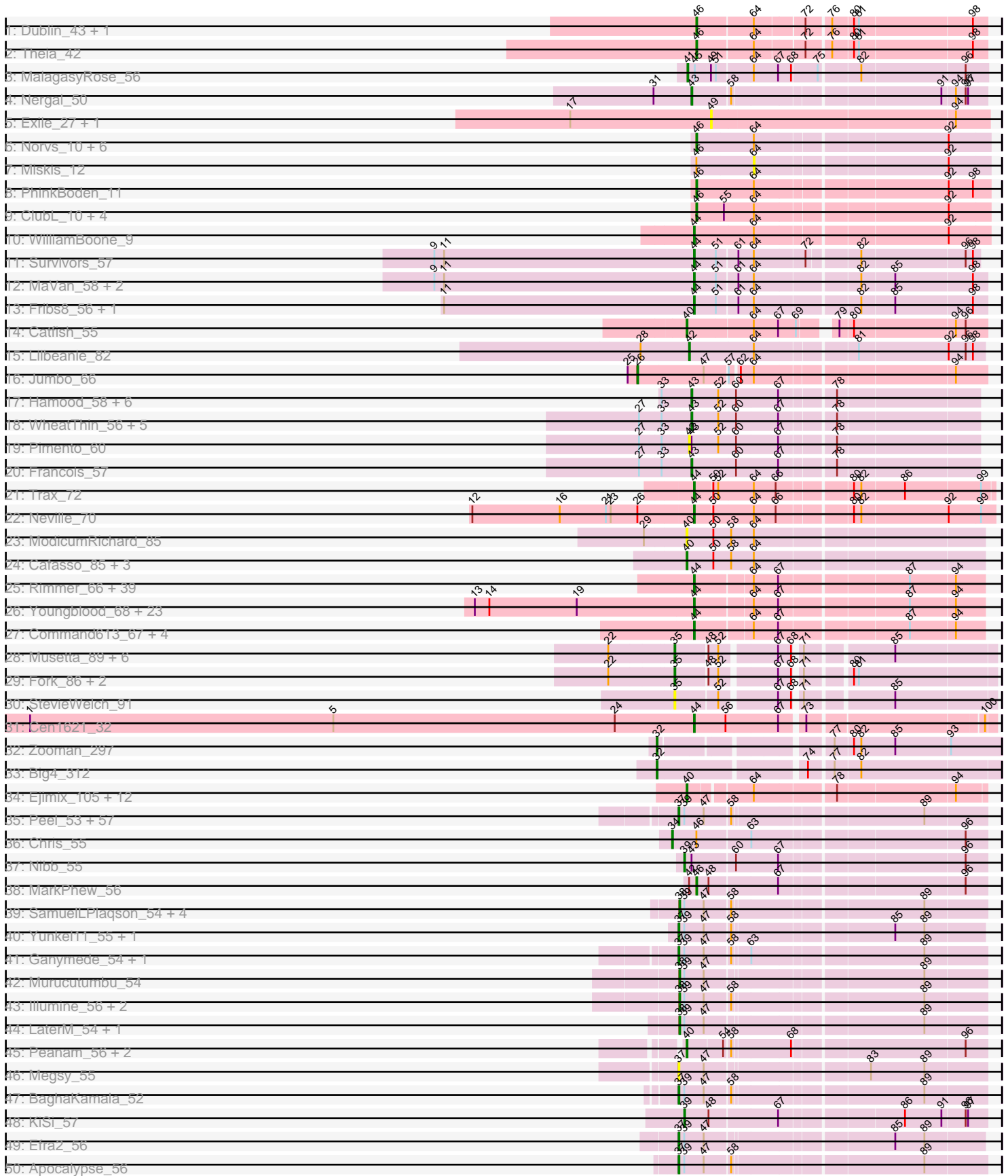
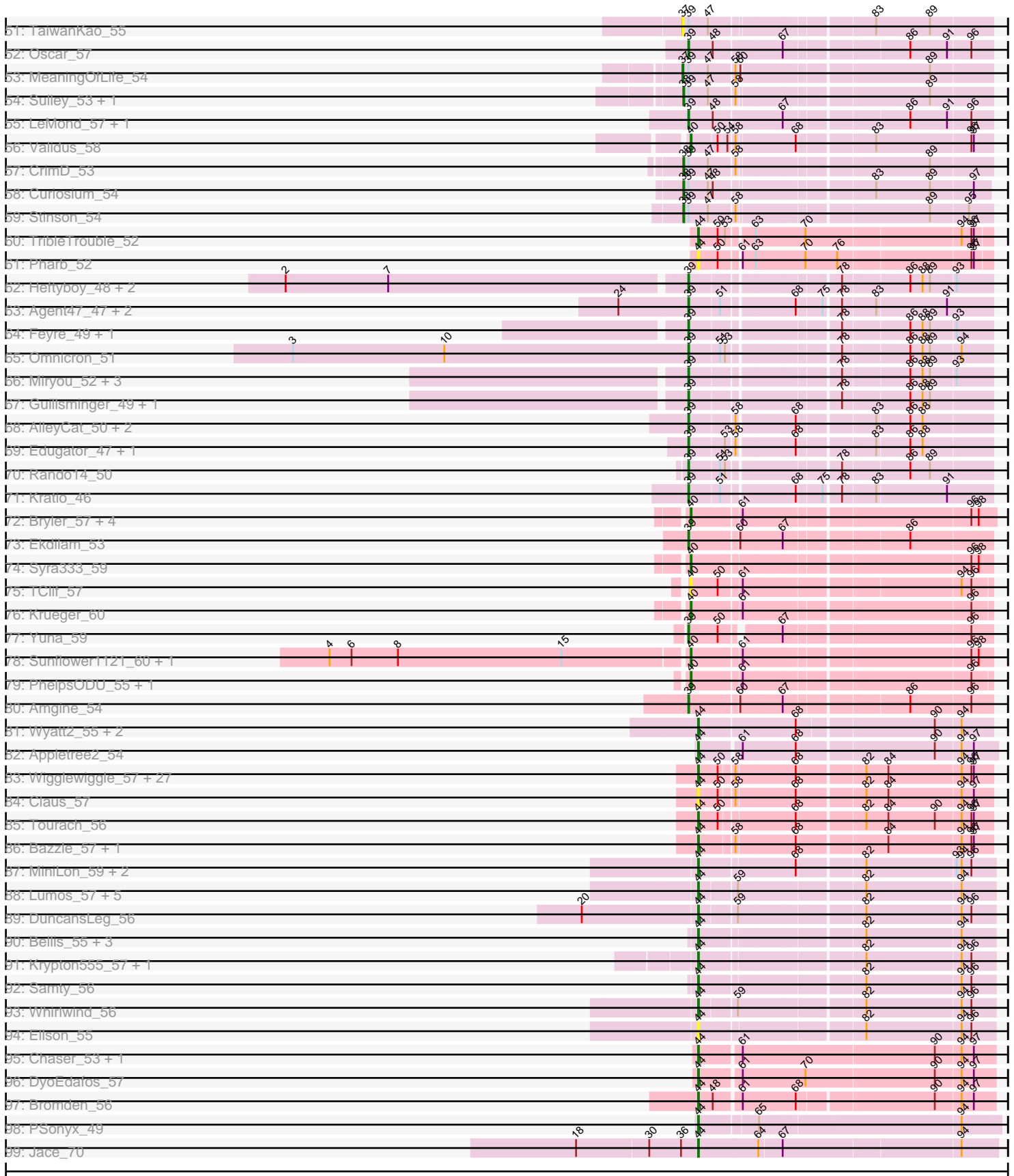


Pham 156021



Pham 156021



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 156021 Report

This analysis was run 04/12/24 on database version 558.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 156021 has 344 members, 34 are drafts.

Phages represented in each track:

- Track 1 : Dublin_43, MarysWell_43
- Track 2 : Theia_42
- Track 3 : MalagasyRose_56
- Track 4 : Nergal_50
- Track 5 : Exile_27, Soondubu_27
- Track 6 : Norvs_10, Smoothie_10, Lozinak_10, Toniann_10, Engineer_10, Aphelion_10, Cucurbita_9
- Track 7 : Miskis_12
- Track 8 : PhinkBoden_11
- Track 9 : ClubL_10, Dusty_9, Culver_9, Abscondus_10, Bachita_11
- Track 10 : WilliamBoone_9
- Track 11 : Survivors_57
- Track 12 : MaVan_58, Zareef_58, Azira_56
- Track 13 : Fribs8_56, Nibbles_55
- Track 14 : Catfish_55
- Track 15 : Lilbeanie_82
- Track 16 : Jumbo_66
- Track 17 : Hamood_58, Chop_58, DelRio_58, GrandSlam_58, NancyRae_56, Bock_58, Ayotoya_58
- Track 18 : WheatThin_56, Parada_57, BetterKatz_57, Nadeem_57, Brylie_57, Mulch_57
- Track 19 : Pimento_60
- Track 20 : Francois_57
- Track 21 : Trax_72
- Track 22 : Neville_70
- Track 23 : ModicumRichard_85
- Track 24 : Cafasso_85, ObLaDi_85, Aleemily_84, Morgana_92
- Track 25 : Rimmer_66, Quallification_66, SirDuracell_64, GoldenSpark_69, Icee_66, Sassay_60, Kanye_62, Harella_65, Gemini_70, Stark_66, Bask21_65, NelitzaMV_63, Marshmallow_63, Pat3_63, Buck_66, Glexan_64, Cookies_62, ChotaBhai_65, Flypotenuse_61, Daikon_67, Amao_65, Tomaszewski_60, Sotrice96_66, Balomoji_65, DoctorDiddles_64, JeTaimé_65, Argent26_69, ShereKhan_64, StolenFromERC_68, Hoonter_68, Cactus_68, AmericanBeauty_72,

244_66, GooberAzure_68, Gage_67, HanKaySha_65, Kimchi_69, Holt_70, Myrale_65, Willez_60

- Track 26 : Youngblood_68, MPhalcon_66, PhatBacter_69, FireRed_69, YassJohnny_62, Phaux_67, Bench_68, Lilizi_66, Murica_68, Mosby_61, Bruin_62, Nimrod_66, HufflyPuff_68, Petra64142_69, MISSy_66, Czyszczonek_66, RiverMonster_65, Elph10_65, Maxxinista_67, Misfit_66, Nala_67, Lilac_67, Hopey_65, Terminus_68
- Track 27 : Command613_67, BaboJay_62, OrionPax_64, Pumpkin_68, Goldilocks_68
- Track 28 : Musetta_89, DustyDino_94, RunningBrook_93, Erenyeager_90, Yuma_89, Necrophoxinus_92, Lyell_90
- Track 29 : Fork_86, ASegato_88, Welcome_92
- Track 30 : StevieWelch_91
- Track 31 : Cen1621_32
- Track 32 : Zooman_297
- Track 33 : Big4_312
- Track 34 : Ejimix_105, Courthouse_102, Halley_113, Beem_113, MiaZeal_107, Redno2_103, Lucky2013_104, JuicyJay_108, Porcelain_105, Squint_105, Ariel_107, KashFlow_104, Superphikiman_104
- Track 35 : Peel_53, CREW_53, LindNT_52, Jeckyll_53, Prithvi_54, Atiba_54, Veliki_54, Beezoo_55, Durfee_53, Tachez_53, Mynx_54, Anaya_55, Deby_53, Piatt_53, Pokerus_52, Ramen_54, Jarvi_53, AlishaPH_53, Zavala_55, Inky_53, Lunahalos_53, TreyKay_54, Adephagia_53, Padfoot_53, Llorens_53, Jayhawk_54, Rapunzel97_54, CaseJules_55, Geraldini_56, Boiiii_53, BGIlluvia_53, Hyperbowlee_53, ActinUp_53, BEEST_53, Padpat_55, Rosmarinus_53, Slimphazie_53, Adonis_53, YoureAdopted_52, Spock_53, Twitch_53, Emerson_54, Zabiza_49, BarrelRoll_53, TruffulaTree_53, Capricorn_53, Topper_53, Dalmuri_53, ShiaSurprise_54, Tiri_54, Asayake_53, Joy99_53, JAWS_53, CheetoDust_52, Blizzard_53, Belladonna_53, Homura_53, HedwigODU_53
- Track 36 : Chris_55
- Track 37 : Nibb_55
- Track 38 : MarkPhew_56
- Track 39 : SamuelLPlaqson_54, TiniBug_54, DrHayes_54, Bella96_54, Urkel_54
- Track 40 : Yunkel11_55, Guanica15_55
- Track 41 : Ganymede_54, QuincyRose_52
- Track 42 : Murucutumbu_54
- Track 43 : Illumine_56, Dole_56, Devera_58
- Track 44 : LaterM_54, Ageofdapage_55
- Track 45 : Peanam_56, Shaobing_56, Niklas_56
- Track 46 : Megsy_55
- Track 47 : BaghaKamala_52
- Track 48 : KiSi_57
- Track 49 : Efra2_56
- Track 50 : Apocalypse_56
- Track 51 : TaiwanKao_55
- Track 52 : Oscar_57
- Track 53 : MeaningOfLife_54
- Track 54 : Sulley_53, Angelica_53
- Track 55 : LeMond_57, Scarlett_57
- Track 56 : Validus_58
- Track 57 : CrimD_53
- Track 58 : Curiosium_54
- Track 59 : Stinson_54

- Track 60 : TribbleTrouble_52
- Track 61 : Pharb_52
- Track 62 : Heftyboy_48, Waterfoul_49, SoSeph_48
- Track 63 : Agent47_47, InvictusManeo_47, Collard_47
- Track 64 : Feyre_49, Thyatira_51
- Track 65 : Omnicron_51
- Track 66 : Miryou_52, OkiRoe_48, Gengar_48, Leston_48
- Track 67 : Guillsminger_49, Paola_48
- Track 68 : AlleyCat_50, Psycho_48, Dadosky_50
- Track 69 : Edugator_47, Larva_49
- Track 70 : Rando14_50
- Track 71 : Kratio_46
- Track 72 : Bryler_57, Cain_57, Tierra_57, Phrank_57, Ximenita_60
- Track 73 : Ekdilam_53
- Track 74 : Syra333_59
- Track 75 : TClif_57
- Track 76 : Krueger_60
- Track 77 : Yuna_59
- Track 78 : Sunflower1121_60, Shadow1_59
- Track 79 : PhelpsODU_55, Unicorn_55
- Track 80 : Amgine_54
- Track 81 : Wyatt2_55, Rose5_54, Tyson_54
- Track 82 : Appletree2_54
- Track 83 : Wigglewiggles_57, Zakai_58, Vetrix_57, Gabriela_54, ZhongYanYuan_55, Winky_57, Breezona_57, BigCheese_57, Faith1_57, DrSeegs_57, GuuelaD_56, Hafay_58, Crossroads_57, Nicholasp3_57, Itos_56, Finemlucis_57, Loadrie_56, MkaliMitinis3_58, Lewan_58, Baoshan_55, BobsGarage_57, Netyap_58, Gardann_58, Wilder_58, Miley16_57, LilDestine_57, Kahlid_57, Rumpelstiltskin_56
- Track 84 : Claus_57
- Track 85 : Tourach_56
- Track 86 : Bazzle_57, Archie_57
- Track 87 : MiniLon_59, MiniMac_59, Lolly9_55
- Track 88 : Lumos_57, MsGreen_56, Jobypre_56, Jubie_55, Clautastrophe_55, Snenia_55
- Track 89 : DuncansLeg_56
- Track 90 : Bellis_55, Nicholas_55, Moostard_55, Kingsolomon_55
- Track 91 : Krypton555_57, Finnry_56
- Track 92 : Samty_56
- Track 93 : Whirlwind_56
- Track 94 : Ellson_55
- Track 95 : Chaser_53, Douge_55
- Track 96 : DyoEdafos_57
- Track 97 : Bromden_56
- Track 98 : PSonyx_49
- Track 99 : Jace_70

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

The start number called the most often in the published annotations is 44, it was called in 126 of the 310 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 244_66, Amao_65, AmericanBeauty_72, Appletree2_54, Archie_57, Argent26_69, Azira_56, BaboJay_62, Balomoji_65, Baoshan_55, Bask21_65, Bazzle_57, Bellis_55, Bench_68, BigCheese_57, BobsGarage_57, Breezona_57, Bromden_56, Bruin_62, Buck_66, Cactus_68, Cen1621_32, Chaser_53, ChotaBhai_65, Claus_57, Clautastrophe_55, Command613_67, Cookies_62, Crossroads_57, Czystczon1_66, Daikon_67, DoctorDiddles_64, Douge_55, DrSeegs_57, DuncansLeg_56, DyoEdafos_57, Ellson_55, Elph10_65, Faith1_57, Finemlucis_57, Finnry_56, FireRed_69, Flypotenuse_61, Fribs8_56, Gabriela_54, Gage_67, Gardann_58, Gemini_70, Glexan_64, GoldenSpark_69, Goldilocks_68, GooberAzure_68, GuuelaD_56, Hafay_58, HanKaySha_65, Harella_65, Holt_70, Hoonter_68, Hopey_65, HufflyPuff_68, Icee_66, Itos_56, Jace_70, JeTaimie_65, Jobypre_56, Jubie_55, Kahlid_57, Kanye_62, Kimchi_69, Kingsolomon_55, Krypton555_57, Lewan_58, LilDestine_57, Lilac_67, Lilizi_66, Loadrie_56, Lolly9_55, Lumos_57, MISSy_66, MPhalcon_66, MaVan_58, Marshmallow_63, Maxxinista_67, Miley16_57, MiniLon_59, MiniMac_59, Misfit_66, MkaliMitinis3_58, Moostard_55, Mosby_61, MsGreen_56, Murica_68, Myrale_65, Nala_67, NelitzaMV_63, Netyap_58, Neville_70, Nibbles_55, Nicholas_55, Nicholasp3_57, Nimrod_66, OrionPax_64, PSonyx_49, Pat3_63, Petra64142_69, Pharb_52, PhatBacter_69, Phaux_67, Pumpkin_68, Quallification_66, Rimmer_66, RiverMonster_65, Rose5_54, Rumpelstiltskin_56, Samty_56, Sassay_60, ShereKhan_64, SirDuracell_64, Snenia_55, Sotrice96_66, Stark_66, StolenFromERC_68, Survivors_57, Terminus_68, Tomaszewski_60, Tourach_56, Trax_72, TripleTrouble_52, Tyson_54, Vetric_57, Whirlwind_56, Wigglewiggle_57, Wilder_58, Willez_60, WilliamBoone_9, Winky_57, Wyatt2_55, YassJohnny_62, Youngblood_68, Zakai_58, Zareef_58, ZhongYanYuan_55,

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

-

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

- ASegato_88, Abscondus_10, ActinUp_53, Adephagia_53, Adonis_53, Agent47_47, Ageofdapage_55, Aleemily_84, AlishaPH_53, AlleyCat_50, Amgine_54, Anaya_55, Angelica_53, Aphelion_10, Apocalypse_56, Ariel_107, Asayake_53, Atiba_54, Ayotoya_58, BEEST_53, BGlluviae_53, Bachita_11, BaghaKamala_52, BarrelRoll_53, Beem_113, Beezoo_55, Bella96_54, Belladonna_53, BetterKatz_57, Big4_312, Blizzard_53, Bock_58, Boiiii_53, Bryler_57, Brylie_57, CREW_53, Cafasso_85, Cain_57, Capricorn_53, CaseJules_55, Catfish_55, CheetoDust_52, Chop_58, Chris_55, ClubL_10, Collard_47, Courthouse_102, CrimD_53, Cucurbita_9, Culver_9, Curiosium_54, Dadosky_50, Dalmuri_53, Deby_53, DelRio_58, Devera_58, Dole_56, DrHayes_54, Dublin_43, Durfee_53, DustyDino_94, Dusty_9, Edugator_47, Efra2_56, Ejimix_105, Ekdilam_53, Emerson_54, Engineer_10, Erenyeager_90, Exile_27, Feyre_49, Fork_86, Francois_57, Ganymede_54, Gengar_48, Geraldini_56, GrandSlam_58, Guanica15_55, Guillsminger_49, Halley_113, Hamood_58, HedwigODU_53, Heftyboy_48, Homura_53, Hyperbowlee_53, Illumine_56, Inky_53, InvictusManeo_47, JAWS_53, Jarvi_53, Jayhawk_54, Jeckyll_53, Joy99_53, JuicyJay_108, Jumbo_66, KashFlow_104, KiSi_57, Kratio_46, Krueger_60, Larva_49, LaterM_54, LeMond_57, Leston_48, Lilbeanie_82, LindNT_52, Llorens_53, Lozinak_10, Lucky2013_104, Lunahalos_53, Lyell_90, MalagasyRose_56, MarkPhew_56, MarysWell_43, MeaningOfLife_54, Megsy_55, MiaZeal_107, Miryou_52, Miskis_12, ModicumRichard_85, Morgana_92, Mulch_57, Murucutumbu_54, Musetta_89,

Mynx_54, Nadeem_57, NancyRae_56, Necrophoxinus_92, Nergal_50, Nibb_55, Niklas_56, Norvs_10, ObLaDi_85, OkiRoe_48, Omnicron_51, Oscar_57, Padfoot_53, Padpat_55, Paola_48, Parada_57, Peanam_56, Peel_53, PhelpsODU_55, PhinkBoden_11, Phrank_57, Piatt_53, Pimento_60, Pokerus_52, Porcelain_105, Prithvi_54, Psycho_48, QuincyRose_52, Ramen_54, Rando14_50, Rapunzel97_54, Redno2_103, Rosmarinus_53, RunningBrook_93, SamuelLPlaqson_54, Scarlett_57, Shadow1_59, Shaobing_56, ShiaSurprise_54, Slimphazie_53, Smoothie_10, SoSeph_48, Soondubu_27, Spock_53, Squint_105, StevieWelch_91, Stinson_54, Sulley_53, Sunflower1121_60, Superphikiman_104, Syra333_59, TClif_57, Tachez_53, TaiwanKao_55, Theia_42, Thyatira_51, Tierra_57, TiniBug_54, Tiri_54, Toniann_10, Topper_53, TreyKay_54, TruffulaTree_53, Twitch_53, Unicorn_55, Urkel_54, Validus_58, Veliki_54, Waterfoul_49, Welcome_92, WheatThin_56, Ximenita_60, YoureAdopted_52, Yuma_89, Yuna_59, Yunkel11_55, Zabiza_49, Zavala_55, Zooman_297,

Summary by start number:

Start 26:

- Found in 2 of 344 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 310
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Jumbo_66 (DF3),

Start 32:

- Found in 2 of 344 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 310
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Big4_312 (GD2), Zooman_297 (GD2),

Start 34:

- Found in 1 of 344 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 310
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chris_55 (K1),

Start 35:

- Found in 11 of 344 (3.2%) of genes in pham
- Manual Annotations of this start: 9 of 310
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ASegato_88 (ED2), DustyDino_94 (ED2), Erenyeager_90 (ED2), Fork_86 (ED2), Lyell_90 (ED2), Musetta_89 (ED2), Necrophoxinus_92 (ED2), RunningBrook_93 (ED2), StevieWelch_91 (ED2), Welcome_92 (ED2), Yuma_89 (ED2),

Start 37:

- Found in 68 of 344 (19.8%) of genes in pham
- Manual Annotations of this start: 63 of 310
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ActinUp_53 (K1), Adephegia_53 (K1), Adonis_53 (K1), AlishaPH_53 (K1), Anaya_55 (K1), Apocalypse_56 (K1), Asayake_53 (K1), Atiba_54 (K1), BEEST_53 (K1), BGlluviae_53 (K1), BaghaKamala_52 (K1), BarrelRoll_53 (K1), Beezoo_55 (K1), Belladonna_53 (K1), Blizzard_53 (K1), Boiiii_53 (K1), CREW_53 (K1), Capricorn_53 (K1), CaseJules_55

(K1), CheetoDust_52 (K1), Dalmuri_53 (K1), Deby_53 (K1), Durfee_53 (K1), Efra2_56 (K1), Emerson_54 (K1), Ganymede_54 (K1), Geraldini_56 (K1), Guanica15_55 (K1), HedwigODU_53 (K1), Homura_53 (K1), Hyperbowlee_53 (K1), Inky_53 (K1), JAWS_53 (K1), Jarvi_53 (K1), Jayhawk_54 (K1), Jeckyll_53 (K1), Joy99_53 (K1), LindNT_52 (K1), Llorens_53 (K1), Lunahalos_53 (K1), MeaningOfLife_54 (K1), Megsy_55 (K1), Mynx_54 (K1), Padfoot_53 (K1), Padpat_55 (K1), Peel_53 (K1), Piatt_53 (K1), Pokerus_52 (K1), Prithvi_54 (K1), QuincyRose_52 (K1), Ramen_54 (K1), Rapunzel97_54 (K1), Rosmarinus_53 (K1), ShiaSurprise_54 (K1), Slimphazie_53 (K1), Spock_53 (K1), Tachez_53 (K1), TaiwanKao_55 (K1), Tiri_54 (K1), Topper_53 (K1), TreyKay_54 (K1), TruffulaTree_53 (K1), Twitch_53 (K1), Veliki_54 (K1), YoureAdopted_52 (K1), Yunkel11_55 (K1), Zabiza_49 (K1), Zavala_55 (K1),

Start 38:

- Found in 16 of 344 (4.7%) of genes in pham
- Manual Annotations of this start: 16 of 310
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ageofdapage_55 (K1), Angelica_53 (K1), Bella96_54 (K1), CrimD_53 (K1), Curiosium_54 (K1), Devera_58 (K1), Dole_56 (K1), DrHayes_54 (K1), Illumine_56 (K1), LaterM_54 (K1), Murucutumbu_54 (K1), SamuelLPlaqson_54 (K1), Stinson_54 (K1), Sulley_53 (K1), TiniBug_54 (K1), Urkel_54 (K1),

Start 39:

- Found in 113 of 344 (32.8%) of genes in pham
- Manual Annotations of this start: 28 of 310
- Called 26.5% of time when present
- Phage (with cluster) where this start called: Agent47_47 (K5), AlleyCat_50 (K5), Amgine_54 (K6), Collard_47 (K5), Dadosky_50 (K5), Edugator_47 (K5), Ekdilam_53 (K6), Feyre_49 (K5), Gengar_48 (K5), Guillsminger_49 (K5), Heftyboy_48 (K5), InvictusManeo_47 (K5), KiSi_57 (K1), Kratio_46 (K5), Larva_49 (K5), LeMond_57 (K1), Leston_48 (K5), Miryou_52 (K5), Nibb_55 (K1), OkiRoe_48 (K5), Omnicron_51 (K5), Oscar_57 (K1), Paola_48 (K5), Psycho_48 (K5), Rando14_50 (K5), Scarlett_57 (K1), SoSeph_48 (K5), Thyatira_51 (K5), Waterfoul_49 (K5), Yuna_59 (K6),

Start 40:

- Found in 35 of 344 (10.2%) of genes in pham
- Manual Annotations of this start: 33 of 310
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aleemily_84 (DZ), Ariel_107 (J), Beem_113 (J), Bryler_57 (K6), Cafasso_85 (DZ), Cain_57 (K6), Catfish_55 (CU5), Courthouse_102 (J), Ejimix_105 (J), Halley_113 (J), JuicyJay_108 (J), KashFlow_104 (J), Krueger_60 (K6), Lucky2013_104 (J), MiaZeal_107 (J), ModicumRichard_85 (DZ), Morgana_92 (DZ), Niklas_56 (K1), ObLaDi_85 (DZ), Peanam_56 (K1), PhelpsODU_55 (K6), Phrank_57 (K6), Porcelain_105 (J), Redno2_103 (J), Shadow1_59 (K6), Shaobing_56 (K1), Squint_105 (J), Sunflower1121_60 (K6), Superphikiman_104 (J), Syra333_59 (K6), TClif_57 (K6), Tierra_57 (K6), Unicorn_55 (K6), Validus_58 (K1), Ximenita_60 (K6),

Start 41:

- Found in 1 of 344 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 310
- Called 100.0% of time when present

- Phage (with cluster) where this start called: MalagasyRose_56 (AG),

Start 42:

- Found in 3 of 344 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 310
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Lilbeanie_82 (DE5), Pimento_60 (DI),

Start 43:

- Found in 17 of 344 (4.9%) of genes in pham
- Manual Annotations of this start: 14 of 310
- Called 88.2% of time when present
- Phage (with cluster) where this start called: Ayotoya_58 (DI), BetterKatz_57 (DI), Bock_58 (DI), Brylie_57 (DI), Chop_58 (DI), DelRio_58 (DI), Francois_57 (DI), GrandSlam_58 (DI), Hamood_58 (DI), Mulch_57 (DI), Nadeem_57 (DI), NancyRae_56 (DI), Nergal_50 (AG), Parada_57 (DI), WheatThin_56 (DI),

Start 44:

- Found in 142 of 344 (41.3%) of genes in pham
- Manual Annotations of this start: 126 of 310
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 244_66 (E), Amao_65 (E), AmericanBeauty_72 (E), Appletree2_54 (L1), Archie_57 (L2), Argent26_69 (E), Azira_56 (CT), BaboJay_62 (E), Balomoji_65 (E), Baoshan_55 (L2), Bask21_65 (E), Bazzle_57 (L2), Bellis_55 (L3), Bench_68 (E), BigCheese_57 (L2), BobsGarage_57 (L2), Breezona_57 (L2), Bromden_56 (L4), Bruin_62 (E), Buck_66 (E), Cactus_68 (E), Cen1621_32 (EH), Chaser_53 (L4), ChotaBhai_65 (E), Claus_57 (L2), Clautastrophe_55 (L3), Command613_67 (E), Cookies_62 (E), Crossroads_57 (L2), Czczyszczon1_66 (E), Daikon_67 (E), DoctorDiddles_64 (E), Douge_55 (L4), DrSeegs_57 (L2), DuncansLeg_56 (L3), DyoEdafos_57 (L4), Ellson_55 (L3), Elph10_65 (E), Faith1_57 (L2), Finemlucis_57 (L2), Finnry_56 (L3), FireRed_69 (E), Flypotenuse_61 (E), Fribs8_56 (CT), Gabriela_54 (L2), Gage_67 (E), Gardann_58 (L2), Gemini_70 (E), Glexan_64 (E), GoldenSpark_69 (E), Goldilocks_68 (E), GooberAzure_68 (E), GuuelaD_56 (L2), Hafay_58 (L2), HanKaySha_65 (E), Harella_65 (E), Holt_70 (E), Hoonter_68 (E), Hopey_65 (E), HufflyPuff_68 (E), Icee_66 (E), Itos_56 (L2), Jace_70 (singleton), JeTaime_65 (E), Jobypre_56 (L3), Jubie_55 (L3), Kahlid_57 (L2), Kanye_62 (E), Kimchi_69 (E), Kingsolomon_55 (L3), Krypton555_57 (L3), Lewan_58 (L2), LilDestine_57 (L2), Lilac_67 (E), Lilizi_66 (E), Loadrie_56 (L2), Lolly9_55 (L3), Lumos_57 (L3), MISSy_66 (E), MPhalcon_66 (E), MaVan_58 (CT), Marshmallow_63 (E), Maxxinista_67 (E), Miley16_57 (L2), MiniLon_59 (L3), MiniMac_59 (L3), Misfit_66 (E), MkaliMitinis3_58 (L2), Moostard_55 (L3), Mosby_61 (E), MsGreen_56 (L3), Murica_68 (E), Myrale_65 (E), Nala_67 (E), NelitzaMV_63 (E), Netyap_58 (L2), Neville_70 (DU2), Nibbles_55 (CT), Nicholas_55 (L3), Nicholasp3_57 (L2), Nimrod_66 (E), OrionPax_64 (E), PSonyx_49 (singleton), Pat3_63 (E), Petra64142_69 (E), Pharb_52 (K3), PhatBacter_69 (E), Phaux_67 (E), Pumpkin_68 (E), Quallification_66 (E), Rimmer_66 (E), RiverMonster_65 (E), Rose5_54 (L1), Rumpelstiltskin_56 (L2), Samty_56 (L3), Sassay_60 (E), ShereKhan_64 (E), SirDuracell_64 (E), Snenia_55 (L3), Sotrice96_66 (E), Stark_66 (E), StolenFromERC_68 (E), Survivors_57 (CT), Terminus_68 (E), Tomaszewski_60 (E), Tourach_56 (L2), Trax_72 (DU2), TripleTrouble_52 (K3), Tyson_54 (L1), Vetrax_57 (L2), Whirlwind_56 (L3), Wigglewiggle_57 (L2), Wilder_58 (L2), Willez_60 (E), WilliamBoone_9 (CQ1), Winky_57 (L2), Wyatt2_55 (L1), YassJohnny_62 (E), Youngblood_68 (E), Zakai_58 (L2), Zareef_58 (CT), ZhongYanYuan_55 (L2),

Start 46:

- Found in 19 of 344 (5.5%) of genes in pham
- Manual Annotations of this start: 15 of 310
- Called 89.5% of time when present
- Phage (with cluster) where this start called: Abscondus_10 (CQ), Aphelion_10 (CQ1), Bachita_11 (CQ1), ClubL_10 (CQ1), Cucurbita_9 (CQ1), Culver_9 (CQ1), Dublin_43 (A5), Dusty_9 (CQ), Engineer_10 (CQ1), Lozinak_10 (CQ1), MarkPhew_56 (K1), MarysWell_43 (A5), Norvs_10 (CQ), PhinkBoden_11 (CQ1), Smoothie_10 (CQ1), Theia_42 (A5), Toniann_10 (CQ1),

Start 49:

- Found in 3 of 344 (0.9%) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Exile_27 (AZ), Soondubu_27 (AZ),

Start 64:

- Found in 118 of 344 (34.3%) of genes in pham
- No Manual Annotations of this start.
- Called 0.8% of time when present
- Phage (with cluster) where this start called: Miskis_12 (CQ),

Summary by clusters:

There are 26 clusters represented in this pham: GD2, DI, singleton, K3, K1, DZ, K6, K5, CU5, DF3, A5, DU2, E, EH, AG, J, L4, L2, L3, L1, CQ, AZ, CQ1, CT, ED2, DE5,

Info for manual annotations of cluster A5:

- Start number 46 was manually annotated 3 times for cluster A5.

Info for manual annotations of cluster AG:

- Start number 41 was manually annotated 1 time for cluster AG.
- Start number 43 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster CQ:

- Start number 46 was manually annotated 1 time for cluster CQ.

Info for manual annotations of cluster CQ1:

- Start number 44 was manually annotated 1 time for cluster CQ1.
- Start number 46 was manually annotated 10 times for cluster CQ1.

Info for manual annotations of cluster CT:

- Start number 44 was manually annotated 4 times for cluster CT.

Info for manual annotations of cluster CU5:

- Start number 40 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster DE5:

- Start number 42 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster DF3:

- Start number 26 was manually annotated 1 time for cluster DF3.

Info for manual annotations of cluster DI:

- Start number 43 was manually annotated 13 times for cluster DI.

Info for manual annotations of cluster DU2:

- Start number 44 was manually annotated 2 times for cluster DU2.

Info for manual annotations of cluster DZ:

- Start number 40 was manually annotated 4 times for cluster DZ.

Info for manual annotations of cluster E:

- Start number 44 was manually annotated 64 times for cluster E.

Info for manual annotations of cluster ED2:

- Start number 35 was manually annotated 9 times for cluster ED2.

Info for manual annotations of cluster EH:

- Start number 44 was manually annotated 1 time for cluster EH.

Info for manual annotations of cluster GD2:

- Start number 32 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster J:

- Start number 40 was manually annotated 13 times for cluster J.

Info for manual annotations of cluster K1:

- Start number 34 was manually annotated 1 time for cluster K1.
- Start number 37 was manually annotated 63 times for cluster K1.
- Start number 38 was manually annotated 16 times for cluster K1.
- Start number 39 was manually annotated 5 times for cluster K1.
- Start number 40 was manually annotated 4 times for cluster K1.
- Start number 46 was manually annotated 1 time for cluster K1.

Info for manual annotations of cluster K3:

- Start number 44 was manually annotated 1 time for cluster K3.

Info for manual annotations of cluster K5:

- Start number 39 was manually annotated 20 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 39 was manually annotated 3 times for cluster K6.
- Start number 40 was manually annotated 11 times for cluster K6.

Info for manual annotations of cluster L1:

- Start number 44 was manually annotated 4 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 44 was manually annotated 28 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 44 was manually annotated 16 times for cluster L3.

Info for manual annotations of cluster L4:

•Start number 44 was manually annotated 3 times for cluster L4.

Gene Information:

Gene: 244_66 Start: 43538, Stop: 43870, Start Num: 44

Candidate Starts for 244_66:

(Start: 44 @43538 has 126 MA's), (64, 43604), (67, 43634), (87, 43781), (94, 43835),

Gene: ASegato_88 Start: 51131, Stop: 50784, Start Num: 35

Candidate Starts for ASegato_88:

(22, 51209), (Start: 35 @51131 has 9 MA's), (48, 51095), (52, 51083), (67, 51020), (68, 51005), (71, 50999), (80, 50954), (81, 50948),

Gene: Abscondus_10 Start: 2199, Stop: 2537, Start Num: 46

Candidate Starts for Abscondus_10:

(Start: 46 @2199 has 15 MA's), (55, 2232), (64, 2268), (92, 2487),

Gene: ActinUp_53 Start: 38771, Stop: 39121, Start Num: 37

Candidate Starts for ActinUp_53:

(Start: 37 @38771 has 63 MA's), (Start: 39 @38777 has 28 MA's), (47, 38801), (58, 38831), (89, 39047),

Gene: Adephagia_53 Start: 38768, Stop: 39118, Start Num: 37

Candidate Starts for Adephagia_53:

(Start: 37 @38768 has 63 MA's), (Start: 39 @38774 has 28 MA's), (47, 38798), (58, 38828), (89, 39044),

Gene: Adonis_53 Start: 39012, Stop: 39362, Start Num: 37

Candidate Starts for Adonis_53:

(Start: 37 @39012 has 63 MA's), (Start: 39 @39018 has 28 MA's), (47, 39042), (58, 39072), (89, 39288),

Gene: Agent47_47 Start: 37072, Stop: 37413, Start Num: 39

Candidate Starts for Agent47_47:

(24, 36988), (Start: 39 @37072 has 28 MA's), (51, 37108), (68, 37189), (75, 37216), (78, 37234), (83, 37273), (91, 37357),

Gene: Ageofdapage_55 Start: 39761, Stop: 40111, Start Num: 38

Candidate Starts for Ageofdapage_55:

(Start: 38 @39761 has 16 MA's), (Start: 39 @39767 has 28 MA's), (47, 39791), (89, 40037),

Gene: Aleemily_84 Start: 51825, Stop: 52172, Start Num: 40

Candidate Starts for Aleemily_84:

(Start: 40 @51825 has 33 MA's), (50, 51858), (58, 51879), (64, 51906),

Gene: AlishaPH_53 Start: 39029, Stop: 39379, Start Num: 37

Candidate Starts for AlishaPH_53:

(Start: 37 @39029 has 63 MA's), (Start: 39 @39035 has 28 MA's), (47, 39059), (58, 39089), (89, 39305),

Gene: AlleyCat_50 Start: 37151, Stop: 37489, Start Num: 39
Candidate Starts for AlleyCat_50:
(Start: 39 @37151 has 28 MA's), (58, 37202), (68, 37268), (83, 37352), (86, 37391), (88, 37406),

Gene: Amao_65 Start: 43296, Stop: 43628, Start Num: 44
Candidate Starts for Amao_65:
(Start: 44 @43296 has 126 MA's), (64, 43362), (67, 43392), (87, 43539), (94, 43593),

Gene: AmericanBeauty_72 Start: 44051, Stop: 44383, Start Num: 44
Candidate Starts for AmericanBeauty_72:
(Start: 44 @44051 has 126 MA's), (64, 44117), (67, 44147), (87, 44294), (94, 44348),

Gene: Amgine_54 Start: 40020, Stop: 40364, Start Num: 39
Candidate Starts for Amgine_54:
(Start: 39 @40020 has 28 MA's), (60, 40077), (67, 40128), (86, 40266), (96, 40338),

Gene: Anaya_55 Start: 39287, Stop: 39637, Start Num: 37
Candidate Starts for Anaya_55:
(Start: 37 @39287 has 63 MA's), (Start: 39 @39293 has 28 MA's), (47, 39317), (58, 39347), (89, 39563),

Gene: Angelica_53 Start: 38918, Stop: 39268, Start Num: 38
Candidate Starts for Angelica_53:
(Start: 38 @38918 has 16 MA's), (Start: 39 @38924 has 28 MA's), (47, 38948), (58, 38978), (89, 39194),

Gene: Aphelion_10 Start: 2375, Stop: 2713, Start Num: 46
Candidate Starts for Aphelion_10:
(Start: 46 @2375 has 15 MA's), (64, 2444), (92, 2663),

Gene: Apocalypse_56 Start: 39698, Stop: 40048, Start Num: 37
Candidate Starts for Apocalypse_56:
(Start: 37 @39698 has 63 MA's), (Start: 39 @39704 has 28 MA's), (47, 39728), (58, 39758), (89, 39974),

Gene: Appletree2_54 Start: 40568, Stop: 40909, Start Num: 44
Candidate Starts for Appletree2_54:
(Start: 44 @40568 has 126 MA's), (61, 40613), (68, 40676), (90, 40835), (94, 40865), (97, 40880),

Gene: Archie_57 Start: 42703, Stop: 43038, Start Num: 44
Candidate Starts for Archie_57:
(Start: 44 @42703 has 126 MA's), (58, 42742), (68, 42811), (84, 42913), (94, 43000), (96, 43012), (97, 43015),

Gene: Argent26_69 Start: 43689, Stop: 44021, Start Num: 44
Candidate Starts for Argent26_69:
(Start: 44 @43689 has 126 MA's), (64, 43755), (67, 43785), (87, 43932), (94, 43986),

Gene: Ariel_107 Start: 59024, Stop: 59359, Start Num: 40
Candidate Starts for Ariel_107:
(Start: 40 @59024 has 33 MA's), (64, 59093), (78, 59186), (94, 59324),

Gene: Asayake_53 Start: 39083, Stop: 39433, Start Num: 37

Candidate Starts for Asayake_53:

(Start: 37 @39083 has 63 MA's), (Start: 39 @39089 has 28 MA's), (47, 39113), (58, 39143), (89, 39359),

Gene: Atiba_54 Start: 38731, Stop: 39081, Start Num: 37

Candidate Starts for Atiba_54:

(Start: 37 @38731 has 63 MA's), (Start: 39 @38737 has 28 MA's), (47, 38761), (58, 38791), (89, 39007),

Gene: Ayotoya_58 Start: 39851, Stop: 40183, Start Num: 43

Candidate Starts for Ayotoya_58:

(33, 39815), (Start: 43 @39851 has 14 MA's), (52, 39884), (60, 39905), (67, 39956), (78, 40016),

Gene: Azira_56 Start: 41880, Stop: 42218, Start Num: 44

Candidate Starts for Azira_56:

(9, 41559), (11, 41571), (Start: 44 @41880 has 126 MA's), (51, 41907), (61, 41931), (64, 41949), (82, 42069), (85, 42108), (98, 42201),

Gene: BEEST_53 Start: 39083, Stop: 39433, Start Num: 37

Candidate Starts for BEEST_53:

(Start: 37 @39083 has 63 MA's), (Start: 39 @39089 has 28 MA's), (47, 39113), (58, 39143), (89, 39359),

Gene: BGlluviae_53 Start: 38886, Stop: 39236, Start Num: 37

Candidate Starts for BGlluviae_53:

(Start: 37 @38886 has 63 MA's), (Start: 39 @38892 has 28 MA's), (47, 38916), (58, 38946), (89, 39162),

Gene: BaboJay_62 Start: 43082, Stop: 43414, Start Num: 44

Candidate Starts for BaboJay_62:

(Start: 44 @43082 has 126 MA's), (64, 43148), (67, 43178), (87, 43325), (94, 43379),

Gene: Bachita_11 Start: 2875, Stop: 3213, Start Num: 46

Candidate Starts for Bachita_11:

(Start: 46 @2875 has 15 MA's), (55, 2908), (64, 2944), (92, 3163),

Gene: BaghaKamala_52 Start: 38130, Stop: 38480, Start Num: 37

Candidate Starts for BaghaKamala_52:

(Start: 37 @38130 has 63 MA's), (Start: 39 @38136 has 28 MA's), (47, 38160), (58, 38190), (89, 38406),

Gene: Balomoji_65 Start: 44015, Stop: 44347, Start Num: 44

Candidate Starts for Balomoji_65:

(Start: 44 @44015 has 126 MA's), (64, 44081), (67, 44111), (87, 44258), (94, 44312),

Gene: Baoshan_55 Start: 42377, Stop: 42712, Start Num: 44

Candidate Starts for Baoshan_55:

(Start: 44 @42377 has 126 MA's), (50, 42401), (58, 42416), (68, 42485), (82, 42560), (84, 42587), (94, 42674), (96, 42686), (97, 42689),

Gene: BarrelRoll_53 Start: 38754, Stop: 39104, Start Num: 37

Candidate Starts for BarrelRoll_53:

(Start: 37 @38754 has 63 MA's), (Start: 39 @38760 has 28 MA's), (47, 38784), (58, 38814), (89, 39030),

Gene: Bask21_65 Start: 42856, Stop: 43188, Start Num: 44

Candidate Starts for Bask21_65:

(Start: 44 @42856 has 126 MA's), (64, 42922), (67, 42952), (87, 43099), (94, 43153),

Gene: Bazzle_57 Start: 42773, Stop: 43108, Start Num: 44

Candidate Starts for Bazzle_57:

(Start: 44 @42773 has 126 MA's), (58, 42812), (68, 42881), (84, 42983), (94, 43070), (96, 43082), (97, 43085),

Gene: Beem_113 Start: 64609, Stop: 64944, Start Num: 40

Candidate Starts for Beem_113:

(Start: 40 @64609 has 33 MA's), (64, 64678), (78, 64771), (94, 64909),

Gene: Beezoo_55 Start: 39729, Stop: 40079, Start Num: 37

Candidate Starts for Beezoo_55:

(Start: 37 @39729 has 63 MA's), (Start: 39 @39735 has 28 MA's), (47, 39759), (58, 39789), (89, 40005),

Gene: Bella96_54 Start: 39510, Stop: 39860, Start Num: 38

Candidate Starts for Bella96_54:

(Start: 38 @39510 has 16 MA's), (Start: 39 @39516 has 28 MA's), (47, 39540), (58, 39570), (89, 39786),

Gene: Belladonna_53 Start: 38886, Stop: 39236, Start Num: 37

Candidate Starts for Belladonna_53:

(Start: 37 @38886 has 63 MA's), (Start: 39 @38892 has 28 MA's), (47, 38916), (58, 38946), (89, 39162),

Gene: Bellis_55 Start: 42642, Stop: 42983, Start Num: 44

Candidate Starts for Bellis_55:

(Start: 44 @42642 has 126 MA's), (82, 42828), (94, 42942),

Gene: Bench_68 Start: 43519, Stop: 43851, Start Num: 44

Candidate Starts for Bench_68:

(13, 43249), (14, 43267), (19, 43375), (Start: 44 @43519 has 126 MA's), (64, 43585), (67, 43615), (87, 43762), (94, 43816),

Gene: BetterKatz_57 Start: 39050, Stop: 39382, Start Num: 43

Candidate Starts for BetterKatz_57:

(27, 38987), (33, 39014), (Start: 43 @39050 has 14 MA's), (52, 39083), (60, 39104), (67, 39155), (78, 39215),

Gene: Big4_312 Start: 167840, Stop: 168223, Start Num: 32

Candidate Starts for Big4_312:

(Start: 32 @167840 has 2 MA's), (74, 168002), (77, 168026), (82, 168056),

Gene: BigCheese_57 Start: 42443, Stop: 42778, Start Num: 44

Candidate Starts for BigCheese_57:

(Start: 44 @42443 has 126 MA's), (50, 42467), (58, 42482), (68, 42551), (82, 42626), (84, 42653), (94, 42740), (96, 42752), (97, 42755),

Gene: Blizzard_53 Start: 39083, Stop: 39433, Start Num: 37

Candidate Starts for Blizzard_53:

(Start: 37 @39083 has 63 MA's), (Start: 39 @39089 has 28 MA's), (47, 39113), (58, 39143), (89, 39359),

Gene: BobsGarage_57 Start: 42443, Stop: 42778, Start Num: 44

Candidate Starts for BobsGarage_57:

(Start: 44 @42443 has 126 MA's), (50, 42467), (58, 42482), (68, 42551), (82, 42626), (84, 42653), (94, 42740), (96, 42752), (97, 42755),

Gene: Bock_58 Start: 39083, Stop: 39415, Start Num: 43

Candidate Starts for Bock_58:

(33, 39047), (Start: 43 @39083 has 14 MA's), (52, 39116), (60, 39137), (67, 39188), (78, 39248),

Gene: Boiiii_53 Start: 39085, Stop: 39435, Start Num: 37

Candidate Starts for Boiiii_53:

(Start: 37 @39085 has 63 MA's), (Start: 39 @39091 has 28 MA's), (47, 39115), (58, 39145), (89, 39361),

Gene: Breezona_57 Start: 42443, Stop: 42778, Start Num: 44

Candidate Starts for Breezona_57:

(Start: 44 @42443 has 126 MA's), (50, 42467), (58, 42482), (68, 42551), (82, 42626), (84, 42653), (94, 42740), (96, 42752), (97, 42755),

Gene: Bromden_56 Start: 41981, Stop: 42316, Start Num: 44

Candidate Starts for Bromden_56:

(Start: 44 @41981 has 126 MA's), (48, 41999), (61, 42026), (68, 42089), (90, 42245), (94, 42275), (97, 42290),

Gene: Bruin_62 Start: 42428, Stop: 42760, Start Num: 44

Candidate Starts for Bruin_62:

(13, 42158), (14, 42176), (19, 42284), (Start: 44 @42428 has 126 MA's), (64, 42494), (67, 42524), (87, 42671), (94, 42725),

Gene: Bryler_57 Start: 38538, Stop: 38885, Start Num: 40

Candidate Starts for Bryler_57:

(Start: 40 @38538 has 33 MA's), (61, 38595), (96, 38856), (98, 38865),

Gene: Brylie_57 Start: 38831, Stop: 39163, Start Num: 43

Candidate Starts for Brylie_57:

(27, 38768), (33, 38795), (Start: 43 @38831 has 14 MA's), (52, 38864), (60, 38885), (67, 38936), (78, 38996),

Gene: Buck_66 Start: 44136, Stop: 44468, Start Num: 44

Candidate Starts for Buck_66:

(Start: 44 @44136 has 126 MA's), (64, 44202), (67, 44232), (87, 44379), (94, 44433),

Gene: CREW_53 Start: 38886, Stop: 39236, Start Num: 37

Candidate Starts for CREW_53:

(Start: 37 @38886 has 63 MA's), (Start: 39 @38892 has 28 MA's), (47, 38916), (58, 38946), (89, 39162),

Gene: Cactus_68 Start: 42909, Stop: 43241, Start Num: 44
Candidate Starts for Cactus_68:
(Start: 44 @42909 has 126 MA's), (64, 42975), (67, 43005), (87, 43152), (94, 43206),

Gene: Cafasso_85 Start: 51977, Stop: 52324, Start Num: 40
Candidate Starts for Cafasso_85:
(Start: 40 @51977 has 33 MA's), (50, 52010), (58, 52031), (64, 52058),

Gene: Cain_57 Start: 38526, Stop: 38873, Start Num: 40
Candidate Starts for Cain_57:
(Start: 40 @38526 has 33 MA's), (61, 38583), (96, 38844), (98, 38853),

Gene: Capricorn_53 Start: 38886, Stop: 39236, Start Num: 37
Candidate Starts for Capricorn_53:
(Start: 37 @38886 has 63 MA's), (Start: 39 @38892 has 28 MA's), (47, 38916), (58, 38946), (89, 39162),

Gene: CaseJules_55 Start: 39083, Stop: 39433, Start Num: 37
Candidate Starts for CaseJules_55:
(Start: 37 @39083 has 63 MA's), (Start: 39 @39089 has 28 MA's), (47, 39113), (58, 39143), (89, 39359),

Gene: Catfish_55 Start: 38322, Stop: 38657, Start Num: 40
Candidate Starts for Catfish_55:
(Start: 40 @38322 has 33 MA's), (64, 38400), (67, 38430), (69, 38451), (79, 38484), (80, 38499), (94, 38619), (96, 38631),

Gene: Cen1621_32 Start: 22941, Stop: 23279, Start Num: 44
Candidate Starts for Cen1621_32:
(1, 22122), (5, 22497), (24, 22845), (Start: 44 @22941 has 126 MA's), (56, 22980), (67, 23043), (73, 23067), (100, 23268),

Gene: Chaser_53 Start: 41066, Stop: 41413, Start Num: 44
Candidate Starts for Chaser_53:
(Start: 44 @41066 has 126 MA's), (61, 41111), (90, 41342), (94, 41372), (97, 41387),

Gene: CheetoDust_52 Start: 38174, Stop: 38524, Start Num: 37
Candidate Starts for CheetoDust_52:
(Start: 37 @38174 has 63 MA's), (Start: 39 @38180 has 28 MA's), (47, 38204), (58, 38234), (89, 38450),

Gene: Chop_58 Start: 39602, Stop: 39934, Start Num: 43
Candidate Starts for Chop_58:
(33, 39566), (Start: 43 @39602 has 14 MA's), (52, 39635), (60, 39656), (67, 39707), (78, 39767),

Gene: ChotaBhai_65 Start: 43227, Stop: 43559, Start Num: 44
Candidate Starts for ChotaBhai_65:
(Start: 44 @43227 has 126 MA's), (64, 43293), (67, 43323), (87, 43470), (94, 43524),

Gene: Chris_55 Start: 39389, Stop: 39751, Start Num: 34
Candidate Starts for Chris_55:
(Start: 34 @39389 has 1 MA's), (Start: 46 @39419 has 15 MA's), (63, 39482), (96, 39725),

Gene: Claus_57 Start: 42524, Stop: 42859, Start Num: 44

Candidate Starts for Claus_57:

(Start: 44 @42524 has 126 MA's), (50, 42548), (58, 42563), (68, 42632), (82, 42707), (84, 42734), (94, 42821), (97, 42836),

Gene: Clautastrophe_55 Start: 42639, Stop: 42980, Start Num: 44

Candidate Starts for Clautastrophe_55:

(Start: 44 @42639 has 126 MA's), (59, 42681), (82, 42825), (94, 42939),

Gene: ClubL_10 Start: 2375, Stop: 2713, Start Num: 46

Candidate Starts for ClubL_10:

(Start: 46 @2375 has 15 MA's), (55, 2408), (64, 2444), (92, 2663),

Gene: Collard_47 Start: 37033, Stop: 37374, Start Num: 39

Candidate Starts for Collard_47:

(24, 36949), (Start: 39 @37033 has 28 MA's), (51, 37069), (68, 37150), (75, 37177), (78, 37195), (83, 37234), (91, 37318),

Gene: Command613_67 Start: 43948, Stop: 44280, Start Num: 44

Candidate Starts for Command613_67:

(Start: 44 @43948 has 126 MA's), (64, 44014), (67, 44044), (87, 44191), (94, 44245),

Gene: Cookies_62 Start: 43078, Stop: 43410, Start Num: 44

Candidate Starts for Cookies_62:

(Start: 44 @43078 has 126 MA's), (64, 43144), (67, 43174), (87, 43321), (94, 43375),

Gene: Courthouse_102 Start: 58624, Stop: 58959, Start Num: 40

Candidate Starts for Courthouse_102:

(Start: 40 @58624 has 33 MA's), (64, 58693), (78, 58786), (94, 58924),

Gene: CrimD_53 Start: 39006, Stop: 39356, Start Num: 38

Candidate Starts for CrimD_53:

(Start: 38 @39006 has 16 MA's), (Start: 39 @39012 has 28 MA's), (47, 39036), (58, 39066), (89, 39282),

Gene: Crossroads_57 Start: 42521, Stop: 42856, Start Num: 44

Candidate Starts for Crossroads_57:

(Start: 44 @42521 has 126 MA's), (50, 42545), (58, 42560), (68, 42629), (82, 42704), (84, 42731), (94, 42818), (96, 42830), (97, 42833),

Gene: Cucurbita_9 Start: 2375, Stop: 2713, Start Num: 46

Candidate Starts for Cucurbita_9:

(Start: 46 @2375 has 15 MA's), (64, 2444), (92, 2663),

Gene: Culver_9 Start: 2199, Stop: 2537, Start Num: 46

Candidate Starts for Culver_9:

(Start: 46 @2199 has 15 MA's), (55, 2232), (64, 2268), (92, 2487),

Gene: Curiosium_54 Start: 37470, Stop: 37817, Start Num: 38

Candidate Starts for Curiosium_54:

(Start: 38 @37470 has 16 MA's), (Start: 39 @37476 has 28 MA's), (47, 37500), (48, 37506), (83, 37680), (89, 37746), (97, 37797),

Gene: Czyszczone1_66 Start: 43418, Stop: 43750, Start Num: 44
Candidate Starts for Czyszczone1_66:
(13, 43148), (14, 43166), (19, 43274), (Start: 44 @43418 has 126 MA's), (64, 43484), (67, 43514), (87, 43661), (94, 43715),

Gene: Dadosky_50 Start: 37153, Stop: 37491, Start Num: 39
Candidate Starts for Dadosky_50:
(Start: 39 @37153 has 28 MA's), (58, 37204), (68, 37270), (83, 37354), (86, 37393), (88, 37408),

Gene: Daikon_67 Start: 44036, Stop: 44368, Start Num: 44
Candidate Starts for Daikon_67:
(Start: 44 @44036 has 126 MA's), (64, 44102), (67, 44132), (87, 44279), (94, 44333),

Gene: Dalmuri_53 Start: 38886, Stop: 39236, Start Num: 37
Candidate Starts for Dalmuri_53:
(Start: 37 @38886 has 63 MA's), (Start: 39 @38892 has 28 MA's), (47, 38916), (58, 38946), (89, 39162),

Gene: Deby_53 Start: 38945, Stop: 39295, Start Num: 37
Candidate Starts for Deby_53:
(Start: 37 @38945 has 63 MA's), (Start: 39 @38951 has 28 MA's), (47, 38975), (58, 39005), (89, 39221),

Gene: DelRio_58 Start: 40013, Stop: 40345, Start Num: 43
Candidate Starts for DelRio_58:
(33, 39977), (Start: 43 @40013 has 14 MA's), (52, 40046), (60, 40067), (67, 40118), (78, 40178),

Gene: Devera_58 Start: 39525, Stop: 39875, Start Num: 38
Candidate Starts for Devera_58:
(Start: 38 @39525 has 16 MA's), (Start: 39 @39531 has 28 MA's), (47, 39555), (58, 39585), (89, 39801),

Gene: DoctorDiddles_64 Start: 43268, Stop: 43600, Start Num: 44
Candidate Starts for DoctorDiddles_64:
(Start: 44 @43268 has 126 MA's), (64, 43334), (67, 43364), (87, 43511), (94, 43565),

Gene: Dole_56 Start: 39528, Stop: 39878, Start Num: 38
Candidate Starts for Dole_56:
(Start: 38 @39528 has 16 MA's), (Start: 39 @39534 has 28 MA's), (47, 39558), (58, 39588), (89, 39804),

Gene: Douge_55 Start: 41060, Stop: 41407, Start Num: 44
Candidate Starts for Douge_55:
(Start: 44 @41060 has 126 MA's), (61, 41105), (90, 41336), (94, 41366), (97, 41381),

Gene: DrHayes_54 Start: 39665, Stop: 40015, Start Num: 38
Candidate Starts for DrHayes_54:
(Start: 38 @39665 has 16 MA's), (Start: 39 @39671 has 28 MA's), (47, 39695), (58, 39725), (89, 39941),

Gene: DrSeegs_57 Start: 42443, Stop: 42778, Start Num: 44
Candidate Starts for DrSeegs_57:

(Start: 44 @42443 has 126 MA's), (50, 42467), (58, 42482), (68, 42551), (82, 42626), (84, 42653), (94, 42740), (96, 42752), (97, 42755),

Gene: Dublin_43 Start: 34571, Stop: 34242, Start Num: 46

Candidate Starts for Dublin_43:

(Start: 46 @34571 has 15 MA's), (64, 34505), (72, 34451), (76, 34424), (80, 34400), (81, 34394), (98, 34259),

Gene: DuncansLeg_56 Start: 42678, Stop: 43019, Start Num: 44

Candidate Starts for DuncansLeg_56:

(20, 42540), (Start: 44 @42678 has 126 MA's), (59, 42720), (82, 42864), (94, 42978), (96, 42990),

Gene: Durfee_53 Start: 39083, Stop: 39433, Start Num: 37

Candidate Starts for Durfee_53:

(Start: 37 @39083 has 63 MA's), (Start: 39 @39089 has 28 MA's), (47, 39113), (58, 39143), (89, 39359),

Gene: DustyDino_94 Start: 52270, Stop: 51923, Start Num: 35

Candidate Starts for DustyDino_94:

(22, 52348), (Start: 35 @52270 has 9 MA's), (48, 52234), (52, 52222), (67, 52159), (68, 52144), (71, 52138), (85, 52042),

Gene: Dusty_9 Start: 2199, Stop: 2537, Start Num: 46

Candidate Starts for Dusty_9:

(Start: 46 @2199 has 15 MA's), (55, 2232), (64, 2268), (92, 2487),

Gene: DyoEdafos_57 Start: 41342, Stop: 41689, Start Num: 44

Candidate Starts for DyoEdafos_57:

(Start: 44 @41342 has 126 MA's), (61, 41387), (70, 41462), (90, 41618), (94, 41648), (97, 41663),

Gene: Edugator_47 Start: 38574, Stop: 38912, Start Num: 39

Candidate Starts for Edugator_47:

(Start: 39 @38574 has 28 MA's), (53, 38616), (58, 38625), (68, 38691), (83, 38775), (86, 38814), (88, 38829),

Gene: Efra2_56 Start: 38613, Stop: 38960, Start Num: 37

Candidate Starts for Efra2_56:

(Start: 37 @38613 has 63 MA's), (Start: 39 @38619 has 28 MA's), (47, 38643), (85, 38853), (89, 38889),

Gene: Ejimix_105 Start: 64303, Stop: 64638, Start Num: 40

Candidate Starts for Ejimix_105:

(Start: 40 @64303 has 33 MA's), (64, 64372), (78, 64465), (94, 64603),

Gene: Ekdilam_53 Start: 39489, Stop: 39833, Start Num: 39

Candidate Starts for Ekdilam_53:

(Start: 39 @39489 has 28 MA's), (60, 39546), (67, 39597), (86, 39735),

Gene: Ellson_55 Start: 42703, Stop: 43044, Start Num: 44

Candidate Starts for Ellson_55:

(Start: 44 @42703 has 126 MA's), (82, 42889), (94, 43003), (96, 43015),

Gene: Elph10_65 Start: 42916, Stop: 43248, Start Num: 44

Candidate Starts for Elph10_65:

(13, 42646), (14, 42664), (19, 42772), (Start: 44 @42916 has 126 MA's), (64, 42982), (67, 43012), (87, 43159), (94, 43213),

Gene: Emerson_54 Start: 38765, Stop: 39115, Start Num: 37

Candidate Starts for Emerson_54:

(Start: 37 @38765 has 63 MA's), (Start: 39 @38771 has 28 MA's), (47, 38795), (58, 38825), (89, 39041),

Gene: Engineer_10 Start: 2375, Stop: 2713, Start Num: 46

Candidate Starts for Engineer_10:

(Start: 46 @2375 has 15 MA's), (64, 2444), (92, 2663),

Gene: Erenyeager_90 Start: 51059, Stop: 50712, Start Num: 35

Candidate Starts for Erenyeager_90:

(22, 51137), (Start: 35 @51059 has 9 MA's), (48, 51023), (52, 51011), (67, 50948), (68, 50933), (71, 50927), (85, 50831),

Gene: Exile_27 Start: 24622, Stop: 24957, Start Num: 49

Candidate Starts for Exile_27:

(17, 24448), (49, 24622), (94, 24916),

Gene: Faith1_57 Start: 42443, Stop: 42778, Start Num: 44

Candidate Starts for Faith1_57:

(Start: 44 @42443 has 126 MA's), (50, 42467), (58, 42482), (68, 42551), (82, 42626), (84, 42653), (94, 42740), (96, 42752), (97, 42755),

Gene: Feyre_49 Start: 39381, Stop: 39719, Start Num: 39

Candidate Starts for Feyre_49:

(Start: 39 @39381 has 28 MA's), (78, 39543), (86, 39621), (88, 39636), (89, 39645), (93, 39675),

Gene: Finemlucis_57 Start: 42764, Stop: 43099, Start Num: 44

Candidate Starts for Finemlucis_57:

(Start: 44 @42764 has 126 MA's), (50, 42788), (58, 42803), (68, 42872), (82, 42947), (84, 42974), (94, 43061), (96, 43073), (97, 43076),

Gene: Finnry_56 Start: 42903, Stop: 43244, Start Num: 44

Candidate Starts for Finnry_56:

(Start: 44 @42903 has 126 MA's), (82, 43089), (94, 43203), (96, 43215),

Gene: FireRed_69 Start: 44405, Stop: 44737, Start Num: 44

Candidate Starts for FireRed_69:

(13, 44135), (14, 44153), (19, 44261), (Start: 44 @44405 has 126 MA's), (64, 44471), (67, 44501), (87, 44648), (94, 44702),

Gene: Flypotenuse_61 Start: 42899, Stop: 43231, Start Num: 44

Candidate Starts for Flypotenuse_61:

(Start: 44 @42899 has 126 MA's), (64, 42965), (67, 42995), (87, 43142), (94, 43196),

Gene: Fork_86 Start: 51009, Stop: 50662, Start Num: 35

Candidate Starts for Fork_86:

(22, 51087), (Start: 35 @51009 has 9 MA's), (48, 50973), (52, 50961), (67, 50898), (68, 50883), (71, 50877), (80, 50832), (81, 50826),

Gene: Francois_57 Start: 39089, Stop: 39421, Start Num: 43

Candidate Starts for Francois_57:

(27, 39026), (33, 39053), (Start: 43 @39089 has 14 MA's), (60, 39143), (67, 39194), (78, 39254),

Gene: Fribs8_56 Start: 42558, Stop: 42896, Start Num: 44

Candidate Starts for Fribs8_56:

(11, 42249), (Start: 44 @42558 has 126 MA's), (51, 42585), (61, 42609), (64, 42627), (82, 42747), (85, 42786), (98, 42879),

Gene: Gabriela_54 Start: 40893, Stop: 41228, Start Num: 44

Candidate Starts for Gabriela_54:

(Start: 44 @40893 has 126 MA's), (50, 40917), (58, 40932), (68, 41001), (82, 41076), (84, 41103), (94, 41190), (96, 41202), (97, 41205),

Gene: Gage_67 Start: 43689, Stop: 44021, Start Num: 44

Candidate Starts for Gage_67:

(Start: 44 @43689 has 126 MA's), (64, 43755), (67, 43785), (87, 43932), (94, 43986),

Gene: Ganymede_54 Start: 39147, Stop: 39497, Start Num: 37

Candidate Starts for Ganymede_54:

(Start: 37 @39147 has 63 MA's), (Start: 39 @39153 has 28 MA's), (47, 39177), (58, 39207), (63, 39225), (89, 39423),

Gene: Gardann_58 Start: 42479, Stop: 42814, Start Num: 44

Candidate Starts for Gardann_58:

(Start: 44 @42479 has 126 MA's), (50, 42503), (58, 42518), (68, 42587), (82, 42662), (84, 42689), (94, 42776), (96, 42788), (97, 42791),

Gene: Gemini_70 Start: 44206, Stop: 44538, Start Num: 44

Candidate Starts for Gemini_70:

(Start: 44 @44206 has 126 MA's), (64, 44272), (67, 44302), (87, 44449), (94, 44503),

Gene: Gengar_48 Start: 37992, Stop: 38330, Start Num: 39

Candidate Starts for Gengar_48:

(Start: 39 @37992 has 28 MA's), (78, 38154), (86, 38232), (88, 38247), (89, 38256), (93, 38286),

Gene: Geraldini_56 Start: 39818, Stop: 40168, Start Num: 37

Candidate Starts for Geraldini_56:

(Start: 37 @39818 has 63 MA's), (Start: 39 @39824 has 28 MA's), (47, 39848), (58, 39878), (89, 40094),

Gene: Glexan_64 Start: 44026, Stop: 44358, Start Num: 44

Candidate Starts for Glexan_64:

(Start: 44 @44026 has 126 MA's), (64, 44092), (67, 44122), (87, 44269), (94, 44323),

Gene: GoldenSpark_69 Start: 43689, Stop: 44021, Start Num: 44

Candidate Starts for GoldenSpark_69:

(Start: 44 @43689 has 126 MA's), (64, 43755), (67, 43785), (87, 43932), (94, 43986),

Gene: Goldilocks_68 Start: 43190, Stop: 43522, Start Num: 44

Candidate Starts for Goldilocks_68:

(Start: 44 @43190 has 126 MA's), (64, 43256), (67, 43286), (87, 43433), (94, 43487),

Gene: GooberAzure_68 Start: 43689, Stop: 44021, Start Num: 44
Candidate Starts for GooberAzure_68:
(Start: 44 @43689 has 126 MA's), (64, 43755), (67, 43785), (87, 43932), (94, 43986),

Gene: GrandSlam_58 Start: 39602, Stop: 39934, Start Num: 43
Candidate Starts for GrandSlam_58:
(33, 39566), (Start: 43 @39602 has 14 MA's), (52, 39635), (60, 39656), (67, 39707), (78, 39767),

Gene: Guanica15_55 Start: 38358, Stop: 38705, Start Num: 37
Candidate Starts for Guanica15_55:
(Start: 37 @38358 has 63 MA's), (Start: 39 @38364 has 28 MA's), (47, 38388), (58, 38418), (85, 38598), (89, 38634),

Gene: Guillsminger_49 Start: 37963, Stop: 38301, Start Num: 39
Candidate Starts for Guillsminger_49:
(Start: 39 @37963 has 28 MA's), (78, 38125), (86, 38203), (88, 38218), (89, 38227),

Gene: GuuelaD_56 Start: 42558, Stop: 42893, Start Num: 44
Candidate Starts for GuuelaD_56:
(Start: 44 @42558 has 126 MA's), (50, 42582), (58, 42597), (68, 42666), (82, 42741), (84, 42768), (94, 42855), (96, 42867), (97, 42870),

Gene: Hafay_58 Start: 42547, Stop: 42882, Start Num: 44
Candidate Starts for Hafay_58:
(Start: 44 @42547 has 126 MA's), (50, 42571), (58, 42586), (68, 42655), (82, 42730), (84, 42757), (94, 42844), (96, 42856), (97, 42859),

Gene: Halley_113 Start: 64619, Stop: 64954, Start Num: 40
Candidate Starts for Halley_113:
(Start: 40 @64619 has 33 MA's), (64, 64688), (78, 64781), (94, 64919),

Gene: Hamood_58 Start: 39602, Stop: 39934, Start Num: 43
Candidate Starts for Hamood_58:
(33, 39566), (Start: 43 @39602 has 14 MA's), (52, 39635), (60, 39656), (67, 39707), (78, 39767),

Gene: HanKaySha_65 Start: 42999, Stop: 43331, Start Num: 44
Candidate Starts for HanKaySha_65:
(Start: 44 @42999 has 126 MA's), (64, 43065), (67, 43095), (87, 43242), (94, 43296),

Gene: Harella_65 Start: 44542, Stop: 44874, Start Num: 44
Candidate Starts for Harella_65:
(Start: 44 @44542 has 126 MA's), (64, 44608), (67, 44638), (87, 44785), (94, 44839),

Gene: HedwigODU_53 Start: 38771, Stop: 39121, Start Num: 37
Candidate Starts for HedwigODU_53:
(Start: 37 @38771 has 63 MA's), (Start: 39 @38777 has 28 MA's), (47, 38801), (58, 38831), (89, 39047),

Gene: Heftyboy_48 Start: 38138, Stop: 38476, Start Num: 39
Candidate Starts for Heftyboy_48:
(2, 37655), (7, 37781), (Start: 39 @38138 has 28 MA's), (78, 38300), (86, 38378), (88, 38393), (89, 38402), (93, 38432),

Gene: Holt_70 Start: 44103, Stop: 44435, Start Num: 44

Candidate Starts for Holt_70:

(Start: 44 @44103 has 126 MA's), (64, 44169), (67, 44199), (87, 44346), (94, 44400),

Gene: Homura_53 Start: 38886, Stop: 39236, Start Num: 37

Candidate Starts for Homura_53:

(Start: 37 @38886 has 63 MA's), (Start: 39 @38892 has 28 MA's), (47, 38916), (58, 38946), (89, 39162),

Gene: Hoonter_68 Start: 43689, Stop: 44021, Start Num: 44

Candidate Starts for Hoonter_68:

(Start: 44 @43689 has 126 MA's), (64, 43755), (67, 43785), (87, 43932), (94, 43986),

Gene: Hopey_65 Start: 43531, Stop: 43863, Start Num: 44

Candidate Starts for Hopey_65:

(13, 43261), (14, 43279), (19, 43387), (Start: 44 @43531 has 126 MA's), (64, 43597), (67, 43627), (87, 43774), (94, 43828),

Gene: HufflyPuff_68 Start: 44361, Stop: 44693, Start Num: 44

Candidate Starts for HufflyPuff_68:

(13, 44091), (14, 44109), (19, 44217), (Start: 44 @44361 has 126 MA's), (64, 44427), (67, 44457), (87, 44604), (94, 44658),

Gene: Hyperbowlee_53 Start: 39083, Stop: 39433, Start Num: 37

Candidate Starts for Hyperbowlee_53:

(Start: 37 @39083 has 63 MA's), (Start: 39 @39089 has 28 MA's), (47, 39113), (58, 39143), (89, 39359),

Gene: Icee_66 Start: 43356, Stop: 43688, Start Num: 44

Candidate Starts for Icee_66:

(Start: 44 @43356 has 126 MA's), (64, 43422), (67, 43452), (87, 43599), (94, 43653),

Gene: Illumine_56 Start: 39527, Stop: 39877, Start Num: 38

Candidate Starts for Illumine_56:

(Start: 38 @39527 has 16 MA's), (Start: 39 @39533 has 28 MA's), (47, 39557), (58, 39587), (89, 39803),

Gene: Inky_53 Start: 38886, Stop: 39236, Start Num: 37

Candidate Starts for Inky_53:

(Start: 37 @38886 has 63 MA's), (Start: 39 @38892 has 28 MA's), (47, 38916), (58, 38946), (89, 39162),

Gene: InvictusManeo_47 Start: 37076, Stop: 37417, Start Num: 39

Candidate Starts for InvictusManeo_47:

(24, 36992), (Start: 39 @37076 has 28 MA's), (51, 37112), (68, 37193), (75, 37220), (78, 37238), (83, 37277), (91, 37361),

Gene: Itos_56 Start: 41349, Stop: 41684, Start Num: 44

Candidate Starts for Itos_56:

(Start: 44 @41349 has 126 MA's), (50, 41373), (58, 41388), (68, 41457), (82, 41532), (84, 41559), (94, 41646), (96, 41658), (97, 41661),

Gene: JAWS_53 Start: 38760, Stop: 39110, Start Num: 37

Candidate Starts for JAWS_53:

(Start: 37 @38760 has 63 MA's), (Start: 39 @38766 has 28 MA's), (47, 38790), (58, 38820), (89, 39036),

Gene: Jace_70 Start: 41191, Stop: 41544, Start Num: 44

Candidate Starts for Jace_70:

(18, 41044), (30, 41131), (36, 41170), (Start: 44 @41191 has 126 MA's), (64, 41263), (67, 41290), (94, 41500),

Gene: Jarvi_53 Start: 38886, Stop: 39236, Start Num: 37

Candidate Starts for Jarvi_53:

(Start: 37 @38886 has 63 MA's), (Start: 39 @38892 has 28 MA's), (47, 38916), (58, 38946), (89, 39162),

Gene: Jayhawk_54 Start: 38769, Stop: 39119, Start Num: 37

Candidate Starts for Jayhawk_54:

(Start: 37 @38769 has 63 MA's), (Start: 39 @38775 has 28 MA's), (47, 38799), (58, 38829), (89, 39045),

Gene: JeTaime_65 Start: 44183, Stop: 44515, Start Num: 44

Candidate Starts for JeTaime_65:

(Start: 44 @44183 has 126 MA's), (64, 44249), (67, 44279), (87, 44426), (94, 44480),

Gene: Jeckyll_53 Start: 38886, Stop: 39236, Start Num: 37

Candidate Starts for Jeckyll_53:

(Start: 37 @38886 has 63 MA's), (Start: 39 @38892 has 28 MA's), (47, 38916), (58, 38946), (89, 39162),

Gene: Jobypre_56 Start: 42639, Stop: 42980, Start Num: 44

Candidate Starts for Jobypre_56:

(Start: 44 @42639 has 126 MA's), (59, 42681), (82, 42825), (94, 42939),

Gene: Joy99_53 Start: 38815, Stop: 39165, Start Num: 37

Candidate Starts for Joy99_53:

(Start: 37 @38815 has 63 MA's), (Start: 39 @38821 has 28 MA's), (47, 38845), (58, 38875), (89, 39091),

Gene: Jubie_55 Start: 42774, Stop: 43115, Start Num: 44

Candidate Starts for Jubie_55:

(Start: 44 @42774 has 126 MA's), (59, 42816), (82, 42960), (94, 43074),

Gene: JuicyJay_108 Start: 65744, Stop: 66079, Start Num: 40

Candidate Starts for JuicyJay_108:

(Start: 40 @65744 has 33 MA's), (64, 65813), (78, 65906), (94, 66044),

Gene: Jumbo_66 Start: 57675, Stop: 57277, Start Num: 26

Candidate Starts for Jumbo_66:

(25, 57687), (Start: 26 @57675 has 1 MA's), (47, 57594), (57, 57567), (62, 57558), (64, 57543), (94, 57315),

Gene: Kahlid_57 Start: 42449, Stop: 42784, Start Num: 44

Candidate Starts for Kahlid_57:

(Start: 44 @42449 has 126 MA's), (50, 42473), (58, 42488), (68, 42557), (82, 42632), (84, 42659), (94, 42746), (96, 42758), (97, 42761),

Gene: Kanye_62 Start: 43038, Stop: 43370, Start Num: 44

Candidate Starts for Kanye_62:

(Start: 44 @43038 has 126 MA's), (64, 43104), (67, 43134), (87, 43281), (94, 43335),

Gene: KashFlow_104 Start: 59500, Stop: 59835, Start Num: 40

Candidate Starts for KashFlow_104:

(Start: 40 @59500 has 33 MA's), (64, 59569), (78, 59662), (94, 59800),

Gene: KiSi_57 Start: 39435, Stop: 39782, Start Num: 39

Candidate Starts for KiSi_57:

(Start: 39 @39435 has 28 MA's), (48, 39465), (67, 39546), (86, 39684), (91, 39729), (96, 39756), (97, 39759),

Gene: Kimchi_69 Start: 43692, Stop: 44024, Start Num: 44

Candidate Starts for Kimchi_69:

(Start: 44 @43692 has 126 MA's), (64, 43758), (67, 43788), (87, 43935), (94, 43989),

Gene: Kingsolomon_55 Start: 42646, Stop: 42987, Start Num: 44

Candidate Starts for Kingsolomon_55:

(Start: 44 @42646 has 126 MA's), (82, 42832), (94, 42946),

Gene: Kratio_46 Start: 36625, Stop: 36966, Start Num: 39

Candidate Starts for Kratio_46:

(Start: 39 @36625 has 28 MA's), (51, 36661), (68, 36742), (75, 36769), (78, 36787), (83, 36826), (91, 36910),

Gene: Krueger_60 Start: 39517, Stop: 39858, Start Num: 40

Candidate Starts for Krueger_60:

(Start: 40 @39517 has 33 MA's), (61, 39574), (96, 39835),

Gene: Krypton555_57 Start: 42871, Stop: 43212, Start Num: 44

Candidate Starts for Krypton555_57:

(Start: 44 @42871 has 126 MA's), (82, 43057), (94, 43171), (96, 43183),

Gene: Larva_49 Start: 38025, Stop: 38363, Start Num: 39

Candidate Starts for Larva_49:

(Start: 39 @38025 has 28 MA's), (53, 38067), (58, 38076), (68, 38142), (83, 38226), (86, 38265), (88, 38280),

Gene: LaterM_54 Start: 39652, Stop: 40002, Start Num: 38

Candidate Starts for LaterM_54:

(Start: 38 @39652 has 16 MA's), (Start: 39 @39658 has 28 MA's), (47, 39682), (89, 39928),

Gene: LeMond_57 Start: 39416, Stop: 39763, Start Num: 39

Candidate Starts for LeMond_57:

(Start: 39 @39416 has 28 MA's), (48, 39446), (67, 39527), (86, 39665), (91, 39710), (96, 39737),

Gene: Leston_48 Start: 38092, Stop: 38430, Start Num: 39

Candidate Starts for Leston_48:

(Start: 39 @38092 has 28 MA's), (78, 38254), (86, 38332), (88, 38347), (89, 38356), (93, 38386),

Gene: Lewan_58 Start: 42503, Stop: 42838, Start Num: 44

Candidate Starts for Lewan_58:

(Start: 44 @42503 has 126 MA's), (50, 42527), (58, 42542), (68, 42611), (82, 42686), (84, 42713), (94, 42800), (96, 42812), (97, 42815),

Gene: LilDestine_57 Start: 42476, Stop: 42811, Start Num: 44

Candidate Starts for LilDestine_57:

(Start: 44 @42476 has 126 MA's), (50, 42500), (58, 42515), (68, 42584), (82, 42659), (84, 42686), (94, 42773), (96, 42785), (97, 42788),

Gene: Lilac_67 Start: 43316, Stop: 43648, Start Num: 44

Candidate Starts for Lilac_67:

(13, 43046), (14, 43064), (19, 43172), (Start: 44 @43316 has 126 MA's), (64, 43382), (67, 43412), (87, 43559), (94, 43613),

Gene: Lilbeanie_82 Start: 51693, Stop: 52034, Start Num: 42

Candidate Starts for Lilbeanie_82:

(28, 51633), (Start: 42 @51693 has 1 MA's), (64, 51771), (81, 51885), (92, 51990), (96, 52011), (98, 52020),

Gene: Lilizi_66 Start: 42990, Stop: 43322, Start Num: 44

Candidate Starts for Lilizi_66:

(13, 42720), (14, 42738), (19, 42846), (Start: 44 @42990 has 126 MA's), (64, 43056), (67, 43086), (87, 43233), (94, 43287),

Gene: LindNT_52 Start: 38974, Stop: 39324, Start Num: 37

Candidate Starts for LindNT_52:

(Start: 37 @38974 has 63 MA's), (Start: 39 @38980 has 28 MA's), (47, 39004), (58, 39034), (89, 39250),

Gene: Llorens_53 Start: 38886, Stop: 39236, Start Num: 37

Candidate Starts for Llorens_53:

(Start: 37 @38886 has 63 MA's), (Start: 39 @38892 has 28 MA's), (47, 38916), (58, 38946), (89, 39162),

Gene: Loadrie_56 Start: 42531, Stop: 42866, Start Num: 44

Candidate Starts for Loadrie_56:

(Start: 44 @42531 has 126 MA's), (50, 42555), (58, 42570), (68, 42639), (82, 42714), (84, 42741), (94, 42828), (96, 42840), (97, 42843),

Gene: Lolly9_55 Start: 42464, Stop: 42805, Start Num: 44

Candidate Starts for Lolly9_55:

(Start: 44 @42464 has 126 MA's), (68, 42575), (82, 42650), (93, 42758), (94, 42764), (96, 42776),

Gene: Lozinak_10 Start: 2375, Stop: 2713, Start Num: 46

Candidate Starts for Lozinak_10:

(Start: 46 @2375 has 15 MA's), (64, 2444), (92, 2663),

Gene: Lucky2013_104 Start: 59065, Stop: 59400, Start Num: 40

Candidate Starts for Lucky2013_104:

(Start: 40 @59065 has 33 MA's), (64, 59134), (78, 59227), (94, 59365),

Gene: Lumos_57 Start: 42636, Stop: 42977, Start Num: 44
Candidate Starts for Lumos_57:
(Start: 44 @42636 has 126 MA's), (59, 42678), (82, 42822), (94, 42936),

Gene: Lunahalos_53 Start: 38886, Stop: 39236, Start Num: 37
Candidate Starts for Lunahalos_53:
(Start: 37 @38886 has 63 MA's), (Start: 39 @38892 has 28 MA's), (47, 38916), (58, 38946), (89, 39162),

Gene: Lyell_90 Start: 51220, Stop: 50873, Start Num: 35
Candidate Starts for Lyell_90:
(22, 51298), (Start: 35 @51220 has 9 MA's), (48, 51184), (52, 51172), (67, 51109), (68, 51094), (71, 51088), (85, 50992),

Gene: MISSy_66 Start: 43414, Stop: 43746, Start Num: 44
Candidate Starts for MISSy_66:
(13, 43144), (14, 43162), (19, 43270), (Start: 44 @43414 has 126 MA's), (64, 43480), (67, 43510), (87, 43657), (94, 43711),

Gene: MPhalcon_66 Start: 43407, Stop: 43739, Start Num: 44
Candidate Starts for MPhalcon_66:
(13, 43137), (14, 43155), (19, 43263), (Start: 44 @43407 has 126 MA's), (64, 43473), (67, 43503), (87, 43650), (94, 43704),

Gene: MaVan_58 Start: 41910, Stop: 42248, Start Num: 44
Candidate Starts for MaVan_58:
(9, 41589), (11, 41601), (Start: 44 @41910 has 126 MA's), (51, 41937), (61, 41961), (64, 41979), (82, 42099), (85, 42138), (98, 42231),

Gene: MalagasyRose_56 Start: 38407, Stop: 38751, Start Num: 41
Candidate Starts for MalagasyRose_56:
(Start: 41 @38407 has 1 MA's), (45, 38416), (49, 38434), (51, 38440), (64, 38482), (67, 38512), (68, 38527), (75, 38557), (82, 38602), (96, 38725),

Gene: MarkPhew_56 Start: 39122, Stop: 39454, Start Num: 46
Candidate Starts for MarkPhew_56:
(Start: 42 @39113 has 1 MA's), (Start: 46 @39122 has 15 MA's), (48, 39137), (67, 39218), (96, 39428),

Gene: Marshmallow_63 Start: 44184, Stop: 44516, Start Num: 44
Candidate Starts for Marshmallow_63:
(Start: 44 @44184 has 126 MA's), (64, 44250), (67, 44280), (87, 44427), (94, 44481),

Gene: MarysWell_43 Start: 34814, Stop: 34485, Start Num: 46
Candidate Starts for MarysWell_43:
(Start: 46 @34814 has 15 MA's), (64, 34748), (72, 34694), (76, 34667), (80, 34643), (81, 34637), (98, 34502),

Gene: Maxxinista_67 Start: 43286, Stop: 43618, Start Num: 44
Candidate Starts for Maxxinista_67:
(13, 43016), (14, 43034), (19, 43142), (Start: 44 @43286 has 126 MA's), (64, 43352), (67, 43382), (87, 43529), (94, 43583),

Gene: MeaningOfLife_54 Start: 39641, Stop: 39991, Start Num: 37
Candidate Starts for MeaningOfLife_54:
(Start: 37 @39641 has 63 MA's), (Start: 39 @39647 has 28 MA's), (47, 39671), (58, 39701), (60, 39704), (89, 39917),

Gene: Megsy_55 Start: 39042, Stop: 39392, Start Num: 37
Candidate Starts for Megsy_55:
(Start: 37 @39042 has 63 MA's), (47, 39072), (83, 39252), (89, 39318),

Gene: MiaZeal_107 Start: 59696, Stop: 60031, Start Num: 40
Candidate Starts for MiaZeal_107:
(Start: 40 @59696 has 33 MA's), (64, 59765), (78, 59858), (94, 59996),

Gene: Miley16_57 Start: 42443, Stop: 42778, Start Num: 44
Candidate Starts for Miley16_57:
(Start: 44 @42443 has 126 MA's), (50, 42467), (58, 42482), (68, 42551), (82, 42626), (84, 42653), (94, 42740), (96, 42752), (97, 42755),

Gene: MiniLon_59 Start: 42465, Stop: 42806, Start Num: 44
Candidate Starts for MiniLon_59:
(Start: 44 @42465 has 126 MA's), (68, 42576), (82, 42651), (93, 42759), (94, 42765), (96, 42777),

Gene: MiniMac_59 Start: 42463, Stop: 42804, Start Num: 44
Candidate Starts for MiniMac_59:
(Start: 44 @42463 has 126 MA's), (68, 42574), (82, 42649), (93, 42757), (94, 42763), (96, 42775),

Gene: Miryou_52 Start: 40294, Stop: 40632, Start Num: 39
Candidate Starts for Miryou_52:
(Start: 39 @40294 has 28 MA's), (78, 40456), (86, 40534), (88, 40549), (89, 40558), (93, 40588),

Gene: Misfit_66 Start: 44426, Stop: 44758, Start Num: 44
Candidate Starts for Misfit_66:
(13, 44156), (14, 44174), (19, 44282), (Start: 44 @44426 has 126 MA's), (64, 44492), (67, 44522), (87, 44669), (94, 44723),

Gene: Miskis_12 Start: 2444, Stop: 2713, Start Num: 64
Candidate Starts for Miskis_12:
(Start: 46 @2375 has 15 MA's), (64, 2444), (92, 2663),

Gene: MkaliMitinis3_58 Start: 42515, Stop: 42850, Start Num: 44
Candidate Starts for MkaliMitinis3_58:
(Start: 44 @42515 has 126 MA's), (50, 42539), (58, 42554), (68, 42623), (82, 42698), (84, 42725), (94, 42812), (96, 42824), (97, 42827),

Gene: ModicumRichard_85 Start: 52045, Stop: 52392, Start Num: 40
Candidate Starts for ModicumRichard_85:
(29, 51994), (Start: 40 @52045 has 33 MA's), (50, 52078), (58, 52099), (64, 52126),

Gene: Moostard_55 Start: 42642, Stop: 42983, Start Num: 44
Candidate Starts for Moostard_55:
(Start: 44 @42642 has 126 MA's), (82, 42828), (94, 42942),

Gene: Morgana_92 Start: 54214, Stop: 54561, Start Num: 40

Candidate Starts for Morgana_92:

(Start: 40 @54214 has 33 MA's), (50, 54247), (58, 54268), (64, 54295),

Gene: Mosby_61 Start: 42709, Stop: 43041, Start Num: 44

Candidate Starts for Mosby_61:

(13, 42439), (14, 42457), (19, 42565), (Start: 44 @42709 has 126 MA's), (64, 42775), (67, 42805), (87, 42952), (94, 43006),

Gene: MsGreen_56 Start: 42639, Stop: 42980, Start Num: 44

Candidate Starts for MsGreen_56:

(Start: 44 @42639 has 126 MA's), (59, 42681), (82, 42825), (94, 42939),

Gene: Mulch_57 Start: 38831, Stop: 39163, Start Num: 43

Candidate Starts for Mulch_57:

(27, 38768), (33, 38795), (Start: 43 @38831 has 14 MA's), (52, 38864), (60, 38885), (67, 38936), (78, 38996),

Gene: Murica_68 Start: 44361, Stop: 44693, Start Num: 44

Candidate Starts for Murica_68:

(13, 44091), (14, 44109), (19, 44217), (Start: 44 @44361 has 126 MA's), (64, 44427), (67, 44457), (87, 44604), (94, 44658),

Gene: Murucutumbu_54 Start: 39751, Stop: 40101, Start Num: 38

Candidate Starts for Murucutumbu_54:

(Start: 38 @39751 has 16 MA's), (Start: 39 @39757 has 28 MA's), (47, 39781), (89, 40027),

Gene: Musetta_89 Start: 51559, Stop: 51212, Start Num: 35

Candidate Starts for Musetta_89:

(22, 51637), (Start: 35 @51559 has 9 MA's), (48, 51523), (52, 51511), (67, 51448), (68, 51433), (71, 51427), (85, 51331),

Gene: Mynx_54 Start: 39090, Stop: 39440, Start Num: 37

Candidate Starts for Mynx_54:

(Start: 37 @39090 has 63 MA's), (Start: 39 @39096 has 28 MA's), (47, 39120), (58, 39150), (89, 39366),

Gene: Myrale_65 Start: 44049, Stop: 44381, Start Num: 44

Candidate Starts for Myrale_65:

(Start: 44 @44049 has 126 MA's), (64, 44115), (67, 44145), (87, 44292), (94, 44346),

Gene: Nadeem_57 Start: 38819, Stop: 39151, Start Num: 43

Candidate Starts for Nadeem_57:

(27, 38756), (33, 38783), (Start: 43 @38819 has 14 MA's), (52, 38852), (60, 38873), (67, 38924), (78, 38984),

Gene: Nala_67 Start: 43919, Stop: 44251, Start Num: 44

Candidate Starts for Nala_67:

(13, 43649), (14, 43667), (19, 43775), (Start: 44 @43919 has 126 MA's), (64, 43985), (67, 44015), (87, 44162), (94, 44216),

Gene: NancyRae_56 Start: 38817, Stop: 39149, Start Num: 43

Candidate Starts for NancyRae_56:

(33, 38781), (Start: 43 @38817 has 14 MA's), (52, 38850), (60, 38871), (67, 38922), (78, 38982),

Gene: Necrophoxinus_92 Start: 51906, Stop: 51559, Start Num: 35
Candidate Starts for Necrophoxinus_92:
(22, 51984), (Start: 35 @51906 has 9 MA's), (48, 51870), (52, 51858), (67, 51795), (68, 51780), (71, 51774), (85, 51678),

Gene: NelitzaMV_63 Start: 42998, Stop: 43330, Start Num: 44
Candidate Starts for NelitzaMV_63:
(Start: 44 @42998 has 126 MA's), (64, 43064), (67, 43094), (87, 43241), (94, 43295),

Gene: Nergal_50 Start: 36801, Stop: 37136, Start Num: 43
Candidate Starts for Nergal_50:
(31, 36756), (Start: 43 @36801 has 14 MA's), (58, 36846), (91, 37083), (94, 37098), (96, 37110), (97, 37113),

Gene: Netyap_58 Start: 42444, Stop: 42779, Start Num: 44
Candidate Starts for Netyap_58:
(Start: 44 @42444 has 126 MA's), (50, 42468), (58, 42483), (68, 42552), (82, 42627), (84, 42654), (94, 42741), (96, 42753), (97, 42756),

Gene: Neville_70 Start: 44606, Stop: 44950, Start Num: 44
Candidate Starts for Neville_70:
(12, 44336), (16, 44444), (21, 44501), (23, 44507), (Start: 26 @44540 has 1 MA's), (Start: 44 @44606 has 126 MA's), (50, 44627), (64, 44675), (66, 44702), (80, 44783), (82, 44792), (92, 44894), (99, 44933),

Gene: Nibb_55 Start: 38811, Stop: 39158, Start Num: 39
Candidate Starts for Nibb_55:
(Start: 39 @38811 has 28 MA's), (Start: 43 @38820 has 14 MA's), (60, 38871), (67, 38922), (96, 39132),

Gene: Nibbles_55 Start: 41590, Stop: 41928, Start Num: 44
Candidate Starts for Nibbles_55:
(11, 41281), (Start: 44 @41590 has 126 MA's), (51, 41617), (61, 41641), (64, 41659), (82, 41779), (85, 41818), (98, 41911),

Gene: Nicholas_55 Start: 42646, Stop: 42987, Start Num: 44
Candidate Starts for Nicholas_55:
(Start: 44 @42646 has 126 MA's), (82, 42832), (94, 42946),

Gene: Nicholasp3_57 Start: 42479, Stop: 42814, Start Num: 44
Candidate Starts for Nicholasp3_57:
(Start: 44 @42479 has 126 MA's), (50, 42503), (58, 42518), (68, 42587), (82, 42662), (84, 42689), (94, 42776), (96, 42788), (97, 42791),

Gene: Niklas_56 Start: 39530, Stop: 39868, Start Num: 40
Candidate Starts for Niklas_56:
(Start: 40 @39530 has 33 MA's), (54, 39572), (58, 39578), (68, 39644), (96, 39842),

Gene: Nimrod_66 Start: 44619, Stop: 44951, Start Num: 44
Candidate Starts for Nimrod_66:
(13, 44349), (14, 44367), (19, 44475), (Start: 44 @44619 has 126 MA's), (64, 44685), (67, 44715), (87, 44862), (94, 44916),

Gene: Norvs_10 Start: 2375, Stop: 2713, Start Num: 46

Candidate Starts for Norvs_10:

(Start: 46 @2375 has 15 MA's), (64, 2444), (92, 2663),

Gene: ObLaDi_85 Start: 52071, Stop: 52418, Start Num: 40

Candidate Starts for ObLaDi_85:

(Start: 40 @52071 has 33 MA's), (50, 52104), (58, 52125), (64, 52152),

Gene: OkiRoe_48 Start: 37965, Stop: 38303, Start Num: 39

Candidate Starts for OkiRoe_48:

(Start: 39 @37965 has 28 MA's), (78, 38127), (86, 38205), (88, 38220), (89, 38229), (93, 38259),

Gene: Omnicron_51 Start: 37572, Stop: 37910, Start Num: 39

Candidate Starts for Omnicron_51:

(3, 37089), (10, 37275), (Start: 39 @37572 has 28 MA's), (51, 37608), (53, 37614), (78, 37734), (86, 37812), (88, 37827), (89, 37836), (94, 37872),

Gene: OrionPax_64 Start: 43004, Stop: 43336, Start Num: 44

Candidate Starts for OrionPax_64:

(Start: 44 @43004 has 126 MA's), (64, 43070), (67, 43100), (87, 43247), (94, 43301),

Gene: Oscar_57 Start: 39321, Stop: 39668, Start Num: 39

Candidate Starts for Oscar_57:

(Start: 39 @39321 has 28 MA's), (48, 39351), (67, 39432), (86, 39570), (91, 39615), (96, 39642),

Gene: PSonyx_49 Start: 34991, Stop: 34641, Start Num: 44

Candidate Starts for PSonyx_49:

(Start: 44 @34991 has 126 MA's), (65, 34925), (94, 34688),

Gene: Padfoot_53 Start: 39083, Stop: 39433, Start Num: 37

Candidate Starts for Padfoot_53:

(Start: 37 @39083 has 63 MA's), (Start: 39 @39089 has 28 MA's), (47, 39113), (58, 39143), (89, 39359),

Gene: Padpat_55 Start: 38765, Stop: 39115, Start Num: 37

Candidate Starts for Padpat_55:

(Start: 37 @38765 has 63 MA's), (Start: 39 @38771 has 28 MA's), (47, 38795), (58, 38825), (89, 39041),

Gene: Paola_48 Start: 37963, Stop: 38301, Start Num: 39

Candidate Starts for Paola_48:

(Start: 39 @37963 has 28 MA's), (78, 38125), (86, 38203), (88, 38218), (89, 38227),

Gene: Parada_57 Start: 38831, Stop: 39163, Start Num: 43

Candidate Starts for Parada_57:

(27, 38768), (33, 38795), (Start: 43 @38831 has 14 MA's), (52, 38864), (60, 38885), (67, 38936), (78, 38996),

Gene: Pat3_63 Start: 42153, Stop: 42485, Start Num: 44

Candidate Starts for Pat3_63:

(Start: 44 @42153 has 126 MA's), (64, 42219), (67, 42249), (87, 42396), (94, 42450),

Gene: Peanam_56 Start: 39488, Stop: 39826, Start Num: 40
Candidate Starts for Peanam_56:
(Start: 40 @39488 has 33 MA's), (54, 39530), (58, 39536), (68, 39602), (96, 39800),

Gene: Peel_53 Start: 38888, Stop: 39238, Start Num: 37
Candidate Starts for Peel_53:
(Start: 37 @38888 has 63 MA's), (Start: 39 @38894 has 28 MA's), (47, 38918), (58, 38948), (89, 39164),

Gene: Petra64142_69 Start: 44855, Stop: 45187, Start Num: 44
Candidate Starts for Petra64142_69:
(13, 44585), (14, 44603), (19, 44711), (Start: 44 @44855 has 126 MA's), (64, 44921), (67, 44951), (87, 45098), (94, 45152),

Gene: Pharb_52 Start: 38109, Stop: 38447, Start Num: 44
Candidate Starts for Pharb_52:
(Start: 44 @38109 has 126 MA's), (50, 38133), (61, 38154), (63, 38169), (70, 38229), (76, 38268), (96, 38424), (97, 38427),

Gene: PhatBacter_69 Start: 44405, Stop: 44737, Start Num: 44
Candidate Starts for PhatBacter_69:
(13, 44135), (14, 44153), (19, 44261), (Start: 44 @44405 has 126 MA's), (64, 44471), (67, 44501), (87, 44648), (94, 44702),

Gene: Phaux_67 Start: 44403, Stop: 44735, Start Num: 44
Candidate Starts for Phaux_67:
(13, 44133), (14, 44151), (19, 44259), (Start: 44 @44403 has 126 MA's), (64, 44469), (67, 44499), (87, 44646), (94, 44700),

Gene: PhelpsODU_55 Start: 38455, Stop: 38796, Start Num: 40
Candidate Starts for PhelpsODU_55:
(Start: 40 @38455 has 33 MA's), (61, 38512), (96, 38773),

Gene: PhinkBoden_11 Start: 2875, Stop: 3213, Start Num: 46
Candidate Starts for PhinkBoden_11:
(Start: 46 @2875 has 15 MA's), (64, 2944), (92, 3163), (98, 3193),

Gene: Phrank_57 Start: 38516, Stop: 38863, Start Num: 40
Candidate Starts for Phrank_57:
(Start: 40 @38516 has 33 MA's), (61, 38573), (96, 38834), (98, 38843),

Gene: Piatt_53 Start: 39083, Stop: 39433, Start Num: 37
Candidate Starts for Piatt_53:
(Start: 37 @39083 has 63 MA's), (Start: 39 @39089 has 28 MA's), (47, 39113), (58, 39143), (89, 39359),

Gene: Pimento_60 Start: 38727, Stop: 39062, Start Num: 42
Candidate Starts for Pimento_60:
(27, 38667), (33, 38694), (Start: 42 @38727 has 1 MA's), (Start: 43 @38730 has 14 MA's), (52, 38763), (60, 38784), (67, 38835), (78, 38895),

Gene: Pokerus_52 Start: 38818, Stop: 39168, Start Num: 37
Candidate Starts for Pokerus_52:

(Start: 37 @38818 has 63 MA's), (Start: 39 @38824 has 28 MA's), (47, 38848), (58, 38878), (89, 39094),

Gene: Porcelain_105 Start: 59693, Stop: 60028, Start Num: 40

Candidate Starts for Porcelain_105:

(Start: 40 @59693 has 33 MA's), (64, 59762), (78, 59855), (94, 59993),

Gene: Prithvi_54 Start: 38974, Stop: 39324, Start Num: 37

Candidate Starts for Prithvi_54:

(Start: 37 @38974 has 63 MA's), (Start: 39 @38980 has 28 MA's), (47, 39004), (58, 39034), (89, 39250),

Gene: Psycho_48 Start: 37150, Stop: 37488, Start Num: 39

Candidate Starts for Psycho_48:

(Start: 39 @37150 has 28 MA's), (58, 37201), (68, 37267), (83, 37351), (86, 37390), (88, 37405),

Gene: Pumpkin_68 Start: 44054, Stop: 44386, Start Num: 44

Candidate Starts for Pumpkin_68:

(Start: 44 @44054 has 126 MA's), (64, 44120), (67, 44150), (87, 44297), (94, 44351),

Gene: Quallification_66 Start: 44038, Stop: 44370, Start Num: 44

Candidate Starts for Quallification_66:

(Start: 44 @44038 has 126 MA's), (64, 44104), (67, 44134), (87, 44281), (94, 44335),

Gene: QuincyRose_52 Start: 39147, Stop: 39497, Start Num: 37

Candidate Starts for QuincyRose_52:

(Start: 37 @39147 has 63 MA's), (Start: 39 @39153 has 28 MA's), (47, 39177), (58, 39207), (63, 39225), (89, 39423),

Gene: Ramen_54 Start: 38773, Stop: 39123, Start Num: 37

Candidate Starts for Ramen_54:

(Start: 37 @38773 has 63 MA's), (Start: 39 @38779 has 28 MA's), (47, 38803), (58, 38833), (89, 39049),

Gene: Rando14_50 Start: 36149, Stop: 36487, Start Num: 39

Candidate Starts for Rando14_50:

(Start: 39 @36149 has 28 MA's), (51, 36185), (53, 36191), (78, 36311), (86, 36389), (89, 36413),

Gene: Rapunzel97_54 Start: 38769, Stop: 39119, Start Num: 37

Candidate Starts for Rapunzel97_54:

(Start: 37 @38769 has 63 MA's), (Start: 39 @38775 has 28 MA's), (47, 38799), (58, 38829), (89, 39045),

Gene: Redno2_103 Start: 60400, Stop: 60735, Start Num: 40

Candidate Starts for Redno2_103:

(Start: 40 @60400 has 33 MA's), (64, 60469), (78, 60562), (94, 60700),

Gene: Rimmer_66 Start: 43746, Stop: 44078, Start Num: 44

Candidate Starts for Rimmer_66:

(Start: 44 @43746 has 126 MA's), (64, 43812), (67, 43842), (87, 43989), (94, 44043),

Gene: RiverMonster_65 Start: 43574, Stop: 43906, Start Num: 44

Candidate Starts for RiverMonster_65:

(13, 43304), (14, 43322), (19, 43430), (Start: 44 @43574 has 126 MA's), (64, 43640), (67, 43670), (87, 43817), (94, 43871),

Gene: Rose5_54 Start: 40612, Stop: 40947, Start Num: 44

Candidate Starts for Rose5_54:

(Start: 44 @40612 has 126 MA's), (68, 40723), (90, 40879), (94, 40909),

Gene: Rosmarinus_53 Start: 38874, Stop: 39224, Start Num: 37

Candidate Starts for Rosmarinus_53:

(Start: 37 @38874 has 63 MA's), (Start: 39 @38880 has 28 MA's), (47, 38904), (58, 38934), (89, 39150),

Gene: Rumpelstiltskin_56 Start: 41872, Stop: 42207, Start Num: 44

Candidate Starts for Rumpelstiltskin_56:

(Start: 44 @41872 has 126 MA's), (50, 41896), (58, 41911), (68, 41980), (82, 42055), (84, 42082), (94, 42169), (96, 42181), (97, 42184),

Gene: RunningBrook_93 Start: 52270, Stop: 51923, Start Num: 35

Candidate Starts for RunningBrook_93:

(22, 52348), (Start: 35 @52270 has 9 MA's), (48, 52234), (52, 52222), (67, 52159), (68, 52144), (71, 52138), (85, 52042),

Gene: Samty_56 Start: 42647, Stop: 42988, Start Num: 44

Candidate Starts for Samty_56:

(Start: 44 @42647 has 126 MA's), (82, 42833), (94, 42947), (96, 42959),

Gene: SamuelLPlaqson_54 Start: 39665, Stop: 40015, Start Num: 38

Candidate Starts for SamuelLPlaqson_54:

(Start: 38 @39665 has 16 MA's), (Start: 39 @39671 has 28 MA's), (47, 39695), (58, 39725), (89, 39941),

Gene: Sassay_60 Start: 41671, Stop: 42003, Start Num: 44

Candidate Starts for Sassay_60:

(Start: 44 @41671 has 126 MA's), (64, 41737), (67, 41767), (87, 41914), (94, 41968),

Gene: Scarlett_57 Start: 39316, Stop: 39663, Start Num: 39

Candidate Starts for Scarlett_57:

(Start: 39 @39316 has 28 MA's), (48, 39346), (67, 39427), (86, 39565), (91, 39610), (96, 39637),

Gene: Shadow1_59 Start: 39359, Stop: 39703, Start Num: 40

Candidate Starts for Shadow1_59:

(4, 38927), (6, 38954), (8, 39011), (15, 39212), (Start: 40 @39359 has 33 MA's), (61, 39416), (96, 39677), (98, 39686),

Gene: Shaobing_56 Start: 39506, Stop: 39844, Start Num: 40

Candidate Starts for Shaobing_56:

(Start: 40 @39506 has 33 MA's), (54, 39548), (58, 39554), (68, 39620), (96, 39818),

Gene: ShereKhan_64 Start: 43962, Stop: 44294, Start Num: 44

Candidate Starts for ShereKhan_64:

(Start: 44 @43962 has 126 MA's), (64, 44028), (67, 44058), (87, 44205), (94, 44259),

Gene: ShiaSurprise_54 Start: 39083, Stop: 39433, Start Num: 37

Candidate Starts for ShiaSurprise_54:

(Start: 37 @39083 has 63 MA's), (Start: 39 @39089 has 28 MA's), (47, 39113), (58, 39143), (89, 39359),

Gene: SirDuracell_64 Start: 42245, Stop: 42577, Start Num: 44

Candidate Starts for SirDuracell_64:

(Start: 44 @42245 has 126 MA's), (64, 42311), (67, 42341), (87, 42488), (94, 42542),

Gene: Slimphazie_53 Start: 38769, Stop: 39119, Start Num: 37

Candidate Starts for Slimphazie_53:

(Start: 37 @38769 has 63 MA's), (Start: 39 @38775 has 28 MA's), (47, 38799), (58, 38829), (89, 39045),

Gene: Smoothie_10 Start: 2375, Stop: 2713, Start Num: 46

Candidate Starts for Smoothie_10:

(Start: 46 @2375 has 15 MA's), (64, 2444), (92, 2663),

Gene: Snenia_55 Start: 42640, Stop: 42981, Start Num: 44

Candidate Starts for Snenia_55:

(Start: 44 @42640 has 126 MA's), (59, 42682), (82, 42826), (94, 42940),

Gene: SoSeph_48 Start: 38138, Stop: 38476, Start Num: 39

Candidate Starts for SoSeph_48:

(2, 37655), (7, 37781), (Start: 39 @38138 has 28 MA's), (78, 38300), (86, 38378), (88, 38393), (89, 38402), (93, 38432),

Gene: Soondubu_27 Start: 24626, Stop: 24961, Start Num: 49

Candidate Starts for Soondubu_27:

(17, 24452), (49, 24626), (94, 24920),

Gene: Sotrice96_66 Start: 43652, Stop: 43984, Start Num: 44

Candidate Starts for Sotrice96_66:

(Start: 44 @43652 has 126 MA's), (64, 43718), (67, 43748), (87, 43895), (94, 43949),

Gene: Spock_53 Start: 38887, Stop: 39237, Start Num: 37

Candidate Starts for Spock_53:

(Start: 37 @38887 has 63 MA's), (Start: 39 @38893 has 28 MA's), (47, 38917), (58, 38947), (89, 39163),

Gene: Squint_105 Start: 59815, Stop: 60150, Start Num: 40

Candidate Starts for Squint_105:

(Start: 40 @59815 has 33 MA's), (64, 59884), (78, 59977), (94, 60115),

Gene: Stark_66 Start: 43460, Stop: 43792, Start Num: 44

Candidate Starts for Stark_66:

(Start: 44 @43460 has 126 MA's), (64, 43526), (67, 43556), (87, 43703), (94, 43757),

Gene: StevieWelch_91 Start: 51363, Stop: 51016, Start Num: 35

Candidate Starts for StevieWelch_91:

(Start: 35 @51363 has 9 MA's), (52, 51315), (67, 51252), (68, 51237), (71, 51231), (85, 51135),

Gene: Stinson_54 Start: 39274, Stop: 39624, Start Num: 38

Candidate Starts for Stinson_54:

(Start: 38 @39274 has 16 MA's), (Start: 39 @39280 has 28 MA's), (47, 39304), (58, 39334), (89, 39550), (95, 39595),

Gene: StolenFromERC_68 Start: 43689, Stop: 44021, Start Num: 44

Candidate Starts for StolenFromERC_68:

(Start: 44 @43689 has 126 MA's), (64, 43755), (67, 43785), (87, 43932), (94, 43986),

Gene: Sulley_53 Start: 38933, Stop: 39283, Start Num: 38

Candidate Starts for Sulley_53:

(Start: 38 @38933 has 16 MA's), (Start: 39 @38939 has 28 MA's), (47, 38963), (58, 38993), (89, 39209),

Gene: Sunflower1121_60 Start: 39505, Stop: 39849, Start Num: 40

Candidate Starts for Sunflower1121_60:

(4, 39073), (6, 39100), (8, 39157), (15, 39358), (Start: 40 @39505 has 33 MA's), (61, 39562), (96, 39823), (98, 39832),

Gene: Superphikiman_104 Start: 58906, Stop: 59241, Start Num: 40

Candidate Starts for Superphikiman_104:

(Start: 40 @58906 has 33 MA's), (64, 58975), (78, 59068), (94, 59206),

Gene: Survivors_57 Start: 41802, Stop: 42128, Start Num: 44

Candidate Starts for Survivors_57:

(9, 41481), (11, 41493), (Start: 44 @41802 has 126 MA's), (51, 41829), (61, 41853), (64, 41871), (72, 41931), (82, 41988), (96, 42111), (98, 42120),

Gene: Syra333_59 Start: 39526, Stop: 39870, Start Num: 40

Candidate Starts for Syra333_59:

(Start: 40 @39526 has 33 MA's), (96, 39844), (98, 39853),

Gene: TClif_57 Start: 39191, Stop: 39532, Start Num: 40

Candidate Starts for TClif_57:

(Start: 40 @39191 has 33 MA's), (50, 39224), (61, 39248), (94, 39497), (96, 39509),

Gene: Tachez_53 Start: 38731, Stop: 39081, Start Num: 37

Candidate Starts for Tachez_53:

(Start: 37 @38731 has 63 MA's), (Start: 39 @38737 has 28 MA's), (47, 38761), (58, 38791), (89, 39007),

Gene: TaiwanKao_55 Start: 39036, Stop: 39386, Start Num: 37

Candidate Starts for TaiwanKao_55:

(Start: 37 @39036 has 63 MA's), (Start: 39 @39042 has 28 MA's), (47, 39066), (83, 39246), (89, 39312),

Gene: Terminus_68 Start: 44426, Stop: 44758, Start Num: 44

Candidate Starts for Terminus_68:

(13, 44156), (14, 44174), (19, 44282), (Start: 44 @44426 has 126 MA's), (64, 44492), (67, 44522), (87, 44669), (94, 44723),

Gene: Theia_42 Start: 34792, Stop: 34463, Start Num: 46

Candidate Starts for Theia_42:

(Start: 46 @34792 has 15 MA's), (64, 34726), (72, 34672), (76, 34645), (80, 34621), (81, 34615), (98, 34480),

Gene: Thyatira_51 Start: 40300, Stop: 40638, Start Num: 39

Candidate Starts for Thyatira_51:

(Start: 39 @40300 has 28 MA's), (78, 40462), (86, 40540), (88, 40555), (89, 40564), (93, 40594),

Gene: Tierra_57 Start: 39327, Stop: 39674, Start Num: 40

Candidate Starts for Tierra_57:

(Start: 40 @39327 has 33 MA's), (61, 39384), (96, 39645), (98, 39654),

Gene: TiniBug_54 Start: 39661, Stop: 40011, Start Num: 38

Candidate Starts for TiniBug_54:

(Start: 38 @39661 has 16 MA's), (Start: 39 @39667 has 28 MA's), (47, 39691), (58, 39721), (89, 39937),

Gene: Tiri_54 Start: 39061, Stop: 39411, Start Num: 37

Candidate Starts for Tiri_54:

(Start: 37 @39061 has 63 MA's), (Start: 39 @39067 has 28 MA's), (47, 39091), (58, 39121), (89, 39337),

Gene: Tomaszewski_60 Start: 42805, Stop: 43137, Start Num: 44

Candidate Starts for Tomaszewski_60:

(Start: 44 @42805 has 126 MA's), (64, 42871), (67, 42901), (87, 43048), (94, 43102),

Gene: Toniann_10 Start: 2375, Stop: 2713, Start Num: 46

Candidate Starts for Toniann_10:

(Start: 46 @2375 has 15 MA's), (64, 2444), (92, 2663),

Gene: Topper_53 Start: 38886, Stop: 39236, Start Num: 37

Candidate Starts for Topper_53:

(Start: 37 @38886 has 63 MA's), (Start: 39 @38892 has 28 MA's), (47, 38916), (58, 38946), (89, 39162),

Gene: Tourach_56 Start: 42528, Stop: 42863, Start Num: 44

Candidate Starts for Tourach_56:

(Start: 44 @42528 has 126 MA's), (50, 42552), (68, 42636), (82, 42711), (84, 42738), (90, 42795), (94, 42825), (96, 42837), (97, 42840),

Gene: Trax_72 Start: 45288, Stop: 45629, Start Num: 44

Candidate Starts for Trax_72:

(Start: 44 @45288 has 126 MA's), (50, 45309), (52, 45315), (64, 45357), (66, 45384), (80, 45465), (82, 45474), (86, 45525), (99, 45615),

Gene: TreyKay_54 Start: 38974, Stop: 39324, Start Num: 37

Candidate Starts for TreyKay_54:

(Start: 37 @38974 has 63 MA's), (Start: 39 @38980 has 28 MA's), (47, 39004), (58, 39034), (89, 39250),

Gene: TribbleTrouble_52 Start: 38960, Stop: 39298, Start Num: 44

Candidate Starts for TribbleTrouble_52:

(Start: 44 @38960 has 126 MA's), (50, 38984), (53, 38993), (63, 39020), (70, 39080), (94, 39263), (96, 39275), (97, 39278),

Gene: TruffulaTree_53 Start: 38765, Stop: 39115, Start Num: 37

Candidate Starts for TruffulaTree_53:

(Start: 37 @38765 has 63 MA's), (Start: 39 @38771 has 28 MA's), (47, 38795), (58, 38825), (89, 39041),

Gene: Twitch_53 Start: 38888, Stop: 39238, Start Num: 37

Candidate Starts for Twitch_53:

(Start: 37 @38888 has 63 MA's), (Start: 39 @38894 has 28 MA's), (47, 38918), (58, 38948), (89, 39164),

Gene: Tyson_54 Start: 40614, Stop: 40952, Start Num: 44

Candidate Starts for Tyson_54:

(Start: 44 @40614 has 126 MA's), (68, 40725), (90, 40884), (94, 40914),

Gene: Unicorn_55 Start: 38455, Stop: 38796, Start Num: 40

Candidate Starts for Unicorn_55:

(Start: 40 @38455 has 33 MA's), (61, 38512), (96, 38773),

Gene: Urkel_54 Start: 39665, Stop: 40015, Start Num: 38

Candidate Starts for Urkel_54:

(Start: 38 @39665 has 16 MA's), (Start: 39 @39671 has 28 MA's), (47, 39695), (58, 39725), (89, 39941),

Gene: Validus_58 Start: 39687, Stop: 40025, Start Num: 40

Candidate Starts for Validus_58:

(Start: 40 @39687 has 33 MA's), (50, 39717), (54, 39729), (58, 39735), (68, 39801), (83, 39885), (96, 39999), (97, 40002),

Gene: Veliki_54 Start: 38751, Stop: 39101, Start Num: 37

Candidate Starts for Veliki_54:

(Start: 37 @38751 has 63 MA's), (Start: 39 @38757 has 28 MA's), (47, 38781), (58, 38811), (89, 39027),

Gene: Vetric_57 Start: 42483, Stop: 42818, Start Num: 44

Candidate Starts for Vetric_57:

(Start: 44 @42483 has 126 MA's), (50, 42507), (58, 42522), (68, 42591), (82, 42666), (84, 42693), (94, 42780), (96, 42792), (97, 42795),

Gene: Waterfoul_49 Start: 38200, Stop: 38538, Start Num: 39

Candidate Starts for Waterfoul_49:

(2, 37717), (7, 37843), (Start: 39 @38200 has 28 MA's), (78, 38362), (86, 38440), (88, 38455), (89, 38464), (93, 38494),

Gene: Welcome_92 Start: 51722, Stop: 51375, Start Num: 35

Candidate Starts for Welcome_92:

(22, 51800), (Start: 35 @51722 has 9 MA's), (48, 51686), (52, 51674), (67, 51611), (68, 51596), (71, 51590), (80, 51545), (81, 51539),

Gene: WheatThin_56 Start: 38819, Stop: 39151, Start Num: 43

Candidate Starts for WheatThin_56:

(27, 38756), (33, 38783), (Start: 43 @38819 has 14 MA's), (52, 38852), (60, 38873), (67, 38924), (78, 38984),

Gene: Whirlwind_56 Start: 42457, Stop: 42798, Start Num: 44

Candidate Starts for Whirlwind_56:

(Start: 44 @42457 has 126 MA's), (59, 42499), (82, 42643), (94, 42757), (96, 42769),

Gene: Wigglewiggles_57 Start: 42503, Stop: 42838, Start Num: 44

Candidate Starts for Wigglewiggles_57:

(Start: 44 @42503 has 126 MA's), (50, 42527), (58, 42542), (68, 42611), (82, 42686), (84, 42713), (94, 42800), (96, 42812), (97, 42815),

Gene: Wilder_58 Start: 42449, Stop: 42784, Start Num: 44

Candidate Starts for Wilder_58:

(Start: 44 @42449 has 126 MA's), (50, 42473), (58, 42488), (68, 42557), (82, 42632), (84, 42659), (94, 42746), (96, 42758), (97, 42761),

Gene: Willez_60 Start: 41671, Stop: 42003, Start Num: 44

Candidate Starts for Willez_60:

(Start: 44 @41671 has 126 MA's), (64, 41737), (67, 41767), (87, 41914), (94, 41968),

Gene: WilliamBoone_9 Start: 2227, Stop: 2568, Start Num: 44

Candidate Starts for WilliamBoone_9:

(Start: 44 @2227 has 126 MA's), (64, 2299), (92, 2518),

Gene: Winky_57 Start: 42443, Stop: 42778, Start Num: 44

Candidate Starts for Winky_57:

(Start: 44 @42443 has 126 MA's), (50, 42467), (58, 42482), (68, 42551), (82, 42626), (84, 42653), (94, 42740), (96, 42752), (97, 42755),

Gene: Wyatt2_55 Start: 40612, Stop: 40947, Start Num: 44

Candidate Starts for Wyatt2_55:

(Start: 44 @40612 has 126 MA's), (68, 40723), (90, 40879), (94, 40909),

Gene: Ximenita_60 Start: 39523, Stop: 39867, Start Num: 40

Candidate Starts for Ximenita_60:

(Start: 40 @39523 has 33 MA's), (61, 39580), (96, 39841), (98, 39850),

Gene: YassJohnny_62 Start: 42844, Stop: 43176, Start Num: 44

Candidate Starts for YassJohnny_62:

(13, 42574), (14, 42592), (19, 42700), (Start: 44 @42844 has 126 MA's), (64, 42910), (67, 42940), (87, 43087), (94, 43141),

Gene: Youngblood_68 Start: 44356, Stop: 44688, Start Num: 44

Candidate Starts for Youngblood_68:

(13, 44086), (14, 44104), (19, 44212), (Start: 44 @44356 has 126 MA's), (64, 44422), (67, 44452), (87, 44599), (94, 44653),

Gene: YoureAdopted_52 Start: 38889, Stop: 39239, Start Num: 37

Candidate Starts for YoureAdopted_52:

(Start: 37 @38889 has 63 MA's), (Start: 39 @38895 has 28 MA's), (47, 38919), (58, 38949), (89, 39165),

Gene: Yuma_89 Start: 51231, Stop: 50884, Start Num: 35

Candidate Starts for Yuma_89:

(22, 51309), (Start: 35 @51231 has 9 MA's), (48, 51195), (52, 51183), (67, 51120), (68, 51105), (71, 51099), (85, 51003),

Gene: Yuna_59 Start: 40160, Stop: 40498, Start Num: 39
Candidate Starts for Yuna_59:
(Start: 39 @40160 has 28 MA's), (50, 40196), (67, 40259), (96, 40472),

Gene: Yunkel11_55 Start: 38357, Stop: 38704, Start Num: 37
Candidate Starts for Yunkel11_55:
(Start: 37 @38357 has 63 MA's), (Start: 39 @38363 has 28 MA's), (47, 38387), (58, 38417), (85, 38597), (89, 38633),

Gene: Zabiza_49 Start: 35076, Stop: 35426, Start Num: 37
Candidate Starts for Zabiza_49:
(Start: 37 @35076 has 63 MA's), (Start: 39 @35082 has 28 MA's), (47, 35106), (58, 35136), (89, 35352),

Gene: Zakai_58 Start: 42769, Stop: 43104, Start Num: 44
Candidate Starts for Zakai_58:
(Start: 44 @42769 has 126 MA's), (50, 42793), (58, 42808), (68, 42877), (82, 42952), (84, 42979), (94, 43066), (96, 43078), (97, 43081),

Gene: Zareef_58 Start: 41900, Stop: 42238, Start Num: 44
Candidate Starts for Zareef_58:
(9, 41579), (11, 41591), (Start: 44 @41900 has 126 MA's), (51, 41927), (61, 41951), (64, 41969), (82, 42089), (85, 42128), (98, 42221),

Gene: Zavala_55 Start: 39050, Stop: 39400, Start Num: 37
Candidate Starts for Zavala_55:
(Start: 37 @39050 has 63 MA's), (Start: 39 @39056 has 28 MA's), (47, 39080), (58, 39110), (89, 39326),

Gene: ZhongYanYuan_55 Start: 42338, Stop: 42673, Start Num: 44
Candidate Starts for ZhongYanYuan_55:
(Start: 44 @42338 has 126 MA's), (50, 42362), (58, 42377), (68, 42446), (82, 42521), (84, 42548), (94, 42635), (96, 42647), (97, 42650),

Gene: Zooman_297 Start: 168299, Stop: 168673, Start Num: 32
Candidate Starts for Zooman_297:
(Start: 32 @168299 has 2 MA's), (77, 168473), (80, 168494), (82, 168503), (85, 168545), (93, 168611),