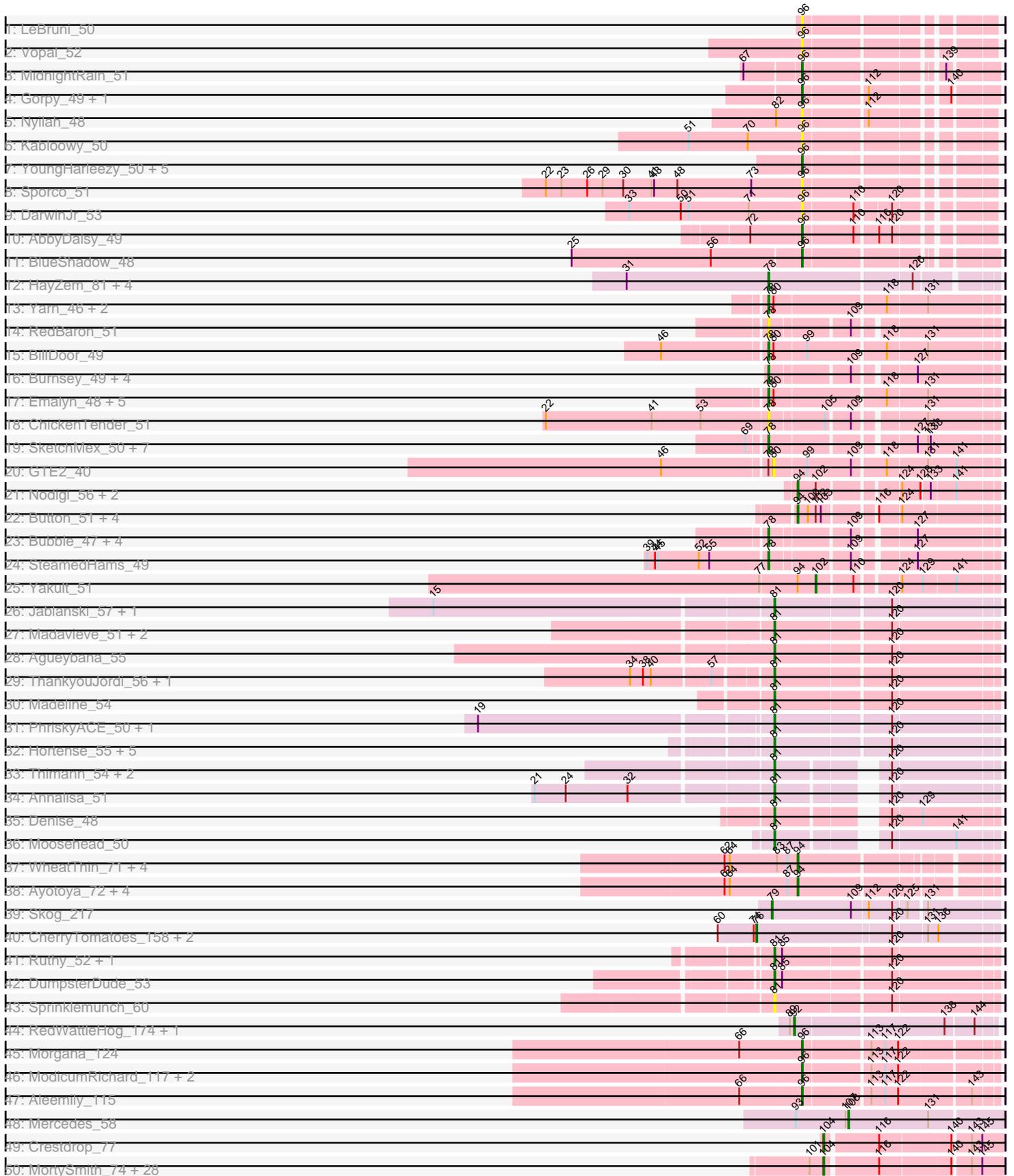
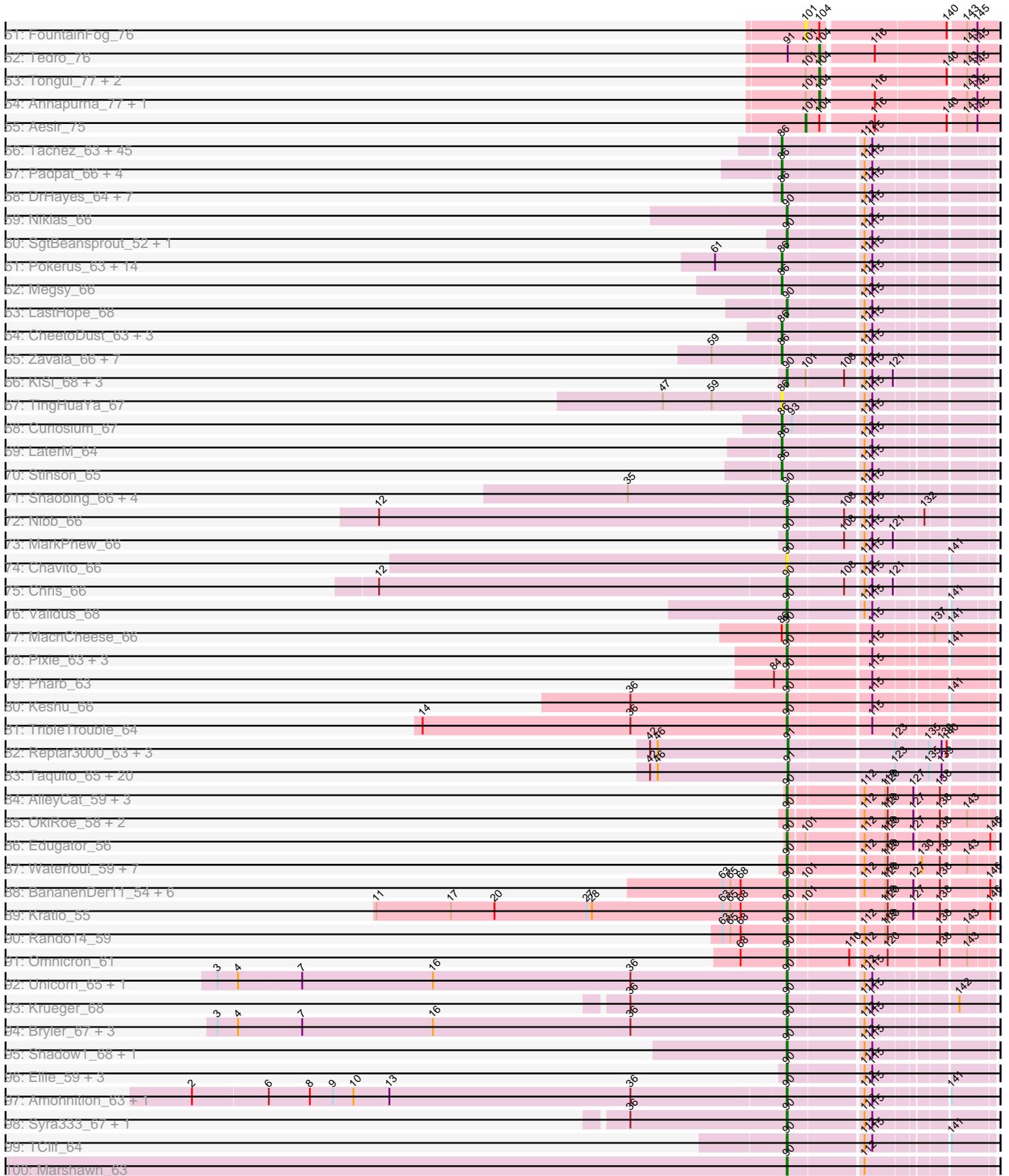


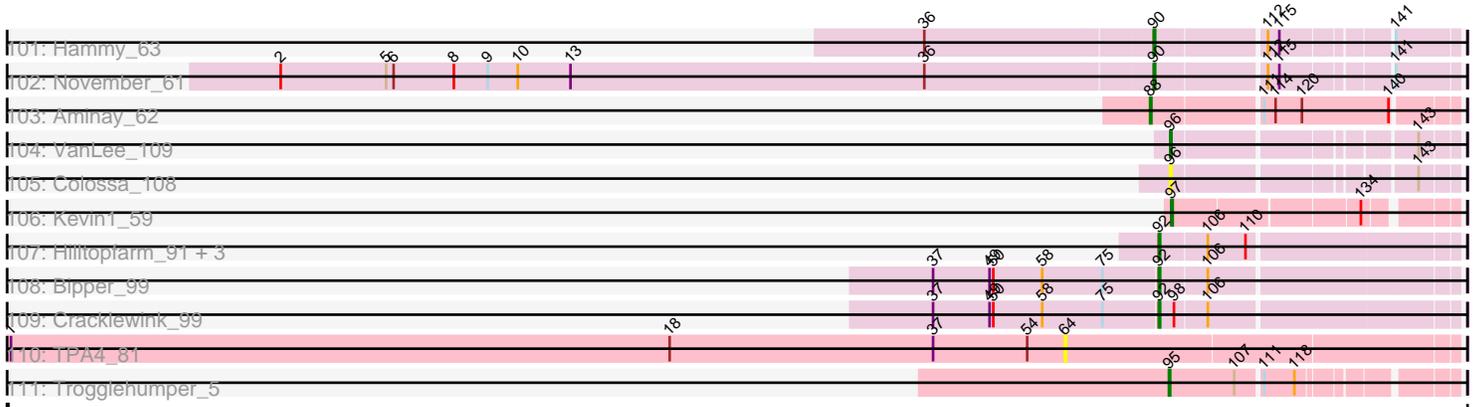
Pham 290746



Pham 290746



Pham 290746



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 290746 Report

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

Pham number 290746 has 351 members, 40 are drafts.

Phages represented in each track:

- Track 1 : LeBruni_50
- Track 2 : Vopal_52
- Track 3 : MidnightRain_51
- Track 4 : Gorpy_49, Sakai_48
- Track 5 : Nyilah_48
- Track 6 : Kabloowy_50
- Track 7 : YoungHarleezy_50, Mapleville_47, Isolde_49, Auxilium_46, Raphaella_49, Tiff81_46
- Track 8 : Sporco_51
- Track 9 : DarwinJr_53
- Track 10 : AbbyDaisy_49
- Track 11 : BlueShadow_48
- Track 12 : HayZem_81, GMA7_69, Amore2_80, GTE7_68, Austin_79
- Track 13 : Yarn_46, AndPeggy_46, Tolls_50
- Track 14 : RedBaron_51
- Track 15 : BillDoor_49
- Track 16 : Burnsey_49, Axym_48, Typhonmachy_48, Agatha_49, Cozz_47
- Track 17 : Emalyn_48, Amok_50, CanesSauce_48, AikoCarson_50, ChocoMunchkin_48, CaramelLatte_48
- Track 18 : ChickenTender_51
- Track 19 : SketchMex_50, MScarn_54, Troje_52, Horseradish_52, Buttrmilkdreams_52, Yummy_52, Biskit_52, Blondies_53
- Track 20 : GTE2_40
- Track 21 : Nodigi_56, Hexbug_56, Orla_56
- Track 22 : Button_51, Jamzy_53, GiKK_53, Margaret_54, RanchParmCat_53
- Track 23 : Bubble_47, MunkgeeRoachy_47, Quasar_49, Nina_48, SweatNTears_51
- Track 24 : SteamedHams_49
- Track 25 : Yakult_51
- Track 26 : Jablanski_57, Pytheas_57
- Track 27 : Madavieve_51, Bunnybear_49, Maridalia_57
- Track 28 : Agueybana_55
- Track 29 : ThankyouJordi_56, WelcomeAyanna_56
- Track 30 : Madeline_54
- Track 31 : PhriskyACE_50, Powerball_51
- Track 32 : Hortense_55, Mcklovin_51, Twinkle_54, Adora_52, Shlim410_53, Howe_55
- Track 33 : Thimann_54, Oregano_54, Easley_49

- Track 34 : Annalisa_51
- Track 35 : Denise_48
- Track 36 : Moosehead_50
- Track 37 : WheatThin_71, Brylie_71, Nadeem_71, Mulch_71, Parada_71
- Track 38 : Ayotoya_72, Hamood_73, DelRio_72, Chop_73, GrandSlam_73
- Track 39 : Skog_217
- Track 40 : CherryTomatoes_158, SCentae_156, Pupper_157
- Track 41 : Ruthy_52, ArchiDore_52
- Track 42 : DumpsterDude_53
- Track 43 : Sprinklemunch_60
- Track 44 : RedWattleHog_174, Stormageddon_175
- Track 45 : Morgana_124
- Track 46 : ModicumRichard_117, ObLaDi_116, Cafasso_117
- Track 47 : Aleemily_115
- Track 48 : Mercedes_58
- Track 49 : Crestdrop_77
- Track 50 : MortySmith_74, Haunter_77, Poultruss_75, Snakehole_77, Kate_76, Anakin_76, Hiddenleaf_77, JingleBells_76, AnnaSerena_76, Chivey_77, Dauntless_75, Gilda_76, OhDear_76, SilentWarrior_77, OverHedge_75, FreddieHg_77, Potty_75, NarutoRun_76, Cybele_76, Artiphact_75, Neptune_76, JDawG_75, Krampus_76, PhunaPhoke_76, Pharpay_75, Erudite_75, CoolCookie_75, DannyDe_77, Rachella_76
- Track 51 : FountainFog_76
- Track 52 : Tedro_76
- Track 53 : Tongui_77, Hager_78, Rie18_76
- Track 54 : Annapurna_77, Karate_75
- Track 55 : Aesir_75
- Track 56 : Tachez_63, Blizzard_63, Ramen_64, Homura_63, Rosmarinus_63, ShiaSurprise_64, Lunahalos_63, ActinUp_63, Joy99_63, Peel_63, Belladonna_63, Padfoot_63, Angelica_63, Inky_63, CallaLilly_63, Jeckyll_63, HedwigODU_63, Geraldini_66, BGlluviae_63, Piatt_63, Llorens_63, Zabiza_58, CaseJules_65, Boiiii_63, Apocalypse_66, Beezoo_65, Asayake_63, Ganymede_64, BEEST_63, Jarvi_63, Twitch_63, Adephegia_63, Pisa1_63, CREW_63, Atiba_64, Hyperbowlee_63, Spock_63, QuincyRose_62, Durfee_63, Sulley_63, Dalmuri_63, Tiri_64, Adonis_63, Topper_63, Capricorn_63, MeaningOfLife_64
- Track 57 : Padpat_66, Clipper_67, Emerson_65, MacKat_59, Ageofdapage_67
- Track 58 : DrHayes_64, TiniBug_64, Anma_65, Urkel_64, Bella96_64, DartGoblin_66, SamuelLPlaqson_64, Anaya_66
- Track 59 : Niklas_66
- Track 60 : SgtBeansprout_52, LilPharaoh_52
- Track 61 : Pokerus_63, TreyKay_65, Prithvi_65, Devera_71, Rapunzel97_65, YoureAdopted_63, TaiwanKao_66, Murucutumbu_65, BarrelRoll_64, TruffulaTree_64, CrimD_65, Dole_69, LindNT_63, Slimphazie_64, Illumine_69
- Track 62 : Megsy_66
- Track 63 : LastHope_68
- Track 64 : CheetoDust_63, Jayhawk_65, Deby_64, Bern_65
- Track 65 : Zavala_66, Veliki_65, Yunkel11_68, Mynx_65, BaghaKamala_63, JAWS_64, Efra2_69, Guanica15_68
- Track 66 : KiSi_68, Scarlett_68, LeMond_67, Oscar_67
- Track 67 : TingHuaYa_67
- Track 68 : Curiosium_67
- Track 69 : LaterM_64
- Track 70 : Stinson_65

- Track 71 : Shaobing_66, McMater_66, Peanam_66, Richo_66, Dartin_66
- Track 72 : Nibb_66
- Track 73 : MarkPhew_66
- Track 74 : Chavito_66
- Track 75 : Chris_66
- Track 76 : Validus_68
- Track 77 : MacnCheese_66
- Track 78 : Pixie_63, Hurricane_64, Lea83_64, ShedlockHolmes_65
- Track 79 : Pharb_63
- Track 80 : Keshu_66
- Track 81 : TribbleTrouble_64
- Track 82 : Reptar3000_63, MissDaisy_63, Bobquesha_67, Patt_62
- Track 83 : Taquito_65, Slarp_66, Mitti_66, Kraw_66, DanSyl44_69, Juliette_68, Qhanda_68, Chancellor_66, OmniCritical_65, JF1_66, Cheetobro_66, Ruthiejr_67, Y10_64, Wintermute_66, Lebo14_65, SamScheppers_64, Eponine_68, Y2_64, Malthus_67, YasnayaPolyana_65, Fionnbharth_66
- Track 84 : AlleyCat_59, Psycho_57, Dadosky_59, Larva_58
- Track 85 : OkiRoe_58, Miryou_61, Gengar_57
- Track 86 : Edugator_56
- Track 87 : Waterfoul_59, SoSeph_58, Heftyboy_58, Paola_57, Leston_57, Thyatira_60, Guillsminger_58, Feyre_60
- Track 88 : BananenDer11_54, Agent47_57, ViviJ_56, DoubleChamp_54, LilDirt_54, Collard_55, InvictusManeo_55
- Track 89 : Kratio_55
- Track 90 : Rando14_59
- Track 91 : Omnicron_61
- Track 92 : Unicorn_65, PhelpsODU_65
- Track 93 : Krueger_68
- Track 94 : Bryler_67, Tierra_67, Cain_67, Phrank_67
- Track 95 : Shadow1_68, Sunflower1121_69
- Track 96 : Ellie_59, Applecrisp_60, Fefferhead_61, Amgine_62
- Track 97 : Amohnition_63, DarthP_63
- Track 98 : Syra333_67, Ximenita_69
- Track 99 : TClif_64
- Track 100 : Marshawn_63
- Track 101 : Hammy_63
- Track 102 : November_61
- Track 103 : Aminay_62
- Track 104 : VanLee_109
- Track 105 : Colossa_108
- Track 106 : Kevin1_59
- Track 107 : Hilltopfarm_91, AuntGwenStacy_89, Typha_89, Faiyaz_91
- Track 108 : Bipper_99
- Track 109 : Cracklewink_99
- Track 110 : TPA4_81
- Track 111 : Trogglehumper_5

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

The start number called the most often in the published annotations is 86, it was called in 86 of the 311 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp_63, Adephegia_63, Adonis_63, Ageofdapage_67, Anaya_66, Angelica_63, Anma_65, Apocalypse_66, Asayake_63, Atiba_64, BEEST_63, BGlluviae_63, BaghaKamala_63, BarrelRoll_64, Beezoo_65, Bella96_64, Belladonna_63, Bern_65, Blizzard_63, Boiiii_63, CREW_63, CallaLilly_63, Capricorn_63, CaseJules_65, CheetoDust_63, Clipper_67, CrimD_65, Curiosium_67, Dalmuri_63, DartGoblin_66, Deby_64, Devera_71, Dole_69, DrHayes_64, Durfee_63, Efra2_69, Emerson_65, Ganymede_64, Geraldini_66, Guanica15_68, HedwigODU_63, Homura_63, Hyperbowlee_63, Illumine_69, Inky_63, JAWS_64, Jarvi_63, Jayhawk_65, Jeckyll_63, Joy99_63, LaterM_64, LindNT_63, Llorens_63, Lunahalos_63, MackKat_59, MeaningOfLife_64, Megsy_66, Murucutumbu_65, Mynx_65, Padfoot_63, Padpat_66, Peel_63, Piatt_63, Pisa1_63, Pokerus_63, Prithvi_65, QuincyRose_62, Ramen_64, Rapunzel97_65, Rosmarinus_63, SamuelLPlaqson_64, ShiaSurprise_64, Slimphazie_64, Spock_63, Stinson_65, Sulley_63, Tachez_63, TaiwanKao_66, TingHuaYa_67, TiniBug_64, Tiri_64, Topper_63, TreyKay_65, TruffulaTree_64, Twitch_63, Urkel_64, Veliki_65, YoureAdopted_63, Yunkel11_68, Zabiza_58, Zavala_66,

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

- MacnCheese_66,

Genes that do not have the "Most Annotated" start:

- AbbyDaisy_49, Adora_52, Aesir_75, Agatha_49, Agent47_57, Agueybana_55, AikoCarson_50, Aleemily_115, AlleyCat_59, Amgine_62, Aminay_62, Amohntion_63, Amok_50, Amore2_80, Anakin_76, AndPeggy_46, AnnaSerena_76, Annalisa_51, Annapurna_77, Applecrisp_60, ArchiDore_52, Artiphact_75, AuntGwenStacy_89, Austin_79, Auxilium_46, Axym_48, Ayotoya_72, BananenDer11_54, BillDoor_49, Bipper_99, Biskit_52, Blondies_53, BlueShadow_48, Bobquesha_67, Bryler_67, Brylie_71, Bubble_47, Bunnybear_49, Burnsey_49, Button_51, Buttrmlkdreams_52, Cafasso_117, Cain_67, CanesSauce_48, CaramelLatte_48, Chancellor_66, Chavito_66, Cheetobro_66, CherryTomatoes_158, ChickenTender_51, Chivey_77, ChocoMunchkin_48, Chop_73, Chris_66, Collard_55, Colossa_108, CoolCookie_75, Cozz_47, Cracklewink_99, Crestdrop_77, Cybele_76, Dadosky_59, DanSyl44_69, DannyDe_77, DARTH_63, Dartin_66, DarwinJr_53, Dauntless_75, DelRio_72, Denise_48, DoubleChamp_54, DumpsterDude_53, Easley_49, Edugator_56, Ellie_59, Emalyn_48, Eponine_68, Erudite_75, Faiyaz_91, Fefferhead_61, Feyre_60, Fionnbharth_66, FountainFog_76, FreddieHg_77, GMA7_69, GTE2_40, GTE7_68, Gengar_57, GiKK_53, Gilda_76, Gorpy_49, GrandSlam_73, Guillsminger_58, Hager_78, Hammy_63, Hamood_73, Haunter_77, HayZem_81, Heftyboy_58, Hexbug_56, Hiddenleaf_77, Hilltopfarm_91, Horseradish_52, Hortense_55, Howe_55, Hurricane_64, InvictusManeo_55, Isolde_49, JDawG_75, JF1_66, Jablanski_57, Jamzy_53, JingleBells_76, Juliette_68, Kabloowy_50, Karate_75, Kate_76, Keshu_66, Kevin1_59, KiSi_68, Krampus_76, Kratio_55, Kraw_66, Krueger_68, Larva_58, LastHope_68, LeBruni_50, LeMond_67, Lea83_64, Lebo14_65, Leston_57, LiIDirt_54, LilPharaoh_52, MScarn_54, Madavieve_51, Madeline_54, Malthus_67, Mapleville_47, Margaret_54, Maridalia_57, MarkPhew_66, Marshawn_63, McMater_66, Mcklovin_51, Mercedes_58, MidnightRain_51, Miryou_61, MissDaisy_63, Mitti_66, ModicumRichard_117, Moosehead_50, Morgana_124, MortySmith_74, Mulch_71, MunkgeeRoachy_47, Nadeem_71, NarutoRun_76, Neptune_76, Nibb_66, Niklas_66, Nina_48, Nodigi_56,

November_61, Nyilah_48, ObLaDi_116, OhDear_76, OkiRoe_58, OmniCritical_65, Omnicron_61, Oregano_54, Orla_56, Oscar_67, OverHedge_75, Paola_57, Parada_71, Patt_62, Peanam_66, Pharb_63, Pharpay_75, PhelpsODU_65, Phrank_67, PhriskyACE_50, PhunaPhoke_76, Pixie_63, Potty_75, Poultruss_75, Powerball_51, Psycho_57, Pupper_157, Pytheas_57, Qhanda_68, Quasar_49, Rachella_76, RanchParmCat_53, Rando14_59, Raphaella_49, RedBaron_51, RedWattleHog_174, Reptar3000_63, Richo_66, Rie18_76, Ruthiejr_67, Ruthy_52, SCentae_156, Sakai_48, SamScheppers_64, Scarlett_68, SgtBeansprout_52, Shadow1_68, Shaobing_66, ShedlockHolmes_65, Shlim410_53, SilentWarrior_77, SketchMex_50, Skog_217, Slarp_66, Snakehole_77, SoSeph_58, Sporco_51, Sprinklemunch_60, SteamedHams_49, Stormageddon_175, Sunflower1121_69, SweatNTears_51, Syra333_67, TClif_64, TPA4_81, Taquito_65, Tedro_76, ThankyouJordi_56, Thimann_54, Thyatira_60, Tierra_67, Tiff81_46, Tolls_50, Tongui_77, TribbleTrouble_64, Trogglehumper_5, Troje_52, Twinkle_54, Typha_89, Typhonomachy_48, Unicorn_65, Validus_68, VanLee_109, ViviJ_56, Vopal_52, Waterfoul_59, WelcomeAyanna_56, WheatThin_71, Wintermute_66, Ximenita_69, Y10_64, Y2_64, Yakult_51, Yarn_46, YasnayaPolyana_65, YoungHarleezy_50, Yummy_52,

Summary by start number:

Start 64:

- Found in 11 of 351 (3.1%) of genes in pham
- No Manual Annotations of this start.
- Called 9.1% of time when present
- Phage (with cluster) where this start called: TPA4_81 (singleton),

Start 76:

- Found in 3 of 351 (0.9%) of genes in pham
- Manual Annotations of this start: 3 of 311
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes_158 (DO), Pupper_157 (DO), SCentae_156 (DO),

Start 78:

- Found in 37 of 351 (10.5%) of genes in pham
- Manual Annotations of this start: 29 of 311
- Called 97.3% of time when present
- Phage (with cluster) where this start called: Agatha_49 (CT), AikoCarson_50 (CT), Amok_50 (CT), Amore2_80 (CS1), AndPeggy_46 (CT), Austin_79 (CS1), Axym_48 (CT), BillDoor_49 (CT), Biskit_52 (CT), Blondies_53 (CT), Bubble_47 (CT), Burnsey_49 (CT), Buttrmlkdreams_52 (CT), CanesSauce_48 (CT), CaramelLatte_48 (CT), ChickenTender_51 (CT), ChocoMunchkin_48 (CT), Cozz_47 (CT), Emalyn_48 (CT), GMA7_69 (CS1), GTE7_68 (CS1), HayZem_81 (CS1), Horseradish_52 (CT), MScarn_54 (CT), MunkgeeRoachy_47 (CT), Nina_48 (CT), Quasar_49 (CT), RedBaron_51 (CT), SketchMex_50 (CT), SteamedHams_49 (CT), SweatNTears_51 (CT), Tolls_50 (CT), Troje_52 (CT), Typhonomachy_48 (CT), Yarn_46 (CT), Yummy_52 (CT),

Start 79:

- Found in 1 of 351 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 311
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Skog_217 (DO),

Start 80:

- Found in 11 of 351 (3.1%) of genes in pham
- No Manual Annotations of this start.
- Called 9.1% of time when present
- Phage (with cluster) where this start called: GTE2_40 (CT),

Start 81:

- Found in 27 of 351 (7.7%) of genes in pham
- Manual Annotations of this start: 24 of 311
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adora_52 (CZ4), Agueybana_55 (CZ1), Annalisa_51 (CZ4), ArchiDore_52 (DW), Bunnybear_49 (CZ), Denise_48 (CZ5), DumpsterDude_53 (DW), Easley_49 (CZ4), Hortense_55 (CZ4), Howe_55 (CZ4), Jablanski_57 (CY3), Madavieve_51 (CZ1), Madeline_54 (CZ1), Maridalia_57 (CZ1), Mcklovin_51 (CZ4), Moosehead_50 (CZ6), Oregano_54 (CZ4), PhriskyACE_50 (CZ4), Powerball_51 (CZ4), Pytheas_57 (CY3), Ruthy_52 (DW), Shlim410_53 (CZ4), Sprinklemunch_60 (DW), ThankyouJordi_56 (CZ1), Thimann_54 (CZ4), Twinkle_54 (CZ4), WelcomeAyanna_56 (CZ1),

Start 86:

- Found in 92 of 351 (26.2%) of genes in pham
- Manual Annotations of this start: 86 of 311
- Called 98.9% of time when present
- Phage (with cluster) where this start called: ActinUp_63 (K1), Adephegia_63 (K1), Adonis_63 (K1), Ageofdapage_67 (K1), Anaya_66 (K1), Angelica_63 (K1), Anma_65 (K1), Apocalypse_66 (K1), Asayake_63 (K1), Atiba_64 (K1), BEEEST_63 (K1), BGlluviae_63 (K1), BaghaKamala_63 (K1), BarrelRoll_64 (K1), Beezoo_65 (K1), Bella96_64 (K1), Belladonna_63 (K1), Bern_65 (K1), Blizzard_63 (K1), Boiiii_63 (K1), CREW_63 (K1), CallaLilly_63 (K1), Capricorn_63 (K1), CaseJules_65 (K1), CheetoDust_63 (K1), Clipper_67 (K1), CrimD_65 (K1), Curiosium_67 (K1), Dalmuri_63 (K1), DartGoblin_66 (K1), Deby_64 (K1), Devera_71 (K1), Dole_69 (K1), DrHayes_64 (K1), Durfee_63 (K1), Efra2_69 (K1), Emerson_65 (K1), Ganymede_64 (K1), Geraldini_66 (K1), Guanica15_68 (K1), HedwigODU_63 (K1), Homura_63 (K1), Hyperbowlee_63 (K1), Illumine_69 (K1), Inky_63 (K1), JAWS_64 (K1), Jarvi_63 (K1), Jayhawk_65 (K1), Jeckyll_63 (K1), Joy99_63 (K1), LaterM_64 (K1), LindNT_63 (K1), Llorens_63 (K1), Lunahalos_63 (K1), MacKat_59 (K1), MeaningOfLife_64 (K1), Megsy_66 (K1), Murucutumbu_65 (K1), Mynx_65 (K1), Padfoot_63 (K1), Padpat_66 (K1), Peel_63 (K1), Piatt_63 (K1), Pisa1_63 (K1), Pokerus_63 (K1), Prithvi_65 (K1), QuincyRose_62 (K1), Ramen_64 (K1), Rapunzel97_65 (K1), Rosmarinus_63 (K1), SamuelLPlaqson_64 (K1), ShiaSurprise_64 (K1), Slimphazie_64 (K1), Spock_63 (K1), Stinson_65 (K1), Sulley_63 (K1), Tachez_63 (K1), TaiwanKao_66 (K1), TingHuaYa_67 (K1), TiniBug_64 (K1), Tiri_64 (K1), Topper_63 (K1), TreyKay_65 (K1), TruffulaTree_64 (K1), Twitch_63 (K1), Urkel_64 (K1), Veliki_65 (K1), YoureAdopted_63 (K1), Yunkel11_68 (K1), Zabiza_58 (K1), Zavala_66 (K1),

Start 88:

- Found in 1 of 351 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 311
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aminay_62 (K7),

Start 90:

- Found in 73 of 351 (20.8%) of genes in pham
- Manual Annotations of this start: 66 of 311
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agent47_57 (K5), AlleyCat_59 (K5), Amgine_62 (K6), Amohnition_63 (K6), Applecrisp_60 (K6), BananenDer11_54 (K5), Bryler_67 (K6), Cain_67 (K6), Chavito_66 (K1), Chris_66 (K1), Collard_55 (K5), Dadosky_59 (K5), DarthP_63 (K6), Dartin_66 (K1), DoubleChamp_54 (K5), Edugator_56 (K5), Ellie_59 (K6), Fefferhead_61 (K6), Feyre_60 (K5), Gengar_57 (K5), Guillsminger_58 (K5), Hammy_63 (K6), Heftyboy_58 (K5), Hurricane_64 (K3), InvictusManeo_55 (K5), Keshu_66 (K3), KiSi_68 (K1), Kratio_55 (K5), Krueger_68 (K6), Larva_58 (K5), LastHope_68 (K1), LeMond_67 (K1), Lea83_64 (K3), Leston_57 (K5), LilDirt_54 (K5), LilPharaoh_52 (K1), MacnCheese_66 (K3), MarkPhew_66 (K1), Marshawn_63 (K6), McMater_66 (K1), Miryou_61 (K5), Nibb_66 (K1), Niklas_66 (K1), November_61 (K6), OkiRoe_58 (K5), Omnicron_61 (K5), Oscar_67 (K1), Paola_57 (K5), Peanam_66 (K1), Pharb_63 (K3), PhelpsODU_65 (K6), Phrank_67 (K6), Pixie_63 (K3), Psycho_57 (K5), Rando14_59 (K5), Richo_66 (K1), Scarlett_68 (K1), SgtBeansprout_52 (K1), Shadow1_68 (K6), Shaobing_66 (K1), ShedlockHolmes_65 (K3), SoSeph_58 (K5), Sunflower1121_69 (K6), Syra333_67 (K6), TClif_64 (K6), Thyatira_60 (K5), Tierra_67 (K6), TripleTrouble_64 (K3), Unicorn_65 (K6), Validus_68 (K1), ViviJ_56 (K5), Waterfoul_59 (K5), Ximenita_69 (K6),

Start 91:

- Found in 26 of 351 (7.4%) of genes in pham
- Manual Annotations of this start: 22 of 311
- Called 96.2% of time when present
- Phage (with cluster) where this start called: Bobquesha_67 (K4), Chancellor_66 (K4), Cheetobro_66 (K4), DanSyl44_69 (K4), Eponine_68 (K4), Fionnbharth_66 (K4), JF1_66 (K4), Juliette_68 (K4), Kraw_66 (K4), Lebo14_65 (K4), Malthus_67 (K4), MissDaisy_63 (K4), Mitti_66 (K4), OmniCritical_65 (K4), Patt_62 (K4), Qhanda_68 (K4), Reptar3000_63 (K4), Ruthiejr_67 (K4), SamScheppers_64 (K4), Slarp_66 (K4), Taquito_65 (K4), Wintermute_66 (K4), Y10_64 (K4), Y2_64 (K4), YasnayaPolyana_65 (K4),

Start 92:

- Found in 8 of 351 (2.3%) of genes in pham
- Manual Annotations of this start: 7 of 311
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AuntGwenStacy_89 (Y), Bipper_99 (Y), Cracklewink_99 (Y), Faiyaz_91 (Y), Hilltopfarm_91 (Y), RedWattleHog_174 (DX), Stormageddon_175 (DX), Typha_89 (Y),

Start 94:

- Found in 19 of 351 (5.4%) of genes in pham
- Manual Annotations of this start: 18 of 311
- Called 94.7% of time when present
- Phage (with cluster) where this start called: Ayotoya_72 (DI), Brylie_71 (DI), Button_51 (CT), Chop_73 (DI), DelRio_72 (DI), GiKK_53 (CT), GrandSlam_73 (DI), Hamood_73 (DI), Hexbug_56 (CT), Jamzy_53 (CT), Margaret_54 (CT), Mulch_71 (DI), Nadeem_71 (DI), Nodigi_56 (CT), Orla_56 (CT), Parada_71 (DI), RanchParmCat_53 (CT), WheatThin_71 (DI),

Start 95:

- Found in 1 of 351 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 311
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Trogglehumper_5 (singleton),

Start 96:

- Found in 24 of 351 (6.8%) of genes in pham
- Manual Annotations of this start: 16 of 311
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbyDaisy_49 (AY), Aleemily_115 (DZ), Auxilium_46 (AY), BlueShadow_48 (AY), Cafasso_117 (DZ), Colossa_108 (KA), DarwinJr_53 (AY), Gorpy_49 (AY), Isolde_49 (AY), Kabloowy_50 (AY), LeBruni_50 (AY), Mapleville_47 (AY), MidnightRain_51 (AY), ModicumRichard_117 (DZ), Morgana_124 (DZ), Nyilah_48 (AY), ObLaDi_116 (DZ), Raphaella_49 (AY), Sakai_48 (AY), Sporco_51 (AY), Tiff81_46 (AY), VanLee_109 (KA), Vopal_52 (AY), YoungHarleezy_50 (AY),

Start 97:

- Found in 1 of 351 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 311
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kevin1_59 (N),

Start 101:

- Found in 50 of 351 (14.2%) of genes in pham
- Manual Annotations of this start: 1 of 311
- Called 4.0% of time when present
- Phage (with cluster) where this start called: Aesir_75 (EF), FountainFog_76 (EF),

Start 102:

- Found in 9 of 351 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 311
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Yakult_51 (CT),

Start 104:

- Found in 38 of 351 (10.8%) of genes in pham
- Manual Annotations of this start: 33 of 311
- Called 94.7% of time when present
- Phage (with cluster) where this start called: Anakin_76 (EF), AnnaSerena_76 (EF), Annapurna_77 (EF), Artiphact_75 (EF), Chivey_77 (EF), CoolCookie_75 (EF), Crestdrop_77 (EF), Cybele_76 (EF), DannyDe_77 (EF), Dauntless_75 (EF), Erudite_75 (EF), FreddieHg_77 (EF), Gilda_76 (EF), Hager_78 (EF), Haunter_77 (EF), Hiddenleaf_77 (EF), JDawG_75 (EF), JingleBells_76 (EF), Karate_75 (EF), Kate_76 (EF), Krampus_76 (EF), MortySmith_74 (EF), NarutoRun_76 (EF), Neptune_76 (EF), OhDear_76 (EF), OverHedge_75 (EF), Pharpay_75 (EF), PhunaPhoke_76 (EF), Potty_75 (EF), Poultruss_75 (EF), Rachella_76 (EF), Rie18_76 (EF), SilentWarrior_77 (EF), Snakehole_77 (EF), Tedro_76 (EF), Tongui_77 (EF),

Start 108:

- Found in 8 of 351 (2.3%) of genes in pham
- Manual Annotations of this start: 1 of 311

- Called 12.5% of time when present
- Phage (with cluster) where this start called: Mercedes_58 (EA),

Summary by clusters:

There are 26 clusters represented in this pham: DO, singleton, DX, DI, CZ1, CZ6, CZ4, CZ5, K3, Y, K1, DZ, K6, K5, K4, DW, CS1, CY3, EF, EA, N, CZ, AY, CT, KA, K7,

Info for manual annotations of cluster AY:

- Start number 96 was manually annotated 10 times for cluster AY.

Info for manual annotations of cluster CS1:

- Start number 78 was manually annotated 3 times for cluster CS1.

Info for manual annotations of cluster CT:

- Start number 78 was manually annotated 26 times for cluster CT.
- Start number 94 was manually annotated 8 times for cluster CT.
- Start number 102 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster CY3:

- Start number 81 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CZ:

- Start number 81 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 81 was manually annotated 5 times for cluster CZ1.

Info for manual annotations of cluster CZ4:

- Start number 81 was manually annotated 11 times for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 81 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:

- Start number 81 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster DI:

- Start number 94 was manually annotated 10 times for cluster DI.

Info for manual annotations of cluster DO:

- Start number 76 was manually annotated 3 times for cluster DO.
- Start number 79 was manually annotated 1 time for cluster DO.

Info for manual annotations of cluster DW:

- Start number 81 was manually annotated 3 times for cluster DW.

Info for manual annotations of cluster DX:

- Start number 92 was manually annotated 2 times for cluster DX.

Info for manual annotations of cluster DZ:

- Start number 96 was manually annotated 5 times for cluster DZ.

Info for manual annotations of cluster EA:

- Start number 108 was manually annotated 1 time for cluster EA.

Info for manual annotations of cluster EF:

- Start number 101 was manually annotated 1 time for cluster EF.
- Start number 104 was manually annotated 33 times for cluster EF.

Info for manual annotations of cluster K1:

- Start number 86 was manually annotated 86 times for cluster K1.
- Start number 90 was manually annotated 14 times for cluster K1.

Info for manual annotations of cluster K3:

- Start number 90 was manually annotated 8 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 91 was manually annotated 22 times for cluster K4.

Info for manual annotations of cluster K5:

- Start number 90 was manually annotated 23 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 90 was manually annotated 21 times for cluster K6.

Info for manual annotations of cluster K7:

- Start number 88 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster KA:

- Start number 96 was manually annotated 1 time for cluster KA.

Info for manual annotations of cluster N:

- Start number 97 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster Y:

- Start number 92 was manually annotated 5 times for cluster Y.

Gene Information:

Gene: AbbyDaisy_49 Start: 31179, Stop: 31364, Start Num: 96

Candidate Starts for AbbyDaisy_49:

(72, 31122), (Start: 96 @31179 has 16 MA's), (110, 31236), (116, 31257), (120, 31272),

Gene: ActinUp_63 Start: 42440, Stop: 42655, Start Num: 86

Candidate Starts for ActinUp_63:

(Start: 86 @42440 has 86 MA's), (112, 42527), (115, 42536),

Gene: Adephagia_63 Start: 42477, Stop: 42692, Start Num: 86

Candidate Starts for Adephagia_63:

(Start: 86 @42477 has 86 MA's), (112, 42564), (115, 42573),

Gene: Adonis_63 Start: 42712, Stop: 42927, Start Num: 86

Candidate Starts for Adonis_63:

(Start: 86 @42712 has 86 MA's), (112, 42799), (115, 42808),

Gene: Adora_52 Start: 38735, Stop: 38977, Start Num: 81

Candidate Starts for Adora_52:

(Start: 81 @38735 has 24 MA's), (120, 38861),

Gene: Aesir_75 Start: 52985, Stop: 53188, Start Num: 101

Candidate Starts for Aesir_75:

(Start: 101 @52985 has 1 MA's), (Start: 104 @53000 has 33 MA's), (116, 53057), (140, 53135), (143, 53153), (145, 53165),

Gene: Agatha_49 Start: 36030, Stop: 35797, Start Num: 78

Candidate Starts for Agatha_49:

(Start: 78 @36030 has 29 MA's), (109, 35946), (127, 35886),

Gene: Agent47_57 Start: 39612, Stop: 39824, Start Num: 90

Candidate Starts for Agent47_57:

(63, 39537), (65, 39546), (68, 39558), (Start: 90 @39612 has 66 MA's), (Start: 101 @39630 has 1 MA's), (112, 39690), (119, 39714), (120, 39717), (127, 39744), (138, 39771), (146, 39819),

Gene: Ageofdapage_67 Start: 43868, Stop: 44083, Start Num: 86

Candidate Starts for Ageofdapage_67:

(Start: 86 @43868 has 86 MA's), (112, 43955), (115, 43964),

Gene: Agueybana_55 Start: 39414, Stop: 39656, Start Num: 81

Candidate Starts for Agueybana_55:

(Start: 81 @39414 has 24 MA's), (120, 39540),

Gene: AikoCarson_50 Start: 36349, Stop: 36098, Start Num: 78

Candidate Starts for AikoCarson_50:

(Start: 78 @36349 has 29 MA's), (80, 36343), (118, 36220), (131, 36175),

Gene: Aleemily_115 Start: 64180, Stop: 63974, Start Num: 96

Candidate Starts for Aleemily_115:

(66, 64249), (Start: 96 @64180 has 16 MA's), (113, 64108), (117, 64093), (122, 64078), (143, 64000),

Gene: AlleyCat_59 Start: 39910, Stop: 40122, Start Num: 90

Candidate Starts for AlleyCat_59:

(Start: 90 @39910 has 66 MA's), (112, 39988), (119, 40012), (120, 40015), (127, 40042), (138, 40069),

Gene: Amgine_62 Start: 43547, Stop: 43759, Start Num: 90

Candidate Starts for Amgine_62:

(Start: 90 @43547 has 66 MA's), (112, 43628), (115, 43637),

Gene: Aminay_62 Start: 41845, Stop: 42069, Start Num: 88

Candidate Starts for Aminay_62:

(Start: 88 @41845 has 1 MA's), (111, 41926), (114, 41935), (120, 41956), (140, 42025),

Gene: Amohnition_63 Start: 43082, Stop: 43294, Start Num: 90

Candidate Starts for Amohnition_63:

(2, 42395), (6, 42482), (8, 42530), (9, 42557), (10, 42581), (13, 42623), (36, 42905), (Start: 90 @43082 has 66 MA's), (112, 43163), (115, 43172), (141, 43247),

Gene: Amok_50 Start: 36274, Stop: 36023, Start Num: 78
Candidate Starts for Amok_50:
(Start: 78 @36274 has 29 MA's), (80, 36268), (118, 36145), (131, 36100),

Gene: Amore2_80 Start: 61514, Stop: 61275, Start Num: 78
Candidate Starts for Amore2_80:
(31, 61679), (Start: 78 @61514 has 29 MA's), (126, 61355),

Gene: Anakin_76 Start: 53365, Stop: 53553, Start Num: 104
Candidate Starts for Anakin_76:
(Start: 101 @53350 has 1 MA's), (Start: 104 @53365 has 33 MA's), (116, 53422), (140, 53500), (143, 53518), (145, 53530),

Gene: Anaya_66 Start: 43420, Stop: 43638, Start Num: 86
Candidate Starts for Anaya_66:
(Start: 86 @43420 has 86 MA's), (112, 43507), (115, 43516),

Gene: AndPeggy_46 Start: 35560, Stop: 35309, Start Num: 78
Candidate Starts for AndPeggy_46:
(Start: 78 @35560 has 29 MA's), (80, 35554), (118, 35431), (131, 35386),

Gene: Angelica_63 Start: 42629, Stop: 42844, Start Num: 86
Candidate Starts for Angelica_63:
(Start: 86 @42629 has 86 MA's), (112, 42716), (115, 42725),

Gene: Anma_65 Start: 43328, Stop: 43543, Start Num: 86
Candidate Starts for Anma_65:
(Start: 86 @43328 has 86 MA's), (112, 43415), (115, 43424),

Gene: AnnaSerena_76 Start: 53399, Stop: 53587, Start Num: 104
Candidate Starts for AnnaSerena_76:
(Start: 101 @53384 has 1 MA's), (Start: 104 @53399 has 33 MA's), (116, 53456), (140, 53534), (143, 53552), (145, 53564),

Gene: Annalisa_51 Start: 35580, Stop: 35795, Start Num: 81
Candidate Starts for Annalisa_51:
(21, 35316), (24, 35352), (32, 35424), (Start: 81 @35580 has 24 MA's), (120, 35679),

Gene: Annapurna_77 Start: 52999, Stop: 53187, Start Num: 104
Candidate Starts for Annapurna_77:
(Start: 101 @52984 has 1 MA's), (Start: 104 @52999 has 33 MA's), (116, 53056), (143, 53152), (145, 53164),

Gene: Apocalypse_66 Start: 43395, Stop: 43610, Start Num: 86
Candidate Starts for Apocalypse_66:
(Start: 86 @43395 has 86 MA's), (112, 43482), (115, 43491),

Gene: Applecrisp_60 Start: 42677, Stop: 42889, Start Num: 90
Candidate Starts for Applecrisp_60:
(Start: 90 @42677 has 66 MA's), (112, 42758), (115, 42767),

Gene: ArchiDore_52 Start: 39524, Stop: 39766, Start Num: 81
Candidate Starts for ArchiDore_52:

(Start: 81 @39524 has 24 MA's), (85, 39533), (120, 39650),

Gene: Artiphact_75 Start: 53389, Stop: 53577, Start Num: 104

Candidate Starts for Artiphact_75:

(Start: 101 @53374 has 1 MA's), (Start: 104 @53389 has 33 MA's), (116, 53446), (140, 53524), (143, 53542), (145, 53554),

Gene: Asayake_63 Start: 42792, Stop: 43007, Start Num: 86

Candidate Starts for Asayake_63:

(Start: 86 @42792 has 86 MA's), (112, 42879), (115, 42888),

Gene: Atiba_64 Start: 42440, Stop: 42655, Start Num: 86

Candidate Starts for Atiba_64:

(Start: 86 @42440 has 86 MA's), (112, 42527), (115, 42536),

Gene: AuntGwenStacy_89 Start: 58871, Stop: 59092, Start Num: 92

Candidate Starts for AuntGwenStacy_89:

(Start: 92 @58871 has 7 MA's), (106, 58907), (110, 58937),

Gene: Austin_79 Start: 61512, Stop: 61273, Start Num: 78

Candidate Starts for Austin_79:

(31, 61677), (Start: 78 @61512 has 29 MA's), (126, 61353),

Gene: Auxilium_46 Start: 28442, Stop: 28633, Start Num: 96

Candidate Starts for Auxilium_46:

(Start: 96 @28442 has 16 MA's),

Gene: Axym_48 Start: 35927, Stop: 35694, Start Num: 78

Candidate Starts for Axym_48:

(Start: 78 @35927 has 29 MA's), (109, 35843), (127, 35783),

Gene: Ayotoya_72 Start: 48939, Stop: 49139, Start Num: 94

Candidate Starts for Ayotoya_72:

(62, 48855), (64, 48861), (87, 48927), (Start: 94 @48939 has 18 MA's),

Gene: BEEST_63 Start: 42792, Stop: 43007, Start Num: 86

Candidate Starts for BEEST_63:

(Start: 86 @42792 has 86 MA's), (112, 42879), (115, 42888),

Gene: BGlluviae_63 Start: 42595, Stop: 42810, Start Num: 86

Candidate Starts for BGlluviae_63:

(Start: 86 @42595 has 86 MA's), (112, 42682), (115, 42691),

Gene: BaghaKamala_63 Start: 42253, Stop: 42471, Start Num: 86

Candidate Starts for BaghaKamala_63:

(59, 42175), (Start: 86 @42253 has 86 MA's), (112, 42340), (115, 42349),

Gene: BananenDer11_54 Start: 39573, Stop: 39785, Start Num: 90

Candidate Starts for BananenDer11_54:

(63, 39498), (65, 39507), (68, 39519), (Start: 90 @39573 has 66 MA's), (Start: 101 @39591 has 1 MA's), (112, 39651), (119, 39675), (120, 39678), (127, 39705), (138, 39732), (146, 39780),

Gene: BarrelRoll_64 Start: 42877, Stop: 43092, Start Num: 86

Candidate Starts for BarrelRoll_64:

(61, 42799), (Start: 86 @42877 has 86 MA's), (112, 42964), (115, 42973),

Gene: Beezoo_65 Start: 43389, Stop: 43604, Start Num: 86

Candidate Starts for Beezoo_65:

(Start: 86 @43389 has 86 MA's), (112, 43476), (115, 43485),

Gene: Bella96_64 Start: 43173, Stop: 43388, Start Num: 86

Candidate Starts for Bella96_64:

(Start: 86 @43173 has 86 MA's), (112, 43260), (115, 43269),

Gene: Belladonna_63 Start: 42595, Stop: 42810, Start Num: 86

Candidate Starts for Belladonna_63:

(Start: 86 @42595 has 86 MA's), (112, 42682), (115, 42691),

Gene: Bern_65 Start: 41846, Stop: 42064, Start Num: 86

Candidate Starts for Bern_65:

(Start: 86 @41846 has 86 MA's), (112, 41933), (115, 41942),

Gene: BillDoor_49 Start: 35229, Stop: 34978, Start Num: 78

Candidate Starts for BillDoor_49:

(46, 35346), (Start: 78 @35229 has 29 MA's), (80, 35223), (99, 35187), (118, 35100), (131, 35055),

Gene: Bipper_99 Start: 62157, Stop: 62378, Start Num: 92

Candidate Starts for Bipper_99:

(37, 61980), (49, 62025), (50, 62028), (58, 62067), (75, 62115), (Start: 92 @62157 has 7 MA's), (106, 62193),

Gene: Biskit_52 Start: 36207, Stop: 35971, Start Num: 78

Candidate Starts for Biskit_52:

(69, 36225), (Start: 78 @36207 has 29 MA's), (127, 36060), (131, 36048), (133, 36045),

Gene: Blizzard_63 Start: 42792, Stop: 43007, Start Num: 86

Candidate Starts for Blizzard_63:

(Start: 86 @42792 has 86 MA's), (112, 42879), (115, 42888),

Gene: Blondies_53 Start: 36524, Stop: 36288, Start Num: 78

Candidate Starts for Blondies_53:

(69, 36542), (Start: 78 @36524 has 29 MA's), (127, 36377), (131, 36365), (133, 36362),

Gene: BlueShadow_48 Start: 30488, Stop: 30679, Start Num: 96

Candidate Starts for BlueShadow_48:

(25, 30227), (56, 30389), (Start: 96 @30488 has 16 MA's),

Gene: Bobquesha_67 Start: 40811, Stop: 41029, Start Num: 91

Candidate Starts for Bobquesha_67:

(42, 40652), (46, 40661), (Start: 91 @40811 has 22 MA's), (123, 40928), (135, 40964), (139, 40979), (140, 40985),

Gene: Boiiii_63 Start: 42794, Stop: 43009, Start Num: 86

Candidate Starts for Boiiii_63:

(Start: 86 @42794 has 86 MA's), (112, 42881), (115, 42890),

Gene: Bryler_67 Start: 42423, Stop: 42635, Start Num: 90
Candidate Starts for Bryler_67:
(3, 41757), (4, 41781), (7, 41856), (16, 42009), (36, 42240), (Start: 90 @42423 has 66 MA's), (112, 42504), (115, 42513),

Gene: Brylie_71 Start: 47955, Stop: 48155, Start Num: 94
Candidate Starts for Brylie_71:
(62, 47871), (64, 47877), (83, 47931), (87, 47943), (Start: 94 @47955 has 18 MA's),

Gene: Bubble_47 Start: 35617, Stop: 35384, Start Num: 78
Candidate Starts for Bubble_47:
(Start: 78 @35617 has 29 MA's), (109, 35533), (127, 35473),

Gene: Bunnybear_49 Start: 37204, Stop: 37446, Start Num: 81
Candidate Starts for Bunnybear_49:
(Start: 81 @37204 has 24 MA's), (120, 37330),

Gene: Burnsey_49 Start: 36021, Stop: 35788, Start Num: 78
Candidate Starts for Burnsey_49:
(Start: 78 @36021 has 29 MA's), (109, 35937), (127, 35877),

Gene: Button_51 Start: 36058, Stop: 35855, Start Num: 94
Candidate Starts for Button_51:
(Start: 94 @36058 has 18 MA's), (100, 36046), (Start: 102 @36037 has 1 MA's), (103, 36031), (116, 35980), (124, 35956),

Gene: Buttrmlkdreams_52 Start: 36654, Stop: 36418, Start Num: 78
Candidate Starts for Buttrmlkdreams_52:
(69, 36672), (Start: 78 @36654 has 29 MA's), (127, 36507), (131, 36495), (133, 36492),

Gene: CREW_63 Start: 42595, Stop: 42810, Start Num: 86
Candidate Starts for CREW_63:
(Start: 86 @42595 has 86 MA's), (112, 42682), (115, 42691),

Gene: Cafasso_117 Start: 64785, Stop: 64579, Start Num: 96
Candidate Starts for Cafasso_117:
(Start: 96 @64785 has 16 MA's), (113, 64713), (117, 64698), (122, 64683),

Gene: Cain_67 Start: 42411, Stop: 42623, Start Num: 90
Candidate Starts for Cain_67:
(3, 41745), (4, 41769), (7, 41844), (16, 41997), (36, 42228), (Start: 90 @42411 has 66 MA's), (112, 42492), (115, 42501),

Gene: CallaLilly_63 Start: 42518, Stop: 42733, Start Num: 86
Candidate Starts for CallaLilly_63:
(Start: 86 @42518 has 86 MA's), (112, 42605), (115, 42614),

Gene: CanesSauce_48 Start: 35730, Stop: 35479, Start Num: 78
Candidate Starts for CanesSauce_48:
(Start: 78 @35730 has 29 MA's), (80, 35724), (118, 35601), (131, 35556),

Gene: Capricorn_63 Start: 42595, Stop: 42810, Start Num: 86
Candidate Starts for Capricorn_63:

(Start: 86 @42595 has 86 MA's), (112, 42682), (115, 42691),

Gene: CaramellLatte_48 Start: 35730, Stop: 35479, Start Num: 78

Candidate Starts for CaramellLatte_48:

(Start: 78 @35730 has 29 MA's), (80, 35724), (118, 35601), (131, 35556),

Gene: CaseJules_65 Start: 42792, Stop: 43007, Start Num: 86

Candidate Starts for CaseJules_65:

(Start: 86 @42792 has 86 MA's), (112, 42879), (115, 42888),

Gene: Chancellor_66 Start: 41921, Stop: 42139, Start Num: 91

Candidate Starts for Chancellor_66:

(42, 41762), (46, 41771), (Start: 91 @41921 has 22 MA's), (123, 42038), (135, 42074), (139, 42089),

Gene: Chavito_66 Start: 43632, Stop: 43841, Start Num: 90

Candidate Starts for Chavito_66:

(Start: 90 @43632 has 66 MA's), (112, 43713), (115, 43722), (141, 43797),

Gene: CheetoDust_63 Start: 42300, Stop: 42518, Start Num: 86

Candidate Starts for CheetoDust_63:

(Start: 86 @42300 has 86 MA's), (112, 42387), (115, 42396),

Gene: Cheetobro_66 Start: 41918, Stop: 42136, Start Num: 91

Candidate Starts for Cheetobro_66:

(42, 41759), (46, 41768), (Start: 91 @41918 has 22 MA's), (123, 42035), (135, 42071), (139, 42086),

Gene: CherryTomatoes_158 Start: 111644, Stop: 111907, Start Num: 76

Candidate Starts for CherryTomatoes_158:

(60, 111599), (74, 111641), (Start: 76 @111644 has 3 MA's), (120, 111794), (131, 111830), (136, 111842),

Gene: ChickenTender_51 Start: 35574, Stop: 35341, Start Num: 78

Candidate Starts for ChickenTender_51:

(22, 35829), (41, 35706), (53, 35649), (Start: 78 @35574 has 29 MA's), (105, 35514), (109, 35490), (131, 35418),

Gene: Chivey_77 Start: 52802, Stop: 52990, Start Num: 104

Candidate Starts for Chivey_77:

(Start: 101 @52787 has 1 MA's), (Start: 104 @52802 has 33 MA's), (116, 52859), (140, 52937), (143, 52955), (145, 52967),

Gene: ChocoMunchkin_48 Start: 35730, Stop: 35479, Start Num: 78

Candidate Starts for ChocoMunchkin_48:

(Start: 78 @35730 has 29 MA's), (80, 35724), (118, 35601), (131, 35556),

Gene: Chop_73 Start: 49004, Stop: 49204, Start Num: 94

Candidate Starts for Chop_73:

(62, 48920), (64, 48926), (87, 48992), (Start: 94 @49004 has 18 MA's),

Gene: Chris_66 Start: 43655, Stop: 43864, Start Num: 90

Candidate Starts for Chris_66:

(12, 43181), (Start: 90 @43655 has 66 MA's), (Start: 108 @43718 has 1 MA's), (112, 43736), (115, 43745), (121, 43769),

Gene: Clipper_67 Start: 43491, Stop: 43709, Start Num: 86
Candidate Starts for Clipper_67:
(Start: 86 @43491 has 86 MA's), (112, 43578), (115, 43587),

Gene: Collard_55 Start: 39573, Stop: 39785, Start Num: 90
Candidate Starts for Collard_55:
(63, 39498), (65, 39507), (68, 39519), (Start: 90 @39573 has 66 MA's), (Start: 101 @39591 has 1 MA's), (112, 39651), (119, 39675), (120, 39678), (127, 39705), (138, 39732), (146, 39780),

Gene: Colossa_108 Start: 57696, Stop: 57887, Start Num: 96
Candidate Starts for Colossa_108:
(Start: 96 @57696 has 16 MA's), (143, 57861),

Gene: CoolCookie_75 Start: 53498, Stop: 53686, Start Num: 104
Candidate Starts for CoolCookie_75:
(Start: 101 @53483 has 1 MA's), (Start: 104 @53498 has 33 MA's), (116, 53555), (140, 53633), (143, 53651), (145, 53663),

Gene: Cozz_47 Start: 35618, Stop: 35385, Start Num: 78
Candidate Starts for Cozz_47:
(Start: 78 @35618 has 29 MA's), (109, 35534), (127, 35474),

Gene: Cracklewink_99 Start: 61392, Stop: 61613, Start Num: 92
Candidate Starts for Cracklewink_99:
(37, 61215), (49, 61260), (50, 61263), (58, 61302), (75, 61350), (Start: 92 @61392 has 7 MA's), (98, 61404), (106, 61428),

Gene: Crestdrop_77 Start: 53319, Stop: 53507, Start Num: 104
Candidate Starts for Crestdrop_77:
(Start: 104 @53319 has 33 MA's), (116, 53376), (140, 53454), (143, 53472), (145, 53484),

Gene: CrimD_65 Start: 43416, Stop: 43631, Start Num: 86
Candidate Starts for CrimD_65:
(61, 43338), (Start: 86 @43416 has 86 MA's), (112, 43503), (115, 43512),

Gene: Curiosium_67 Start: 42105, Stop: 42323, Start Num: 86
Candidate Starts for Curiosium_67:
(Start: 86 @42105 has 86 MA's), (93, 42117), (112, 42192), (115, 42201),

Gene: Cybele_76 Start: 53395, Stop: 53583, Start Num: 104
Candidate Starts for Cybele_76:
(Start: 101 @53380 has 1 MA's), (Start: 104 @53395 has 33 MA's), (116, 53452), (140, 53530), (143, 53548), (145, 53560),

Gene: Dadosky_59 Start: 39912, Stop: 40124, Start Num: 90
Candidate Starts for Dadosky_59:
(Start: 90 @39912 has 66 MA's), (112, 39990), (119, 40014), (120, 40017), (127, 40044), (138, 40071),

Gene: Dalmuri_63 Start: 42595, Stop: 42810, Start Num: 86
Candidate Starts for Dalmuri_63:
(Start: 86 @42595 has 86 MA's), (112, 42682), (115, 42691),

Gene: DanSyl44_69 Start: 43112, Stop: 43330, Start Num: 91
Candidate Starts for DanSyl44_69:
(42, 42953), (46, 42962), (Start: 91 @43112 has 22 MA's), (123, 43229), (135, 43265), (139, 43280),

Gene: DannyDe_77 Start: 52804, Stop: 52992, Start Num: 104
Candidate Starts for DannyDe_77:
(Start: 101 @52789 has 1 MA's), (Start: 104 @52804 has 33 MA's), (116, 52861), (140, 52939), (143, 52957), (145, 52969),

Gene: DartGoblin_66 Start: 43145, Stop: 43360, Start Num: 86
Candidate Starts for DartGoblin_66:
(Start: 86 @43145 has 86 MA's), (112, 43232), (115, 43241),

Gene: DarthP_63 Start: 42936, Stop: 43148, Start Num: 90
Candidate Starts for DarthP_63:
(2, 42249), (6, 42336), (8, 42384), (9, 42411), (10, 42435), (13, 42477), (36, 42759), (Start: 90 @42936 has 66 MA's), (112, 43017), (115, 43026), (141, 43101),

Gene: Dartin_66 Start: 43084, Stop: 43293, Start Num: 90
Candidate Starts for Dartin_66:
(35, 42904), (Start: 90 @43084 has 66 MA's), (112, 43165), (115, 43174),

Gene: DarwinJr_53 Start: 31842, Stop: 32027, Start Num: 96
Candidate Starts for DarwinJr_53:
(33, 31647), (50, 31707), (51, 31716), (71, 31785), (Start: 96 @31842 has 16 MA's), (110, 31899), (120, 31935),

Gene: Dauntless_75 Start: 53031, Stop: 53219, Start Num: 104
Candidate Starts for Dauntless_75:
(Start: 101 @53016 has 1 MA's), (Start: 104 @53031 has 33 MA's), (116, 53088), (140, 53166), (143, 53184), (145, 53196),

Gene: Deby_64 Start: 43078, Stop: 43293, Start Num: 86
Candidate Starts for Deby_64:
(Start: 86 @43078 has 86 MA's), (112, 43165), (115, 43174),

Gene: DelRio_72 Start: 49046, Stop: 49246, Start Num: 94
Candidate Starts for DelRio_72:
(62, 48962), (64, 48968), (87, 49034), (Start: 94 @49046 has 18 MA's),

Gene: Denise_48 Start: 33091, Stop: 33306, Start Num: 81
Candidate Starts for Denise_48:
(Start: 81 @33091 has 24 MA's), (120, 33190), (129, 33223),

Gene: Devera_71 Start: 44431, Stop: 44646, Start Num: 86
Candidate Starts for Devera_71:
(61, 44353), (Start: 86 @44431 has 86 MA's), (112, 44518), (115, 44527),

Gene: Dole_69 Start: 44434, Stop: 44649, Start Num: 86
Candidate Starts for Dole_69:
(61, 44356), (Start: 86 @44434 has 86 MA's), (112, 44521), (115, 44530),

Gene: DoubleChamp_54 Start: 39573, Stop: 39785, Start Num: 90

Candidate Starts for DoubleChamp_54:

(63, 39498), (65, 39507), (68, 39519), (Start: 90 @39573 has 66 MA's), (Start: 101 @39591 has 1 MA's), (112, 39651), (119, 39675), (120, 39678), (127, 39705), (138, 39732), (146, 39780),

Gene: DrHayes_64 Start: 43328, Stop: 43543, Start Num: 86

Candidate Starts for DrHayes_64:

(Start: 86 @43328 has 86 MA's), (112, 43415), (115, 43424),

Gene: DumpsterDude_53 Start: 41558, Stop: 41800, Start Num: 81

Candidate Starts for DumpsterDude_53:

(Start: 81 @41558 has 24 MA's), (85, 41567), (120, 41684),

Gene: Durfee_63 Start: 42792, Stop: 43007, Start Num: 86

Candidate Starts for Durfee_63:

(Start: 86 @42792 has 86 MA's), (112, 42879), (115, 42888),

Gene: Easley_49 Start: 35528, Stop: 35743, Start Num: 81

Candidate Starts for Easley_49:

(Start: 81 @35528 has 24 MA's), (120, 35627),

Gene: Edugator_56 Start: 41333, Stop: 41545, Start Num: 90

Candidate Starts for Edugator_56:

(Start: 90 @41333 has 66 MA's), (Start: 101 @41351 has 1 MA's), (112, 41411), (119, 41435), (120, 41438), (127, 41465), (138, 41492), (146, 41540),

Gene: Efra2_69 Start: 43158, Stop: 43376, Start Num: 86

Candidate Starts for Efra2_69:

(59, 43080), (Start: 86 @43158 has 86 MA's), (112, 43245), (115, 43254),

Gene: Ellie_59 Start: 42407, Stop: 42619, Start Num: 90

Candidate Starts for Ellie_59:

(Start: 90 @42407 has 66 MA's), (112, 42488), (115, 42497),

Gene: Emalyn_48 Start: 35066, Stop: 34815, Start Num: 78

Candidate Starts for Emalyn_48:

(Start: 78 @35066 has 29 MA's), (80, 35060), (118, 34937), (131, 34892),

Gene: Emerson_65 Start: 42909, Stop: 43127, Start Num: 86

Candidate Starts for Emerson_65:

(Start: 86 @42909 has 86 MA's), (112, 42996), (115, 43005),

Gene: Eponine_68 Start: 42764, Stop: 42982, Start Num: 91

Candidate Starts for Eponine_68:

(42, 42605), (46, 42614), (Start: 91 @42764 has 22 MA's), (123, 42881), (135, 42917), (139, 42932),

Gene: Erudite_75 Start: 53031, Stop: 53219, Start Num: 104

Candidate Starts for Erudite_75:

(Start: 101 @53016 has 1 MA's), (Start: 104 @53031 has 33 MA's), (116, 53088), (140, 53166), (143, 53184), (145, 53196),

Gene: Faiyaz_91 Start: 58877, Stop: 59098, Start Num: 92

Candidate Starts for Faiyaz_91:

(Start: 92 @58877 has 7 MA's), (106, 58913), (110, 58943),

Gene: Fefferhead_61 Start: 42316, Stop: 42528, Start Num: 90
Candidate Starts for Fefferhead_61:
(Start: 90 @42316 has 66 MA's), (112, 42397), (115, 42406),

Gene: Feyre_60 Start: 43292, Stop: 43504, Start Num: 90
Candidate Starts for Feyre_60:
(Start: 90 @43292 has 66 MA's), (112, 43370), (119, 43394), (120, 43397), (130, 43430), (138, 43451),
(143, 43478),

Gene: Fionnbharth_66 Start: 42162, Stop: 42380, Start Num: 91
Candidate Starts for Fionnbharth_66:
(42, 42003), (46, 42012), (Start: 91 @42162 has 22 MA's), (123, 42279), (135, 42315), (139, 42330),

Gene: FountainFog_76 Start: 52859, Stop: 53062, Start Num: 101
Candidate Starts for FountainFog_76:
(Start: 101 @52859 has 1 MA's), (Start: 104 @52874 has 33 MA's), (140, 53009), (143, 53027), (145, 53039),

Gene: FreddieHg_77 Start: 52819, Stop: 53007, Start Num: 104
Candidate Starts for FreddieHg_77:
(Start: 101 @52804 has 1 MA's), (Start: 104 @52819 has 33 MA's), (116, 52876), (140, 52954), (143, 52972), (145, 52984),

Gene: GMA7_69 Start: 55728, Stop: 55489, Start Num: 78
Candidate Starts for GMA7_69:
(31, 55893), (Start: 78 @55728 has 29 MA's), (126, 55569),

Gene: GTE2_40 Start: 35662, Stop: 35417, Start Num: 80
Candidate Starts for GTE2_40:
(46, 35785), (Start: 78 @35668 has 29 MA's), (80, 35662), (99, 35626), (109, 35575), (118, 35539),
(131, 35494), (141, 35461),

Gene: GTE7_68 Start: 55759, Stop: 55520, Start Num: 78
Candidate Starts for GTE7_68:
(31, 55924), (Start: 78 @55759 has 29 MA's), (126, 55600),

Gene: Ganymede_64 Start: 42817, Stop: 43032, Start Num: 86
Candidate Starts for Ganymede_64:
(Start: 86 @42817 has 86 MA's), (112, 42904), (115, 42913),

Gene: Gengar_57 Start: 41311, Stop: 41523, Start Num: 90
Candidate Starts for Gengar_57:
(Start: 90 @41311 has 66 MA's), (112, 41389), (119, 41413), (120, 41416), (127, 41443), (138, 41470),
(143, 41497),

Gene: Geraldini_66 Start: 43474, Stop: 43689, Start Num: 86
Candidate Starts for Geraldini_66:
(Start: 86 @43474 has 86 MA's), (112, 43561), (115, 43570),

Gene: GiKK_53 Start: 36382, Stop: 36179, Start Num: 94
Candidate Starts for GiKK_53:

(Start: 94 @36382 has 18 MA's), (100, 36370), (Start: 102 @36361 has 1 MA's), (103, 36355), (116, 36304), (124, 36280),

Gene: Gilda_76 Start: 53387, Stop: 53575, Start Num: 104

Candidate Starts for Gilda_76:

(Start: 101 @53372 has 1 MA's), (Start: 104 @53387 has 33 MA's), (116, 53444), (140, 53522), (143, 53540), (145, 53552),

Gene: Gorpy_49 Start: 31480, Stop: 31674, Start Num: 96

Candidate Starts for Gorpy_49:

(Start: 96 @31480 has 16 MA's), (112, 31549), (140, 31627),

Gene: GrandSlam_73 Start: 49004, Stop: 49204, Start Num: 94

Candidate Starts for GrandSlam_73:

(62, 48920), (64, 48926), (87, 48992), (Start: 94 @49004 has 18 MA's),

Gene: Guanica15_68 Start: 42899, Stop: 43117, Start Num: 86

Candidate Starts for Guanica15_68:

(59, 42821), (Start: 86 @42899 has 86 MA's), (112, 42986), (115, 42995),

Gene: Guillsminger_58 Start: 41282, Stop: 41494, Start Num: 90

Candidate Starts for Guillsminger_58:

(Start: 90 @41282 has 66 MA's), (112, 41360), (119, 41384), (120, 41387), (130, 41420), (138, 41441), (143, 41468),

Gene: Hager_78 Start: 52853, Stop: 53041, Start Num: 104

Candidate Starts for Hager_78:

(Start: 101 @52838 has 1 MA's), (Start: 104 @52853 has 33 MA's), (140, 52988), (143, 53006), (145, 53018),

Gene: Hammy_63 Start: 42924, Stop: 43136, Start Num: 90

Candidate Starts for Hammy_63:

(36, 42747), (Start: 90 @42924 has 66 MA's), (112, 43005), (115, 43014), (141, 43089),

Gene: Hamood_73 Start: 49004, Stop: 49204, Start Num: 94

Candidate Starts for Hamood_73:

(62, 48920), (64, 48926), (87, 48992), (Start: 94 @49004 has 18 MA's),

Gene: Haunter_77 Start: 52808, Stop: 52996, Start Num: 104

Candidate Starts for Haunter_77:

(Start: 101 @52793 has 1 MA's), (Start: 104 @52808 has 33 MA's), (116, 52865), (140, 52943), (143, 52961), (145, 52973),

Gene: HayZem_81 Start: 61512, Stop: 61273, Start Num: 78

Candidate Starts for HayZem_81:

(31, 61677), (Start: 78 @61512 has 29 MA's), (126, 61353),

Gene: HedwigODU_63 Start: 42440, Stop: 42655, Start Num: 86

Candidate Starts for HedwigODU_63:

(Start: 86 @42440 has 86 MA's), (112, 42527), (115, 42536),

Gene: Heftyboy_58 Start: 41654, Stop: 41866, Start Num: 90

Candidate Starts for Heftyboy_58:

(Start: 90 @41654 has 66 MA's), (112, 41732), (119, 41756), (120, 41759), (130, 41792), (138, 41813), (143, 41840),

Gene: Hexbug_56 Start: 38441, Stop: 38238, Start Num: 94

Candidate Starts for Hexbug_56:

(Start: 94 @38441 has 18 MA's), (Start: 102 @38420 has 1 MA's), (124, 38339), (128, 38318), (133, 38309), (141, 38282),

Gene: Hiddenleaf_77 Start: 52802, Stop: 52990, Start Num: 104

Candidate Starts for Hiddenleaf_77:

(Start: 101 @52787 has 1 MA's), (Start: 104 @52802 has 33 MA's), (116, 52859), (140, 52937), (143, 52955), (145, 52967),

Gene: Hilltopfarm_91 Start: 59257, Stop: 59478, Start Num: 92

Candidate Starts for Hilltopfarm_91:

(Start: 92 @59257 has 7 MA's), (106, 59293), (110, 59323),

Gene: Homura_63 Start: 42595, Stop: 42810, Start Num: 86

Candidate Starts for Homura_63:

(Start: 86 @42595 has 86 MA's), (112, 42682), (115, 42691),

Gene: Horseradish_52 Start: 36140, Stop: 35904, Start Num: 78

Candidate Starts for Horseradish_52:

(69, 36158), (Start: 78 @36140 has 29 MA's), (127, 35993), (131, 35981), (133, 35978),

Gene: Hortense_55 Start: 40090, Stop: 40332, Start Num: 81

Candidate Starts for Hortense_55:

(Start: 81 @40090 has 24 MA's), (120, 40216),

Gene: Howe_55 Start: 40090, Stop: 40332, Start Num: 81

Candidate Starts for Howe_55:

(Start: 81 @40090 has 24 MA's), (120, 40216),

Gene: Hurricane_64 Start: 42910, Stop: 43122, Start Num: 90

Candidate Starts for Hurricane_64:

(Start: 90 @42910 has 66 MA's), (115, 43000), (141, 43075),

Gene: Hyperbowlee_63 Start: 42792, Stop: 43007, Start Num: 86

Candidate Starts for Hyperbowlee_63:

(Start: 86 @42792 has 86 MA's), (112, 42879), (115, 42888),

Gene: Illumine_69 Start: 44433, Stop: 44648, Start Num: 86

Candidate Starts for Illumine_69:

(61, 44355), (Start: 86 @44433 has 86 MA's), (112, 44520), (115, 44529),

Gene: Inky_63 Start: 42595, Stop: 42810, Start Num: 86

Candidate Starts for Inky_63:

(Start: 86 @42595 has 86 MA's), (112, 42682), (115, 42691),

Gene: InvictusManeo_55 Start: 39616, Stop: 39828, Start Num: 90

Candidate Starts for InvictusManeo_55:

(63, 39541), (65, 39550), (68, 39562), (Start: 90 @39616 has 66 MA's), (Start: 101 @39634 has 1 MA's), (112, 39694), (119, 39718), (120, 39721), (127, 39748), (138, 39775), (146, 39823),

Gene: Isolde_49 Start: 30525, Stop: 30716, Start Num: 96

Candidate Starts for Isolde_49:

(Start: 96 @30525 has 16 MA's),

Gene: JAWS_64 Start: 42868, Stop: 43086, Start Num: 86

Candidate Starts for JAWS_64:

(59, 42790), (Start: 86 @42868 has 86 MA's), (112, 42955), (115, 42964),

Gene: JDawG_75 Start: 52995, Stop: 53183, Start Num: 104

Candidate Starts for JDawG_75:

(Start: 101 @52980 has 1 MA's), (Start: 104 @52995 has 33 MA's), (116, 53052), (140, 53130), (143, 53148), (145, 53160),

Gene: JF1_66 Start: 42079, Stop: 42297, Start Num: 91

Candidate Starts for JF1_66:

(42, 41920), (46, 41929), (Start: 91 @42079 has 22 MA's), (123, 42196), (135, 42232), (139, 42247),

Gene: Jablanski_57 Start: 41777, Stop: 42019, Start Num: 81

Candidate Starts for Jablanski_57:

(15, 41396), (Start: 81 @41777 has 24 MA's), (120, 41903),

Gene: Jamzy_53 Start: 36362, Stop: 36159, Start Num: 94

Candidate Starts for Jamzy_53:

(Start: 94 @36362 has 18 MA's), (100, 36350), (Start: 102 @36341 has 1 MA's), (103, 36335), (116, 36284), (124, 36260),

Gene: Jarvi_63 Start: 42595, Stop: 42810, Start Num: 86

Candidate Starts for Jarvi_63:

(Start: 86 @42595 has 86 MA's), (112, 42682), (115, 42691),

Gene: Jayhawk_65 Start: 42937, Stop: 43152, Start Num: 86

Candidate Starts for Jayhawk_65:

(Start: 86 @42937 has 86 MA's), (112, 43024), (115, 43033),

Gene: Jeckyll_63 Start: 42595, Stop: 42810, Start Num: 86

Candidate Starts for Jeckyll_63:

(Start: 86 @42595 has 86 MA's), (112, 42682), (115, 42691),

Gene: JingleBells_76 Start: 52907, Stop: 53095, Start Num: 104

Candidate Starts for JingleBells_76:

(Start: 101 @52892 has 1 MA's), (Start: 104 @52907 has 33 MA's), (116, 52964), (140, 53042), (143, 53060), (145, 53072),

Gene: Joy99_63 Start: 42524, Stop: 42739, Start Num: 86

Candidate Starts for Joy99_63:

(Start: 86 @42524 has 86 MA's), (112, 42611), (115, 42620),

Gene: Juliette_68 Start: 42226, Stop: 42444, Start Num: 91

Candidate Starts for Juliette_68:

(42, 42067), (46, 42076), (Start: 91 @42226 has 22 MA's), (123, 42343), (135, 42379), (139, 42394),

Gene: Kabloowy_50 Start: 31539, Stop: 31730, Start Num: 96

Candidate Starts for Kabloowy_50:
(51, 31413), (70, 31482), (Start: 96 @31539 has 16 MA's),

Gene: Karate_75 Start: 53099, Stop: 53287, Start Num: 104
Candidate Starts for Karate_75:
(Start: 101 @53084 has 1 MA's), (Start: 104 @53099 has 33 MA's), (116, 53156), (143, 53252), (145, 53264),

Gene: Kate_76 Start: 53310, Stop: 53498, Start Num: 104
Candidate Starts for Kate_76:
(Start: 101 @53295 has 1 MA's), (Start: 104 @53310 has 33 MA's), (116, 53367), (140, 53445), (143, 53463), (145, 53475),

Gene: Keshu_66 Start: 43008, Stop: 43220, Start Num: 90
Candidate Starts for Keshu_66:
(36, 42825), (Start: 90 @43008 has 66 MA's), (115, 43098), (141, 43173),

Gene: Kevin1_59 Start: 36836, Stop: 37027, Start Num: 97
Candidate Starts for Kevin1_59:
(Start: 97 @36836 has 1 MA's), (134, 36968),

Gene: KiSi_68 Start: 43636, Stop: 43845, Start Num: 90
Candidate Starts for KiSi_68:
(Start: 90 @43636 has 66 MA's), (Start: 101 @43657 has 1 MA's), (Start: 108 @43699 has 1 MA's), (112, 43717), (115, 43726), (121, 43750),

Gene: Krampus_76 Start: 53400, Stop: 53588, Start Num: 104
Candidate Starts for Krampus_76:
(Start: 101 @53385 has 1 MA's), (Start: 104 @53400 has 33 MA's), (116, 53457), (140, 53535), (143, 53553), (145, 53565),

Gene: Kratio_55 Start: 39352, Stop: 39564, Start Num: 90
Candidate Starts for Kratio_55:
(11, 38872), (17, 38959), (20, 39010), (27, 39118), (28, 39124), (63, 39277), (65, 39286), (68, 39298), (Start: 90 @39352 has 66 MA's), (Start: 101 @39370 has 1 MA's), (119, 39454), (120, 39457), (127, 39484), (138, 39511), (146, 39559),

Gene: Kraw_66 Start: 41914, Stop: 42132, Start Num: 91
Candidate Starts for Kraw_66:
(42, 41755), (46, 41764), (Start: 91 @41914 has 22 MA's), (123, 42031), (135, 42067), (139, 42082),

Gene: Krueger_68 Start: 42699, Stop: 42911, Start Num: 90
Candidate Starts for Krueger_68:
(36, 42516), (Start: 90 @42699 has 66 MA's), (112, 42780), (115, 42789), (142, 42873),

Gene: Larva_58 Start: 40784, Stop: 40996, Start Num: 90
Candidate Starts for Larva_58:
(Start: 90 @40784 has 66 MA's), (112, 40862), (119, 40886), (120, 40889), (127, 40916), (138, 40943),

Gene: LastHope_68 Start: 42025, Stop: 42237, Start Num: 90
Candidate Starts for LastHope_68:
(Start: 90 @42025 has 66 MA's), (112, 42106), (115, 42115),

Gene: LaterM_64 Start: 43287, Stop: 43502, Start Num: 86
Candidate Starts for LaterM_64:
(Start: 86 @43287 has 86 MA's), (112, 43374), (115, 43383),

Gene: LeBruni_50 Start: 29822, Stop: 30013, Start Num: 96
Candidate Starts for LeBruni_50:
(Start: 96 @29822 has 16 MA's),

Gene: LeMond_67 Start: 43270, Stop: 43479, Start Num: 90
Candidate Starts for LeMond_67:
(Start: 90 @43270 has 66 MA's), (Start: 101 @43291 has 1 MA's), (Start: 108 @43333 has 1 MA's),
(112, 43351), (115, 43360), (121, 43384),

Gene: Lea83_64 Start: 42945, Stop: 43157, Start Num: 90
Candidate Starts for Lea83_64:
(Start: 90 @42945 has 66 MA's), (115, 43035), (141, 43110),

Gene: Lebo14_65 Start: 42247, Stop: 42465, Start Num: 91
Candidate Starts for Lebo14_65:
(42, 42088), (46, 42097), (Start: 91 @42247 has 22 MA's), (123, 42364), (135, 42400), (139, 42415),

Gene: Leston_57 Start: 41411, Stop: 41623, Start Num: 90
Candidate Starts for Leston_57:
(Start: 90 @41411 has 66 MA's), (112, 41489), (119, 41513), (120, 41516), (130, 41549), (138, 41570),
(143, 41597),

Gene: LilDirt_54 Start: 39374, Stop: 39586, Start Num: 90
Candidate Starts for LilDirt_54:
(63, 39299), (65, 39308), (68, 39320), (Start: 90 @39374 has 66 MA's), (Start: 101 @39392 has 1
MA's), (112, 39452), (119, 39476), (120, 39479), (127, 39506), (138, 39533), (146, 39581),

Gene: LilPharaoh_52 Start: 39482, Stop: 39691, Start Num: 90
Candidate Starts for LilPharaoh_52:
(Start: 90 @39482 has 66 MA's), (112, 39563), (115, 39572),

Gene: LindNT_63 Start: 43082, Stop: 43297, Start Num: 86
Candidate Starts for LindNT_63:
(61, 43004), (Start: 86 @43082 has 86 MA's), (112, 43169), (115, 43178),

Gene: Llorens_63 Start: 42595, Stop: 42810, Start Num: 86
Candidate Starts for Llorens_63:
(Start: 86 @42595 has 86 MA's), (112, 42682), (115, 42691),

Gene: Lunahalos_63 Start: 42595, Stop: 42810, Start Num: 86
Candidate Starts for Lunahalos_63:
(Start: 86 @42595 has 86 MA's), (112, 42682), (115, 42691),

Gene: MScarn_54 Start: 36322, Stop: 36086, Start Num: 78
Candidate Starts for MScarn_54:
(69, 36340), (Start: 78 @36322 has 29 MA's), (127, 36175), (131, 36163), (133, 36160),

Gene: MacKat_59 Start: 38375, Stop: 38593, Start Num: 86
Candidate Starts for MacKat_59:

(Start: 86 @38375 has 86 MA's), (112, 38462), (115, 38471),

Gene: MacnCheese_66 Start: 43527, Stop: 43739, Start Num: 90

Candidate Starts for MacnCheese_66:

(Start: 86 @43521 has 86 MA's), (Start: 90 @43527 has 66 MA's), (115, 43617), (137, 43677), (141, 43692),

Gene: Madavieve_51 Start: 38160, Stop: 38402, Start Num: 81

Candidate Starts for Madavieve_51:

(Start: 81 @38160 has 24 MA's), (120, 38286),

Gene: Madeline_54 Start: 39604, Stop: 39846, Start Num: 81

Candidate Starts for Madeline_54:

(Start: 81 @39604 has 24 MA's), (120, 39730),

Gene: Malthus_67 Start: 41914, Stop: 42132, Start Num: 91

Candidate Starts for Malthus_67:

(42, 41755), (46, 41764), (Start: 91 @41914 has 22 MA's), (123, 42031), (135, 42067), (139, 42082),

Gene: Mapleville_47 Start: 30349, Stop: 30540, Start Num: 96

Candidate Starts for Mapleville_47:

(Start: 96 @30349 has 16 MA's),

Gene: Margaret_54 Start: 37114, Stop: 36911, Start Num: 94

Candidate Starts for Margaret_54:

(Start: 94 @37114 has 18 MA's), (100, 37102), (Start: 102 @37093 has 1 MA's), (103, 37087), (116, 37036), (124, 37012),

Gene: Maridalia_57 Start: 38950, Stop: 39192, Start Num: 81

Candidate Starts for Maridalia_57:

(Start: 81 @38950 has 24 MA's), (120, 39076),

Gene: MarkPhew_66 Start: 42770, Stop: 42982, Start Num: 90

Candidate Starts for MarkPhew_66:

(Start: 90 @42770 has 66 MA's), (Start: 108 @42833 has 1 MA's), (112, 42851), (115, 42860), (121, 42884),

Gene: Marshawn_63 Start: 43120, Stop: 43332, Start Num: 90

Candidate Starts for Marshawn_63:

(Start: 90 @43120 has 66 MA's), (112, 43201),

Gene: McMater_66 Start: 43084, Stop: 43293, Start Num: 90

Candidate Starts for McMater_66:

(35, 42904), (Start: 90 @43084 has 66 MA's), (112, 43165), (115, 43174),

Gene: Mcklovin_51 Start: 41557, Stop: 41799, Start Num: 81

Candidate Starts for Mcklovin_51:

(Start: 81 @41557 has 24 MA's), (120, 41683),

Gene: MeaningOfLife_64 Start: 43347, Stop: 43562, Start Num: 86

Candidate Starts for MeaningOfLife_64:

(Start: 86 @43347 has 86 MA's), (112, 43434), (115, 43443),

Gene: Megsy_66 Start: 43003, Stop: 43218, Start Num: 86
Candidate Starts for Megsy_66:
(Start: 86 @43003 has 86 MA's), (112, 43090), (115, 43099),

Gene: Mercedes_58 Start: 39826, Stop: 40002, Start Num: 108
Candidate Starts for Mercedes_58:
(93, 39766), (107, 39823), (Start: 108 @39826 has 1 MA's), (131, 39919),

Gene: MidnightRain_51 Start: 31618, Stop: 31809, Start Num: 96
Candidate Starts for MidnightRain_51:
(67, 31558), (Start: 96 @31618 has 16 MA's), (139, 31756),

Gene: Miryou_61 Start: 44008, Stop: 44220, Start Num: 90
Candidate Starts for Miryou_61:
(Start: 90 @44008 has 66 MA's), (112, 44086), (119, 44110), (120, 44113), (127, 44140), (138, 44167),
(143, 44194),

Gene: MissDaisy_63 Start: 40826, Stop: 41044, Start Num: 91
Candidate Starts for MissDaisy_63:
(42, 40667), (46, 40676), (Start: 91 @40826 has 22 MA's), (123, 40943), (135, 40979), (139, 40994),
(140, 41000),

Gene: Mitti_66 Start: 42093, Stop: 42311, Start Num: 91
Candidate Starts for Mitti_66:
(42, 41934), (46, 41943), (Start: 91 @42093 has 22 MA's), (123, 42210), (135, 42246), (139, 42261),

Gene: ModicumRichard_117 Start: 65073, Stop: 64867, Start Num: 96
Candidate Starts for ModicumRichard_117:
(Start: 96 @65073 has 16 MA's), (113, 65001), (117, 64986), (122, 64971),

Gene: Moosehead_50 Start: 31430, Stop: 31645, Start Num: 81
Candidate Starts for Moosehead_50:
(Start: 81 @31430 has 24 MA's), (120, 31529), (141, 31601),

Gene: Morgana_124 Start: 67243, Stop: 67037, Start Num: 96
Candidate Starts for Morgana_124:
(66, 67312), (Start: 96 @67243 has 16 MA's), (113, 67171), (117, 67156), (122, 67141),

Gene: MortySmith_74 Start: 52505, Stop: 52693, Start Num: 104
Candidate Starts for MortySmith_74:
(Start: 101 @52490 has 1 MA's), (Start: 104 @52505 has 33 MA's), (116, 52562), (140, 52640), (143,
52658), (145, 52670),

Gene: Mulch_71 Start: 47994, Stop: 48194, Start Num: 94
Candidate Starts for Mulch_71:
(62, 47910), (64, 47916), (83, 47970), (87, 47982), (Start: 94 @47994 has 18 MA's),

Gene: MunkgeeRoachy_47 Start: 35379, Stop: 35146, Start Num: 78
Candidate Starts for MunkgeeRoachy_47:
(Start: 78 @35379 has 29 MA's), (109, 35295), (127, 35235),

Gene: Murucutumbu_65 Start: 43862, Stop: 44077, Start Num: 86
Candidate Starts for Murucutumbu_65:

(61, 43784), (Start: 86 @43862 has 86 MA's), (112, 43949), (115, 43958),

Gene: Mynx_65 Start: 43204, Stop: 43422, Start Num: 86

Candidate Starts for Mynx_65:

(59, 43126), (Start: 86 @43204 has 86 MA's), (112, 43291), (115, 43300),

Gene: Nadeem_71 Start: 47982, Stop: 48182, Start Num: 94

Candidate Starts for Nadeem_71:

(62, 47898), (64, 47904), (83, 47958), (87, 47970), (Start: 94 @47982 has 18 MA's),

Gene: NarutoRun_76 Start: 53365, Stop: 53553, Start Num: 104

Candidate Starts for NarutoRun_76:

(Start: 101 @53350 has 1 MA's), (Start: 104 @53365 has 33 MA's), (116, 53422), (140, 53500), (143, 53518), (145, 53530),

Gene: Neptune_76 Start: 53395, Stop: 53583, Start Num: 104

Candidate Starts for Neptune_76:

(Start: 101 @53380 has 1 MA's), (Start: 104 @53395 has 33 MA's), (116, 53452), (140, 53530), (143, 53548), (145, 53560),

Gene: Nibb_66 Start: 42981, Stop: 43193, Start Num: 90

Candidate Starts for Nibb_66:

(12, 42507), (Start: 90 @42981 has 66 MA's), (Start: 108 @43044 has 1 MA's), (112, 43062), (115, 43071), (132, 43122),

Gene: Niklas_66 Start: 43145, Stop: 43354, Start Num: 90

Candidate Starts for Niklas_66:

(Start: 90 @43145 has 66 MA's), (112, 43226), (115, 43235),

Gene: Nina_48 Start: 36199, Stop: 35966, Start Num: 78

Candidate Starts for Nina_48:

(Start: 78 @36199 has 29 MA's), (109, 36115), (127, 36055),

Gene: Nodigi_56 Start: 38471, Stop: 38268, Start Num: 94

Candidate Starts for Nodigi_56:

(Start: 94 @38471 has 18 MA's), (Start: 102 @38450 has 1 MA's), (124, 38369), (128, 38348), (133, 38339), (141, 38312),

Gene: November_61 Start: 42834, Stop: 43046, Start Num: 90

Candidate Starts for November_61:

(2, 42144), (5, 42228), (6, 42234), (8, 42282), (9, 42309), (10, 42333), (13, 42375), (36, 42657), (Start: 90 @42834 has 66 MA's), (112, 42915), (115, 42924), (141, 42999),

Gene: Nyilah_48 Start: 29132, Stop: 29323, Start Num: 96

Candidate Starts for Nyilah_48:

(82, 29102), (Start: 96 @29132 has 16 MA's), (112, 29201),

Gene: ObLaDi_116 Start: 64475, Stop: 64269, Start Num: 96

Candidate Starts for ObLaDi_116:

(Start: 96 @64475 has 16 MA's), (113, 64403), (117, 64388), (122, 64373),

Gene: OhDear_76 Start: 53363, Stop: 53551, Start Num: 104

Candidate Starts for OhDear_76:

(Start: 101 @53348 has 1 MA's), (Start: 104 @53363 has 33 MA's), (116, 53420), (140, 53498), (143, 53516), (145, 53528),

Gene: OkiRoe_58 Start: 41679, Stop: 41891, Start Num: 90

Candidate Starts for OkiRoe_58:

(Start: 90 @41679 has 66 MA's), (112, 41757), (119, 41781), (120, 41784), (127, 41811), (138, 41838), (143, 41865),

Gene: OmniCritical_65 Start: 41983, Stop: 42201, Start Num: 91

Candidate Starts for OmniCritical_65:

(42, 41824), (46, 41833), (Start: 91 @41983 has 22 MA's), (123, 42100), (135, 42136), (139, 42151),

Gene: Omnicron_61 Start: 41791, Stop: 42003, Start Num: 90

Candidate Starts for Omnicron_61:

(68, 41737), (Start: 90 @41791 has 66 MA's), (110, 41857), (112, 41869), (120, 41896), (138, 41950), (143, 41977),

Gene: Oregano_54 Start: 36212, Stop: 36427, Start Num: 81

Candidate Starts for Oregano_54:

(Start: 81 @36212 has 24 MA's), (120, 36311),

Gene: Orla_56 Start: 38400, Stop: 38197, Start Num: 94

Candidate Starts for Orla_56:

(Start: 94 @38400 has 18 MA's), (Start: 102 @38379 has 1 MA's), (124, 38298), (128, 38277), (133, 38268), (141, 38241),

Gene: Oscar_67 Start: 43187, Stop: 43396, Start Num: 90

Candidate Starts for Oscar_67:

(Start: 90 @43187 has 66 MA's), (Start: 101 @43208 has 1 MA's), (Start: 108 @43250 has 1 MA's), (112, 43268), (115, 43277), (121, 43301),

Gene: OverHedge_75 Start: 53261, Stop: 53449, Start Num: 104

Candidate Starts for OverHedge_75:

(Start: 101 @53246 has 1 MA's), (Start: 104 @53261 has 33 MA's), (116, 53318), (140, 53396), (143, 53414), (145, 53426),

Gene: Padfoot_63 Start: 42792, Stop: 43007, Start Num: 86

Candidate Starts for Padfoot_63:

(Start: 86 @42792 has 86 MA's), (112, 42879), (115, 42888),

Gene: Padpat_66 Start: 42909, Stop: 43127, Start Num: 86

Candidate Starts for Padpat_66:

(Start: 86 @42909 has 86 MA's), (112, 42996), (115, 43005),

Gene: Paola_57 Start: 41282, Stop: 41494, Start Num: 90

Candidate Starts for Paola_57:

(Start: 90 @41282 has 66 MA's), (112, 41360), (119, 41384), (120, 41387), (130, 41420), (138, 41441), (143, 41468),

Gene: Parada_71 Start: 47994, Stop: 48194, Start Num: 94

Candidate Starts for Parada_71:

(62, 47910), (64, 47916), (83, 47970), (87, 47982), (Start: 94 @47994 has 18 MA's),

Gene: Patt_62 Start: 40550, Stop: 40768, Start Num: 91
Candidate Starts for Patt_62:
(42, 40391), (46, 40400), (Start: 91 @40550 has 22 MA's), (123, 40667), (135, 40703), (139, 40718),
(140, 40724),

Gene: Peanam_66 Start: 43103, Stop: 43312, Start Num: 90
Candidate Starts for Peanam_66:
(35, 42923), (Start: 90 @43103 has 66 MA's), (112, 43184), (115, 43193),

Gene: Peel_63 Start: 42597, Stop: 42812, Start Num: 86
Candidate Starts for Peel_63:
(Start: 86 @42597 has 86 MA's), (112, 42684), (115, 42693),

Gene: Pharb_63 Start: 42257, Stop: 42469, Start Num: 90
Candidate Starts for Pharb_63:
(84, 42242), (Start: 90 @42257 has 66 MA's), (115, 42347),

Gene: Pharpay_75 Start: 53410, Stop: 53598, Start Num: 104
Candidate Starts for Pharpay_75:
(Start: 101 @53395 has 1 MA's), (Start: 104 @53410 has 33 MA's), (116, 53467), (140, 53545), (143,
53563), (145, 53575),

Gene: PhelpsODU_65 Start: 42337, Stop: 42549, Start Num: 90
Candidate Starts for PhelpsODU_65:
(3, 41674), (4, 41698), (7, 41770), (16, 41923), (36, 42154), (Start: 90 @42337 has 66 MA's), (112,
42418), (115, 42427),

Gene: Phrank_67 Start: 42401, Stop: 42613, Start Num: 90
Candidate Starts for Phrank_67:
(3, 41735), (4, 41759), (7, 41834), (16, 41987), (36, 42218), (Start: 90 @42401 has 66 MA's), (112,
42482), (115, 42491),

Gene: PhriskyACE_50 Start: 36177, Stop: 36419, Start Num: 81
Candidate Starts for PhriskyACE_50:
(19, 35853), (Start: 81 @36177 has 24 MA's), (120, 36303),

Gene: PhunaPhoke_76 Start: 53380, Stop: 53568, Start Num: 104
Candidate Starts for PhunaPhoke_76:
(Start: 101 @53365 has 1 MA's), (Start: 104 @53380 has 33 MA's), (116, 53437), (140, 53515), (143,
53533), (145, 53545),

Gene: Piatt_63 Start: 42792, Stop: 43007, Start Num: 86
Candidate Starts for Piatt_63:
(Start: 86 @42792 has 86 MA's), (112, 42879), (115, 42888),

Gene: Pisa1_63 Start: 43410, Stop: 43625, Start Num: 86
Candidate Starts for Pisa1_63:
(Start: 86 @43410 has 86 MA's), (112, 43497), (115, 43506),

Gene: Pixie_63 Start: 42430, Stop: 42642, Start Num: 90
Candidate Starts for Pixie_63:
(Start: 90 @42430 has 66 MA's), (115, 42520), (141, 42595),

Gene: Pokerus_63 Start: 42937, Stop: 43152, Start Num: 86
Candidate Starts for Pokerus_63:
(61, 42859), (Start: 86 @42937 has 86 MA's), (112, 43024), (115, 43033),

Gene: Potty_75 Start: 53310, Stop: 53498, Start Num: 104
Candidate Starts for Potty_75:
(Start: 101 @53295 has 1 MA's), (Start: 104 @53310 has 33 MA's), (116, 53367), (140, 53445), (143, 53463), (145, 53475),

Gene: Poultruss_75 Start: 53607, Stop: 53795, Start Num: 104
Candidate Starts for Poultruss_75:
(Start: 101 @53592 has 1 MA's), (Start: 104 @53607 has 33 MA's), (116, 53664), (140, 53742), (143, 53760), (145, 53772),

Gene: Powerball_51 Start: 36303, Stop: 36545, Start Num: 81
Candidate Starts for Powerball_51:
(19, 35979), (Start: 81 @36303 has 24 MA's), (120, 36429),

Gene: Prithvi_65 Start: 43082, Stop: 43297, Start Num: 86
Candidate Starts for Prithvi_65:
(61, 43004), (Start: 86 @43082 has 86 MA's), (112, 43169), (115, 43178),

Gene: Psycho_57 Start: 39909, Stop: 40121, Start Num: 90
Candidate Starts for Psycho_57:
(Start: 90 @39909 has 66 MA's), (112, 39987), (119, 40011), (120, 40014), (127, 40041), (138, 40068),

Gene: Pupper_157 Start: 111884, Stop: 112147, Start Num: 76
Candidate Starts for Pupper_157:
(60, 111839), (74, 111881), (Start: 76 @111884 has 3 MA's), (120, 112034), (131, 112070), (136, 112082),

Gene: Pytheas_57 Start: 41776, Stop: 42018, Start Num: 81
Candidate Starts for Pytheas_57:
(15, 41395), (Start: 81 @41776 has 24 MA's), (120, 41902),

Gene: Qhanda_68 Start: 41930, Stop: 42148, Start Num: 91
Candidate Starts for Qhanda_68:
(42, 41771), (46, 41780), (Start: 91 @41930 has 22 MA's), (123, 42047), (135, 42083), (139, 42098),

Gene: Quasar_49 Start: 36624, Stop: 36391, Start Num: 78
Candidate Starts for Quasar_49:
(Start: 78 @36624 has 29 MA's), (109, 36540), (127, 36480),

Gene: QuincyRose_62 Start: 42817, Stop: 43032, Start Num: 86
Candidate Starts for QuincyRose_62:
(Start: 86 @42817 has 86 MA's), (112, 42904), (115, 42913),

Gene: Rachella_76 Start: 53391, Stop: 53579, Start Num: 104
Candidate Starts for Rachella_76:
(Start: 101 @53376 has 1 MA's), (Start: 104 @53391 has 33 MA's), (116, 53448), (140, 53526), (143, 53544), (145, 53556),

Gene: Ramen_64 Start: 42442, Stop: 42657, Start Num: 86

Candidate Starts for Ramen_64:

(Start: 86 @42442 has 86 MA's), (112, 42529), (115, 42538),

Gene: RanchParmCat_53 Start: 37255, Stop: 37052, Start Num: 94

Candidate Starts for RanchParmCat_53:

(Start: 94 @37255 has 18 MA's), (100, 37243), (Start: 102 @37234 has 1 MA's), (103, 37228), (116, 37177), (124, 37153),

Gene: Rando14_59 Start: 39518, Stop: 39730, Start Num: 90

Candidate Starts for Rando14_59:

(63, 39443), (65, 39452), (68, 39464), (Start: 90 @39518 has 66 MA's), (112, 39596), (119, 39620), (120, 39623), (138, 39677), (143, 39704),

Gene: Raphaella_49 Start: 30457, Stop: 30648, Start Num: 96

Candidate Starts for Raphaella_49:

(Start: 96 @30457 has 16 MA's),

Gene: Rapunzel97_65 Start: 42892, Stop: 43107, Start Num: 86

Candidate Starts for Rapunzel97_65:

(61, 42814), (Start: 86 @42892 has 86 MA's), (112, 42979), (115, 42988),

Gene: RedBaron_51 Start: 36246, Stop: 36013, Start Num: 78

Candidate Starts for RedBaron_51:

(Start: 78 @36246 has 29 MA's), (109, 36162),

Gene: RedWattleHog_174 Start: 111466, Stop: 111675, Start Num: 92

Candidate Starts for RedWattleHog_174:

(89, 111463), (Start: 92 @111466 has 7 MA's), (138, 111625), (144, 111655),

Gene: Reptar3000_63 Start: 40538, Stop: 40756, Start Num: 91

Candidate Starts for Reptar3000_63:

(42, 40379), (46, 40388), (Start: 91 @40538 has 22 MA's), (123, 40655), (135, 40691), (139, 40706), (140, 40712),

Gene: Richo_66 Start: 43084, Stop: 43293, Start Num: 90

Candidate Starts for Richo_66:

(35, 42904), (Start: 90 @43084 has 66 MA's), (112, 43165), (115, 43174),

Gene: Rie18_76 Start: 53133, Stop: 53321, Start Num: 104

Candidate Starts for Rie18_76:

(Start: 101 @53118 has 1 MA's), (Start: 104 @53133 has 33 MA's), (140, 53268), (143, 53286), (145, 53298),

Gene: Rosmarinus_63 Start: 42583, Stop: 42798, Start Num: 86

Candidate Starts for Rosmarinus_63:

(Start: 86 @42583 has 86 MA's), (112, 42670), (115, 42679),

Gene: Ruthiejr_67 Start: 41964, Stop: 42182, Start Num: 91

Candidate Starts for Ruthiejr_67:

(42, 41805), (46, 41814), (Start: 91 @41964 has 22 MA's), (123, 42081), (135, 42117), (139, 42132),

Gene: Ruthy_52 Start: 39090, Stop: 39332, Start Num: 81

Candidate Starts for Ruthy_52:

(Start: 81 @39090 has 24 MA's), (85, 39099), (120, 39216),

Gene: SCentae_156 Start: 112038, Stop: 112301, Start Num: 76

Candidate Starts for SCentae_156:

(60, 111993), (74, 112035), (Start: 76 @112038 has 3 MA's), (120, 112188), (131, 112224), (136, 112236),

Gene: Sakai_48 Start: 30191, Stop: 30385, Start Num: 96

Candidate Starts for Sakai_48:

(Start: 96 @30191 has 16 MA's), (112, 30260), (140, 30338),

Gene: SamScheppers_64 Start: 42393, Stop: 42611, Start Num: 91

Candidate Starts for SamScheppers_64:

(42, 42234), (46, 42243), (Start: 91 @42393 has 22 MA's), (123, 42510), (135, 42546), (139, 42561),

Gene: SamuelLPlaqson_64 Start: 43328, Stop: 43543, Start Num: 86

Candidate Starts for SamuelLPlaqson_64:

(Start: 86 @43328 has 86 MA's), (112, 43415), (115, 43424),

Gene: Scarlett_68 Start: 43514, Stop: 43726, Start Num: 90

Candidate Starts for Scarlett_68:

(Start: 90 @43514 has 66 MA's), (Start: 101 @43535 has 1 MA's), (Start: 108 @43577 has 1 MA's), (112, 43595), (115, 43604), (121, 43628),

Gene: SgtBeansprout_52 Start: 39754, Stop: 39963, Start Num: 90

Candidate Starts for SgtBeansprout_52:

(Start: 90 @39754 has 66 MA's), (112, 39835), (115, 39844),

Gene: Shadow1_68 Start: 42852, Stop: 43064, Start Num: 90

Candidate Starts for Shadow1_68:

(Start: 90 @42852 has 66 MA's), (112, 42933), (115, 42942),

Gene: Shaobing_66 Start: 43121, Stop: 43330, Start Num: 90

Candidate Starts for Shaobing_66:

(35, 42941), (Start: 90 @43121 has 66 MA's), (112, 43202), (115, 43211),

Gene: ShedlockHolmes_65 Start: 42949, Stop: 43161, Start Num: 90

Candidate Starts for ShedlockHolmes_65:

(Start: 90 @42949 has 66 MA's), (115, 43039), (141, 43114),

Gene: ShiaSurprise_64 Start: 42792, Stop: 43007, Start Num: 86

Candidate Starts for ShiaSurprise_64:

(Start: 86 @42792 has 86 MA's), (112, 42879), (115, 42888),

Gene: Shlim410_53 Start: 40090, Stop: 40332, Start Num: 81

Candidate Starts for Shlim410_53:

(Start: 81 @40090 has 24 MA's), (120, 40216),

Gene: SilentWarrior_77 Start: 52768, Stop: 52956, Start Num: 104

Candidate Starts for SilentWarrior_77:

(Start: 101 @52753 has 1 MA's), (Start: 104 @52768 has 33 MA's), (116, 52825), (140, 52903), (143, 52921), (145, 52933),

Gene: SketchMex_50 Start: 36207, Stop: 35971, Start Num: 78
Candidate Starts for SketchMex_50:
(69, 36225), (Start: 78 @36207 has 29 MA's), (127, 36060), (131, 36048), (133, 36045),

Gene: Skog_217 Start: 141536, Stop: 141781, Start Num: 79
Candidate Starts for Skog_217:
(Start: 79 @141536 has 1 MA's), (109, 141623), (112, 141641), (120, 141668), (125, 141683), (131, 141701),

Gene: Slarp_66 Start: 41921, Stop: 42139, Start Num: 91
Candidate Starts for Slarp_66:
(42, 41762), (46, 41771), (Start: 91 @41921 has 22 MA's), (123, 42038), (135, 42074), (139, 42089),

Gene: Slimphazie_64 Start: 42892, Stop: 43107, Start Num: 86
Candidate Starts for Slimphazie_64:
(61, 42814), (Start: 86 @42892 has 86 MA's), (112, 42979), (115, 42988),

Gene: Snakehole_77 Start: 52751, Stop: 52939, Start Num: 104
Candidate Starts for Snakehole_77:
(Start: 101 @52736 has 1 MA's), (Start: 104 @52751 has 33 MA's), (116, 52808), (140, 52886), (143, 52904), (145, 52916),

Gene: SoSeph_58 Start: 41654, Stop: 41866, Start Num: 90
Candidate Starts for SoSeph_58:
(Start: 90 @41654 has 66 MA's), (112, 41732), (119, 41756), (120, 41759), (130, 41792), (138, 41813), (143, 41840),

Gene: Spock_63 Start: 42596, Stop: 42811, Start Num: 86
Candidate Starts for Spock_63:
(Start: 86 @42596 has 86 MA's), (112, 42683), (115, 42692),

Gene: Sporco_51 Start: 30638, Stop: 30829, Start Num: 96
Candidate Starts for Sporco_51:
(22, 30344), (23, 30362), (26, 30392), (29, 30410), (30, 30434), (41, 30467), (43, 30470), (48, 30497), (73, 30581), (Start: 96 @30638 has 16 MA's),

Gene: Sprinklemunch_60 Start: 41643, Stop: 41885, Start Num: 81
Candidate Starts for Sprinklemunch_60:
(Start: 81 @41643 has 24 MA's), (120, 41769),

Gene: SteamedHams_49 Start: 35394, Stop: 35161, Start Num: 78
Candidate Starts for SteamedHams_49:
(39, 35529), (44, 35520), (45, 35517), (52, 35469), (55, 35457), (Start: 78 @35394 has 29 MA's), (109, 35310), (127, 35250),

Gene: Stinson_65 Start: 43220, Stop: 43435, Start Num: 86
Candidate Starts for Stinson_65:
(Start: 86 @43220 has 86 MA's), (112, 43307), (115, 43316),

Gene: Stormageddon_175 Start: 112431, Stop: 112640, Start Num: 92
Candidate Starts for Stormageddon_175:
(89, 112428), (Start: 92 @112431 has 7 MA's), (138, 112590), (144, 112620),

Gene: Sulley_63 Start: 42656, Stop: 42871, Start Num: 86
Candidate Starts for Sulley_63:
(Start: 86 @42656 has 86 MA's), (112, 42743), (115, 42752),

Gene: Sunflower1121_69 Start: 42998, Stop: 43210, Start Num: 90
Candidate Starts for Sunflower1121_69:
(Start: 90 @42998 has 66 MA's), (112, 43079), (115, 43088),

Gene: SweatNTears_51 Start: 36160, Stop: 35927, Start Num: 78
Candidate Starts for SweatNTears_51:
(Start: 78 @36160 has 29 MA's), (109, 36076), (127, 36016),

Gene: Syra333_67 Start: 42711, Stop: 42923, Start Num: 90
Candidate Starts for Syra333_67:
(36, 42528), (Start: 90 @42711 has 66 MA's), (112, 42792), (115, 42801),

Gene: TClif_64 Start: 42546, Stop: 42758, Start Num: 90
Candidate Starts for TClif_64:
(Start: 90 @42546 has 66 MA's), (112, 42627), (115, 42636), (141, 42711),

Gene: TPA4_81 Start: 53987, Stop: 54289, Start Num: 64
Candidate Starts for TPA4_81:
(1, 53147), (18, 53672), (37, 53882), (54, 53957), (64, 53987),

Gene: Tachez_63 Start: 42440, Stop: 42655, Start Num: 86
Candidate Starts for Tachez_63:
(Start: 86 @42440 has 86 MA's), (112, 42527), (115, 42536),

Gene: TaiwanKao_66 Start: 43144, Stop: 43359, Start Num: 86
Candidate Starts for TaiwanKao_66:
(61, 43066), (Start: 86 @43144 has 86 MA's), (112, 43231), (115, 43240),

Gene: Taquito_65 Start: 42156, Stop: 42374, Start Num: 91
Candidate Starts for Taquito_65:
(42, 41997), (46, 42006), (Start: 91 @42156 has 22 MA's), (123, 42273), (135, 42309), (139, 42324),

Gene: Tedro_76 Start: 52895, Stop: 53083, Start Num: 104
Candidate Starts for Tedro_76:
(Start: 91 @52859 has 22 MA's), (Start: 101 @52880 has 1 MA's), (Start: 104 @52895 has 33 MA's),
(116, 52952), (143, 53048), (145, 53060),

Gene: ThankyouJordi_56 Start: 40759, Stop: 41001, Start Num: 81
Candidate Starts for ThankyouJordi_56:
(34, 40612), (38, 40627), (40, 40636), (57, 40702), (Start: 81 @40759 has 24 MA's), (120, 40885),

Gene: Thimann_54 Start: 37092, Stop: 37307, Start Num: 81
Candidate Starts for Thimann_54:
(Start: 81 @37092 has 24 MA's), (120, 37191),

Gene: Thyatira_60 Start: 43612, Stop: 43824, Start Num: 90
Candidate Starts for Thyatira_60:
(Start: 90 @43612 has 66 MA's), (112, 43690), (119, 43714), (120, 43717), (130, 43750), (138, 43771),
(143, 43798),

Gene: Tierra_67 Start: 43212, Stop: 43424, Start Num: 90
Candidate Starts for Tierra_67:
(3, 42546), (4, 42570), (7, 42645), (16, 42798), (36, 43029), (Start: 90 @43212 has 66 MA's), (112, 43293), (115, 43302),

Gene: Tiff81_46 Start: 28970, Stop: 29161, Start Num: 96
Candidate Starts for Tiff81_46:
(Start: 96 @28970 has 16 MA's),

Gene: TingHuaYa_67 Start: 42388, Stop: 42606, Start Num: 86
Candidate Starts for TingHuaYa_67:
(47, 42253), (59, 42310), (Start: 86 @42388 has 86 MA's), (112, 42475), (115, 42484),

Gene: TiniBug_64 Start: 43324, Stop: 43539, Start Num: 86
Candidate Starts for TiniBug_64:
(Start: 86 @43324 has 86 MA's), (112, 43411), (115, 43420),

Gene: Tiri_64 Start: 42728, Stop: 42943, Start Num: 86
Candidate Starts for Tiri_64:
(Start: 86 @42728 has 86 MA's), (112, 42815), (115, 42824),

Gene: Tolls_50 Start: 35802, Stop: 35551, Start Num: 78
Candidate Starts for Tolls_50:
(Start: 78 @35802 has 29 MA's), (80, 35796), (118, 35673), (131, 35628),

Gene: Tongui_77 Start: 53245, Stop: 53433, Start Num: 104
Candidate Starts for Tongui_77:
(Start: 101 @53230 has 1 MA's), (Start: 104 @53245 has 33 MA's), (140, 53380), (143, 53398), (145, 53410),

Gene: Topper_63 Start: 42595, Stop: 42810, Start Num: 86
Candidate Starts for Topper_63:
(Start: 86 @42595 has 86 MA's), (112, 42682), (115, 42691),

Gene: TreyKay_65 Start: 43082, Stop: 43297, Start Num: 86
Candidate Starts for TreyKay_65:
(61, 43004), (Start: 86 @43082 has 86 MA's), (112, 43169), (115, 43178),

Gene: TribbleTrouble_64 Start: 43429, Stop: 43641, Start Num: 90
Candidate Starts for TribbleTrouble_64:
(14, 43003), (36, 43246), (Start: 90 @43429 has 66 MA's), (115, 43519),

Gene: Trogglehumper_5 Start: 2263, Stop: 2457, Start Num: 95
Candidate Starts for Trogglehumper_5:
(Start: 95 @2263 has 1 MA's), (107, 2314), (111, 2332), (118, 2356),

Gene: Troje_52 Start: 36545, Stop: 36309, Start Num: 78
Candidate Starts for Troje_52:
(69, 36563), (Start: 78 @36545 has 29 MA's), (127, 36398), (131, 36386), (133, 36383),

Gene: TruffulaTree_64 Start: 42888, Stop: 43103, Start Num: 86
Candidate Starts for TruffulaTree_64:

(61, 42810), (Start: 86 @42888 has 86 MA's), (112, 42975), (115, 42984),

Gene: Twinkle_54 Start: 41149, Stop: 41391, Start Num: 81

Candidate Starts for Twinkle_54:

(Start: 81 @41149 has 24 MA's), (120, 41275),

Gene: Twitch_63 Start: 42597, Stop: 42812, Start Num: 86

Candidate Starts for Twitch_63:

(Start: 86 @42597 has 86 MA's), (112, 42684), (115, 42693),

Gene: Typha_89 Start: 58872, Stop: 59093, Start Num: 92

Candidate Starts for Typha_89:

(Start: 92 @58872 has 7 MA's), (106, 58908), (110, 58938),

Gene: Typhonomachy_48 Start: 35740, Stop: 35507, Start Num: 78

Candidate Starts for Typhonomachy_48:

(Start: 78 @35740 has 29 MA's), (109, 35656), (127, 35596),

Gene: Unicorn_65 Start: 42337, Stop: 42549, Start Num: 90

Candidate Starts for Unicorn_65:

(3, 41674), (4, 41698), (7, 41770), (16, 41923), (36, 42154), (Start: 90 @42337 has 66 MA's), (112, 42418), (115, 42427),

Gene: Urkel_64 Start: 43328, Stop: 43543, Start Num: 86

Candidate Starts for Urkel_64:

(Start: 86 @43328 has 86 MA's), (112, 43415), (115, 43424),

Gene: Validus_68 Start: 43466, Stop: 43675, Start Num: 90

Candidate Starts for Validus_68:

(Start: 90 @43466 has 66 MA's), (112, 43547), (115, 43556), (141, 43631),

Gene: VanLee_109 Start: 57771, Stop: 57962, Start Num: 96

Candidate Starts for VanLee_109:

(Start: 96 @57771 has 16 MA's), (143, 57936),

Gene: Veliki_65 Start: 42859, Stop: 43077, Start Num: 86

Candidate Starts for Veliki_65:

(59, 42781), (Start: 86 @42859 has 86 MA's), (112, 42946), (115, 42955),

Gene: ViviJ_56 Start: 39373, Stop: 39585, Start Num: 90

Candidate Starts for ViviJ_56:

(63, 39298), (65, 39307), (68, 39319), (Start: 90 @39373 has 66 MA's), (Start: 101 @39391 has 1 MA's), (112, 39451), (119, 39475), (120, 39478), (127, 39505), (138, 39532), (146, 39580),

Gene: Vopal_52 Start: 33686, Stop: 33877, Start Num: 96

Candidate Starts for Vopal_52:

(Start: 96 @33686 has 16 MA's),

Gene: Waterfoul_59 Start: 41716, Stop: 41928, Start Num: 90

Candidate Starts for Waterfoul_59:

(Start: 90 @41716 has 66 MA's), (112, 41794), (119, 41818), (120, 41821), (130, 41854), (138, 41875), (143, 41902),

Gene: WelcomeAyanna_56 Start: 40906, Stop: 41148, Start Num: 81
Candidate Starts for WelcomeAyanna_56:
(34, 40759), (38, 40774), (40, 40783), (57, 40849), (Start: 81 @40906 has 24 MA's), (120, 41032),

Gene: WheatThin_71 Start: 47982, Stop: 48182, Start Num: 94
Candidate Starts for WheatThin_71:
(62, 47898), (64, 47904), (83, 47958), (87, 47970), (Start: 94 @47982 has 18 MA's),

Gene: Wintermute_66 Start: 42151, Stop: 42369, Start Num: 91
Candidate Starts for Wintermute_66:
(42, 41992), (46, 42001), (Start: 91 @42151 has 22 MA's), (123, 42268), (135, 42304), (139, 42319),

Gene: Ximenita_69 Start: 43037, Stop: 43249, Start Num: 90
Candidate Starts for Ximenita_69:
(36, 42854), (Start: 90 @43037 has 66 MA's), (112, 43118), (115, 43127),

Gene: Y10_64 Start: 42079, Stop: 42297, Start Num: 91
Candidate Starts for Y10_64:
(42, 41920), (46, 41929), (Start: 91 @42079 has 22 MA's), (123, 42196), (135, 42232), (139, 42247),

Gene: Y2_64 Start: 42079, Stop: 42297, Start Num: 91
Candidate Starts for Y2_64:
(42, 41920), (46, 41929), (Start: 91 @42079 has 22 MA's), (123, 42196), (135, 42232), (139, 42247),

Gene: Yakult_51 Start: 37137, Stop: 36952, Start Num: 102
Candidate Starts for Yakult_51:
(77, 37200), (Start: 94 @37158 has 18 MA's), (Start: 102 @37137 has 1 MA's), (110, 37098), (124, 37056), (129, 37032), (141, 36996),

Gene: Yarn_46 Start: 35565, Stop: 35314, Start Num: 78
Candidate Starts for Yarn_46:
(Start: 78 @35565 has 29 MA's), (80, 35559), (118, 35436), (131, 35391),

Gene: YasnayaPolyana_65 Start: 42004, Stop: 42222, Start Num: 91
Candidate Starts for YasnayaPolyana_65:
(42, 41845), (46, 41854), (Start: 91 @42004 has 22 MA's), (123, 42121), (135, 42157), (139, 42172),

Gene: YoungHarleezy_50 Start: 31023, Stop: 31214, Start Num: 96
Candidate Starts for YoungHarleezy_50:
(Start: 96 @31023 has 16 MA's),

Gene: YoureAdopted_63 Start: 43008, Stop: 43223, Start Num: 86
Candidate Starts for YoureAdopted_63:
(61, 42930), (Start: 86 @43008 has 86 MA's), (112, 43095), (115, 43104),

Gene: Yummy_52 Start: 36254, Stop: 36018, Start Num: 78
Candidate Starts for Yummy_52:
(69, 36272), (Start: 78 @36254 has 29 MA's), (127, 36107), (131, 36095), (133, 36092),

Gene: Yunkel11_68 Start: 42904, Stop: 43122, Start Num: 86
Candidate Starts for Yunkel11_68:
(59, 42826), (Start: 86 @42904 has 86 MA's), (112, 42991), (115, 43000),

Gene: Zabiza_58 Start: 38745, Stop: 38960, Start Num: 86

Candidate Starts for Zabiza_58:

(Start: 86 @38745 has 86 MA's), (112, 38832), (115, 38841),

Gene: Zavala_66 Start: 43164, Stop: 43382, Start Num: 86

Candidate Starts for Zavala_66:

(59, 43086), (Start: 86 @43164 has 86 MA's), (112, 43251), (115, 43260),