, ZoeJ_8, BoostSeason_8, Mufasa_8
• Track 79 : DismalFunk_8, Findley_8, Milly_8, Strobilo_8, Marcoliusprime_8, DismalStressor_8
• Track 80 : TM4_8
• Track 81 : Lea83_11
• Track 82 : Pixie_11
• Track 83 : ShedlockHolmes_11
• Track 84 : Keshu_11
• Track 85 : Pharb_11
• Track 86 : MacnCheese_12
• Track 87 : TBond007_11
• Track 88 : Hurricane_11
• Track 89 : Neighly_10
• Track 90 : TribleTrouble_10
• Track 91 : Slarp_13, OmniCritical_13, Cheetobro_13, Lebo14_13, Fionnbharth_13, Kraw_13, DanSyl44_13, Wintermute_13, Nolwazi_13, Mitti_13, Patt_13, MissDaisy_13, YasnayaPolyana_13, Chancellor_13, Malthus_13, Qhanda_13, SamScheppers_11
• Track 92 : Y2_13, Y10_13, JF1_13
• Track 93 : Juliette_13, Eponine_13, Ruthiejr_12
• Track 94 : Taquito_11
• Track 95 : Reptar3000_13, Bobquesha_13
• Track 96 : Agent47_10, LilDirt_9, ViviJ_9, Psycho_10, Edugator_9, Dadosky_10
• Track 97 : AlleyCat_10, Larva_10, Kratio_9
• Track 98 : SoSeph_10, Miryou_10, DoubleChamp_10, Heftyboy_10, Waterfoul_10, Thyatira_10, BananenDer11_10
• Track 99 : Gengar_10, Collard_10, Leston_10
• Track 100 : Omnicron_10
• Track 101 : InvictusManeo_10
• Track 102 : Feyre_10, OkiRoe_10, Paola_10
• Track 103 : Rando14_10
• Track 104 : Guillsminger_10
• Track 105 : Amgine_10, Applecrisp_10, Fefferhead_11, Lavahound_10, Ellie_9
• Track 106 : Amohnition_11, DarthP_11
• Track 107 : Hammy_11
• Track 108 : Ekdilam_9
• Track 109 : Syra333_11
• Track 110 : Yuna_12
• Track 111 : Cain_11, Sunflower1121_10, Phrank_11, Bryler_11
• Track 112 : Shadow1_10

• Track 113 : TClif_11
• Track 114 : Krueger_11
• Track 115 : Tigress9_11
• Track 116 : PhelpsODU_11, Unicorn_11
• Track 117 : Marshawn_13
• Track 118 : Tierra_11
• Track 119 : November_10
• Track 120 : Ximenita_12
• Track 121 : SirPhilip_11
• Track 122 : Aminay_10
• Track 123 : Boilgate_9
• Track 124 : Rossetti_7
• Track 125 : DHan_7, Claus_7, Baoshan_6, ZhongYanYuan_6
• Track 126 : DanBing_6
• Track 127 : Tourach_7
• Track 128 : Bellis_8, Moostard_8, Samty_8, Finnry_8
• Track 129 : DyoEdafos_8
• Track 130 : Kropertea_7
• Track 131 : Gattaca_37, RedRaider77_38, Raela_38, Caprice_37, Blackbeetle_38, Corazon_36, LittleLaf_38, JoieB_39, Marvin_36, VasuNzinga_38, FeliMaine_40, Poise_38, Huphlepuff_40, GoongGoong_37, Tesla_37, Beelzebub_42, Lilbit_37, MosMoris_36, Clarkson_39
• Track 132 : Pringar_38
• Track 133 : TPA4_6
• Track 134 : DS6A_10
• Track 135 : Spartoi_5
• Track 136 : ArV2_05
• Track 137 : LilSpotty_5

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

The start number called the most often in the published annotations is 62, it was called in 112 of the 412 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Alexphander_6, Aloeri_6, Aminay_10, Awesomesauce_6, Baoshan_6, Beakin_6, Beanstalk_6, Bellis_8, BigPhil_6, Bobi_6, Bobquesha_13, Boilgate_9, Boomer_6, BoostSeason_8, Brookers_6, Brushbloom_6, BuzzLyseyear_6, Cerasum_6, Chancellor_13, Cheetobro_13, ChickenDinner_6, Claus_7, Coco12_6, Cornucopia_6, DHan_7, DaWorst_6, DanBing_6, DanSyl44_13, DirtMcgirt_6, DismalFunk_8, DismalStressor_8, DocMcStuffins_6, Doomslug_6, DosHalletts_6, Doughnut_8, Drago_6, DyoEdafos_8, Emmaloid_6, Enby_6, Eponine_13, Findley_8, Finnry_8, Fionnbharth_13, Flathead_6, Frankie_6, Girafales_6, Hegedechwinu_6, JF1_13, JalFarm20_6, Jayhawk_12, Job42_6, Juice456_6, Juliette_13, Kimberlium_6, Kingsley_6, Kraw_13, Kropertea_7, Lebo14_13, Leozinho_6, LittleShirley_6, LordVader_6, Lorde_6, Lucia_6, Madiba_6, Malthus_13, Marcoliusprime_8, Marker_6, Milly_8, Misha28_6, MissDaisy_13, Mitti_13, Moostard_8, Mova_6, Mozy_6, Mufasa_8, MulchExplorer_6, Nolwazi_13, Oksu_6, OmniCritical_13, OwlsT2W_6, Patt_13, Peridot_6, Piper2020_6, Plumbus_6, Pollywog_6, Qhanda_13, Quico_6, Ramsey_6, Rapunzel97_12, Reptar3000_13, Rialto_6, RockyHorror_6,

Rossetti_7, Ruthiejr_12, SamScheppers_11, Samty_8, Sarma624_6, Seagreen_6, SimranZ1_6, Slarp_13, Slim_6, Slimphazie_12, Spikelee_6, Squirty_6, Stap_6, Starcevich_6, Strobilo_8, Taquito_11, Tchotchke_6, TootsiePop_6, Tootsieroll_6, Totinger_6, Tourach_7, UncleRicky_6, Velveteen_6, Wintermute_13, Y10_13, Y2_13, YasnayaPolyana_13, ZhongYanYuan_6, ZoeJ_8,

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

Genes that do not have the "Most Annotated" start:
• AbbyDaisy_6, ActinUp_12, Adephagia_12, Adonis_12, Agamotto_9, Agent47_10, Ageofdapage_12, AlishaPH_12, AlleyCat_10, Amelie_8, Amgine_10, Amohnition_11, Anaya_13, Angelica_12, Angelique_5, Anma_12, AnnabelLee_7, Apocalypse_12, Applecrisp_10, Apricot_5, ArV2_05, Asapag_6, Asayake_12, Atiba_12, Audell_10, Avani_6, B22_6, BEEST_12, BENtherdunthat_6, BGlluviae_12, BaghaKamala_12, BaileyBlu_5, BananenDer11_10, BarrelRoll_12, BearBQ_5, BeeGee_5, Beelzebub_42, Beezoo_12, Bella96_12, Belladonna_12, Bern_12, Biglebops_8, Birdsong_5, Blackbeetle_38, Blarby_7, Blizzard_12, Boiiii_12, BotCity_6, Bradissa_5, Bridgette_5, BritBrat_5, Bryler_11, Budski_6, CREW_12, Cain_11, CallaLilly_12, CallinAllBarbz_5, Caprice_37, Capricorn_12, CardboardBox_7, CaseJules_12, Cashline_5, ChamoyPickle_7, Chavito_12, Che9d_6, CheeseTouch_6, CheetoDust_12, ChipsNGuac_7, Chris_11, ChuckDuck_5, Clarkson_39, Clipper_12, Collard_10, Confidence_5, Constance_5, Corazon_36, Crater_5, CrimD_12, Curiosium_13, DS6A_10, Dadosky_10, Dalmuri_12, DartGoblin_12, DarthP_11, Dartin_12, Deby_12, Demsculpinboyz_6, Devera_12, Dole_12, DoubleChamp_10, Doucette_6, DrHayes_12, Durfee_12, E6_7, EMsquaredA_5, Ecliptus_6, Edugator_9, Efra2_12, Eileen_5, Ekdilam_9, Elfy_5, Ellie_9, Emerson_12, EnalisNailo_5, Enkosi_8, Ezurina_6, Farewell_5, Fefferhead_11, FeliMaine_40, Feyre_10, Floral_5, FosterFrank_5, Frickyeah_6, Fryberger_38, G4_6, Ganymede_12, Gattaca_37, Gengar_10, Geraldini_12, Gerri43_7, Getalong_6, GlobiWarming_5, GoongGoong_37, GrimEater_5, Guanica15_12, Guey18_43, Guillsminger_10, Hammy_11, HedwigODU_12, Heftyboy_10, Henrique_5, Holliday_6, Homura_12, Horus_6, HotPotato_5, Huphlepuff_40, Hurricane_11, Hyperbowlee_12, Illumine_12, Inky_12, InvictusManeo_10, JAWS_12, Jabbawokkie_7, Jablanski_5, Jankie_5, Jarvi_12, Jeckyll_12, JoieB_39, Joy99_12, Judy_5, Kamaru_6, Karkharias_5, KayMoney_5, Keelan_36, Kenna_6, Keshu_11, Kheparia_13, KiSi_11, Kratio_9, Krueger_11, Kudefre_15, Kuwabara_5, Larva_10, LastHope_12, LastNadiia_10, LaterM_12, Lavahound_10, LeMond_11, Lea83_11, Leroy_6, Leston_10, LilDirt_9, LilJank_15, LilPharaoh_8, LilSpotty_5, Lilas_5, Lilbit_37, LilyBell_5, LindNT_12, LisoBros_5, LitninMcQueen_6, LittleLaf_38, LittleRon_5, Llorens_12, Lokum_12, LonelyBoi_5, Lunahalos_12, Lutum_6, MacKat_12, MacnCheese_12, Makima_8, Malisha_6, MarkPhew_11, Marshawn_13, Marteena_5, Marvin_36, McMater_12, Mdavu_8, MeaningOfLife_12, Megsy_12, Mireles_7, Miryou_10, MortyNRick_5, MosMoris_36, Murucutumbu_12, Mynx_12, Neighly_10, Neuvillette_7, Neville_15, Nibb_11, NidoQ_5, Nikao_8, NikkiHotWheels_5, Niklas_12, November_10, Nutello_8, ODay_6, Octobien14_16, Ogopogo_7, OkiRoe_10, Omnicron_10, Oscar_11, Padfoot_12, Padpat_12, Paola_10, Peanam_12, Peas_5, Peel_12, PeggyLeg03_5, Periwinkle_6, Phabuloso_6, Pharb_11, PhelpsODU_11, Phistory_6, Phrank_11, Piatt_12, Pisa1_11, Pisa4_11, Pitbull_5, Pixie_11, Poise_38, Pokerus_11, Pollux_5, Posh_5, Pringar_38, Prithvi_12, Psycho_10, Pucara_5, Pytheas_5, QuincyRose_11, Rabbitrun_17, Raela_38, Ramen_12, Rando14_10, Raqqa_6, RedRaider77_38, Richo_12, Roberts_7, Ronaldo_41, Rosmarinus_12, SamuelLPlaqson_12, Scarlett_11, Sephiroth_16, SgtBeansprout_8, Shadow1_10, Shaobing_12,

ShawBrad_6, ShedlockHolmes_11, ShiaSurprise_12, SilverChicken_6, SirPhilip_11, SoSeph_10, Soul22_6, Sparky_5, Spartoi_5, Spock_12, Spooky_6, Squiddly_7, Stinson_12, Studio_7, Sulley_12, Sunflower1121_10, Syleon_16, Syra333_11, TBond007_11, TClif_11, TM4_8, TMaxx_7, TPA4_6, Tachez_12, TaiwanKao_12, Teejan_8, Tesla_37, Thyatira_10, Tierra_11, Tigress9_11, TingHuaYa_12, TiniBug_12, Tiri_12, Topper_12, Torres_8, Trax_15, TreyKay_12, TribleTrouble_10, Trice_8, TripleC_10, TruffulaTree_12, Twitch_12, Unicorn_11, Urkel_12, Validus_12, VasuNzinga_38, Veliki_12, ViviJ_9, Volt_40, Waterfoul_10, Whitney_6, Wrigley_5, Ximenita_12, Yoshi_6, YoureAdopted_11, Yuna_12, Yunkel11_12, Zabiza_12, Zapner_7, Zavala_12, Ziko_41,

Summary by start number:

Start 18:
• Found in 3 of 448 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 412
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Sephiroth_16 (DU1),

Start 24:
• Found in 1 of 448 (0.2%) of genes in pham
• Manual Annotations of this start: 1 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Rabbitrun_17 (DU2),

Start 26:
• Found in 4 of 448 (0.9%) of genes in pham
• Manual Annotations of this start: 1 of 412
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Kudefre_15 (DU1),

Start 27:
• Found in 18 of 448 (4.0%) of genes in pham
• Manual Annotations of this start: 4 of 412
• Called 22.2% of time when present
• Phage (with cluster) where this start called: Collard_10 (K5), Gengar_10 (K5), Leston_10 (K5), Omnicron_10 (K5),

Start 31:
• Found in 8 of 448 (1.8%) of genes in pham
• Manual Annotations of this start: 5 of 412
• Called 62.5% of time when present
• Phage (with cluster) where this start called: LilJank_15 (DU2), Neville_15 (DU2), Octobien14_16 (DU1), Syleon_16 (DU1), Trax_15 (DU2),

Start 32:
• Found in 17 of 448 (3.8%) of genes in pham
• Manual Annotations of this start: 2 of 412
• Called 11.8% of time when present
• Phage (with cluster) where this start called: BritBrat_5 (CY2), Pollux_5 (CY1),

Start 33:
• Found in 2 of 448 (0.4%) of genes in pham

• Manual Annotations of this start: 1 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AbbyDaisy_6 (AY), Raqqa_6 (AY),

Start 34:
• Found in 2 of 448 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 412
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Krueger_11 (K6),

Start 36:
• Found in 15 of 448 (3.3%) of genes in pham
• Manual Annotations of this start: 1 of 412
• Called 6.7% of time when present
• Phage (with cluster) where this start called: Guillsminger_10 (K5),

Start 41:
• Found in 21 of 448 (4.7%) of genes in pham
• Manual Annotations of this start: 15 of 412
• Called 76.2% of time when present
• Phage (with cluster) where this start called: Angelique_5 (CY1), BeeGee_5 (CY5), Bradissa_5 (CY1), Cashline_5 (CY6), Confidence_5 (CY1), EMsquaredA_5 (CY1), EnalisNailo_5 (CY1), Floral_5 (CY1), Jablanski_5 (CY3), Lilas_5 (CY1), LonelyBoi_5 (CY7), Marteena_5 (CY1), Posh_5 (CY4), Pytheas_5 (CY3), TPA4_6 (singleton), Wrigley_5 (CY4),

Start 43:
• Found in 1 of 448 (0.2%) of genes in pham
• Manual Annotations of this start: 1 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Malisha_6 (DN),

Start 44:
• Found in 4 of 448 (0.9%) of genes in pham
• Manual Annotations of this start: 4 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: B22_6 (BW), Doucette_6 (BW), E6_7 (BW), G4_6 (BW),

Start 48:
• Found in 14 of 448 (3.1%) of genes in pham
• Manual Annotations of this start: 10 of 412
• Called 71.4% of time when present
• Phage (with cluster) where this start called: Amgine_10 (K6), Amohnition_11 (K6), Applecrisp_10 (K6), DarthP_11 (K6), Ekdilam_9 (K6), Ellie_9 (K6), Fefferhead_11 (K6), Hammy_11 (K6), Lavahound_10 (K6), November_10 (K6),

Start 49:
• Found in 20 of 448 (4.5%) of genes in pham
• Manual Annotations of this start: 20 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Beelzebub_42 (S), Blackbeetle_38 (S), Caprice_37 (S), Clarkson_39 (S), Corazon_36 (S), FeliMaine_40 (S), Gattaca_37 (S),

GoongGoong_37 (S), Huphlepuff_40 (S), JoieB_39 (S), Lilbit_37 (S), LittleLaf_38 (S), Marvin_36 (S), MosMoris_36 (S), Poise_38 (S), Pringar_38 (S), Raela_38 (S), RedRaider77_38 (S), Tesla_37 (S), VasuNzinga_38 (S),

Start 50:
• Found in 10 of 448 (2.2%) of genes in pham
• Manual Annotations of this start: 4 of 412
• Called 40.0% of time when present
• Phage (with cluster) where this start called: Holliday_6 (DN1), Spooky_6 (DN2), Squiddly_7 (DN2), TClif_11 (K6),

Start 52:
• Found in 1 of 448 (0.2%) of genes in pham
• Manual Annotations of this start: 1 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: TM4_8 (K2),

Start 53:
• Found in 13 of 448 (2.9%) of genes in pham
• Manual Annotations of this start: 12 of 412
• Called 92.3% of time when present
• Phage (with cluster) where this start called: Bryler_11 (K6), Cain_11 (K6), PhelpsODU_11 (K6), Phrank_11 (K6), Shadow1_10 (K6), Sunflower1121_10 (K6), Syra333_11 (K6), Tierra_11 (K6), Tigress9_11 (K6), Unicorn_11 (K6), Ximenita_12 (K6), Yuna_12 (K6),

Start 56:
• Found in 10 of 448 (2.2%) of genes in pham
• No Manual Annotations of this start.
• Called 10.0% of time when present
• Phage (with cluster) where this start called: ArV2_05 (singleton),

Start 57:
• Found in 32 of 448 (7.1%) of genes in pham
• Manual Annotations of this start: 6 of 412
• Called 18.8% of time when present
• Phage (with cluster) where this start called: AlleyCat_10 (K5), Kratio_9 (K5), Larva_10 (K5), MacnCheese_12 (K3), Pixie_11 (K3), ShedlockHolmes_11 (K3),

Start 60:
• Found in 4 of 448 (0.9%) of genes in pham
• Manual Annotations of this start: 2 of 412
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Curiosium_13 (K1), LastHope_12 (K1), TingHuaYa_12 (K1),

Start 61:
• Found in 117 of 448 (26.1%) of genes in pham
• Manual Annotations of this start: 109 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ActinUp_12 (K1), Adephagia_12 (K1), Adonis_12 (K1), Ageofdapage_12 (K1), AlishaPH_12 (K1), Amelie_8 (K1), Anaya_13 (K1), Angelica_12 (K1), Anma_12 (K1), Apocalypse_12 (K1), Asayake_12 (K1),

Atiba_12 (K1), BEEST_12 (K1), BGlluviae_12 (K1), BaghaKamala_12 (K1), BarrelRoll_12 (K1), Beezoo_12 (K1), Bella96_12 (K1), Belladonna_12 (K1), Bern_12 (K1), Biglebops_8 (K1), Blizzard_12 (K1), Boiiii_12 (K1), CREW_12 (K1), CallaLilly_12 (K1), Capricorn_12 (K1), CaseJules_12 (K1), Chavito_12 (K1), CheetoDust_12 (K1), Chris_11 (K1), Clipper_12 (K1), CrimD_12 (K1), Dalmuri_12 (K1), DartGoblin_12 (K1), Dartin_12 (K1), Deby_12 (K1), Devera_12 (K1), Dole_12 (K1), DrHayes_12 (K1), Durfee_12 (K1), Efra2_12 (K1), Emerson_12 (K1), Enkosi_8 (K1), Ganymede_12 (K1), Geraldini_12 (K1), Guanica15_12 (K1), HedwigODU_12 (K1), Homura_12 (K1), Hyperbowlee_12 (K1), Illumine_12 (K1), Inky_12 (K1), JAWS_12 (K1), Jarvi_12 (K1), Jeckyll_12 (K1), Joy99_12 (K1), Kheparia_13 (K1), KiSi_11 (K1), LaterM_12 (K1), LeMond_11 (K1), LilPharaoh_8 (K1), LindNT_12 (K1), Llorens_12 (K1), Lokum_12 (K1), Lunahalos_12 (K1), MacKat_12 (K1), MarkPhew_11 (K1), Marshawn_13 (K6), McMater_12 (K1), Mdavu_8 (K1), MeaningOfLife_12 (K1), Megsy_12 (K1), Murucutumbu_12 (K1), Mynx_12 (K1), Nibb_11 (K1), Nikao_8 (K1), Niklas_12 (K1), Nutello_8 (K1), Oscar_11 (K1), Padfoot_12 (K1), Padpat_12 (K1), Peanam_12 (K1), Peel_12 (K1), Piatt_12 (K1), Pisa1_11 (K1), Pisa4_11 (K1), Pokerus_11 (K1), Prithvi_12 (K1), QuincyRose_11 (K1), Ramen_12 (K1), Richo_12 (K1), Rosmarinus_12 (K1), SamuelLPlaqson_12 (K1), Scarlett_11 (K1), SgtBeansprout_8 (K1), Shaobing_12 (K1), ShiaSurprise_12 (K1), Spock_12 (K1), Stinson_12 (K1), Sulley_12 (K1), Tachez_12 (K1), TaiwanKao_12 (K1), Teejan_8 (K1), TiniBug_12 (K1), Tiri_12 (K1), Topper_12 (K1), Torres_8 (K1), TreyKay_12 (K1), Trice_8 (K1), TruffulaTree_12 (K1), Twitch_12 (K1), Urkel_12 (K1), Validus_12 (K1), Veliki_12 (K1), YoureAdopted_11 (K1), Yunkel11_12 (K1), Zabiza_12 (K1), Zavala_12 (K1),

Start 62:
• Found in 121 of 448 (27.0%) of genes in pham
• Manual Annotations of this start: 112 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Alexphander_6 (F1), Aloeri_6 (F1), Aminay_10 (K7), Awesomesauce_6 (F1), Baoshan_6 (L2), Beakin_6 (F1), Beanstalk_6 (F1), Bellis_8 (L3), BigPhil_6 (F1), Bobi_6 (F1), Bobquesha_13 (K4), Boilgate_9 (K8), Boomer_6 (F1), BoostSeason_8 (K2), Brookers_6 (F1), Brushbloom_6 (F1), BuzzLyseyear_6 (F1), Cerasum_6 (F1), Chancellor_13 (K4), Cheetobro_13 (K4), ChickenDinner_6 (F1), Claus_7 (L2), Coco12_6 (F1), Cornucopia_6 (F1), DHan_7 (L2), DaWorst_6 (F1), DanBing_6 (L2), DanSyl44_13 (K4), DirtMcgirt_6 (F1), DismalFunk_8 (K2), DismalStressor_8 (K2), DocMcStuffins_6 (F1), Doomslug_6 (F), DosHalletts_6 (F1), Doughnut_8 (K2), Drago_6 (F1), DyoEdafos_8 (L4), Emmaloid_6 (F1), Enby_6 (F1), Eponine_13 (K4), Findley_8 (K2), Finnry_8 (L3), Fionnbharth_13 (K4), Flathead_6 (F1), Frankie_6 (F1), Girafales_6 (F1), Hegedechwinu_6 (F1), JF1_13 (K4), JalFarm20_6 (F1), Jayhawk_12 (K1), Job42_6 (F1), Juice456_6 (F1), Juliette_13 (K4), Kimberlium_6 (F1), Kingsley_6 (F1), Kraw_13 (K4), Kropertea_7 (L4), Lebo14_13 (K4), Leozinho_6 (F1), LittleShirley_6 (F1), LordVader_6 (F), Lorde_6 (F1), Lucia_6 (F1), Madiba_6 (F1), Malthus_13 (K4), Marcoliusprime_8 (K2), Marker_6 (F1), Milly_8 (K2), Misha28_6 (F1), MissDaisy_13 (K4), Mitti_13 (K4), Moostard_8 (L3), Mova_6 (F1), Mozy_6 (F1), Mufasa_8 (K2), MulchExplorer_6 (F1), Nolwazi_13 (K4), Oksu_6 (F1), OmniCritical_13 (K4), OwlsT2W_6 (F1), Patt_13 (K4), Peridot_6 (F1), Piper2020_6 (F1), Plumbus_6 (F1), Pollywog_6 (F1), Qhanda_13 (K4), Quico_6 (F1), Ramsey_6 (F1), Rapunzel97_12 (K1), Reptar3000_13 (K4), Rialto_6 (F1), RockyHorror_6 (F1), Rossetti_7 (L2), Ruthiejr_12 (K4), SamScheppers_11 (K4), Samty_8 (L3), Sarma624_6 (F1), Seagreen_6 (F1), SimranZ1_6 (F1), Slarp_13 (K4), Slim_6 (F1), Slimphazie_12 (K1), Spikelee_6 (F1), Squirty_6 (F3), Stap_6 (F1), Starcevich_6 (F1), Strobilo_8 (K2),

Taquito_11 (K4), Tchotchke_6 (F1), TootsiePop_6 (F1), Tootsieroll_6 (F1), Totinger_6 (F1), Tourach_7 (L2), UncleRicky_6 (F1), Velveteen_6 (F1), Wintermute_13 (K4), Y10_13 (K4), Y2_13 (K4), YasnayaPolyana_13 (K4), ZhongYanYuan_6 (L2), ZoeJ_8 (K2),

Start 63:
• Found in 1 of 448 (0.2%) of genes in pham
• Manual Annotations of this start: 1 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Spartoi_5 (singleton),

Start 64:
• Found in 12 of 448 (2.7%) of genes in pham
• Manual Annotations of this start: 10 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Avani_6 (F2), Blarby_7 (F), Che9d_6 (F2), Demsculpinboyz_6 (F2), Ecliptus_6 (DN), Jabbawokkie_7 (F2), ODay_6 (DN), Ogopogo_7 (F1), SilverChicken_6 (F2), Soul22_6 (F2), Yoshi_6 (F2), Zapner_7 (F2),

Start 65:
• Found in 17 of 448 (3.8%) of genes in pham
• Manual Annotations of this start: 12 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Agamotto_9 (FR), AnnabelLee_7 (FR), Audell_10 (FR), CardboardBox_7 (FR), ChamoyPickle_7 (FR), ChipsNGuac_7 (FR), Ezurina_6 (FR), Gerri43_7 (FR), LastNadiia_10 (FR), Makima_8 (FR), Mireles_7 (FR), Neuvillette_7 (FR), Pitbull_5 (FQ1), Roberts_7 (FR), Studio_7 (FR), TMaxx_7 (FR), TripleC_10 (FR),

Start 66:
• Found in 24 of 448 (5.4%) of genes in pham
• Manual Annotations of this start: 19 of 412
• Called 83.3% of time when present
• Phage (with cluster) where this start called: Asapag_6 (DN1), BENtherdunthat_6 (DN1), BotCity_6 (DN), Budski_6 (DN), CheeseTouch_6 (DN1), Farewell_5 (AF), Frickyeah_6 (DN1), Getalong_6 (DN1), Horus_6 (DN1), Kamaru_6 (DN1), Kenna_6 (DN1), Leroy_6 (DN1), LitninMcQueen_6 (DN1), Lutum_6 (DN1), Periwinkle_6 (DN1), Phabuloso_6 (DN1), Phistory_6 (DN1), ShawBrad_6 (DN1), Sparky_5 (AF), Whitney_6 (DN1),

Start 67:
• Found in 26 of 448 (5.8%) of genes in pham
• Manual Annotations of this start: 4 of 412
• Called 19.2% of time when present
• Phage (with cluster) where this start called: DS6A_10 (singleton), Feyre_10 (K5), Neighly_10 (K3), OkiRoe_10 (K5), Paola_10 (K5),

Start 70:
• Found in 28 of 448 (6.2%) of genes in pham
• Manual Annotations of this start: 13 of 412
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Agent47_10 (K5), BananenDer11_10 (K5), Dadosky_10 (K5), DoubleChamp_10 (K5), Edugator_9 (K5), Heftyboy_10 (K5),

InvictusManeo_10 (K5), LilDirt_9 (K5), Miryou_10 (K5), Psycho_10 (K5), SoSeph_10 (K5), Thyatira_10 (K5), ViviJ_9 (K5), Waterfoul_10 (K5),

Start 71:
• Found in 46 of 448 (10.3%) of genes in pham
• Manual Annotations of this start: 20 of 412
• Called 54.3% of time when present
• Phage (with cluster) where this start called: Bridgette_5 (FA), ChuckDuck_5 (FA), Constance_5 (FA), Eileen_5 (FA), FosterFrank_5 (FA), GlobiWarming_5 (FA), Henrique_5 (FA), HotPotato_5 (FA), Hurricane_11 (K3), Judy_5 (FA), Karkharias_5 (FA), KayMoney_5 (FA), Keshu_11 (K3), Lea83_11 (K3), LilSpotty_5 (singleton), LilyBell_5 (FA), LittleRon_5 (FA), NidoQ_5 (FA), NikkiHotWheels_5 (FA), Peas_5 (FA), PeggyLeg03_5 (FA), Pharb_11 (K3), Pucara_5 (FA), TBond007_11 (K3), TribleTrouble_10 (K3),

Start 72:
• Found in 2 of 448 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 412
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Rando14_10 (K5),

Start 76:
• Found in 1 of 448 (0.2%) of genes in pham
• Manual Annotations of this start: 1 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Keelan_36 (DP),

Start 78:
• Found in 2 of 448 (0.4%) of genes in pham
• Manual Annotations of this start: 2 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Elfy_5 (FP), LisoBros_5 (FP),

Start 79:
• Found in 6 of 448 (1.3%) of genes in pham
• Manual Annotations of this start: 6 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Apricot_5 (DN3), BearBQ_5 (DN), Birdsong_5 (DN), Crater_5 (DN3), Kuwabara_5 (DN4), MortyNRick_5 (DN),

Start 80:
• Found in 2 of 448 (0.4%) of genes in pham
• Manual Annotations of this start: 2 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BaileyBlu_5 (FP), CallinAllBarbz_5 (FP),

Start 81:
• Found in 1 of 448 (0.2%) of genes in pham
• Manual Annotations of this start: 1 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: SirPhilip_11 (K6),

Start 82:

• Found in 5 of 448 (1.1%) of genes in pham
• Manual Annotations of this start: 5 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Fryberger_38 (DP), Guey18_43 (DP), Ronaldo_41 (DP), Volt_40 (DP), Ziko_41 (DP),

Start 83:
• Found in 2 of 448 (0.4%) of genes in pham
• Manual Annotations of this start: 2 of 412
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GrimEater_5 (FP), Jankie_5 (FP),

Summary by clusters:

There are 39 clusters represented in this pham: DN, FP, FR, singleton, K3, K2, K1, BW, K7, K6, K5, K4, K8, DP, F, AF, DN4, DN1, DN3, DN2, DU1, DU2, CY3, CY2, CY1, CY7, CY6, CY5, CY4, S, L2, L3, AY, F1, F2, F3, FA, L4, FQ1,

Info for manual annotations of cluster AF:
•Start number 66 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster AY:
•Start number 33 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster BW:
•Start number 44 was manually annotated 4 times for cluster BW.

Info for manual annotations of cluster CY1:
•Start number 32 was manually annotated 1 time for cluster CY1.
•Start number 41 was manually annotated 8 times for cluster CY1.

Info for manual annotations of cluster CY2:
•Start number 32 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CY3:
•Start number 41 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:
•Start number 41 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CY5:
•Start number 41 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CY6:
•Start number 41 was manually annotated 1 time for cluster CY6.

Info for manual annotations of cluster CY7:
•Start number 41 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster DN:
•Start number 43 was manually annotated 1 time for cluster DN.
•Start number 64 was manually annotated 2 times for cluster DN.
•Start number 66 was manually annotated 2 times for cluster DN.

•Start number 79 was manually annotated 3 times for cluster DN.

Info for manual annotations of cluster DN1:
•Start number 50 was manually annotated 1 time for cluster DN1.
•Start number 66 was manually annotated 15 times for cluster DN1.

Info for manual annotations of cluster DN2:
•Start number 50 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster DN3:
•Start number 79 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DN4:
•Start number 79 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster DP:
•Start number 76 was manually annotated 1 time for cluster DP.
•Start number 82 was manually annotated 5 times for cluster DP.

Info for manual annotations of cluster DU1:
•Start number 18 was manually annotated 1 time for cluster DU1.
•Start number 26 was manually annotated 1 time for cluster DU1.
•Start number 31 was manually annotated 2 times for cluster DU1.

Info for manual annotations of cluster DU2:
•Start number 24 was manually annotated 1 time for cluster DU2.
•Start number 31 was manually annotated 3 times for cluster DU2.

Info for manual annotations of cluster F:
•Start number 62 was manually annotated 1 time for cluster F.

Info for manual annotations of cluster F1:
•Start number 62 was manually annotated 64 times for cluster F1.
•Start number 64 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:
•Start number 64 was manually annotated 7 times for cluster F2.

Info for manual annotations of cluster F3:
•Start number 62 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster FA:
•Start number 71 was manually annotated 13 times for cluster FA.

Info for manual annotations of cluster FP:
•Start number 78 was manually annotated 2 times for cluster FP.
•Start number 80 was manually annotated 2 times for cluster FP.
•Start number 83 was manually annotated 2 times for cluster FP.

Info for manual annotations of cluster FQ1:
•Start number 65 was manually annotated 1 time for cluster FQ1.

Info for manual annotations of cluster FR:

•Start number 65 was manually annotated 11 times for cluster FR.

Info for manual annotations of cluster K1:
•Start number 60 was manually annotated 2 times for cluster K1.
•Start number 61 was manually annotated 108 times for cluster K1.
•Start number 62 was manually annotated 3 times for cluster K1.

Info for manual annotations of cluster K2:
•Start number 52 was manually annotated 1 time for cluster K2.
•Start number 62 was manually annotated 10 times for cluster K2.

Info for manual annotations of cluster K3:
•Start number 57 was manually annotated 3 times for cluster K3.
•Start number 71 was manually annotated 6 times for cluster K3.

Info for manual annotations of cluster K4:
•Start number 62 was manually annotated 22 times for cluster K4.

Info for manual annotations of cluster K5:
•Start number 27 was manually annotated 4 times for cluster K5.
•Start number 36 was manually annotated 1 time for cluster K5.
•Start number 57 was manually annotated 3 times for cluster K5.
•Start number 67 was manually annotated 3 times for cluster K5.
•Start number 70 was manually annotated 13 times for cluster K5.
•Start number 72 was manually annotated 1 time for cluster K5.

Info for manual annotations of cluster K6:
•Start number 34 was manually annotated 1 time for cluster K6.
•Start number 48 was manually annotated 10 times for cluster K6.
•Start number 50 was manually annotated 1 time for cluster K6.
•Start number 53 was manually annotated 12 times for cluster K6.
•Start number 61 was manually annotated 1 time for cluster K6.
•Start number 81 was manually annotated 1 time for cluster K6.

Info for manual annotations of cluster K7:
•Start number 62 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster K8:
•Start number 62 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster L2:
•Start number 62 was manually annotated 3 times for cluster L2.

Info for manual annotations of cluster L3:
•Start number 62 was manually annotated 4 times for cluster L3.

Info for manual annotations of cluster L4:
•Start number 62 was manually annotated 2 times for cluster L4.

Info for manual annotations of cluster S:
•Start number 49 was manually annotated 20 times for cluster S.

Gene Information:

Gene: AbbyDaisy_6 Start: 4441, Stop: 5022, Start Num: 33
Candidate Starts for AbbyDaisy_6:
(17, 4336), (Start: 33 @4441 has 1 MA's), (54, 4489), (73, 4537), (93, 4651), (125, 4813),

Gene: ActinUp_12 Start: 7313, Stop: 7855, Start Num: 61
Candidate Starts for ActinUp_12:
(Start: 61 @7313 has 109 MA's), (98, 7448), (132, 7616), (168, 7811), (171, 7829), (174, 7838),

Gene: Adephagia_12 Start: 7313, Stop: 7855, Start Num: 61
Candidate Starts for Adephagia_12:
(Start: 61 @7313 has 109 MA's), (98, 7448), (132, 7616), (168, 7811), (171, 7829), (174, 7838),

Gene: Adonis_12 Start: 7324, Stop: 7866, Start Num: 61
Candidate Starts for Adonis_12:
(Start: 61 @7324 has 109 MA's), (98, 7459), (132, 7627), (168, 7822), (171, 7840), (174, 7849),

Gene: Agamotto_9 Start: 8117, Stop: 8620, Start Num: 65
Candidate Starts for Agamotto_9:
(Start: 65 @8117 has 12 MA's), (101, 8285), (103, 8300),

Gene: Agent47_10 Start: 7496, Stop: 8026, Start Num: 70
Candidate Starts for Agent47_10:
(Start: 57 @7460 has 6 MA's), (Start: 67 @7481 has 4 MA's), (Start: 70 @7496 has 13 MA's), (75, 7508), (132, 7793),

Gene: Ageofdapage_12 Start: 7253, Stop: 7795, Start Num: 61
Candidate Starts for Ageofdapage_12:
(Start: 61 @7253 has 109 MA's), (98, 7388), (132, 7556), (171, 7769), (174, 7778),

Gene: Alexphander_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Alexphander_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: AlishaPH_12 Start: 7315, Stop: 7857, Start Num: 61
Candidate Starts for AlishaPH_12:
(Start: 61 @7315 has 109 MA's), (98, 7450), (102, 7483), (132, 7618), (168, 7813), (171, 7831), (174, 7840),

Gene: AlleyCat_10 Start: 7355, Stop: 7921, Start Num: 57
Candidate Starts for AlleyCat_10:
(Start: 57 @7355 has 6 MA's), (Start: 67 @7376 has 4 MA's), (Start: 70 @7391 has 13 MA's), (75, 7403), (132, 7688),

Gene: Aloeri_6 Start: 4412, Stop: 4948, Start Num: 62
Candidate Starts for Aloeri_6:
(Start: 62 @4412 has 112 MA's), (106, 4634), (122, 4703), (126, 4712), (132, 4730), (148, 4814), (174, 4931),

Gene: Amelie_8 Start: 6589, Stop: 7137, Start Num: 61
Candidate Starts for Amelie_8:
(Start: 61 @6589 has 109 MA's), (132, 6904), (168, 7093), (171, 7111),

Gene: Amgine_10 Start: 6944, Stop: 7507, Start Num: 48
Candidate Starts for Amgine_10:
(Start: 48 @6944 has 10 MA's), (132, 7274), (171, 7481), (174, 7490),

Gene: Aminay_10 Start: 7229, Stop: 7786, Start Num: 62
Candidate Starts for Aminay_10:
(Start: 62 @7229 has 112 MA's), (174, 7769),

Gene: Amohnition_11 Start: 7198, Stop: 7755, Start Num: 48
Candidate Starts for Amohnition_11:
(Start: 41 @7180 has 15 MA's), (Start: 48 @7198 has 10 MA's), (132, 7522), (168, 7711), (171, 7729), (174, 7738),

Gene: Anaya_13 Start: 7316, Stop: 7855, Start Num: 61
Candidate Starts for Anaya_13:
(Start: 61 @7316 has 109 MA's), (98, 7451), (121, 7583), (132, 7619), (168, 7811), (171, 7829), (174, 7838),

Gene: Angelica_12 Start: 7293, Stop: 7826, Start Num: 61
Candidate Starts for Angelica_12:
(Start: 61 @7293 has 109 MA's), (98, 7422), (171, 7800), (174, 7809),

Gene: Angelique_5 Start: 4595, Stop: 5251, Start Num: 41
Candidate Starts for Angelique_5:
(Start: 32 @4568 has 2 MA's), (Start: 41 @4595 has 15 MA's), (45, 4604), (55, 4628), (69, 4670), (Start: 71 @4673 has 20 MA's), (109, 4919),

Gene: Anma_12 Start: 7263, Stop: 7805, Start Num: 61
Candidate Starts for Anma_12:
(Start: 61 @7263 has 109 MA's), (98, 7398), (132, 7566), (168, 7761), (171, 7779), (174, 7788),

Gene: AnnabelLee_7 Start: 4967, Stop: 5473, Start Num: 65
Candidate Starts for AnnabelLee_7:
(Start: 65 @4967 has 12 MA's), (103, 5153), (122, 5246),

Gene: Apocalypse_12 Start: 7291, Stop: 7833, Start Num: 61
Candidate Starts for Apocalypse_12:
(Start: 61 @7291 has 109 MA's), (98, 7426), (132, 7594), (168, 7789), (171, 7807), (174, 7816),

Gene: Applecrisp_10 Start: 7342, Stop: 7908, Start Num: 48
Candidate Starts for Applecrisp_10:
(Start: 48 @7342 has 10 MA's), (132, 7675), (171, 7882), (174, 7891),

Gene: Apricot_5 Start: 4287, Stop: 4802, Start Num: 79
Candidate Starts for Apricot_5:
(77, 4278), (Start: 79 @4287 has 6 MA's), (107, 4479), (144, 4629),

Gene: ArV2_05 Start: 4203, Stop: 4730, Start Num: 56
Candidate Starts for ArV2_05:
(56, 4203), (Start: 71 @4236 has 20 MA's), (99, 4362), (153, 4641),

Gene: Asapag_6 Start: 4327, Stop: 4878, Start Num: 66

Candidate Starts for Asapag_6:
(Start: 66 @4327 has 19 MA's), (87, 4408), (96, 4480), (154, 4786),

Gene: Asayake_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Asayake_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Atiba_12 Start: 7279, Stop: 7821, Start Num: 61
Candidate Starts for Atiba_12:
(Start: 61 @7279 has 109 MA's), (98, 7414), (132, 7582), (168, 7777), (171, 7795), (174, 7804),

Gene: Audell_10 Start: 8386, Stop: 8895, Start Num: 65
Candidate Starts for Audell_10:
(Start: 65 @8386 has 12 MA's),

Gene: Avani_6 Start: 4307, Stop: 4855, Start Num: 64
Candidate Starts for Avani_6:
(Start: 27 @4205 has 4 MA's), (Start: 64 @4307 has 10 MA's), (88, 4412), (93, 4436), (117, 4595), (154, 4760),

Gene: Awesomesauce_6 Start: 4411, Stop: 4947, Start Num: 62
Candidate Starts for Awesomesauce_6:
(Start: 62 @4411 has 112 MA's), (106, 4633), (122, 4702), (126, 4711), (132, 4729), (148, 4813), (174, 4930),

Gene: B22_6 Start: 4889, Stop: 5521, Start Num: 44
Candidate Starts for B22_6:
(Start: 44 @4889 has 4 MA's), (Start: 48 @4904 has 10 MA's), (93, 5063), (100, 5114), (102, 5126), (126, 5237), (151, 5360), (155, 5390), (157, 5405), (173, 5486), (174, 5489),

Gene: BEEST_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for BEEST_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: BENtherdunthat_6 Start: 4327, Stop: 4878, Start Num: 66
Candidate Starts for BENtherdunthat_6:
(Start: 66 @4327 has 19 MA's), (87, 4408), (96, 4480), (154, 4786),

Gene: BGlluviae_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for BGlluviae_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: BaghaKamala_12 Start: 7289, Stop: 7825, Start Num: 61
Candidate Starts for BaghaKamala_12:
(Start: 61 @7289 has 109 MA's), (98, 7418), (132, 7586), (168, 7781), (171, 7799), (174, 7808),

Gene: BaileyBlu_5 Start: 4160, Stop: 4618, Start Num: 80
Candidate Starts for BaileyBlu_5:
(Start: 80 @4160 has 2 MA's), (154, 4547),

Gene: BananenDer11_10 Start: 7478, Stop: 7987, Start Num: 70
Candidate Starts for BananenDer11_10:

(Start: 27 @7358 has 4 MA's), (Start: 36 @7397 has 1 MA's), (Start: 57 @7442 has 6 MA's), (Start: 67 @7463 has 4 MA's), (Start: 70 @7478 has 13 MA's), (75, 7490), (132, 7763),

Gene: Baoshan_6 Start: 5250, Stop: 5855, Start Num: 62
Candidate Starts for Baoshan_6:
(Start: 62 @5250 has 112 MA's), (93, 5391), (126, 5574), (128, 5595), (136, 5625), (145, 5682), (159, 5763), (166, 5802),

Gene: BarrelRoll_12 Start: 7307, Stop: 7849, Start Num: 61
Candidate Starts for BarrelRoll_12:
(Start: 61 @7307 has 109 MA's), (98, 7442), (132, 7610), (168, 7805), (171, 7823), (174, 7832),

Gene: Beakin_6 Start: 4411, Stop: 4947, Start Num: 62
Candidate Starts for Beakin_6:
(Start: 62 @4411 has 112 MA's), (106, 4633), (122, 4702), (126, 4711), (148, 4813), (174, 4930),

Gene: Beanstalk_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Beanstalk_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: BearBQ_5 Start: 4287, Stop: 4802, Start Num: 79
Candidate Starts for BearBQ_5:
(77, 4278), (Start: 79 @4287 has 6 MA's), (107, 4479), (144, 4629),

Gene: BeeGee_5 Start: 4598, Stop: 5254, Start Num: 41
Candidate Starts for BeeGee_5:
(Start: 32 @4571 has 2 MA's), (Start: 41 @4598 has 15 MA's), (45, 4607), (55, 4631), (69, 4673), (Start: 71 @4676 has 20 MA's), (109, 4922),

Gene: Beelzebub_42 Start: 15494, Stop: 16126, Start Num: 49
Candidate Starts for Beelzebub_42:
(Start: 49 @15494 has 20 MA's), (86, 15599), (112, 15794), (134, 15863), (138, 15881),

Gene: Beezoo_12 Start: 7339, Stop: 7875, Start Num: 61
Candidate Starts for Beezoo_12:
(Start: 61 @7339 has 109 MA's), (98, 7468), (132, 7636), (168, 7831), (171, 7849), (174, 7858),

Gene: Bella96_12 Start: 7242, Stop: 7784, Start Num: 61
Candidate Starts for Bella96_12:
(Start: 61 @7242 has 109 MA's), (98, 7377), (132, 7545), (168, 7740), (171, 7758), (174, 7767),

Gene: Belladonna_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Belladonna_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Bellis_8 Start: 5538, Stop: 6137, Start Num: 62
Candidate Starts for Bellis_8:
(Start: 62 @5538 has 112 MA's), (102, 5724), (110, 5799), (114, 5820), (143, 5946), (159, 6036),

Gene: Bern_12 Start: 7282, Stop: 7815, Start Num: 61
Candidate Starts for Bern_12:
(Start: 61 @7282 has 109 MA's), (98, 7411), (132, 7579), (171, 7789), (174, 7798),

Gene: BigPhil_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for BigPhil_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Biglebops_8 Start: 6589, Stop: 7137, Start Num: 61
Candidate Starts for Biglebops_8:
(Start: 61 @6589 has 109 MA's), (132, 6904), (168, 7093), (171, 7111),

Gene: Birdsong_5 Start: 4287, Stop: 4802, Start Num: 79
Candidate Starts for Birdsong_5:
(77, 4278), (Start: 79 @4287 has 6 MA's), (107, 4479), (144, 4629),

Gene: Blackbeetle_38 Start: 14513, Stop: 15145, Start Num: 49
Candidate Starts for Blackbeetle_38:
(Start: 49 @14513 has 20 MA's), (86, 14618), (112, 14813), (134, 14882), (138, 14900),

Gene: Blarby_7 Start: 4831, Stop: 5379, Start Num: 64
Candidate Starts for Blarby_7:
(1, 4405), (2, 4408), (4, 4540), (12, 4615), (15, 4651), (23, 4714), (Start: 64 @4831 has 10 MA's), (88, 4936), (93, 4960), (117, 5119), (154, 5284),

Gene: Blizzard_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Blizzard_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Bobi_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Bobi_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Bobquesha_13 Start: 8298, Stop: 8870, Start Num: 62
Candidate Starts for Bobquesha_13:
(Start: 62 @8298 has 112 MA's), (116, 8586), (132, 8631),

Gene: Boiiii_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Boiiii_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Boilgate_9 Start: 7303, Stop: 7857, Start Num: 62
Candidate Starts for Boilgate_9:
(Start: 62 @7303 has 112 MA's), (88, 7414), (102, 7501), (106, 7534), (116, 7591), (132, 7630), (134, 7636), (171, 7831),

Gene: Boomer_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Boomer_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: BoostSeason_8 Start: 5333, Stop: 5878, Start Num: 62
Candidate Starts for BoostSeason_8:
(Start: 62 @5333 has 112 MA's), (126, 5636), (132, 5654), (171, 5852),

Gene: BotCity_6 Start: 4325, Stop: 4876, Start Num: 66
Candidate Starts for BotCity_6:
(Start: 66 @4325 has 19 MA's), (87, 4406), (96, 4478), (154, 4784),

Gene: Bradissa_5 Start: 4602, Stop: 5258, Start Num: 41
Candidate Starts for Bradissa_5:
(Start: 32 @4575 has 2 MA's), (Start: 41 @4602 has 15 MA's), (45, 4611), (55, 4635), (69, 4677), (Start: 71 @4680 has 20 MA's), (109, 4926),

Gene: Bridgette_5 Start: 5076, Stop: 5570, Start Num: 71
Candidate Starts for Bridgette_5:
(Start: 71 @5076 has 20 MA's), (142, 5457), (158, 5532),

Gene: BritBrat_5 Start: 4577, Stop: 5260, Start Num: 32
Candidate Starts for BritBrat_5:
(Start: 32 @4577 has 2 MA's), (Start: 41 @4604 has 15 MA's), (45, 4613), (55, 4637), (69, 4679), (Start: 71 @4682 has 20 MA's), (109, 4928),

Gene: Brookers_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Brookers_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Brushbloom_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Brushbloom_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Bryler_11 Start: 6246, Stop: 6824, Start Num: 53
Candidate Starts for Bryler_11:
(Start: 53 @6246 has 12 MA's), (132, 6591), (140, 6630), (174, 6807),

Gene: Budski_6 Start: 4327, Stop: 4875, Start Num: 66
Candidate Starts for Budski_6:
(3, 3985), (4, 4027), (7, 4060), (9, 4096), (13, 4120), (15, 4141), (Start: 50 @4294 has 4 MA's), (Start: 66 @4327 has 19 MA's), (96, 4480), (142, 4723), (154, 4786),

Gene: BuzzLyseyear_6 Start: 4407, Stop: 4943, Start Num: 62
Candidate Starts for BuzzLyseyear_6:
(Start: 62 @4407 has 112 MA's), (106, 4629), (122, 4698), (126, 4707), (148, 4809), (174, 4926),

Gene: CREW_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for CREW_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Cain_11 Start: 6234, Stop: 6812, Start Num: 53
Candidate Starts for Cain_11:
(Start: 53 @6234 has 12 MA's), (132, 6579), (140, 6618), (174, 6795),

Gene: CallaLilly_12 Start: 7286, Stop: 7822, Start Num: 61
Candidate Starts for CallaLilly_12:
(Start: 61 @7286 has 109 MA's), (98, 7415), (132, 7583), (168, 7778), (171, 7796), (174, 7805),

Gene: CallinAllBarbz_5 Start: 4163, Stop: 4621, Start Num: 80
Candidate Starts for CallinAllBarbz_5:
(47, 4088), (Start: 80 @4163 has 2 MA's), (143, 4499),

Gene: Caprice_37 Start: 14583, Stop: 15215, Start Num: 49

Candidate Starts for Caprice_37:
(Start: 49 @14583 has 20 MA's), (86, 14688), (112, 14883), (134, 14952), (138, 14970),

Gene: Capricorn_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Capricorn_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: CardboardBox_7 Start: 4967, Stop: 5473, Start Num: 65
Candidate Starts for CardboardBox_7:
(Start: 65 @4967 has 12 MA's), (103, 5153), (122, 5246),

Gene: CaseJules_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for CaseJules_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Cashline_5 Start: 4451, Stop: 5107, Start Num: 41
Candidate Starts for Cashline_5:
(Start: 32 @4424 has 2 MA's), (Start: 41 @4451 has 15 MA's), (45, 4460), (69, 4526), (Start: 71 @4529 has 20 MA's), (109, 4775),

Gene: Cerasum_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Cerasum_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: ChamoyPickle_7 Start: 4967, Stop: 5473, Start Num: 65
Candidate Starts for ChamoyPickle_7:
(Start: 65 @4967 has 12 MA's), (103, 5153), (122, 5246),

Gene: Chancellor_13 Start: 8544, Stop: 9116, Start Num: 62
Candidate Starts for Chancellor_13:
(Start: 62 @8544 has 112 MA's), (116, 8832), (132, 8877),

Gene: Chavito_12 Start: 6370, Stop: 6924, Start Num: 61
Candidate Starts for Chavito_12:
(Start: 61 @6370 has 109 MA's), (98, 6520), (132, 6688), (171, 6898),

Gene: Che9d_6 Start: 4316, Stop: 4864, Start Num: 64
Candidate Starts for Che9d_6:
(2, 3893), (4, 4025), (12, 4100), (15, 4136), (23, 4199), (Start: 64 @4316 has 10 MA's), (88, 4421), (93, 4445), (117, 4604), (154, 4769),

Gene: CheeseTouch_6 Start: 4327, Stop: 4875, Start Num: 66
Candidate Starts for CheeseTouch_6:
(3, 3985), (4, 4027), (7, 4060), (9, 4096), (13, 4120), (15, 4141), (Start: 50 @4294 has 4 MA's), (Start: 66 @4327 has 19 MA's), (96, 4480), (142, 4723), (154, 4786),

Gene: CheetoDust_12 Start: 7333, Stop: 7875, Start Num: 61
Candidate Starts for CheetoDust_12:
(Start: 61 @7333 has 109 MA's), (98, 7468), (132, 7636), (168, 7831), (171, 7849), (174, 7858),

Gene: Cheetobro_13 Start: 8544, Stop: 9116, Start Num: 62
Candidate Starts for Cheetobro_13:
(Start: 62 @8544 has 112 MA's), (116, 8832), (132, 8877),

Gene: ChickenDinner_6 Start: 4412, Stop: 4948, Start Num: 62
Candidate Starts for ChickenDinner_6:
(Start: 62 @4412 has 112 MA's), (106, 4634), (122, 4703), (126, 4712), (132, 4730), (148, 4814), (174, 4931),

Gene: ChipsNGuac_7 Start: 4967, Stop: 5473, Start Num: 65
Candidate Starts for ChipsNGuac_7:
(Start: 65 @4967 has 12 MA's), (103, 5153), (122, 5246),

Gene: Chris_11 Start: 6182, Stop: 6724, Start Num: 61
Candidate Starts for Chris_11:
(Start: 61 @6182 has 109 MA's), (168, 6680), (171, 6698), (174, 6707),

Gene: ChuckDuck_5 Start: 5037, Stop: 5531, Start Num: 71
Candidate Starts for ChuckDuck_5:
(Start: 71 @5037 has 20 MA's), (158, 5493),

Gene: Clarkson_39 Start: 15195, Stop: 15827, Start Num: 49
Candidate Starts for Clarkson_39:
(Start: 49 @15195 has 20 MA's), (86, 15300), (112, 15495), (134, 15564), (138, 15582),

Gene: Claus_7 Start: 5430, Stop: 6035, Start Num: 62
Candidate Starts for Claus_7:
(Start: 62 @5430 has 112 MA's), (93, 5571), (126, 5754), (128, 5775), (136, 5805), (145, 5862), (159, 5943), (166, 5982),

Gene: Clipper_12 Start: 7333, Stop: 7875, Start Num: 61
Candidate Starts for Clipper_12:
(Start: 61 @7333 has 109 MA's), (98, 7468), (132, 7636), (168, 7831), (171, 7849), (174, 7858),

Gene: Coco12_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Coco12_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (132, 4726), (148, 4810), (174, 4927),

Gene: Collard_10 Start: 7358, Stop: 7987, Start Num: 27
Candidate Starts for Collard_10:
(Start: 27 @7358 has 4 MA's), (Start: 36 @7397 has 1 MA's), (Start: 57 @7442 has 6 MA's), (Start: 67 @7463 has 4 MA's), (Start: 70 @7478 has 13 MA's), (75, 7490), (132, 7763),

Gene: Confidence_5 Start: 4598, Stop: 5254, Start Num: 41
Candidate Starts for Confidence_5:
(Start: 32 @4571 has 2 MA's), (Start: 41 @4598 has 15 MA's), (45, 4607), (55, 4631), (69, 4673), (Start: 71 @4676 has 20 MA's), (109, 4922),

Gene: Constance_5 Start: 5077, Stop: 5574, Start Num: 71
Candidate Starts for Constance_5:
(Start: 71 @5077 has 20 MA's), (158, 5536),

Gene: Corazon_36 Start: 15148, Stop: 15780, Start Num: 49
Candidate Starts for Corazon_36:
(Start: 49 @15148 has 20 MA's), (86, 15253), (112, 15448), (134, 15517), (138, 15535),

Gene: Cornucopia_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Cornucopia_6:
(Start: 62 @4408 has 112 MA's), (122, 4699), (126, 4708), (174, 4927),

Gene: Crater_5 Start: 4287, Stop: 4802, Start Num: 79
Candidate Starts for Crater_5:
(77, 4278), (Start: 79 @4287 has 6 MA's), (107, 4479), (144, 4629),

Gene: CrimD_12 Start: 7285, Stop: 7827, Start Num: 61
Candidate Starts for CrimD_12:
(Start: 61 @7285 has 109 MA's), (98, 7420), (126, 7564), (132, 7588), (168, 7783), (171, 7801), (174, 7810),

Gene: Curiosium_13 Start: 6689, Stop: 7222, Start Num: 60
Candidate Starts for Curiosium_13:
(Start: 60 @6689 has 2 MA's), (98, 6824), (132, 6992), (171, 7196), (174, 7205),

Gene: DHan_7 Start: 5366, Stop: 5971, Start Num: 62
Candidate Starts for DHan_7:
(Start: 62 @5366 has 112 MA's), (93, 5507), (126, 5690), (128, 5711), (136, 5741), (145, 5798), (159, 5879), (166, 5918),

Gene: DS6A_10 Start: 7559, Stop: 8122, Start Num: 67
Candidate Starts for DS6A_10:
(Start: 67 @7559 has 4 MA's), (118, 7835), (129, 7868), (174, 8105),

Gene: DaWorst_6 Start: 4409, Stop: 4945, Start Num: 62
Candidate Starts for DaWorst_6:
(Start: 62 @4409 has 112 MA's), (106, 4631), (122, 4700), (126, 4709), (132, 4727), (148, 4811), (174, 4928),

Gene: Dadosky_10 Start: 7391, Stop: 7921, Start Num: 70
Candidate Starts for Dadosky_10:
(Start: 57 @7355 has 6 MA's), (Start: 67 @7376 has 4 MA's), (Start: 70 @7391 has 13 MA's), (75, 7403), (132, 7688),

Gene: Dalmuri_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Dalmuri_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: DanBing_6 Start: 5249, Stop: 5854, Start Num: 62
Candidate Starts for DanBing_6:
(Start: 62 @5249 has 112 MA's), (93, 5390), (126, 5573), (128, 5594), (136, 5624), (145, 5681), (159, 5762), (166, 5801),

Gene: DanSyl44_13 Start: 8547, Stop: 9119, Start Num: 62
Candidate Starts for DanSyl44_13:
(Start: 62 @8547 has 112 MA's), (116, 8835), (132, 8880),

Gene: DartGoblin_12 Start: 7242, Stop: 7784, Start Num: 61
Candidate Starts for DartGoblin_12:
(Start: 61 @7242 has 109 MA's), (98, 7377), (132, 7545), (168, 7740), (171, 7758), (174, 7767),

Gene: DarthP_11 Start: 7198, Stop: 7755, Start Num: 48
Candidate Starts for DarthP_11:
(Start: 41 @7180 has 15 MA's), (Start: 48 @7198 has 10 MA's), (132, 7522), (168, 7711), (171, 7729), (174, 7738),

Gene: Dartin_12 Start: 6376, Stop: 6936, Start Num: 61
Candidate Starts for Dartin_12:
(56, 6370), (Start: 61 @6376 has 109 MA's), (98, 6532), (132, 6700), (171, 6910),

Gene: Deby_12 Start: 7293, Stop: 7826, Start Num: 61
Candidate Starts for Deby_12:
(Start: 61 @7293 has 109 MA's), (98, 7422), (171, 7800), (174, 7809),

Gene: Demsculpinboyz_6 Start: 4307, Stop: 4855, Start Num: 64
Candidate Starts for Demsculpinboyz_6:
(4, 4016), (12, 4091), (15, 4127), (23, 4190), (Start: 64 @4307 has 10 MA's), (88, 4412), (93, 4436), (117, 4595), (154, 4760),

Gene: Devera_12 Start: 7321, Stop: 7854, Start Num: 61
Candidate Starts for Devera_12:
(Start: 61 @7321 has 109 MA's), (98, 7447), (132, 7615), (171, 7828), (174, 7837),

Gene: DirtMcgirt_6 Start: 4410, Stop: 4946, Start Num: 62
Candidate Starts for DirtMcgirt_6:
(Start: 62 @4410 has 112 MA's), (106, 4632), (122, 4701), (126, 4710), (148, 4812), (174, 4929),

Gene: DismalFunk_8 Start: 5349, Stop: 5891, Start Num: 62
Candidate Starts for DismalFunk_8:
(Start: 62 @5349 has 112 MA's), (126, 5652), (132, 5670), (171, 5865),

Gene: DismalStressor_8 Start: 5349, Stop: 5891, Start Num: 62
Candidate Starts for DismalStressor_8:
(Start: 62 @5349 has 112 MA's), (126, 5652), (132, 5670), (171, 5865),

Gene: DocMcStuffins_6 Start: 4412, Stop: 4948, Start Num: 62
Candidate Starts for DocMcStuffins_6:
(Start: 62 @4412 has 112 MA's), (106, 4634), (122, 4703), (126, 4712), (132, 4730), (148, 4814), (174, 4931),

Gene: Dole_12 Start: 7321, Stop: 7854, Start Num: 61
Candidate Starts for Dole_12:
(Start: 61 @7321 has 109 MA's), (98, 7447), (132, 7615), (171, 7828), (174, 7837),

Gene: Doomslug_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Doomslug_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: DosHalletts_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for DosHalletts_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: DoubleChamp_10 Start: 7478, Stop: 7987, Start Num: 70

Candidate Starts for DoubleChamp_10:
(Start: 27 @7358 has 4 MA's), (Start: 36 @7397 has 1 MA's), (Start: 57 @7442 has 6 MA's), (Start: 67 @7463 has 4 MA's), (Start: 70 @7478 has 13 MA's), (75, 7490), (132, 7763),

Gene: Doucette_6 Start: 4949, Stop: 5581, Start Num: 44
Candidate Starts for Doucette_6:
(Start: 44 @4949 has 4 MA's), (Start: 48 @4964 has 10 MA's), (93, 5123), (100, 5174), (102, 5186), (126, 5297), (151, 5420), (155, 5450), (157, 5465), (173, 5546), (174, 5549),

Gene: Doughnut_8 Start: 5333, Stop: 5878, Start Num: 62
Candidate Starts for Doughnut_8:
(Start: 62 @5333 has 112 MA's), (126, 5636), (132, 5654), (171, 5852),

Gene: DrHayes_12 Start: 7263, Stop: 7805, Start Num: 61
Candidate Starts for DrHayes_12:
(Start: 61 @7263 has 109 MA's), (98, 7398), (132, 7566), (168, 7761), (171, 7779), (174, 7788),

Gene: Drago_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Drago_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Durfee_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Durfee_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: DyoEdafos_8 Start: 5282, Stop: 5893, Start Num: 62
Candidate Starts for DyoEdafos_8:
(Start: 62 @5282 has 112 MA's), (128, 5621), (159, 5795), (167, 5840), (175, 5885),

Gene: E6_7 Start: 5000, Stop: 5632, Start Num: 44
Candidate Starts for E6_7:
(Start: 44 @5000 has 4 MA's), (Start: 48 @5015 has 10 MA's), (93, 5174), (100, 5225), (102, 5237), (126, 5348), (151, 5471), (155, 5501), (157, 5516), (173, 5597), (174, 5600),

Gene: EMsquaredA_5 Start: 4604, Stop: 5260, Start Num: 41
Candidate Starts for EMsquaredA_5:
(Start: 32 @4577 has 2 MA's), (Start: 41 @4604 has 15 MA's), (45, 4613), (55, 4637), (69, 4679), (Start: 71 @4682 has 20 MA's), (109, 4928),

Gene: Ecliptus_6 Start: 4342, Stop: 4902, Start Num: 64
Candidate Starts for Ecliptus_6:
(Start: 64 @4342 has 10 MA's), (93, 4483), (147, 4768), (154, 4807),

Gene: Edugator_9 Start: 7391, Stop: 7921, Start Num: 70
Candidate Starts for Edugator_9:
(Start: 57 @7355 has 6 MA's), (Start: 67 @7376 has 4 MA's), (Start: 70 @7391 has 13 MA's), (75, 7403), (132, 7688),

Gene: Efra2_12 Start: 6263, Stop: 6796, Start Num: 61
Candidate Starts for Efra2_12:
(56, 6257), (Start: 61 @6263 has 109 MA's), (98, 6392), (132, 6560), (171, 6770), (174, 6779),

Gene: Eileen_5 Start: 5037, Stop: 5534, Start Num: 71

Candidate Starts for Eileen_5:
(Start: 71 @5037 has 20 MA's), (158, 5496),

Gene: Ekdilam_9 Start: 6928, Stop: 7482, Start Num: 48
Candidate Starts for Ekdilam_9:
(Start: 48 @6928 has 10 MA's), (132, 7249), (168, 7438), (171, 7456), (174, 7465),

Gene: Elfy_5 Start: 4192, Stop: 4650, Start Num: 78
Candidate Starts for Elfy_5:
(Start: 78 @4192 has 2 MA's), (120, 4444), (136, 4495),

Gene: Ellie_9 Start: 7015, Stop: 7581, Start Num: 48
Candidate Starts for Ellie_9:
(Start: 48 @7015 has 10 MA's), (132, 7348), (171, 7555), (174, 7564),

Gene: Emerson_12 Start: 7316, Stop: 7858, Start Num: 61
Candidate Starts for Emerson_12:
(Start: 61 @7316 has 109 MA's), (98, 7451), (132, 7619), (168, 7814), (171, 7832), (174, 7841),

Gene: Emmaloid_6 Start: 4409, Stop: 4945, Start Num: 62
Candidate Starts for Emmaloid_6:
(Start: 62 @4409 has 112 MA's), (106, 4631), (122, 4700), (126, 4709), (132, 4727), (148, 4811), (174, 4928),

Gene: EnalisNailo_5 Start: 4604, Stop: 5260, Start Num: 41
Candidate Starts for EnalisNailo_5:
(Start: 32 @4577 has 2 MA's), (Start: 41 @4604 has 15 MA's), (45, 4613), (55, 4637), (69, 4679), (Start: 71 @4682 has 20 MA's), (109, 4928),

Gene: Enby_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Enby_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Enkosi_8 Start: 6589, Stop: 7137, Start Num: 61
Candidate Starts for Enkosi_8:
(Start: 61 @6589 has 109 MA's), (132, 6904), (168, 7093), (171, 7111),

Gene: Eponine_13 Start: 8420, Stop: 8992, Start Num: 62
Candidate Starts for Eponine_13:
(13, 8240), (Start: 62 @8420 has 112 MA's), (116, 8708), (132, 8753),

Gene: Ezurina_6 Start: 4583, Stop: 5089, Start Num: 65
Candidate Starts for Ezurina_6:
(Start: 65 @4583 has 12 MA's), (103, 4769), (122, 4862), (129, 4880),

Gene: Farewell_5 Start: 4759, Stop: 5304, Start Num: 66
Candidate Starts for Farewell_5:
(Start: 66 @4759 has 19 MA's), (88, 4870), (90, 4879), (136, 5128), (141, 5164), (152, 5236),

Gene: Fefferhead_11 Start: 7185, Stop: 7748, Start Num: 48
Candidate Starts for Fefferhead_11:
(Start: 48 @7185 has 10 MA's), (132, 7515), (171, 7722), (174, 7731),

Gene: FeliMaine_40 Start: 15196, Stop: 15828, Start Num: 49
Candidate Starts for FeliMaine_40:
(Start: 49 @15196 has 20 MA's), (86, 15301), (112, 15496), (134, 15565), (138, 15583),

Gene: Feyre_10 Start: 7278, Stop: 7802, Start Num: 67
Candidate Starts for Feyre_10:
(Start: 27 @7173 has 4 MA's), (Start: 36 @7212 has 1 MA's), (Start: 57 @7257 has 6 MA's), (Start: 67 @7278 has 4 MA's), (Start: 70 @7293 has 13 MA's), (75, 7305), (132, 7578),

Gene: Findley_8 Start: 5349, Stop: 5891, Start Num: 62
Candidate Starts for Findley_8:
(Start: 62 @5349 has 112 MA's), (126, 5652), (132, 5670), (171, 5865),

Gene: Finnry_8 Start: 5539, Stop: 6138, Start Num: 62
Candidate Starts for Finnry_8:
(Start: 62 @5539 has 112 MA's), (102, 5725), (110, 5800), (114, 5821), (143, 5947), (159, 6037),

Gene: Fionnbharth_13 Start: 8534, Stop: 9106, Start Num: 62
Candidate Starts for Fionnbharth_13:
(Start: 62 @8534 has 112 MA's), (116, 8822), (132, 8867),

Gene: Flathead_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Flathead_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Floral_5 Start: 4604, Stop: 5260, Start Num: 41
Candidate Starts for Floral_5:
(Start: 32 @4577 has 2 MA's), (Start: 41 @4604 has 15 MA's), (45, 4613), (55, 4637), (69, 4679), (Start: 71 @4682 has 20 MA's), (109, 4928),

Gene: FosterFrank_5 Start: 5039, Stop: 5533, Start Num: 71
Candidate Starts for FosterFrank_5:
(40, 4961), (Start: 60 @5003 has 2 MA's), (Start: 71 @5039 has 20 MA's), (158, 5495),

Gene: Frankie_6 Start: 4602, Stop: 5138, Start Num: 62
Candidate Starts for Frankie_6:
(Start: 62 @4602 has 112 MA's), (106, 4824), (122, 4893), (126, 4902), (148, 5004), (174, 5121),

Gene: Frickyeah_6 Start: 4327, Stop: 4878, Start Num: 66
Candidate Starts for Frickyeah_6:
(Start: 66 @4327 has 19 MA's), (87, 4408), (96, 4480), (154, 4786),

Gene: Fryberger_38 Start: 13725, Stop: 14291, Start Num: 82
Candidate Starts for Fryberger_38:
(39, 13608), (Start: 82 @13725 has 5 MA's), (97, 13833), (139, 14055), (146, 14115), (165, 14226),

Gene: G4_6 Start: 4937, Stop: 5569, Start Num: 44
Candidate Starts for G4_6:
(Start: 44 @4937 has 4 MA's), (Start: 48 @4952 has 10 MA's), (93, 5111), (100, 5162), (102, 5174), (126, 5285), (151, 5408), (155, 5438), (157, 5453), (173, 5534), (174, 5537),

Gene: Ganymede_12 Start: 7333, Stop: 7875, Start Num: 61
Candidate Starts for Ganymede_12:

(Start: 61 @7333 has 109 MA's), (98, 7468), (132, 7636), (168, 7831), (171, 7849), (174, 7858),

Gene: Gattaca_37 Start: 14375, Stop: 15007, Start Num: 49
Candidate Starts for Gattaca_37:
(Start: 49 @14375 has 20 MA's), (86, 14480), (112, 14675), (134, 14744), (138, 14762),

Gene: Gengar_10 Start: 7279, Stop: 7908, Start Num: 27
Candidate Starts for Gengar_10:
(Start: 27 @7279 has 4 MA's), (Start: 36 @7318 has 1 MA's), (Start: 57 @7363 has 6 MA's), (Start: 67 @7384 has 4 MA's), (Start: 70 @7399 has 13 MA's), (75, 7411), (132, 7684),

Gene: Geraldini_12 Start: 7339, Stop: 7875, Start Num: 61
Candidate Starts for Geraldini_12:
(Start: 61 @7339 has 109 MA's), (98, 7468), (132, 7636), (168, 7831), (171, 7849), (174, 7858),

Gene: Gerri43_7 Start: 4967, Stop: 5473, Start Num: 65
Candidate Starts for Gerri43_7:
(Start: 65 @4967 has 12 MA's), (103, 5153), (122, 5246),

Gene: Getalong_6 Start: 4327, Stop: 4878, Start Num: 66
Candidate Starts for Getalong_6:
(Start: 66 @4327 has 19 MA's), (87, 4408), (96, 4480), (154, 4786),

Gene: Girafales_6 Start: 4403, Stop: 4939, Start Num: 62
Candidate Starts for Girafales_6:
(Start: 62 @4403 has 112 MA's), (122, 4694), (126, 4703), (174, 4922),

Gene: GlobiWarming_5 Start: 5032, Stop: 5529, Start Num: 71
Candidate Starts for GlobiWarming_5:
(23, 4891), (25, 4900), (Start: 71 @5032 has 20 MA's), (158, 5491),

Gene: GoongGoong_37 Start: 14415, Stop: 15047, Start Num: 49
Candidate Starts for GoongGoong_37:
(Start: 49 @14415 has 20 MA's), (86, 14520), (112, 14715), (134, 14784), (138, 14802),

Gene: GrimEater_5 Start: 4179, Stop: 4631, Start Num: 83
Candidate Starts for GrimEater_5:
(Start: 83 @4179 has 2 MA's), (123, 4410),

Gene: Guanica15_12 Start: 6279, Stop: 6812, Start Num: 61
Candidate Starts for Guanica15_12:
(56, 6273), (Start: 61 @6279 has 109 MA's), (98, 6408), (132, 6576), (171, 6786), (174, 6795),

Gene: Guey18_43 Start: 14918, Stop: 15484, Start Num: 82
Candidate Starts for Guey18_43:
(39, 14801), (Start: 82 @14918 has 5 MA's), (97, 15026), (139, 15248), (146, 15308), (165, 15419),

Gene: Guillsminger_10 Start: 7293, Stop: 7883, Start Num: 36
Candidate Starts for Guillsminger_10:
(Start: 27 @7254 has 4 MA's), (Start: 36 @7293 has 1 MA's), (Start: 57 @7338 has 6 MA's), (Start: 67 @7359 has 4 MA's), (Start: 70 @7374 has 13 MA's), (75, 7386), (132, 7659),

Gene: Hammy_11 Start: 7195, Stop: 7752, Start Num: 48

Candidate Starts for Hammy_11:
(Start: 41 @7177 has 15 MA's), (Start: 48 @7195 has 10 MA's), (132, 7519), (168, 7708), (174, 7735),

Gene: HedwigODU_12 Start: 7313, Stop: 7855, Start Num: 61
Candidate Starts for HedwigODU_12:
(Start: 61 @7313 has 109 MA's), (98, 7448), (132, 7616), (168, 7811), (171, 7829), (174, 7838),

Gene: Heftyboy_10 Start: 7501, Stop: 8010, Start Num: 70
Candidate Starts for Heftyboy_10:
(Start: 27 @7381 has 4 MA's), (Start: 36 @7420 has 1 MA's), (Start: 57 @7465 has 6 MA's), (Start: 67 @7486 has 4 MA's), (Start: 70 @7501 has 13 MA's), (75, 7513), (132, 7786),

Gene: Hegedechwinu_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Hegedechwinu_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (126, 4708), (148, 4810), (174, 4927),

Gene: Henrique_5 Start: 5037, Stop: 5531, Start Num: 71
Candidate Starts for Henrique_5:
(Start: 71 @5037 has 20 MA's), (142, 5418), (158, 5493),

Gene: Holliday_6 Start: 4294, Stop: 4875, Start Num: 50
Candidate Starts for Holliday_6:
(3, 3985), (4, 4027), (7, 4060), (9, 4096), (13, 4120), (15, 4141), (Start: 50 @4294 has 4 MA's), (Start: 66 @4327 has 19 MA's), (96, 4480), (142, 4723), (154, 4786),

Gene: Homura_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Homura_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Horus_6 Start: 4327, Stop: 4878, Start Num: 66
Candidate Starts for Horus_6:
(Start: 66 @4327 has 19 MA's), (87, 4408), (96, 4480), (154, 4786),

Gene: HotPotato_5 Start: 5037, Stop: 5534, Start Num: 71
Candidate Starts for HotPotato_5:
(Start: 71 @5037 has 20 MA's), (119, 5316), (158, 5496),

Gene: Huphlepuff_40 Start: 15000, Stop: 15632, Start Num: 49
Candidate Starts for Huphlepuff_40:
(Start: 49 @15000 has 20 MA's), (86, 15105), (112, 15300), (134, 15369), (138, 15387),

Gene: Hurricane_11 Start: 7335, Stop: 7883, Start Num: 71
Candidate Starts for Hurricane_11:
(16, 7140), (Start: 57 @7299 has 6 MA's), (Start: 71 @7335 has 20 MA's), (95, 7461), (106, 7545), (132, 7647), (174, 7866),

Gene: Hyperbowlee_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Hyperbowlee_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Illumine_12 Start: 7321, Stop: 7854, Start Num: 61
Candidate Starts for Illumine_12:
(Start: 61 @7321 has 109 MA's), (98, 7447), (132, 7615), (171, 7828), (174, 7837),

Gene: Inky_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Inky_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: InvictusManeo_10 Start: 7500, Stop: 8030, Start Num: 70
Candidate Starts for InvictusManeo_10:
(22, 7356), (Start: 27 @7377 has 4 MA's), (Start: 57 @7464 has 6 MA's), (Start: 67 @7485 has 4 MA's), (Start: 70 @7500 has 13 MA's), (75, 7512), (132, 7797),

Gene: JAWS_12 Start: 7310, Stop: 7852, Start Num: 61
Candidate Starts for JAWS_12:
(Start: 61 @7310 has 109 MA's), (98, 7445), (132, 7613), (168, 7808), (171, 7826), (174, 7835),

Gene: JF1_13 Start: 8533, Stop: 9105, Start Num: 62
Candidate Starts for JF1_13:
(Start: 62 @8533 has 112 MA's), (116, 8821), (132, 8866),

Gene: Jabbawokkie_7 Start: 4830, Stop: 5378, Start Num: 64
Candidate Starts for Jabbawokkie_7:
(2, 4407), (4, 4539), (12, 4614), (15, 4650), (23, 4713), (Start: 64 @4830 has 10 MA's), (88, 4935), (93, 4959), (117, 5118), (154, 5283),

Gene: Jablanski_5 Start: 4451, Stop: 5107, Start Num: 41
Candidate Starts for Jablanski_5:
(Start: 32 @4424 has 2 MA's), (Start: 41 @4451 has 15 MA's), (45, 4460), (55, 4484), (69, 4526), (Start: 71 @4529 has 20 MA's), (109, 4775),

Gene: JalFarm20_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for JalFarm20_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Jankie_5 Start: 4178, Stop: 4630, Start Num: 83
Candidate Starts for Jankie_5:
(Start: 83 @4178 has 2 MA's), (123, 4409),

Gene: Jarvi_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Jarvi_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Jayhawk_12 Start: 7314, Stop: 7856, Start Num: 62
Candidate Starts for Jayhawk_12:
(14, 7131), (Start: 62 @7314 has 112 MA's), (98, 7449), (132, 7617), (168, 7812), (171, 7830), (174, 7839),

Gene: Jeckyll_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Jeckyll_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Job42_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Job42_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (132, 4726), (142, 4786), (148, 4810), (174, 4927),

Gene: JoieB_39 Start: 15219, Stop: 15851, Start Num: 49
Candidate Starts for JoieB_39:
(Start: 49 @15219 has 20 MA's), (86, 15324), (112, 15519), (134, 15588), (138, 15606),

Gene: Joy99_12 Start: 7289, Stop: 7825, Start Num: 61
Candidate Starts for Joy99_12:
(Start: 61 @7289 has 109 MA's), (98, 7418), (132, 7586), (168, 7781), (171, 7799), (174, 7808),

Gene: Judy_5 Start: 5076, Stop: 5573, Start Num: 71
Candidate Starts for Judy_5:
(Start: 71 @5076 has 20 MA's), (158, 5535),

Gene: Juice456_6 Start: 4409, Stop: 4945, Start Num: 62
Candidate Starts for Juice456_6:
(Start: 62 @4409 has 112 MA's), (106, 4631), (122, 4700), (126, 4709), (148, 4811), (174, 4928),

Gene: Juliette_13 Start: 8420, Stop: 8992, Start Num: 62
Candidate Starts for Juliette_13:
(13, 8240), (Start: 62 @8420 has 112 MA's), (116, 8708), (132, 8753),

Gene: Kamaru_6 Start: 4327, Stop: 4875, Start Num: 66
Candidate Starts for Kamaru_6:
(3, 3985), (4, 4027), (7, 4060), (9, 4096), (13, 4120), (15, 4141), (Start: 50 @4294 has 4 MA's), (Start: 66 @4327 has 19 MA's), (96, 4480), (142, 4723), (154, 4786),

Gene: Karkharias_5 Start: 5037, Stop: 5531, Start Num: 71
Candidate Starts for Karkharias_5:
(Start: 71 @5037 has 20 MA's), (142, 5418), (158, 5493),

Gene: KayMoney_5 Start: 5037, Stop: 5531, Start Num: 71
Candidate Starts for KayMoney_5:
(Start: 71 @5037 has 20 MA's), (158, 5493),

Gene: Keelan_36 Start: 13692, Stop: 14267, Start Num: 76
Candidate Starts for Keelan_36:
(Start: 76 @13692 has 1 MA's), (97, 13821), (115, 13965), (130, 14007), (139, 14043), (146, 14103), (150, 14124), (172, 14247), (174, 14253),

Gene: Kenna_6 Start: 4327, Stop: 4878, Start Num: 66
Candidate Starts for Kenna_6:
(Start: 66 @4327 has 19 MA's), (87, 4408), (96, 4480), (154, 4786),

Gene: Keshu_11 Start: 7324, Stop: 7872, Start Num: 71
Candidate Starts for Keshu_11:
(Start: 71 @7324 has 20 MA's), (90, 7417), (132, 7636), (174, 7855),

Gene: Kheparia_13 Start: 7282, Stop: 7815, Start Num: 61
Candidate Starts for Kheparia_13:
(Start: 61 @7282 has 109 MA's), (98, 7411), (132, 7579), (171, 7789), (174, 7798),

Gene: KiSi_11 Start: 6171, Stop: 6728, Start Num: 61
Candidate Starts for KiSi_11:

(Start: 61 @6171 has 109 MA's), (168, 6684), (171, 6702), (174, 6711),

Gene: Kimberlium_6 Start: 4409, Stop: 4945, Start Num: 62
Candidate Starts for Kimberlium_6:
(Start: 62 @4409 has 112 MA's), (106, 4631), (122, 4700), (126, 4709), (148, 4811), (174, 4928),

Gene: Kingsley_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Kingsley_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Kratio_9 Start: 7091, Stop: 7657, Start Num: 57
Candidate Starts for Kratio_9:
(Start: 57 @7091 has 6 MA's), (Start: 67 @7112 has 4 MA's), (Start: 70 @7127 has 13 MA's), (75, 7139), (132, 7424),

Gene: Kraw_13 Start: 8453, Stop: 9025, Start Num: 62
Candidate Starts for Kraw_13:
(Start: 62 @8453 has 112 MA's), (116, 8741), (132, 8786),

Gene: Kropertea_7 Start: 5089, Stop: 5700, Start Num: 62
Candidate Starts for Kropertea_7:
(Start: 62 @5089 has 112 MA's), (93, 5230), (114, 5386), (128, 5434), (159, 5602), (167, 5647), (175, 5692),

Gene: Krueger_11 Start: 6185, Stop: 6796, Start Num: 34
Candidate Starts for Krueger_11:
(Start: 34 @6185 has 1 MA's), (Start: 53 @6224 has 12 MA's), (113, 6512), (132, 6563), (140, 6602), (171, 6770), (174, 6779),

Gene: Kudefre_15 Start: 8967, Stop: 9623, Start Num: 26
Candidate Starts for Kudefre_15:
(Start: 18 @8925 has 1 MA's), (Start: 26 @8967 has 1 MA's), (29, 8988), (Start: 31 @8991 has 5 MA's), (38, 9015), (85, 9141), (105, 9285), (108, 9324), (127, 9393), (133, 9423), (136, 9435), (143, 9483), (144, 9489), (163, 9603), (164, 9606),

Gene: Kuwabara_5 Start: 4287, Stop: 4802, Start Num: 79
Candidate Starts for Kuwabara_5:
(77, 4278), (Start: 79 @4287 has 6 MA's), (107, 4479), (144, 4629),

Gene: Larva_10 Start: 7222, Stop: 7788, Start Num: 57
Candidate Starts for Larva_10:
(Start: 57 @7222 has 6 MA's), (Start: 67 @7243 has 4 MA's), (Start: 70 @7258 has 13 MA's), (75, 7270), (132, 7555),

Gene: LastHope_12 Start: 6334, Stop: 6882, Start Num: 60
Candidate Starts for LastHope_12:
(Start: 60 @6334 has 2 MA's), (98, 6484), (132, 6652), (140, 6691), (168, 6838), (171, 6856), (174, 6865),

Gene: LastNadiia_10 Start: 7336, Stop: 7845, Start Num: 65
Candidate Starts for LastNadiia_10:
(Start: 65 @7336 has 12 MA's),

Gene: LaterM_12 Start: 7280, Stop: 7822, Start Num: 61
Candidate Starts for LaterM_12:
(Start: 61 @7280 has 109 MA's), (98, 7415), (132, 7583), (171, 7796), (174, 7805),

Gene: Lavahound_10 Start: 6944, Stop: 7507, Start Num: 48
Candidate Starts for Lavahound_10:
(Start: 48 @6944 has 10 MA's), (132, 7274), (171, 7481), (174, 7490),

Gene: LeMond_11 Start: 6171, Stop: 6728, Start Num: 61
Candidate Starts for LeMond_11:
(Start: 61 @6171 has 109 MA's), (168, 6684), (171, 6702), (174, 6711),

Gene: Lea83_11 Start: 7326, Stop: 7874, Start Num: 71
Candidate Starts for Lea83_11:
(Start: 57 @7290 has 6 MA's), (Start: 71 @7326 has 20 MA's), (121, 7602), (132, 7638), (174, 7857),

Gene: Lebo14_13 Start: 8547, Stop: 9119, Start Num: 62
Candidate Starts for Lebo14_13:
(Start: 62 @8547 has 112 MA's), (116, 8835), (132, 8880),

Gene: Leozinho_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Leozinho_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Leroy_6 Start: 4328, Stop: 4879, Start Num: 66
Candidate Starts for Leroy_6:
(Start: 66 @4328 has 19 MA's), (87, 4409), (96, 4481), (154, 4787),

Gene: Leston_10 Start: 7384, Stop: 8013, Start Num: 27
Candidate Starts for Leston_10:
(Start: 27 @7384 has 4 MA's), (Start: 36 @7423 has 1 MA's), (Start: 57 @7468 has 6 MA's), (Start: 67 @7489 has 4 MA's), (Start: 70 @7504 has 13 MA's), (75, 7516), (132, 7789),

Gene: LilDirt_9 Start: 7257, Stop: 7787, Start Num: 70
Candidate Starts for LilDirt_9:
(Start: 57 @7221 has 6 MA's), (Start: 67 @7242 has 4 MA's), (Start: 70 @7257 has 13 MA's), (75, 7269), (132, 7554),

Gene: LilJank_15 Start: 8880, Stop: 9503, Start Num: 31
Candidate Starts for LilJank_15:
(28, 8868), (Start: 31 @8880 has 5 MA's), (47, 8919), (Start: 70 @8976 has 13 MA's), (84, 9021), (92, 9072), (94, 9087), (108, 9201), (110, 9213), (125, 9258), (136, 9312), (143, 9360), (145, 9369), (160, 9465), (164, 9486),

Gene: LilPharaoh_8 Start: 6589, Stop: 7137, Start Num: 61
Candidate Starts for LilPharaoh_8:
(Start: 61 @6589 has 109 MA's), (132, 6904), (168, 7093), (171, 7111),

Gene: LilSpotty_5 Start: 3945, Stop: 4496, Start Num: 71
Candidate Starts for LilSpotty_5:
(Start: 71 @3945 has 20 MA's), (93, 4059), (124, 4221), (137, 4269), (144, 4317),

Gene: Lilas_5 Start: 4604, Stop: 5260, Start Num: 41

Candidate Starts for Lilas_5:
(Start: 32 @4577 has 2 MA's), (Start: 41 @4604 has 15 MA's), (45, 4613), (55, 4637), (69, 4679), (Start: 71 @4682 has 20 MA's), (109, 4928),

Gene: Lilbit_37 Start: 15196, Stop: 15828, Start Num: 49
Candidate Starts for Lilbit_37:
(Start: 49 @15196 has 20 MA's), (86, 15301), (112, 15496), (134, 15565), (138, 15583),

Gene: LilyBell_5 Start: 5052, Stop: 5546, Start Num: 71
Candidate Starts for LilyBell_5:
(Start: 71 @5052 has 20 MA's), (158, 5508),

Gene: LindNT_12 Start: 7280, Stop: 7822, Start Num: 61
Candidate Starts for LindNT_12:
(Start: 61 @7280 has 109 MA's), (98, 7415), (132, 7583), (168, 7778), (171, 7796), (174, 7805),

Gene: LisoBros_5 Start: 4378, Stop: 4854, Start Num: 78
Candidate Starts for LisoBros_5:
(Start: 78 @4378 has 2 MA's), (123, 4636), (132, 4669),

Gene: LitninMcQueen_6 Start: 4327, Stop: 4875, Start Num: 66
Candidate Starts for LitninMcQueen_6:
(3, 3985), (4, 4027), (7, 4060), (9, 4096), (13, 4120), (15, 4141), (Start: 50 @4294 has 4 MA's), (Start: 66 @4327 has 19 MA's), (96, 4480), (142, 4723), (154, 4786),

Gene: LittleLaf_38 Start: 14925, Stop: 15557, Start Num: 49
Candidate Starts for LittleLaf_38:
(Start: 49 @14925 has 20 MA's), (86, 15030), (112, 15225), (134, 15294), (138, 15312),

Gene: LittleRon_5 Start: 5037, Stop: 5531, Start Num: 71
Candidate Starts for LittleRon_5:
(Start: 71 @5037 has 20 MA's), (158, 5493),

Gene: LittleShirley_6 Start: 4409, Stop: 4945, Start Num: 62
Candidate Starts for LittleShirley_6:
(Start: 62 @4409 has 112 MA's), (106, 4631), (122, 4700), (126, 4709), (148, 4811), (174, 4928),

Gene: Llorens_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Llorens_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Lokum_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Lokum_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: LonelyBoi_5 Start: 4451, Stop: 5107, Start Num: 41
Candidate Starts for LonelyBoi_5:
(Start: 32 @4424 has 2 MA's), (Start: 41 @4451 has 15 MA's), (45, 4460), (55, 4484), (69, 4526), (Start: 71 @4529 has 20 MA's), (109, 4775),

Gene: LordVader_6 Start: 4404, Stop: 4940, Start Num: 62
Candidate Starts for LordVader_6:

(Start: 62 @4404 has 112 MA's), (99, 4572), (106, 4626), (122, 4695), (126, 4704), (148, 4806), (174, 4923),

Gene: Lorde_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Lorde_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Lucia_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Lucia_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Lunahalos_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Lunahalos_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Lutum_6 Start: 4327, Stop: 4878, Start Num: 66
Candidate Starts for Lutum_6:
(Start: 66 @4327 has 19 MA's), (87, 4408), (96, 4480), (154, 4786),

Gene: MacKat_12 Start: 7333, Stop: 7875, Start Num: 61
Candidate Starts for MacKat_12:
(Start: 61 @7333 has 109 MA's), (98, 7468), (132, 7636), (168, 7831), (171, 7849), (174, 7858),

Gene: MacnCheese_12 Start: 7513, Stop: 8091, Start Num: 57
Candidate Starts for MacnCheese_12:
(Start: 57 @7513 has 6 MA's), (Start: 71 @7549 has 20 MA's), (90, 7633), (132, 7852), (174, 8074),

Gene: Madiba_6 Start: 4407, Stop: 4943, Start Num: 62
Candidate Starts for Madiba_6:
(Start: 62 @4407 has 112 MA's), (106, 4629), (122, 4698), (126, 4707), (132, 4725), (142, 4785), (148, 4809), (174, 4926),

Gene: Makima_8 Start: 6454, Stop: 6963, Start Num: 65
Candidate Starts for Makima_8:
(58, 6439), (Start: 65 @6454 has 12 MA's), (132, 6757),

Gene: Malisha_6 Start: 5305, Stop: 5919, Start Num: 43
Candidate Starts for Malisha_6:
(Start: 43 @5305 has 1 MA's), (68, 5359), (88, 5458), (93, 5482), (131, 5695), (145, 5773), (149, 5794), (154, 5824),

Gene: Malthus_13 Start: 8453, Stop: 9025, Start Num: 62
Candidate Starts for Malthus_13:
(Start: 62 @8453 has 112 MA's), (116, 8741), (132, 8786),

Gene: Marcoliusprime_8 Start: 5349, Stop: 5891, Start Num: 62
Candidate Starts for Marcoliusprime_8:
(Start: 62 @5349 has 112 MA's), (126, 5652), (132, 5670), (171, 5865),

Gene: MarkPhew_11 Start: 6090, Stop: 6629, Start Num: 61
Candidate Starts for MarkPhew_11:
(Start: 61 @6090 has 109 MA's), (113, 6342), (121, 6357), (168, 6585), (171, 6603), (174, 6612),

Gene: Marker_6 Start: 4407, Stop: 4943, Start Num: 62
Candidate Starts for Marker_6:
(Start: 62 @4407 has 112 MA's), (106, 4629), (122, 4698), (126, 4707), (132, 4725), (142, 4785), (148, 4809), (174, 4926),

Gene: Marshawn_13 Start: 6726, Stop: 7280, Start Num: 61
Candidate Starts for Marshawn_13:
(Start: 61 @6726 has 109 MA's), (98, 6876), (121, 7008), (168, 7236), (171, 7254),

Gene: Marteena_5 Start: 4604, Stop: 5260, Start Num: 41
Candidate Starts for Marteena_5:
(Start: 32 @4577 has 2 MA's), (Start: 41 @4604 has 15 MA's), (45, 4613), (55, 4637), (69, 4679), (Start: 71 @4682 has 20 MA's), (109, 4928),

Gene: Marvin_36 Start: 15195, Stop: 15827, Start Num: 49
Candidate Starts for Marvin_36:
(Start: 49 @15195 has 20 MA's), (86, 15300), (112, 15495), (134, 15564), (138, 15582),

Gene: McMater_12 Start: 6376, Stop: 6936, Start Num: 61
Candidate Starts for McMater_12:
(56, 6370), (Start: 61 @6376 has 109 MA's), (98, 6532), (132, 6700), (171, 6910),

Gene: Mdavu_8 Start: 6577, Stop: 7125, Start Num: 61
Candidate Starts for Mdavu_8:
(Start: 61 @6577 has 109 MA's), (132, 6892), (168, 7081), (171, 7099),

Gene: MeaningOfLife_12 Start: 7286, Stop: 7828, Start Num: 61
Candidate Starts for MeaningOfLife_12:
(Start: 61 @7286 has 109 MA's), (98, 7421), (132, 7589), (168, 7784), (171, 7802), (174, 7811),

Gene: Megsy_12 Start: 7283, Stop: 7825, Start Num: 61
Candidate Starts for Megsy_12:
(Start: 61 @7283 has 109 MA's), (98, 7418), (132, 7586), (168, 7781), (171, 7799), (174, 7808),

Gene: Milly_8 Start: 5349, Stop: 5891, Start Num: 62
Candidate Starts for Milly_8:
(Start: 62 @5349 has 112 MA's), (126, 5652), (132, 5670), (171, 5865),

Gene: Mireles_7 Start: 4860, Stop: 5363, Start Num: 65
Candidate Starts for Mireles_7:
(58, 4845), (Start: 65 @4860 has 12 MA's), (122, 5136), (169, 5331),

Gene: Miryou_10 Start: 7374, Stop: 7883, Start Num: 70
Candidate Starts for Miryou_10:
(Start: 27 @7254 has 4 MA's), (Start: 36 @7293 has 1 MA's), (Start: 57 @7338 has 6 MA's), (Start: 67 @7359 has 4 MA's), (Start: 70 @7374 has 13 MA's), (75, 7386), (132, 7659),

Gene: Misha28_6 Start: 4412, Stop: 4948, Start Num: 62
Candidate Starts for Misha28_6:
(Start: 62 @4412 has 112 MA's), (106, 4634), (122, 4703), (126, 4712), (132, 4730), (148, 4814), (174, 4931),

Gene: MissDaisy_13 Start: 8319, Stop: 8891, Start Num: 62

Candidate Starts for MissDaisy_13:
(Start: 62 @8319 has 112 MA's), (116, 8607), (132, 8652),

Gene: Mitti_13 Start: 8457, Stop: 9029, Start Num: 62
Candidate Starts for Mitti_13:
(Start: 62 @8457 has 112 MA's), (116, 8745), (132, 8790),

Gene: Moostard_8 Start: 5538, Stop: 6137, Start Num: 62
Candidate Starts for Moostard_8:
(Start: 62 @5538 has 112 MA's), (102, 5724), (110, 5799), (114, 5820), (143, 5946), (159, 6036),

Gene: MortyNRick_5 Start: 4287, Stop: 4802, Start Num: 79
Candidate Starts for MortyNRick_5:
(77, 4278), (Start: 79 @4287 has 6 MA's), (107, 4479), (144, 4629),

Gene: MosMoris_36 Start: 14375, Stop: 15007, Start Num: 49
Candidate Starts for MosMoris_36:
(Start: 49 @14375 has 20 MA's), (86, 14480), (112, 14675), (134, 14744), (138, 14762),

Gene: Mova_6 Start: 4410, Stop: 4946, Start Num: 62
Candidate Starts for Mova_6:
(Start: 62 @4410 has 112 MA's), (106, 4632), (122, 4701), (126, 4710), (132, 4728), (148, 4812), (174, 4929),

Gene: Mozy_6 Start: 4405, Stop: 4941, Start Num: 62
Candidate Starts for Mozy_6:
(Start: 62 @4405 has 112 MA's), (122, 4696), (126, 4705), (174, 4924),

Gene: Mufasa_8 Start: 5333, Stop: 5878, Start Num: 62
Candidate Starts for Mufasa_8:
(Start: 62 @5333 has 112 MA's), (126, 5636), (132, 5654), (171, 5852),

Gene: MulchExplorer_6 Start: 4409, Stop: 4945, Start Num: 62
Candidate Starts for MulchExplorer_6:
(Start: 62 @4409 has 112 MA's), (106, 4631), (122, 4700), (126, 4709), (148, 4811), (174, 4928),

Gene: Murucutumbu_12 Start: 7273, Stop: 7815, Start Num: 61
Candidate Starts for Murucutumbu_12:
(Start: 61 @7273 has 109 MA's), (98, 7408), (132, 7576), (171, 7789), (174, 7798),

Gene: Mynx_12 Start: 7336, Stop: 7878, Start Num: 61
Candidate Starts for Mynx_12:
(Start: 61 @7336 has 109 MA's), (98, 7471), (132, 7639), (168, 7834), (171, 7852), (174, 7861),

Gene: Neighly_10 Start: 7242, Stop: 7787, Start Num: 67
Candidate Starts for Neighly_10:
(Start: 57 @7221 has 6 MA's), (Start: 67 @7242 has 4 MA's), (Start: 70 @7257 has 13 MA's), (75, 7269), (132, 7554),

Gene: Neuvillette_7 Start: 4967, Stop: 5473, Start Num: 65
Candidate Starts for Neuvillette_7:
(Start: 65 @4967 has 12 MA's), (103, 5153), (122, 5246),

Gene: Neville_15 Start: 8829, Stop: 9452, Start Num: 31
Candidate Starts for Neville_15:
(20, 8778), (28, 8817), (Start: 31 @8829 has 5 MA's), (47, 8868), (Start: 70 @8925 has 13 MA's), (84, 8970), (92, 9021), (94, 9036), (108, 9150), (110, 9162), (125, 9207), (136, 9261), (143, 9309), (145, 9318), (160, 9414), (164, 9435),

Gene: Nibb_11 Start: 6227, Stop: 6772, Start Num: 61
Candidate Starts for Nibb_11:
(Start: 61 @6227 has 109 MA's), (140, 6572), (168, 6728), (171, 6746), (174, 6755),

Gene: NidoQ_5 Start: 5094, Stop: 5591, Start Num: 71
Candidate Starts for NidoQ_5:
(Start: 71 @5094 has 20 MA's), (158, 5553),

Gene: Nikao_8 Start: 6589, Stop: 7137, Start Num: 61
Candidate Starts for Nikao_8:
(Start: 61 @6589 has 109 MA's), (132, 6904), (168, 7093), (171, 7111),

Gene: NikkiHotWheels_5 Start: 5034, Stop: 5531, Start Num: 71
Candidate Starts for NikkiHotWheels_5:
(Start: 71 @5034 has 20 MA's), (158, 5493),

Gene: Niklas_12 Start: 6376, Stop: 6936, Start Num: 61
Candidate Starts for Niklas_12:
(56, 6370), (Start: 61 @6376 has 109 MA's), (98, 6532), (132, 6700), (171, 6910),

Gene: Nolwazi_13 Start: 8458, Stop: 9030, Start Num: 62
Candidate Starts for Nolwazi_13:
(Start: 62 @8458 has 112 MA's), (116, 8746), (132, 8791),

Gene: November_10 Start: 7032, Stop: 7598, Start Num: 48
Candidate Starts for November_10:
(Start: 48 @7032 has 10 MA's), (121, 7326), (132, 7362), (171, 7572), (174, 7581),

Gene: Nutello_8 Start: 6589, Stop: 7137, Start Num: 61
Candidate Starts for Nutello_8:
(Start: 61 @6589 has 109 MA's), (132, 6904), (168, 7093), (171, 7111),

Gene: ODay_6 Start: 4340, Stop: 4900, Start Num: 64
Candidate Starts for ODay_6:
(Start: 64 @4340 has 10 MA's), (93, 4481), (147, 4766), (154, 4805),

Gene: Octobien14_16 Start: 10060, Stop: 10689, Start Num: 31
Candidate Starts for Octobien14_16:
(20, 10003), (Start: 26 @10036 has 1 MA's), (29, 10057), (Start: 31 @10060 has 5 MA's), (38, 10084), (74, 10168), (99, 10306), (105, 10351), (136, 10501), (143, 10549), (144, 10555), (161, 10657), (164, 10672),

Gene: Ogopogo_7 Start: 4568, Stop: 5116, Start Num: 64
Candidate Starts for Ogopogo_7:
(2, 4145), (4, 4277), (12, 4352), (15, 4388), (23, 4451), (Start: 64 @4568 has 10 MA's), (88, 4673), (93, 4697), (117, 4856), (154, 5021),

Gene: OkiRoe_10 Start: 7360, Stop: 7884, Start Num: 67
Candidate Starts for OkiRoe_10:
(Start: 27 @7255 has 4 MA's), (Start: 36 @7294 has 1 MA's), (Start: 57 @7339 has 6 MA's), (Start: 67 @7360 has 4 MA's), (Start: 70 @7375 has 13 MA's), (75, 7387), (132, 7660),

Gene: Oksu_6 Start: 4409, Stop: 4945, Start Num: 62
Candidate Starts for Oksu_6:
(Start: 62 @4409 has 112 MA's), (106, 4631), (122, 4700), (126, 4709), (148, 4811), (174, 4928),

Gene: OmniCritical_13 Start: 8444, Stop: 9016, Start Num: 62
Candidate Starts for OmniCritical_13:
(Start: 62 @8444 has 112 MA's), (116, 8732), (132, 8777),

Gene: Omnicron_10 Start: 6242, Stop: 6898, Start Num: 27
Candidate Starts for Omnicron_10:
(Start: 27 @6242 has 4 MA's), (Start: 36 @6281 has 1 MA's), (59, 6329), (Start: 72 @6365 has 1 MA's), (75, 6377), (132, 6665), (171, 6872),

Gene: Oscar_11 Start: 6172, Stop: 6729, Start Num: 61
Candidate Starts for Oscar_11:
(Start: 61 @6172 has 109 MA's), (168, 6685), (171, 6703), (174, 6712),

Gene: OwlsT2W_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for OwlsT2W_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Padfoot_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Padfoot_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Padpat_12 Start: 7316, Stop: 7858, Start Num: 61
Candidate Starts for Padpat_12:
(Start: 61 @7316 has 109 MA's), (98, 7451), (132, 7619), (168, 7814), (171, 7832), (174, 7841),

Gene: Paola_10 Start: 7359, Stop: 7883, Start Num: 67
Candidate Starts for Paola_10:
(Start: 27 @7254 has 4 MA's), (Start: 36 @7293 has 1 MA's), (Start: 57 @7338 has 6 MA's), (Start: 67 @7359 has 4 MA's), (Start: 70 @7374 has 13 MA's), (75, 7386), (132, 7659),

Gene: Patt_13 Start: 8295, Stop: 8867, Start Num: 62
Candidate Starts for Patt_13:
(Start: 62 @8295 has 112 MA's), (116, 8583), (132, 8628),

Gene: Peanam_12 Start: 6376, Stop: 6936, Start Num: 61
Candidate Starts for Peanam_12:
(56, 6370), (Start: 61 @6376 has 109 MA's), (98, 6532), (132, 6700), (171, 6910),

Gene: Peas_5 Start: 5037, Stop: 5534, Start Num: 71
Candidate Starts for Peas_5:
(Start: 71 @5037 has 20 MA's), (158, 5496),

Gene: Peel_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Peel_12:

(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: PeggyLeg03_5 Start: 5077, Stop: 5574, Start Num: 71
Candidate Starts for PeggyLeg03_5:
(Start: 71 @5077 has 20 MA's), (158, 5536),

Gene: Peridot_6 Start: 4409, Stop: 4945, Start Num: 62
Candidate Starts for Peridot_6:
(Start: 62 @4409 has 112 MA's), (106, 4631), (122, 4700), (126, 4709), (132, 4727), (148, 4811), (174, 4928),

Gene: Periwinkle_6 Start: 4327, Stop: 4878, Start Num: 66
Candidate Starts for Periwinkle_6:
(Start: 66 @4327 has 19 MA's), (87, 4408), (96, 4480), (154, 4786),

Gene: Phabuloso_6 Start: 4327, Stop: 4875, Start Num: 66
Candidate Starts for Phabuloso_6:
(3, 3985), (4, 4027), (7, 4060), (9, 4096), (13, 4120), (15, 4141), (Start: 50 @4294 has 4 MA's), (Start: 66 @4327 has 19 MA's), (96, 4480), (142, 4723), (154, 4786),

Gene: Pharb_11 Start: 7169, Stop: 7717, Start Num: 71
Candidate Starts for Pharb_11:
(37, 7088), (42, 7094), (Start: 71 @7169 has 20 MA's), (77, 7184), (132, 7481), (174, 7700),

Gene: PhelpsODU_11 Start: 6278, Stop: 6850, Start Num: 53
Candidate Starts for PhelpsODU_11:
(11, 6080), (35, 6236), (Start: 53 @6278 has 12 MA's), (132, 6617), (140, 6656), (168, 6806), (171, 6824),

Gene: Phistory_6 Start: 4325, Stop: 4867, Start Num: 66
Candidate Starts for Phistory_6:
(3, 3986), (4, 4028), (5, 4034), (7, 4061), (8, 4067), (13, 4121), (15, 4142), (Start: 50 @4295 has 4 MA's), (Start: 66 @4325 has 19 MA's), (96, 4469), (105, 4541), (135, 4661), (154, 4775),

Gene: Phrank_11 Start: 6234, Stop: 6800, Start Num: 53
Candidate Starts for Phrank_11:
(Start: 53 @6234 has 12 MA's), (132, 6567), (140, 6606), (174, 6783),

Gene: Piatt_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Piatt_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Piper2020_6 Start: 4411, Stop: 4947, Start Num: 62
Candidate Starts for Piper2020_6:
(Start: 62 @4411 has 112 MA's), (106, 4633), (122, 4702), (126, 4711), (132, 4729), (148, 4813), (174, 4930),

Gene: Pisa1_11 Start: 7079, Stop: 7612, Start Num: 61
Candidate Starts for Pisa1_11:
(Start: 61 @7079 has 109 MA's), (98, 7208), (132, 7376), (171, 7586), (174, 7595),

Gene: Pisa4_11 Start: 7079, Stop: 7612, Start Num: 61
Candidate Starts for Pisa4_11:

(Start: 61 @7079 has 109 MA's), (98, 7208), (132, 7376), (171, 7586), (174, 7595),

Gene: Pitbull_5 Start: 3934, Stop: 4455, Start Num: 65
Candidate Starts for Pitbull_5:
(Start: 65 @3934 has 12 MA's), (104, 4144), (106, 4165),

Gene: Pixie_11 Start: 7042, Stop: 7626, Start Num: 57
Candidate Starts for Pixie_11:
(Start: 57 @7042 has 6 MA's), (Start: 71 @7078 has 20 MA's), (121, 7354), (132, 7390), (174, 7609),

Gene: Plumbus_6 Start: 4409, Stop: 4945, Start Num: 62
Candidate Starts for Plumbus_6:
(Start: 62 @4409 has 112 MA's), (106, 4631), (122, 4700), (126, 4709), (148, 4811), (174, 4928),

Gene: Poise_38 Start: 14513, Stop: 15145, Start Num: 49
Candidate Starts for Poise_38:
(Start: 49 @14513 has 20 MA's), (86, 14618), (112, 14813), (134, 14882), (138, 14900),

Gene: Pokerus_11 Start: 7270, Stop: 7812, Start Num: 61
Candidate Starts for Pokerus_11:
(Start: 61 @7270 has 109 MA's), (98, 7405), (132, 7573), (168, 7768), (171, 7786), (174, 7795),

Gene: Pollux_5 Start: 4577, Stop: 5260, Start Num: 32
Candidate Starts for Pollux_5:
(Start: 32 @4577 has 2 MA's), (Start: 41 @4604 has 15 MA's), (45, 4613), (55, 4637), (69, 4679),
(Start: 71 @4682 has 20 MA's), (109, 4928),

Gene: Pollywog_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Pollywog_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (132, 4726), (148, 4810), (174, 4927),

Gene: Posh_5 Start: 4598, Stop: 5254, Start Num: 41
Candidate Starts for Posh_5:
(Start: 32 @4571 has 2 MA's), (Start: 41 @4598 has 15 MA's), (45, 4607), (55, 4631), (69, 4673),
(Start: 71 @4676 has 20 MA's), (109, 4922),

Gene: Pringar_38 Start: 14825, Stop: 15457, Start Num: 49
Candidate Starts for Pringar_38:
(Start: 49 @14825 has 20 MA's), (86, 14930), (112, 15125), (134, 15194), (138, 15212), (152, 15314),

Gene: Prithvi_12 Start: 7280, Stop: 7822, Start Num: 61
Candidate Starts for Prithvi_12:
(Start: 61 @7280 has 109 MA's), (98, 7415), (132, 7583), (168, 7778), (171, 7796), (174, 7805),

Gene: Psycho_10 Start: 7388, Stop: 7918, Start Num: 70
Candidate Starts for Psycho_10:
(Start: 57 @7352 has 6 MA's), (Start: 67 @7373 has 4 MA's), (Start: 70 @7388 has 13 MA's), (75, 7400), (132, 7685),

Gene: Pucara_5 Start: 5039, Stop: 5533, Start Num: 71
Candidate Starts for Pucara_5:
(Start: 71 @5039 has 20 MA's), (119, 5318), (158, 5495),

Gene: Pytheas_5 Start: 4451, Stop: 5107, Start Num: 41
Candidate Starts for Pytheas_5:
(Start: 32 @4424 has 2 MA's), (Start: 41 @4451 has 15 MA's), (45, 4460), (55, 4484), (69, 4526), (Start: 71 @4529 has 20 MA's), (109, 4775),

Gene: Qhanda_13 Start: 8553, Stop: 9125, Start Num: 62
Candidate Starts for Qhanda_13:
(Start: 62 @8553 has 112 MA's), (116, 8841), (132, 8886),

Gene: Quico_6 Start: 4403, Stop: 4939, Start Num: 62
Candidate Starts for Quico_6:
(Start: 62 @4403 has 112 MA's), (122, 4694), (126, 4703), (174, 4922),

Gene: QuincyRose_11 Start: 7333, Stop: 7875, Start Num: 61
Candidate Starts for QuincyRose_11:
(Start: 61 @7333 has 109 MA's), (98, 7468), (132, 7636), (168, 7831), (171, 7849), (174, 7858),

Gene: Rabbitrun_17 Start: 9317, Stop: 9976, Start Num: 24
Candidate Starts for Rabbitrun_17:
(Start: 24 @9317 has 1 MA's), (28, 9335), (Start: 31 @9347 has 5 MA's), (92, 9545), (94, 9560), (108, 9674), (125, 9731), (136, 9785), (143, 9833), (145, 9842), (162, 9944),

Gene: Raela_38 Start: 15068, Stop: 15700, Start Num: 49
Candidate Starts for Raela_38:
(Start: 49 @15068 has 20 MA's), (86, 15173), (112, 15368), (134, 15437), (138, 15455),

Gene: Ramen_12 Start: 7313, Stop: 7855, Start Num: 61
Candidate Starts for Ramen_12:
(Start: 61 @7313 has 109 MA's), (98, 7448), (132, 7616), (168, 7811), (171, 7829), (174, 7838),

Gene: Ramsey_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Ramsey_6:
(Start: 62 @4408 has 112 MA's), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Rando14_10 Start: 6393, Stop: 6926, Start Num: 72
Candidate Starts for Rando14_10:
(59, 6357), (Start: 72 @6393 has 1 MA's), (75, 6405), (132, 6693), (142, 6753), (171, 6900),

Gene: Rapunzel97_12 Start: 7314, Stop: 7856, Start Num: 62
Candidate Starts for Rapunzel97_12:
(14, 7131), (Start: 62 @7314 has 112 MA's), (98, 7449), (132, 7617), (168, 7812), (171, 7830), (174, 7839),

Gene: Raqqa_6 Start: 4752, Stop: 5333, Start Num: 33
Candidate Starts for Raqqa_6:
(Start: 33 @4752 has 1 MA's), (54, 4800), (73, 4848), (93, 4962), (125, 5124),

Gene: RedRaider77_38 Start: 14969, Stop: 15601, Start Num: 49
Candidate Starts for RedRaider77_38:
(Start: 49 @14969 has 20 MA's), (86, 15074), (112, 15269), (134, 15338), (138, 15356),

Gene: Reptar3000_13 Start: 8297, Stop: 8869, Start Num: 62

Candidate Starts for Reptar3000_13:
(Start: 62 @8297 has 112 MA's), (116, 8585), (132, 8630),

Gene: Rialto_6 Start: 4409, Stop: 4945, Start Num: 62
Candidate Starts for Rialto_6:
(Start: 62 @4409 has 112 MA's), (106, 4631), (122, 4700), (126, 4709), (132, 4727), (148, 4811), (174, 4928),

Gene: Richo_12 Start: 6376, Stop: 6936, Start Num: 61
Candidate Starts for Richo_12:
(56, 6370), (Start: 61 @6376 has 109 MA's), (98, 6532), (132, 6700), (171, 6910),

Gene: Roberts_7 Start: 4967, Stop: 5473, Start Num: 65
Candidate Starts for Roberts_7:
(Start: 65 @4967 has 12 MA's), (103, 5153), (122, 5246),

Gene: RockyHorror_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for RockyHorror_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Ronaldo_41 Start: 14655, Stop: 15221, Start Num: 82
Candidate Starts for Ronaldo_41:
(39, 14538), (Start: 82 @14655 has 5 MA's), (97, 14763), (139, 14985), (146, 15045), (165, 15156),

Gene: Rosmarinus_12 Start: 7345, Stop: 7887, Start Num: 61
Candidate Starts for Rosmarinus_12:
(Start: 61 @7345 has 109 MA's), (98, 7480), (132, 7648), (168, 7843), (171, 7861), (174, 7870),

Gene: Rossetti_7 Start: 5422, Stop: 6027, Start Num: 62
Candidate Starts for Rossetti_7:
(46, 5395), (51, 5407), (Start: 62 @5422 has 112 MA's), (93, 5560), (126, 5743), (128, 5764), (145, 5851), (159, 5932), (166, 5971),

Gene: Ruthiejr_12 Start: 8151, Stop: 8723, Start Num: 62
Candidate Starts for Ruthiejr_12:
(13, 7971), (Start: 62 @8151 has 112 MA's), (116, 8439), (132, 8484),

Gene: SamScheppers_11 Start: 8060, Stop: 8632, Start Num: 62
Candidate Starts for SamScheppers_11:
(Start: 62 @8060 has 112 MA's), (116, 8348), (132, 8393),

Gene: Samty_8 Start: 5538, Stop: 6137, Start Num: 62
Candidate Starts for Samty_8:
(Start: 62 @5538 has 112 MA's), (102, 5724), (110, 5799), (114, 5820), (143, 5946), (159, 6036),

Gene: SamuelLPlaqson_12 Start: 7263, Stop: 7805, Start Num: 61
Candidate Starts for SamuelLPlaqson_12:
(Start: 61 @7263 has 109 MA's), (98, 7398), (132, 7566), (168, 7761), (171, 7779), (174, 7788),

Gene: Sarma624_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Sarma624_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Scarlett_11 Start: 6171, Stop: 6728, Start Num: 61
Candidate Starts for Scarlett_11:
(Start: 61 @6171 has 109 MA's), (168, 6684), (171, 6702), (174, 6711),

Gene: Seagreen_6 Start: 4409, Stop: 4945, Start Num: 62
Candidate Starts for Seagreen_6:
(Start: 62 @4409 has 112 MA's), (106, 4631), (122, 4700), (126, 4709), (148, 4811), (174, 4928),

Gene: Sephiroth_16 Start: 9096, Stop: 9794, Start Num: 18
Candidate Starts for Sephiroth_16:
(Start: 18 @9096 has 1 MA's), (Start: 26 @9138 has 1 MA's), (29, 9159), (Start: 31 @9162 has 5 MA's), (38, 9186), (85, 9312), (105, 9456), (108, 9495), (127, 9564), (136, 9606), (143, 9654), (144, 9660), (163, 9774), (164, 9777),

Gene: SgtBeansprout_8 Start: 6589, Stop: 7137, Start Num: 61
Candidate Starts for SgtBeansprout_8:
(Start: 61 @6589 has 109 MA's), (132, 6904), (168, 7093), (171, 7111),

Gene: Shadow1_10 Start: 6145, Stop: 6711, Start Num: 53
Candidate Starts for Shadow1_10:
(Start: 53 @6145 has 12 MA's), (140, 6517), (174, 6694),

Gene: Shaobing_12 Start: 6376, Stop: 6936, Start Num: 61
Candidate Starts for Shaobing_12:
(56, 6370), (Start: 61 @6376 has 109 MA's), (98, 6532), (132, 6700), (171, 6910),

Gene: ShawBrad_6 Start: 4327, Stop: 4875, Start Num: 66
Candidate Starts for ShawBrad_6:
(Start: 66 @4327 has 19 MA's), (96, 4480), (142, 4723), (154, 4786),

Gene: ShedlockHolmes_11 Start: 7290, Stop: 7874, Start Num: 57
Candidate Starts for ShedlockHolmes_11:
(Start: 57 @7290 has 6 MA's), (Start: 71 @7326 has 20 MA's), (121, 7602), (132, 7638), (174, 7857),

Gene: ShiaSurprise_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for ShiaSurprise_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: SilverChicken_6 Start: 4307, Stop: 4855, Start Num: 64
Candidate Starts for SilverChicken_6:
(Start: 27 @4205 has 4 MA's), (Start: 64 @4307 has 10 MA's), (88, 4412), (93, 4436), (117, 4595), (154, 4760),

Gene: SimranZ1_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for SimranZ1_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: SirPhilip_11 Start: 6046, Stop: 6564, Start Num: 81
Candidate Starts for SirPhilip_11:
(Start: 81 @6046 has 1 MA's), (98, 6163), (170, 6529), (171, 6538), (174, 6547),

Gene: Slarp_13 Start: 8544, Stop: 9116, Start Num: 62
Candidate Starts for Slarp_13:

(Start: 62 @8544 has 112 MA's), (116, 8832), (132, 8877),

Gene: Slim_6 Start: 4409, Stop: 4945, Start Num: 62
Candidate Starts for Slim_6:
(Start: 62 @4409 has 112 MA's), (106, 4631), (122, 4700), (126, 4709), (132, 4727), (148, 4811), (174, 4928),

Gene: Slimphazie_12 Start: 7314, Stop: 7856, Start Num: 62
Candidate Starts for Slimphazie_12:
(14, 7131), (Start: 62 @7314 has 112 MA's), (98, 7449), (132, 7617), (168, 7812), (171, 7830), (174, 7839),

Gene: SoSeph_10 Start: 7501, Stop: 8010, Start Num: 70
Candidate Starts for SoSeph_10:
(Start: 27 @7381 has 4 MA's), (Start: 36 @7420 has 1 MA's), (Start: 57 @7465 has 6 MA's), (Start: 67 @7486 has 4 MA's), (Start: 70 @7501 has 13 MA's), (75, 7513), (132, 7786),

Gene: Soul22_6 Start: 4306, Stop: 4854, Start Num: 64
Candidate Starts for Soul22_6:
(2, 3883), (4, 4015), (6, 4039), (12, 4090), (15, 4126), (23, 4189), (Start: 64 @4306 has 10 MA's), (88, 4411), (93, 4435), (117, 4594), (154, 4759),

Gene: Sparky_5 Start: 4760, Stop: 5305, Start Num: 66
Candidate Starts for Sparky_5:
(Start: 66 @4760 has 19 MA's), (88, 4871), (90, 4880), (136, 5129), (141, 5165), (152, 5237),

Gene: Spartoi_5 Start: 4178, Stop: 4681, Start Num: 63
Candidate Starts for Spartoi_5:
(Start: 63 @4178 has 1 MA's), (156, 4622),

Gene: Spikelee_6 Start: 4409, Stop: 4945, Start Num: 62
Candidate Starts for Spikelee_6:
(Start: 62 @4409 has 112 MA's), (106, 4631), (122, 4700), (126, 4709), (132, 4727), (148, 4811), (174, 4928),

Gene: Spock_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Spock_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Spooky_6 Start: 4301, Stop: 4870, Start Num: 50
Candidate Starts for Spooky_6:
(Start: 50 @4301 has 4 MA's), (Start: 66 @4331 has 19 MA's), (96, 4472), (99, 4502), (111, 4589), (154, 4778),

Gene: Squiddly_7 Start: 4994, Stop: 5563, Start Num: 50
Candidate Starts for Squiddly_7:
(Start: 50 @4994 has 4 MA's), (Start: 66 @5024 has 19 MA's), (89, 5129), (96, 5165), (99, 5195), (145, 5420), (154, 5471),

Gene: Squirty_6 Start: 4407, Stop: 4943, Start Num: 62
Candidate Starts for Squirty_6:
(Start: 62 @4407 has 112 MA's), (106, 4629), (122, 4698), (126, 4707), (148, 4809), (174, 4926),

Gene: Stap_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Stap_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Starcevich_6 Start: 4409, Stop: 4945, Start Num: 62
Candidate Starts for Starcevich_6:
(Start: 62 @4409 has 112 MA's), (106, 4631), (122, 4700), (126, 4709), (132, 4727), (148, 4811), (174, 4928),

Gene: Stinson_12 Start: 7285, Stop: 7827, Start Num: 61
Candidate Starts for Stinson_12:
(Start: 61 @7285 has 109 MA's), (98, 7420), (132, 7588), (171, 7801), (174, 7810),

Gene: Strobilo_8 Start: 5349, Stop: 5891, Start Num: 62
Candidate Starts for Strobilo_8:
(Start: 62 @5349 has 112 MA's), (126, 5652), (132, 5670), (171, 5865),

Gene: Studio_7 Start: 4771, Stop: 5280, Start Num: 65
Candidate Starts for Studio_7:
(30, 4687), (Start: 65 @4771 has 12 MA's), (91, 4876), (103, 4957),

Gene: Sulley_12 Start: 7292, Stop: 7825, Start Num: 61
Candidate Starts for Sulley_12:
(Start: 61 @7292 has 109 MA's), (98, 7421), (171, 7799), (174, 7808),

Gene: Sunflower1121_10 Start: 6147, Stop: 6722, Start Num: 53
Candidate Starts for Sunflower1121_10:
(Start: 53 @6147 has 12 MA's), (132, 6489), (140, 6528), (174, 6705),

Gene: Syleon_16 Start: 9084, Stop: 9716, Start Num: 31
Candidate Starts for Syleon_16:
(Start: 18 @9018 has 1 MA's), (Start: 26 @9060 has 1 MA's), (29, 9081), (Start: 31 @9084 has 5 MA's), (38, 9108), (85, 9234), (105, 9378), (108, 9417), (127, 9486), (133, 9516), (136, 9528), (143, 9576), (144, 9582), (163, 9696), (164, 9699),

Gene: Syra333_11 Start: 6243, Stop: 6815, Start Num: 53
Candidate Starts for Syra333_11:
(Start: 53 @6243 has 12 MA's), (113, 6531), (132, 6582), (140, 6621), (171, 6789), (174, 6798),

Gene: TBond007_11 Start: 7077, Stop: 7625, Start Num: 71
Candidate Starts for TBond007_11:
(Start: 57 @7041 has 6 MA's), (Start: 71 @7077 has 20 MA's), (121, 7353), (132, 7389), (174, 7608),

Gene: TClif_11 Start: 6257, Stop: 6814, Start Num: 50
Candidate Starts for TClif_11:
(Start: 50 @6257 has 4 MA's), (Start: 66 @6290 has 19 MA's), (132, 6581), (174, 6797),

Gene: TM4_8 Start: 5384, Stop: 5944, Start Num: 52
Candidate Starts for TM4_8:
(Start: 52 @5384 has 1 MA's), (90, 5516), (126, 5702), (132, 5720), (171, 5918),

Gene: TMaxx_7 Start: 4931, Stop: 5440, Start Num: 65
Candidate Starts for TMaxx_7:

(Start: 65 @4931 has 12 MA's), (103, 5117), (108, 5162),

Gene: TPA4_6 Start: 5313, Stop: 5945, Start Num: 41
Candidate Starts for TPA4_6:
(10, 5142), (19, 5226), (21, 5229), (Start: 41 @5313 has 15 MA's), (113, 5649), (144, 5769),

Gene: Tachez_12 Start: 7279, Stop: 7821, Start Num: 61
Candidate Starts for Tachez_12:
(Start: 61 @7279 has 109 MA's), (98, 7414), (132, 7582), (168, 7777), (171, 7795), (174, 7804),

Gene: TaiwanKao_12 Start: 7286, Stop: 7828, Start Num: 61
Candidate Starts for TaiwanKao_12:
(Start: 61 @7286 has 109 MA's), (98, 7421), (132, 7589), (168, 7784), (171, 7802), (174, 7811),

Gene: Taquito_11 Start: 8133, Stop: 8702, Start Num: 62
Candidate Starts for Taquito_11:
(Start: 62 @8133 has 112 MA's), (116, 8418), (132, 8463),

Gene: Tchotchke_6 Start: 4409, Stop: 4945, Start Num: 62
Candidate Starts for Tchotchke_6:
(Start: 62 @4409 has 112 MA's), (106, 4631), (122, 4700), (126, 4709), (148, 4811), (174, 4928),

Gene: Teejan_8 Start: 6589, Stop: 7137, Start Num: 61
Candidate Starts for Teejan_8:
(Start: 61 @6589 has 109 MA's), (132, 6904), (168, 7093), (171, 7111),

Gene: Tesla_37 Start: 14818, Stop: 15450, Start Num: 49
Candidate Starts for Tesla_37:
(Start: 49 @14818 has 20 MA's), (86, 14923), (112, 15118), (134, 15187), (138, 15205),

Gene: Thyatira_10 Start: 7374, Stop: 7883, Start Num: 70
Candidate Starts for Thyatira_10:
(Start: 27 @7254 has 4 MA's), (Start: 36 @7293 has 1 MA's), (Start: 57 @7338 has 6 MA's), (Start: 67 @7359 has 4 MA's), (Start: 70 @7374 has 13 MA's), (75, 7386), (132, 7659),

Gene: Tierra_11 Start: 6942, Stop: 7514, Start Num: 53
Candidate Starts for Tierra_11:
(11, 6744), (35, 6900), (Start: 53 @6942 has 12 MA's), (132, 7281), (140, 7320), (168, 7470), (171, 7488),

Gene: Tigress9_11 Start: 6224, Stop: 6796, Start Num: 53
Candidate Starts for Tigress9_11:
(Start: 34 @6185 has 1 MA's), (Start: 53 @6224 has 12 MA's), (113, 6512), (132, 6563), (140, 6602), (171, 6770), (174, 6779),

Gene: TingHuaYa_12 Start: 6338, Stop: 6886, Start Num: 60
Candidate Starts for TingHuaYa_12:
(Start: 60 @6338 has 2 MA's), (98, 6488), (132, 6656), (140, 6695), (168, 6842), (171, 6860), (174, 6869),

Gene: TiniBug_12 Start: 7263, Stop: 7805, Start Num: 61
Candidate Starts for TiniBug_12:
(Start: 61 @7263 has 109 MA's), (98, 7398), (132, 7566), (168, 7761), (171, 7779), (174, 7788),

Gene: Tiri_12 Start: 7324, Stop: 7866, Start Num: 61
Candidate Starts for Tiri_12:
(Start: 61 @7324 has 109 MA's), (98, 7459), (132, 7627), (168, 7822), (171, 7840), (174, 7849),

Gene: TootsiePop_6 Start: 4412, Stop: 4948, Start Num: 62
Candidate Starts for TootsiePop_6:
(Start: 62 @4412 has 112 MA's), (106, 4634), (122, 4703), (126, 4712), (132, 4730), (148, 4814), (174, 4931),

Gene: Tootsieroll_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Tootsieroll_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Topper_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Topper_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Torres_8 Start: 6589, Stop: 7137, Start Num: 61
Candidate Starts for Torres_8:
(Start: 61 @6589 has 109 MA's), (132, 6904), (168, 7093), (171, 7111),

Gene: Totinger_6 Start: 4409, Stop: 4945, Start Num: 62
Candidate Starts for Totinger_6:
(Start: 62 @4409 has 112 MA's), (106, 4631), (122, 4700), (126, 4709), (132, 4727), (148, 4811), (174, 4928),

Gene: Tourach_7 Start: 5433, Stop: 6041, Start Num: 62
Candidate Starts for Tourach_7:
(Start: 62 @5433 has 112 MA's), (93, 5577), (126, 5760), (128, 5781), (145, 5868), (159, 5949), (166, 5988),

Gene: Trax_15 Start: 8829, Stop: 9452, Start Num: 31
Candidate Starts for Trax_15:
(28, 8817), (Start: 31 @8829 has 5 MA's), (47, 8868), (Start: 70 @8925 has 13 MA's), (84, 8970), (92, 9021), (94, 9036), (108, 9150), (110, 9162), (125, 9207), (136, 9261), (143, 9309), (145, 9318), (160, 9414), (164, 9435),

Gene: TreyKay_12 Start: 7280, Stop: 7822, Start Num: 61
Candidate Starts for TreyKay_12:
(Start: 61 @7280 has 109 MA's), (98, 7415), (132, 7583), (168, 7778), (171, 7796), (174, 7805),

Gene: TribleTrouble_10 Start: 7121, Stop: 7663, Start Num: 71
Candidate Starts for TribleTrouble_10:
(16, 6923), (Start: 57 @7085 has 6 MA's), (Start: 71 @7121 has 20 MA's), (95, 7238),

Gene: Trice_8 Start: 6589, Stop: 7137, Start Num: 61
Candidate Starts for Trice_8:
(Start: 61 @6589 has 109 MA's), (132, 6904), (168, 7093), (171, 7111),

Gene: TripleC_10 Start: 8397, Stop: 8909, Start Num: 65
Candidate Starts for TripleC_10:
(Start: 65 @8397 has 12 MA's),

Gene: TruffulaTree_12 Start: 7310, Stop: 7852, Start Num: 61
Candidate Starts for TruffulaTree_12:
(Start: 61 @7310 has 109 MA's), (98, 7445), (132, 7613), (168, 7808), (171, 7826), (174, 7835),

Gene: Twitch_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Twitch_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: UncleRicky_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for UncleRicky_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: Unicorn_11 Start: 6278, Stop: 6850, Start Num: 53
Candidate Starts for Unicorn_11:
(11, 6080), (35, 6236), (Start: 53 @6278 has 12 MA's), (132, 6617), (140, 6656), (168, 6806), (171, 6824),

Gene: Urkel_12 Start: 7263, Stop: 7805, Start Num: 61
Candidate Starts for Urkel_12:
(Start: 61 @7263 has 109 MA's), (98, 7398), (132, 7566), (168, 7761), (171, 7779), (174, 7788),

Gene: Validus_12 Start: 6293, Stop: 6850, Start Num: 61
Candidate Starts for Validus_12:
(Start: 61 @6293 has 109 MA's), (98, 6446), (132, 6614), (171, 6824),

Gene: VasuNzinga_38 Start: 14402, Stop: 15034, Start Num: 49
Candidate Starts for VasuNzinga_38:
(Start: 49 @14402 has 20 MA's), (86, 14507), (112, 14702), (134, 14771), (138, 14789),

Gene: Veliki_12 Start: 7357, Stop: 7899, Start Num: 61
Candidate Starts for Veliki_12:
(Start: 61 @7357 has 109 MA's), (98, 7492), (132, 7660), (168, 7855), (171, 7873), (174, 7882),

Gene: Velveteen_6 Start: 4408, Stop: 4944, Start Num: 62
Candidate Starts for Velveteen_6:
(Start: 62 @4408 has 112 MA's), (106, 4630), (122, 4699), (126, 4708), (148, 4810), (174, 4927),

Gene: ViviJ_9 Start: 7257, Stop: 7787, Start Num: 70
Candidate Starts for ViviJ_9:
(Start: 57 @7221 has 6 MA's), (Start: 67 @7242 has 4 MA's), (Start: 70 @7257 has 13 MA's), (75, 7269), (132, 7554),

Gene: Volt_40 Start: 14655, Stop: 15221, Start Num: 82
Candidate Starts for Volt_40:
(39, 14538), (Start: 82 @14655 has 5 MA's), (97, 14763), (139, 14985), (146, 15045), (165, 15156),

Gene: Waterfoul_10 Start: 7396, Stop: 7905, Start Num: 70
Candidate Starts for Waterfoul_10:
(Start: 27 @7276 has 4 MA's), (Start: 36 @7315 has 1 MA's), (Start: 57 @7360 has 6 MA's), (Start: 67 @7381 has 4 MA's), (Start: 70 @7396 has 13 MA's), (75, 7408), (132, 7681),

Gene: Whitney_6 Start: 4327, Stop: 4878, Start Num: 66

Candidate Starts for Whitney_6:
(Start: 66 @4327 has 19 MA's), (87, 4408), (96, 4480), (154, 4786),

Gene: Wintermute_13 Start: 8533, Stop: 9105, Start Num: 62
Candidate Starts for Wintermute_13:
(Start: 62 @8533 has 112 MA's), (116, 8821), (132, 8866),

Gene: Wrigley_5 Start: 4448, Stop: 5104, Start Num: 41
Candidate Starts for Wrigley_5:
(Start: 32 @4421 has 2 MA's), (Start: 41 @4448 has 15 MA's), (45, 4457), (55, 4481), (69, 4523),
(Start: 71 @4526 has 20 MA's), (109, 4772),

Gene: Ximenita_12 Start: 6410, Stop: 6994, Start Num: 53
Candidate Starts for Ximenita_12:
(Start: 53 @6410 has 12 MA's), (106, 6659), (113, 6710), (132, 6761), (140, 6800), (174, 6977),

Gene: Y10_13 Start: 8533, Stop: 9105, Start Num: 62
Candidate Starts for Y10_13:
(Start: 62 @8533 has 112 MA's), (116, 8821), (132, 8866),

Gene: Y2_13 Start: 8533, Stop: 9105, Start Num: 62
Candidate Starts for Y2_13:
(Start: 62 @8533 has 112 MA's), (116, 8821), (132, 8866),

Gene: YasnayaPolyana_13 Start: 8534, Stop: 9106, Start Num: 62
Candidate Starts for YasnayaPolyana_13:
(Start: 62 @8534 has 112 MA's), (116, 8822), (132, 8867),

Gene: Yoshi_6 Start: 4306, Stop: 4854, Start Num: 64
Candidate Starts for Yoshi_6:
(2, 3883), (4, 4015), (12, 4090), (15, 4126), (23, 4189), (Start: 64 @4306 has 10 MA's), (88, 4411), (93,
4435), (117, 4594), (154, 4759),

Gene: YoureAdopted_11 Start: 7286, Stop: 7828, Start Num: 61
Candidate Starts for YoureAdopted_11:
(Start: 61 @7286 has 109 MA's), (98, 7421), (132, 7589), (168, 7784), (171, 7802), (174, 7811),

Gene: Yuna_12 Start: 6421, Stop: 6981, Start Num: 53
Candidate Starts for Yuna_12:
(Start: 53 @6421 has 12 MA's), (140, 6781), (171, 6955), (174, 6964),

Gene: Yunkel11_12 Start: 6279, Stop: 6812, Start Num: 61
Candidate Starts for Yunkel11_12:
(56, 6273), (Start: 61 @6279 has 109 MA's), (98, 6408), (132, 6576), (171, 6786), (174, 6795),

Gene: Zabiza_12 Start: 7313, Stop: 7855, Start Num: 61
Candidate Starts for Zabiza_12:
(Start: 61 @7313 has 109 MA's), (98, 7448), (132, 7616), (168, 7811), (171, 7829), (174, 7838),

Gene: Zapner_7 Start: 4831, Stop: 5379, Start Num: 64
Candidate Starts for Zapner_7:
(2, 4408), (4, 4540), (12, 4615), (15, 4651), (23, 4714), (Start: 64 @4831 has 10 MA's), (88, 4936), (93,
4960), (117, 5119), (154, 5284),

Gene: Zavala_12 Start: 7295, Stop: 7837, Start Num: 61
Candidate Starts for Zavala_12:
(Start: 61 @7295 has 109 MA's), (98, 7430), (132, 7598), (168, 7793), (171, 7811), (174, 7820),

Gene: ZhongYanYuan_6 Start: 5250, Stop: 5855, Start Num: 62
Candidate Starts for ZhongYanYuan_6:
(Start: 62 @5250 has 112 MA's), (93, 5391), (126, 5574), (128, 5595), (136, 5625), (145, 5682), (159, 5763), (166, 5802),

Gene: Ziko_41 Start: 14595, Stop: 15161, Start Num: 82
Candidate Starts for Ziko_41:
(39, 14478), (Start: 82 @14595 has 5 MA's), (97, 14703), (139, 14925), (146, 14985), (165, 15096),

Gene: ZoeJ_8 Start: 5306, Stop: 5842, Start Num: 62
Candidate Starts for ZoeJ_8:
(Start: 62 @5306 has 112 MA's), (126, 5603), (132, 5621), (171, 5816),