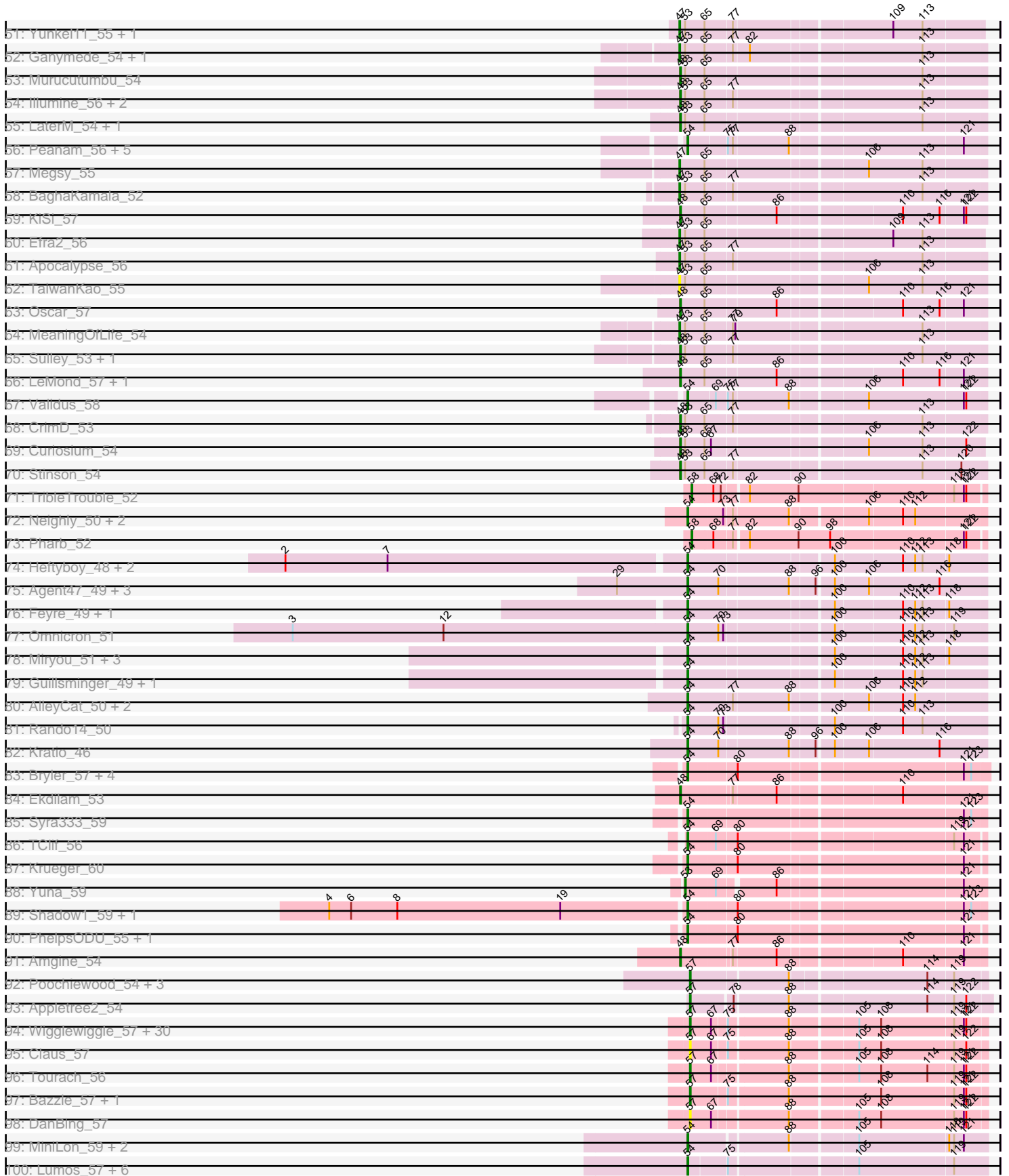
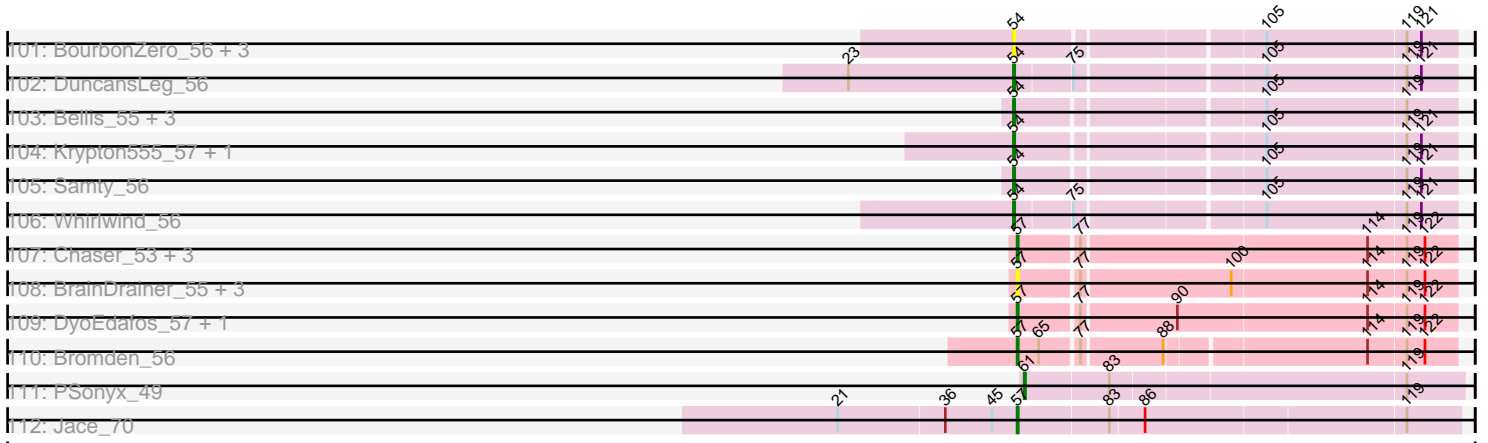


Pham 199902



Pham 199902



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 199902 Report

This analysis was run 01/18/25 on database version 583.

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 199902 has 401 members, 54 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 : Tophat_98, HumptyDumpty_97, RosiePosie_97, Chubster_97, Scavito_98, EdgarPoe_96, Conboy_95, PrincessTrina_98, JayCookie_97, Chocolat_97, JaNo_96, MoyaNatalis_96, Kabreeze_97, Mordred_97, Chipper1996_980
- Track 6 : ArV1_084
- Track 7 : Linus_97
- Track 8 : Lymara_94
- Track 9 : DrYang_93
- Track 10 : KBurrousTX_95
- Track 11 : Colucci_100
- Track 12 : Exile_27, Soondubu_27
- Track 13 : Norvs_10, Smoothie_10, Lozinak_10, Toniann_10, Engineer_10, Aphelion_10, Cucurbita_9
- Track 14 : Miskis_12
- Track 15 : PhinkBoden_11, Geeche_9
- Track 16 : Dusty_9, ClubL_10, Culver_9, Abscondus_10, Bachita_11
- Track 17 : WilliamBoone_9
- Track 18 : Survivors_57
- Track 19 : MaVan_56, Zareef_58, Azira_56
- Track 20 : Fribs8_56, Nibbles_55
- Track 21 : Catfish_55
- Track 22 : Lilbeanie_82
- Track 23 : Jumbo_66
- Track 24 : Hamood_58, Chop_58, DelRio_58, GrandSlam_58, NancyRae_56, Bock_58, Ayotoya_58
- Track 25 : WheatThin_56, Parada_57, BetterKatz_57, Nadeem_57, Brylie_57, Mulch_57
- Track 26 : Pimento_59
- Track 27 : Francois_57
- Track 28 : Trax_72

- Track 29 : Neville_70
- Track 30 : ModicumRichard_85
- Track 31 : Cafasso_85, ObLaDi_85, Aleemily_84, Morgana_92
- Track 32 : Rimmer_66, Qualification_66, SirDuracell_64, GoldenSpark_69, Icee_66, Kanye_62, FairyPath_65, Harella_65, Gemini_70, Stark_66, Bask21_65, NelitzaMV_63, Marshmallow_63, Pat3_63, Buck_66, Glexan_64, Cookies_62, AmericanBeauty_69, ChotaBhai_65, Sassay_60, Amao_65, Tomaszewski_60, Sotrice96_66, Balomoji_65, DoctorDiddles_64, JeTaime_65, Argent26_69, ShereKhan_64, StolenFromERC_68, Hoonter_68, Cactus_68, 244_66, GooberAzure_68, Gage_67, Flypotenuse_61, HanKaySha_65, Daikon_67, Kimchi_69, Holt_70, Myrale_65, Willez_60
- Track 33 : Youngblood_68, MPhalcon_66, PhatBacter_69, FireRed_69, YassJohnny_62, Phaux_67, Bench_68, Lilizi_66, Murica_68, Policronamos_69, Mosby_61, Bruin_62, Nimrod_66, HufflyPuff_68, Petra64142_69, MISSy_66, Czystczon1_66, RiverMonster_65, Elph10_65, Maxxinista_67, Misfit_66, Nala_67, Lilac_67, Hopey_65, Terminus_68, BugsBunny_65, Palpatine_67
- Track 34 : Command613_67, BaboJay_62, OrionPax_64, Pumpkin_68, Goldilocks_68
- Track 35 : Issa7_89, Musetta_89, DustyDino_94, RunningBrook_92, Erenyeager_90, Yuma_89, Necrophoxinus_92, Lyell_90
- Track 36 : Fork_86, ASegato_88, Welcome_92, HollowPurple_90
- Track 37 : StevieWelch_91
- Track 38 : Cen1621_32
- Track 39 : Hirko_75
- Track 40 : TMaxx_65
- Track 41 : Audell_61
- Track 42 : AnnabelLee_60
- Track 43 : Zooman_297
- Track 44 : Big4_312
- Track 45 : 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 46 : Peel_53, CREW_53, LindNT_52, Jeckyll_53, Bern_54, Prithvi_54, Atiba_54, Capricorn_53, Veliki_54, Beezoo_55, Durfee_53, Tachez_53, Mynx_54, Twitch_53, Deby_53, Piatt_53, Pokerus_52, Ramen_54, Jarvi_53, AlishaPH_53, Zavala_55, Inky_53, Lunahalos_53, TreyKay_54, CallaLilly_55, Adephegia_53, Padfoot_53, Llorens_53, Jayhawk_54, Rapunzel97_54, CaseJules_55, Geraldini_56, Boiiii_53, BGlluviae_53, Hyperbowlee_53, ActinUp_53, BEEST_53, Zabiza_48, Padpat_55, Rosmarinus_53, Slimphazie_53, Adonis_53, YoureAdopted_52, Spock_53, Anaya_55, Emerson_54, BarrelRoll_53, TruffulaTree_53, Topper_53, Dalmuri_53, Tiri_54, Asayake_53, Joy99_53, JAWS_53, CheetoDust_52, Blizzard_53, Belladonna_53, Homura_53, HedwigODU_53, ShiaSurprise_54
- Track 47 : Chris_55
- Track 48 : Nibb_55
- Track 49 : MarkPhew_56
- Track 50 : SamuelLPlaqsom_54, MacKat_48, Clipper_57, TiniBug_54, DrHayes_54, Bella96_54, Urkel_54
- Track 51 : Yunkel11_55, Guanica15_55
- Track 52 : Ganymede_54, QuincyRose_52
- Track 53 : Murucutumbu_54
- Track 54 : Illumine_56, Dole_56, Devera_58
- Track 55 : LaterM_54, Ageofdapage_55
- Track 56 : Peanam_56, Dartin_56, Shaobing_56, Richo_56, McMater_56, Niklas_56

- Track 57 : Megsy_55
- Track 58 : BaghaKamala_52
- Track 59 : KiSi_57
- Track 60 : Efra2_56
- Track 61 : Apocalypse_56
- Track 62 : TaiwanKao_55
- Track 63 : Oscar_57
- Track 64 : MeaningOfLife_54
- Track 65 : Sulley_53, Angelica_53
- Track 66 : LeMond_57, Scarlett_57
- Track 67 : Validus_58
- Track 68 : CrimD_53
- Track 69 : Curiosium_54
- Track 70 : Stinson_54
- Track 71 : TribbleTrouble_52
- Track 72 : Neighly_50, Edugator_47, Larva_49
- Track 73 : Pharb_52
- Track 74 : Heftyboy_48, Waterfoul_49, SoSeph_48
- Track 75 : Agent47_49, ViviJ_47, InvictusManeo_47, Collard_47
- Track 76 : Feyre_49, Thyatira_51
- Track 77 : Omnicron_51
- Track 78 : Miryou_51, OkiRoe_48, Gengar_48, Leston_48
- Track 79 : Guillsminger_49, Paola_48
- Track 80 : AlleyCat_50, Psycho_48, Dadosky_50
- Track 81 : Rando14_50
- Track 82 : Kratio_46
- Track 83 : Bryler_57, Tierra_57, Cain_57, Phrank_57, Ximenita_60
- Track 84 : Ekdilam_53
- Track 85 : Syra333_59
- Track 86 : TClif_56
- Track 87 : Krueger_60
- Track 88 : Yuna_59
- Track 89 : Shadow1_59, Sunflower1121_60
- Track 90 : PhelpsODU_55, Unicorn_55
- Track 91 : Amgine_54
- Track 92 : Poochiewood_54, Wyatt2_55, Rose5_54, Tyson_54
- Track 93 : Appletree2_54
- Track 94 : Wigglewiggles_57, Zakai_58, Vetric_57, Gabriela_54, ZhongYanYuan_55, Winky_57, Breezona_57, BigCheese_57, Faith1_57, DrSeegs_57, GuuelaD_56, Hafay_58, Crossroads_57, Soap141_57, Nicholasp3_57, Itos_56, Finemlucis_57, Loadrie_56, MkaliMitinis3_58, Lewan_58, Sarshaun_57, Baoshan_55, DHan_58, BobsGarage_57, Netyap_58, Gardann_58, Wilder_58, Miley16_57, LilDestine_57, Kahlid_57, Rumpelstiltskin_56
- Track 95 : Claus_57
- Track 96 : Tourach_56
- Track 97 : Bazzle_57, Archie_57
- Track 98 : DanBing_57
- Track 99 : MiniLon_59, MiniMac_59, Lolly9_55
- Track 100 : Lumos_57, MsGreen_56, Jobypre_56, Jubie_55, Clautastrophe_55, Snenia_55, TriFive_56
- Track 101 : BourbonZero_56, KirDoubleO7_54, LiyuLake_55, Ellson_55
- Track 102 : DuncansLeg_56
- Track 103 : Bellis_55, Nicholas_55, Moostard_55, Kingsolomon_55

- Track 104 : Krypton555_57, Finnry_56
- Track 105 : Samty_56
- Track 106 : Whirlwind_56
- Track 107 : Chaser_53, Quby_54, Douge_55, FarmResident_56
- Track 108 : BrainDrainer_55, Douzhi_55, Sheng711_55, PYPDinur_53
- Track 109 : DyoEdafos_57, Kropertea_53
- Track 110 : Bromden_56
- Track 111 : PSonyx_49
- Track 112 : 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 54, it was called in 121 of the 347 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 244_66, Agent47_49, AlleyCat_50, Amao_65, AmericanBeauty_69, Argent26_69, BaboJay_62, Balomoji_65, Bask21_65, Bellis_55, Bench_68, BourbonZero_56, Bruin_62, Bryler_57, Buck_66, BugsBunny_65, Cactus_68, Cain_57, ChotaBhai_65, Clautastrophe_55, Collard_47, Command613_67, Cookies_62, Czyszczonek_66, Dadosky_50, Daikon_67, Dartin_56, DoctorDiddles_64, DuncansLeg_56, Edugator_47, Ellson_55, Elph10_65, FairyPath_65, Feyre_49, Finnry_56, FireRed_69, Flypotenuse_61, Gage_67, Gemini_70, Gengar_48, Glexan_64, GoldenSpark_69, Goldilocks_68, GooberAzure_68, Guillsminger_49, HanKaySha_65, Harella_65, Heftyboy_48, Holt_70, Hoonter_68, Hopey_65, HufflyPuff_68, Icee_66, InvictusManeo_47, JeTaime_65, Jobypre_56, Jubie_55, Kanye_62, Kimchi_69, Kingsolomon_55, KirDoubleO7_54, Kratio_46, Krueger_60, Krypton555_57, Larva_49, Leston_48, Lilac_67, Lilizi_66, LiyuLake_55, Lolly9_55, Lumos_57, MISSy_66, MPhalcon_66, Marshmallow_63, Maxxinista_67, McMater_56, MiniLon_59, MiniMac_59, Miryou_51, Misfit_66, Moostard_55, Mosby_61, MsGreen_56, Murica_68, Myrale_65, Nala_67, Neighly_50, NelitzaMV_63, Nergal_50, Nicholas_55, Niklas_56, Nimrod_66, OkiRoe_48, Omnicron_51, OrionPax_64, Palpatine_67, Paola_48, Pat3_63, Peanam_56, Petra64142_69, PhatBacter_69, Phaux_67, PhelpsODU_55, Phrank_57, Policronamos_69, Psycho_48, Pumpkin_68, Quallification_66, Rando14_50, Richo_56, Rimmer_66, RiverMonster_65, Samty_56, Sassay_60, Shadow1_59, Shaobing_56, ShereKhan_64, SirDuracell_64, Snenia_55, SoSeph_48, Sotrice96_66, Stark_66, StolenFromERC_68, Sunflower1121_60, Syra333_59, TClif_56, Terminus_68, Thyatira_51, Tierra_57, Tomaszewski_60, TriFive_56, Unicorn_55, Validus_58, ViviJ_47, Waterfoul_49, Whirlwind_56, Willez_60, Ximenita_60, YassJohnny_62, Youngblood_68,

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

- Audell_61, Nibb_55,

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

- ASegato_88, Abscondus_10, ActinUp_53, Adephagia_53, Adonis_53, Ageofdapage_55, Aleemily_84, AlishaPH_53, Amgine_54, Anaya_55, Angelica_53, AnnabelLee_60, Aphelion_10, Apocalypse_56, Appletree2_54, ArV1_084, Archie_57, Ariel_107, Asayake_53, Atiba_54, Ayotoya_58, Azira_56, BEEST_53, BGlluviae_53,

Bachita_11, BaghaKamala_52, Baoshan_55, BarrelRoll_53, Bazzle_57, Beem_113, Beezoo_55, Bella96_54, Belladonna_53, Bern_54, BetterKatz_57, Big4_312, BigCheese_57, Blizzard_53, BobsGarage_57, Bock_58, Boiii_53, BrainDrainer_55, Breezona_57, Bromden_56, Brylie_57, CREW_53, Cafasso_85, CallaLilly_55, Capricorn_53, CaseJules_55, Catfish_55, Cen1621_32, Chaser_53, CheetoDust_52, Chipper1996_980, Chocolat_97, Chop_58, Chris_55, Chubster_97, Claus_57, Clipper_57, ClubL_10, Colucci_100, Conboy_95, Courthouse_102, CrimD_53, Crossroads_57, Cucurbita_9, Culver_9, Curiosium_54, DHan_58, Dalmuri_53, DanBing_57, Deby_53, DelRio_58, Devera_58, Dole_56, Douge_55, Douzhi_55, DrHayes_54, DrSeegs_57, DrYang_93, Dublin_43, Durfee_53, DustyDino_94, Dusty_9, DyoEdafos_57, EdgarPoe_96, Efra2_56, Ejimix_105, Ekdilam_53, Emerson_54, Engineer_10, Erenyeager_90, Exile_27, Faith1_57, FarmResident_56, Finemlucis_57, Fork_86, Francois_57, Fribs8_56, Gabriela_54, Ganymede_54, Gardann_58, Geeche_9, Geraldini_56, GrandSlam_58, Guanica15_55, GuuelaD_56, Hafay_58, Halley_113, Hamood_58, HedwigODU_53, Hirko_75, HollowPurple_90, Homura_53, HumptyDumpty_97, Hyperbowlee_53, Illumine_56, Inky_53, Issa7_89, Itos_56, JAWS_53, JaNo_96, Jace_70, Jarvi_53, JayCookie_97, Jayhawk_54, Jeckyll_53, Joy99_53, JuicyJay_108, Jumbo_66, KBurrousTX_95, Kabreeze_97, Kahlid_57, KashFlow_104, KiSi_57, Kropertea_53, LaterM_54, LeMond_57, Lewan_58, LilDestine_57, Lilbeanie_82, LindNT_52, Linus_97, Llorens_53, Loadrie_56, Lozinak_10, Lucky2013_104, Lunahalos_53, Lyell_90, Lymara_94, MaVan_56, MacKat_48, MalagasyRose_56, MarkPhew_56, MarysWell_43, MeaningOfLife_54, Megsy_55, MiaZeal_107, Miley16_57, Miskis_12, MkaliMitinis3_58, ModicumRichard_85, Mordred_97, Morgana_92, MoyaNatalis_96, Mulch_57, Murucutumbu_54, Musetta_89, Mynx_54, Nadeem_57, NancyRae_56, Necrophoxinus_92, Netyap_58, Neville_70, Nibbles_55, Nicholasp3_57, Norvs_10, ObLaDi_85, Oscar_57, PSonyx_49, PYPDinur_53, Padfoot_53, Padpat_55, Parada_57, Peel_53, Pharb_52, PhinkBoden_11, Piatt_53, Pimento_59, Pokerus_52, Poochiewood_54, Porcelain_105, PrincessTrina_98, Prithvi_54, Quby_54, QuincyRose_52, Ramen_54, Rapunzel97_54, Redno2_103, Rose5_54, RosiePosie_97, Rosmarinus_53, Rumpelstiltskin_56, RunningBrook_92, SamuelLPlaqson_54, Sarshaun_57, Scarlett_57, Scavito_98, Sheng711_55, ShiaSurprise_54, Slimphazie_53, Smoothie_10, Soap141_57, Soondubu_27, Spock_53, Squint_105, StevieWelch_91, Stinson_54, Sulley_53, Superphikiman_104, Survivors_57, TMaxx_65, Tachez_53, TaiwanKao_55, Theia_42, TiniBug_54, Tiri_54, Toniann_10, Tophat_98, Topper_53, Tourach_56, Trax_72, TreyKay_54, TribbleTrouble_52, TruffulaTree_53, Twitch_53, Tyson_54, Urkel_54, Veliki_54, Vetrix_57, Welcome_92, WheatThin_56, Wigglewiggle_57, Wilder_58, WilliamBoone_9, Winky_57, Wyatt2_55, YoureAdopted_52, Yuma_89, Yuna_59, Yunkel11_55, Zabiza_48, Zakai_58, Zareef_58, Zavala_55, ZhongYanYuan_55, Zooman_297,

Summary by start number:

Start 30:

- Found in 1 of 401 (0.2%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Audell_61 (FR),

Start 31:

- Found in 1 of 401 (0.2%) of genes in pham
- No Manual Annotations of this start.

- Called 100.0% of time when present
- Phage (with cluster) where this start called: AnnabelLee_60 (FR),

Start 32:

- Found in 3 of 401 (0.7%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: TMaxx_65 (FR),

Start 35:

- Found in 1 of 401 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 347
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jumbo_66 (DF3),

Start 40:

- Found in 21 of 401 (5.2%) of genes in pham
- Manual Annotations of this start: 19 of 347
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArV1_084 (AR), Chipper1996_980 (AR), Chocolat_97 (AR), Chubster_97 (AR), Colucci_100 (AR), Conboy_95 (AR), DrYang_93 (AR), EdgarPoe_96 (AR), HumptyDumpty_97 (AR), JaNo_96 (AR), JayCookie_97 (AR), KBurrousTX_95 (AR), Kabreeze_97 (AR), Linus_97 (AR), Lymara_94 (AR), Mordred_97 (AR), MoyaNatalis_96 (AR), PrincessTrina_98 (AR), RosiePosie_97 (AR), Scavito_98 (AR), Tophat_98 (AR),

Start 41:

- Found in 2 of 401 (0.5%) of genes in pham
- Manual Annotations of this start: 2 of 347
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Big4_312 (GD2), Zooman_297 (GD2),

Start 42:

- Found in 1 of 401 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 347
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hirko_75 (FL),

Start 44:

- Found in 1 of 401 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 347
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chris_55 (K1),

Start 46:

- Found in 13 of 401 (3.2%) of genes in pham
- Manual Annotations of this start: 11 of 347
- 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), HollowPurple_90 (ED2), Issa7_89 (ED2), Lyell_90 (ED2), Musetta_89 (ED2), Necrophoxinus_92 (ED2), RunningBrook_92 (ED2), StevieWelch_91 (ED2), Welcome_92 (ED2), Yuma_89 (ED2),

Start 47:

- Found in 70 of 401 (17.5%) of genes in pham
- Manual Annotations of this start: 67 of 347
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ActinUp_53 (K1), Adephagia_53 (K1), Adonis_53 (K1), AlishaPH_53 (K1), Anaya_55 (K1), Apocalypse_56 (K1), Asayake_53 (K1), Atiba_54 (K1), BEEST_53 (K1), BGIlluviae_53 (K1), BaghaKamala_52 (K1), BarrelRoll_53 (K1), Beezoo_55 (K1), Belladonna_53 (K1), Bern_54 (K1), Blizzard_53 (K1), Boiiii_53 (K1), CREW_53 (K1), CallaLilly_55 (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_48 (K1), Zavala_55 (K1),

Start 48:

- Found in 25 of 401 (6.2%) of genes in pham
- Manual Annotations of this start: 23 of 347
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ageofdapage_55 (K1), Amgine_54 (K6), Angelica_53 (K1), Bella96_54 (K1), Clipper_57 (K1), CrimD_53 (K1), Curiosium_54 (K1), Devera_58 (K1), Dole_56 (K1), DrHayes_54 (K1), Ekdilam_53 (K6), Illumine_56 (K1), KiSi_57 (K1), LaterM_54 (K1), LeMond_57 (K1), MacKat_48 (K1), Murucutumbu_54 (K1), Nibb_55 (K1), Oscar_57 (K1), SamuelLPlaqson_54 (K1), Scarlett_57 (K1), Stinson_54 (K1), Sulley_53 (K1), TiniBug_54 (K1), Urkel_54 (K1),

Start 49:

- Found in 1 of 401 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 347
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MalagasyRose_56 (AG),

Start 51:

- Found in 1 of 401 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 347
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Catfish_55 (CU5),

Start 52:

- Found in 31 of 401 (7.7%) of genes in pham
- Manual Annotations of this start: 27 of 347
- Called 96.8% of time when present
- Phage (with cluster) where this start called: Abscondus_10 (CQ1), Aphelion_10 (CQ1), Ayotoya_58 (DI), Bachita_11 (CQ1), BetterKatz_57 (DI), Bock_58 (DI), Brylie_57 (DI), Chop_58 (DI), ClubL_10 (CQ1), Cucurbita_9 (CQ1), Culver_9 (CQ1),

DelRio_58 (DI), Dusty_9 (CQ1), Engineer_10 (CQ1), Francois_57 (DI), Geeche_9 (CQ1), GrandSlam_58 (DI), Hamood_58 (DI), Lozinak_10 (CQ1), Mulch_57 (DI), Nadeem_57 (DI), NancyRae_56 (DI), Norvs_10 (CQ1), Parada_57 (DI), PhinkBoden_11 (CQ1), Pimento_59 (DI), Smoothie_10 (CQ1), Toniann_10 (CQ1), WheatThin_56 (DI), WilliamBoone_9 (CQ1),

Start 53:

- Found in 98 of 401 (24.4%) of genes in pham
- Manual Annotations of this start: 8 of 347
- Called 9.2% of time when present
- Phage (with cluster) where this start called: Aleemily_84 (DZ), Cafasso_85 (DZ), Lilbeanie_82 (DE5), ModicumRichard_85 (DZ), Morgana_92 (DZ), Neville_70 (DU2), ObLaDi_85 (DZ), Trax_72 (DU2), Yuna_59 (K6),

Start 54:

- Found in 142 of 401 (35.4%) of genes in pham
- Manual Annotations of this start: 121 of 347
- Called 98.6% of time when present
- Phage (with cluster) where this start called: 244_66 (E), Agent47_49 (K5), AlleyCat_50 (K5), Amao_65 (E), AmericanBeauty_69 (E), Argent26_69 (E), BaboJay_62 (E), Balomoji_65 (E), Bask21_65 (E), Bellis_55 (L3), Bench_68 (E), BourbonZero_56 (L3), Bruin_62 (E), Bryler_57 (K6), Buck_66 (E), BugsBunny_65 (E), Cactus_68 (E), Cain_57 (K6), ChotaBhai_65 (E), Clautastrophe_55 (L3), Collard_47 (K5), Command613_67 (E), Cookies_62 (E), Czyszczonek_66 (E), Dadosky_50 (K5), Daikon_67 (E), Dartin_56 (K1), DoctorDiddles_64 (E), DuncansLeg_56 (L3), Edugator_47 (K5), Ellson_55 (L3), Elph10_65 (E), FairyPath_65 (E), Feyre_49 (K5), Finrny_56 (L3), FireRed_69 (E), Flypotenuse_61 (E), Gage_67 (E), Gemini_70 (E), Gengar_48 (K5), Glexan_64 (E), GoldenSpark_69 (E), Goldilocks_68 (E), GooberAzure_68 (E), Guillsminger_49 (K5), HanKaySha_65 (E), Harella_65 (E), Heftyboy_48 (K5), Holt_70 (E), Hoonter_68 (E), Hopey_65 (E), HufflyPuff_68 (E), Icee_66 (E), InvictusManeo_47 (K5), JeTaime_65 (E), Jobypre_56 (L3), Jubie_55 (L3), Kanye_62 (E), Kimchi_69 (E), Kingsolomon_55 (L3), KirDoubleO7_54 (L3), Kratio_46 (K5), Krueger_60 (K6), Krypton555_57 (L3), Larva_49 (K5), Leston_48 (K5), Lilac_67 (E), Lilizi_66 (E), LiyuLake_55 (L3), Lolly9_55 (L3), Lumos_57 (L3), MISSy_66 (E), MPhalcon_66 (E), Marshmallow_63 (E), Maxxinista_67 (E), McMater_56 (K1), MiniLon_59 (L3), MiniMac_59 (L3), Miryou_51 (K5), Misfit_66 (E), Moostard_55 (L3), Mosby_61 (E), MsGreen_56 (L3), Murica_68 (E), Myrale_65 (E), Nala_67 (E), Neighly_50 (K3), NelitzaMV_63 (E), Nergal_50 (AG), Nicholas_55 (L3), Niklas_56 (K1), Nimrod_66 (E), OkiRoe_48 (K5), Omnicron_51 (K5), OrionPax_64 (E), Palpatine_67 (E), Paola_48 (K5), Pat3_63 (E), Peanam_56 (K1), Petra64142_69 (E), PhatBacter_69 (E), Phaux_67 (E), PhelpsODU_55 (K6), Phrank_57 (K6), Policronamos_69 (E), Psycho_48 (K5), Pumpkin_68 (E), Quallification_66 (E), Rando14_50 (K5), Richo_56 (K1), Rimmer_66 (E), RiverMonster_65 (E), Samty_56 (L3), Sassay_60 (E), Shadow1_59 (K6), Shaobing_56 (K1), ShereKhan_64 (E), SirDuracell_64 (E), Snenia_55 (L3), SoSeph_48 (K5), Sotrice96_66 (E), Stark_66 (E), StolenFromERC_68 (E), Sunflower1121_60 (K6), Syra333_59 (K6), TClif_56 (K6), Terminus_68 (E), Thyatira_51 (K5), Tierra_57 (K6), Tomaszewski_60 (E), TriFive_56 (L3), Unicorn_55 (K6), Validus_58 (K1), ViviJ_47 (K5), Waterfoul_49 (K5), Whirlwind_56 (L3), Willez_60 (E), Ximenita_60 (K6), YassJohnny_62 (E), Youngblood_68 (E),

Start 56:

- Found in 13 of 401 (3.2%) of genes in pham

- Manual Annotations of this start: 13 of 347
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ariel_107 (J), Beem_113 (J), Courthouse_102 (J), Ejimix_105 (J), Halley_113 (J), JuicyJay_108 (J), KashFlow_104 (J), Lucky2013_104 (J), MiaZeal_107 (J), Porcelain_105 (J), Redno2_103 (J), Squint_105 (J), Superphikiman_104 (J),

Start 57:

- Found in 59 of 401 (14.7%) of genes in pham
- Manual Annotations of this start: 42 of 347
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Appletree2_54 (L1), Archie_57 (L2), Azira_56 (CT), Baoshan_55 (L2), Bazzle_57 (L2), BigCheese_57 (L2), BobsGarage_57 (L2), BrainDrainer_55 (L4), Breezona_57 (L2), Bromden_56 (L4), Chaser_53 (L4), Claus_57 (L2), Crossroads_57 (L2), DHan_58 (L2), DanBing_57 (L2), Douge_55 (L4), Douzhi_55 (L4), DrSeegs_57 (L2), DyoEdafos_57 (L4), Faith1_57 (L2), FarmResident_56 (L4), Finemlucis_57 (L2), Fribs8_56 (CT), Gabriela_54 (L2), Gardann_58 (L2), GuuelaD_56 (L2), Hafay_58 (L2), Itos_56 (L2), Jace_70 (singleton), Kahlid_57 (L2), Kropertea_53 (L4), Lewan_58 (L2), LilDestine_57 (L2), Loadrie_56 (L2), MaVan_56 (CT), Miley16_57 (L2), MkaliMitinis3_58 (L2), Netyap_58 (L2), Nibbles_55 (CT), Nicholasp3_57 (L2), PYPDinur_53 (L4), Poochiewood_54 (L1), Quby_54 (L4), Rose5_54 (L1), Rumpelstiltskin_56 (L2), Sarshaun_57 (L2), Sheng711_55 (L4), Soap141_57 (L2), Survivors_57 (CT), Tourach_56 (L2), Tyson_54 (L1), Vetrix_57 (L2), Wigglewiggles_57 (L2), Wilder_58 (L2), Winky_57 (L2), Wyatt2_55 (L1), Zakai_58 (L2), Zareef_58 (CT), ZhongYanYuan_55 (L2),

Start 58:

- Found in 2 of 401 (0.5%) of genes in pham
- Manual Annotations of this start: 2 of 347
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pharb_52 (K3), TripleTrouble_52 (K3),

Start 59:

- Found in 4 of 401 (1.0%) of genes in pham
- Manual Annotations of this start: 2 of 347
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Exile_27 (AZ), MarkPhew_56 (K1), Soondubu_27 (AZ),

Start 60:

- Found in 1 of 401 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 347
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cen1621_32 (EH),

Start 61:

- Found in 1 of 401 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 347
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PSonyx_49 (singleton),

Start 62:

- Found in 3 of 401 (0.7%) of genes in pham
- Manual Annotations of this start: 3 of 347
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dublin_43 (A5), MarysWell_43 (A5), Theia_42 (A5),

Start 83:

- Found in 124 of 401 (30.9%) 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 (CQ1),

Summary by clusters:

There are 28 clusters represented in this pham: GD2, DI, FR, singleton, K3, K1, DZ, K6, K5, FL, CU5, DF3, A5, CQ1, E, EH, AG, J, L4, AR, L2, L3, L1, AZ, DU2, CT, ED2, DE5,

Info for manual annotations of cluster A5:

- Start number 62 was manually annotated 3 times for cluster A5.

Info for manual annotations of cluster AG:

- Start number 49 was manually annotated 1 time for cluster AG.
- Start number 54 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster AR:

- Start number 40 was manually annotated 19 times for cluster AR.

Info for manual annotations of cluster AZ:

- Start number 59 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster CQ1:

- Start number 52 was manually annotated 12 times for cluster CQ1.

Info for manual annotations of cluster CT:

- Start number 57 was manually annotated 5 times for cluster CT.

Info for manual annotations of cluster CU5:

- Start number 51 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster DE5:

- Start number 53 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster DF3:

- Start number 35 was manually annotated 1 time for cluster DF3.

Info for manual annotations of cluster DI:

- Start number 52 was manually annotated 15 times for cluster DI.

Info for manual annotations of cluster DU2:

- Start number 53 was manually annotated 2 times for cluster DU2.

Info for manual annotations of cluster DZ:

- Start number 53 was manually annotated 4 times for cluster DZ.

Info for manual annotations of cluster E:

- Start number 54 was manually annotated 66 times for cluster E.

Info for manual annotations of cluster ED2:

- Start number 46 was manually annotated 11 times for cluster ED2.

Info for manual annotations of cluster EH:

- Start number 60 was manually annotated 1 time for cluster EH.

Info for manual annotations of cluster FL:

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

Info for manual annotations of cluster GD2:

- Start number 41 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster J:

- Start number 56 was manually annotated 13 times for cluster J.

Info for manual annotations of cluster K1:

- Start number 44 was manually annotated 1 time for cluster K1.
- Start number 47 was manually annotated 67 times for cluster K1.
- Start number 48 was manually annotated 21 times for cluster K1.
- Start number 54 was manually annotated 4 times for cluster K1.
- Start number 59 was manually annotated 1 time for cluster K1.

Info for manual annotations of cluster K3:

- Start number 58 was manually annotated 2 times for cluster K3.

Info for manual annotations of cluster K5:

- Start number 54 was manually annotated 22 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 48 was manually annotated 2 times for cluster K6.
- Start number 53 was manually annotated 1 time for cluster K6.
- Start number 54 was manually annotated 12 times for cluster K6.

Info for manual annotations of cluster L1:

- Start number 57 was manually annotated 4 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 57 was manually annotated 28 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 54 was manually annotated 16 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 57 was manually annotated 4 times for cluster L4.

Gene Information:

Gene: 244_66 Start: 43538, Stop: 43870, Start Num: 54

Candidate Starts for 244_66:

(Start: 54 @43538 has 121 MA's), (83, 43604), (86, 43634), (111, 43781), (119, 43835),

Gene: ASegato_88 Start: 51131, Stop: 50784, Start Num: 46

Candidate Starts for ASegato_88:

(26, 51209), (Start: 46 @51131 has 11 MA's), (66, 51095), (70, 51083), (86, 51020), (88, 51005), (92, 50999), (102, 50954), (104, 50948),

Gene: Abscondus_10 Start: 2199, Stop: 2537, Start Num: 52

Candidate Starts for Abscondus_10:

(Start: 52 @2199 has 27 MA's), (71, 2232), (83, 2268), (117, 2487),

Gene: ActinUp_53 Start: 38771, Stop: 39121, Start Num: 47

Candidate Starts for ActinUp_53:

(Start: 47 @38771 has 67 MA's), (Start: 53 @38777 has 8 MA's), (65, 38801), (77, 38831), (113, 39047),

Gene: Adephagia_53 Start: 38768, Stop: 39118, Start Num: 47

Candidate Starts for Adephagia_53:

(Start: 47 @38768 has 67 MA's), (Start: 53 @38774 has 8 MA's), (65, 38798), (77, 38828), (113, 39044),

Gene: Adonis_53 Start: 39012, Stop: 39362, Start Num: 47

Candidate Starts for Adonis_53:

(Start: 47 @39012 has 67 MA's), (Start: 53 @39018 has 8 MA's), (65, 39042), (77, 39072), (113, 39288),

Gene: Agent47_49 Start: 37072, Stop: 37413, Start Num: 54

Candidate Starts for Agent47_49:

(29, 36988), (Start: 54 @37072 has 121 MA's), (70, 37108), (88, 37189), (96, 37216), (100, 37234), (106, 37273), (116, 37357),

Gene: Ageofdapage_55 Start: 39761, Stop: 40111, Start Num: 48

Candidate Starts for Ageofdapage_55:

(Start: 48 @39761 has 23 MA's), (Start: 53 @39767 has 8 MA's), (65, 39791), (113, 40037),

Gene: Aleemily_84 Start: 51825, Stop: 52172, Start Num: 53

Candidate Starts for Aleemily_84:

(Start: 53 @51825 has 8 MA's), (68, 51858), (76, 51879), (83, 51906),

Gene: AlishaPH_53 Start: 39029, Stop: 39379, Start Num: 47

Candidate Starts for AlishaPH_53:

(Start: 47 @39029 has 67 MA's), (Start: 53 @39035 has 8 MA's), (65, 39059), (77, 39089), (113, 39305),

Gene: AlleyCat_50 Start: 37151, Stop: 37489, Start Num: 54

Candidate Starts for AlleyCat_50:

(Start: 54 @37151 has 121 MA's), (77, 37202), (88, 37268), (106, 37352), (110, 37391), (112, 37406),

Gene: Amao_65 Start: 43296, Stop: 43628, Start Num: 54

Candidate Starts for Amao_65:
(Start: 54 @43296 has 121 MA's), (83, 43362), (86, 43392), (111, 43539), (119, 43593),

Gene: AmericanBeauty_69 Start: 44051, Stop: 44383, Start Num: 54
Candidate Starts for AmericanBeauty_69:
(Start: 54 @44051 has 121 MA's), (83, 44117), (86, 44147), (111, 44294), (119, 44348),

Gene: Amgine_54 Start: 40020, Stop: 40364, Start Num: 48
Candidate Starts for Amgine_54:
(Start: 48 @40020 has 23 MA's), (77, 40077), (86, 40128), (110, 40266), (121, 40338),

Gene: Anaya_55 Start: 39287, Stop: 39637, Start Num: 47
Candidate Starts for Anaya_55:
(Start: 47 @39287 has 67 MA's), (Start: 53 @39293 has 8 MA's), (65, 39317), (77, 39347), (113, 39563),

Gene: Angelica_53 Start: 38918, Stop: 39268, Start Num: 48
Candidate Starts for Angelica_53:
(Start: 48 @38918 has 23 MA's), (Start: 53 @38924 has 8 MA's), (65, 38948), (77, 38978), (113, 39194),

Gene: AnnabelLee_60 Start: 35926, Stop: 35531, Start Num: 31
Candidate Starts for AnnabelLee_60:
(20, 36007), (25, 35956), (27, 35950), (31, 35926), (73, 35815), (74, 35812), (82, 35785), (89, 35734),

Gene: Aphelion_10 Start: 2375, Stop: 2713, Start Num: 52
Candidate Starts for Aphelion_10:
(Start: 52 @2375 has 27 MA's), (83, 2444), (117, 2663),

Gene: Apocalypse_56 Start: 39698, Stop: 40048, Start Num: 47
Candidate Starts for Apocalypse_56:
(Start: 47 @39698 has 67 MA's), (Start: 53 @39704 has 8 MA's), (65, 39728), (77, 39758), (113, 39974),

Gene: Appletree2_54 Start: 40568, Stop: 40909, Start Num: 57
Candidate Starts for Appletree2_54:
(Start: 57 @40568 has 42 MA's), (78, 40613), (88, 40676), (114, 40835), (119, 40865), (122, 40880),

Gene: ArV1_084 Start: 61126, Stop: 61506, Start Num: 40
Candidate Starts for ArV1_084:
(Start: 40 @61126 has 19 MA's), (63, 61174), (64, 61177), (70, 61198), (75, 61210), (76, 61213), (80, 61222), (86, 61267), (88, 61282), (91, 61294), (97, 61318), (100, 61327), (103, 61351),

Gene: Archie_57 Start: 42703, Stop: 43038, Start Num: 57
Candidate Starts for Archie_57:
(Start: 57 @42703 has 42 MA's), (75, 42742), (88, 42811), (108, 42913), (119, 43000), (121, 43012), (122, 43015),

Gene: Argent26_69 Start: 43689, Stop: 44021, Start Num: 54
Candidate Starts for Argent26_69:
(Start: 54 @43689 has 121 MA's), (83, 43755), (86, 43785), (111, 43932), (119, 43986),

Gene: Ariel_107 Start: 59024, Stop: 59359, Start Num: 56

Candidate Starts for Ariel_107:

(Start: 56 @59024 has 13 MA's), (83, 59093), (100, 59186), (119, 59324),

Gene: Asayake_53 Start: 39083, Stop: 39433, Start Num: 47

Candidate Starts for Asayake_53:

(Start: 47 @39083 has 67 MA's), (Start: 53 @39089 has 8 MA's), (65, 39113), (77, 39143), (113, 39359),

Gene: Atiba_54 Start: 38731, Stop: 39081, Start Num: 47

Candidate Starts for Atiba_54:

(Start: 47 @38731 has 67 MA's), (Start: 53 @38737 has 8 MA's), (65, 38761), (77, 38791), (113, 39007),

Gene: Audell_61 Start: 39182, Stop: 38775, Start Num: 30

Candidate Starts for Audell_61:

(30, 39182), (Start: 53 @39107 has 8 MA's), (Start: 54 @39104 has 121 MA's), (68, 39074), (82, 39032), (87, 38996), (123, 38786),

Gene: Ayotoya_58 Start: 39851, Stop: 40183, Start Num: 52

Candidate Starts for Ayotoya_58:

(39, 39815), (Start: 52 @39851 has 27 MA's), (68, 39884), (79, 39905), (86, 39956), (100, 40016),

Gene: Azira_56 Start: 41880, Stop: 42218, Start Num: 57

Candidate Starts for Azira_56:

(10, 41559), (11, 41571), (Start: 57 @41880 has 42 MA's), (68, 41907), (80, 41931), (83, 41949), (105, 42069), (109, 42108), (123, 42201),

Gene: BEEST_53 Start: 39083, Stop: 39433, Start Num: 47

Candidate Starts for BEEST_53:

(Start: 47 @39083 has 67 MA's), (Start: 53 @39089 has 8 MA's), (65, 39113), (77, 39143), (113, 39359),

Gene: BGlluviae_53 Start: 38886, Stop: 39236, Start Num: 47

Candidate Starts for BGlluviae_53:

(Start: 47 @38886 has 67 MA's), (Start: 53 @38892 has 8 MA's), (65, 38916), (77, 38946), (113, 39162),

Gene: BaboJay_62 Start: 43082, Stop: 43414, Start Num: 54

Candidate Starts for BaboJay_62:

(Start: 54 @43082 has 121 MA's), (83, 43148), (86, 43178), (111, 43325), (119, 43379),

Gene: Bachita_11 Start: 2875, Stop: 3213, Start Num: 52

Candidate Starts for Bachita_11:

(Start: 52 @2875 has 27 MA's), (71, 2908), (83, 2944), (117, 3163),

Gene: BaghaKamala_52 Start: 38130, Stop: 38480, Start Num: 47

Candidate Starts for BaghaKamala_52:

(Start: 47 @38130 has 67 MA's), (Start: 53 @38136 has 8 MA's), (65, 38160), (77, 38190), (113, 38406),

Gene: Balomoji_65 Start: 44015, Stop: 44347, Start Num: 54

Candidate Starts for Balomoji_65:

(Start: 54 @44015 has 121 MA's), (83, 44081), (86, 44111), (111, 44258), (119, 44312),

Gene: Baoshan_55 Start: 42377, Stop: 42712, Start Num: 57

Candidate Starts for Baoshan_55:

(Start: 57 @42377 has 42 MA's), (67, 42401), (75, 42416), (88, 42485), (105, 42560), (108, 42587), (119, 42674), (121, 42686), (122, 42689),

Gene: BarrelRoll_53 Start: 38754, Stop: 39104, Start Num: 47

Candidate Starts for BarrelRoll_53:

(Start: 47 @38754 has 67 MA's), (Start: 53 @38760 has 8 MA's), (65, 38784), (77, 38814), (113, 39030),

Gene: Bask21_65 Start: 42856, Stop: 43188, Start Num: 54

Candidate Starts for Bask21_65:

(Start: 54 @42856 has 121 MA's), (83, 42922), (86, 42952), (111, 43099), (119, 43153),

Gene: Bazzle_57 Start: 42773, Stop: 43108, Start Num: 57

Candidate Starts for Bazzle_57:

(Start: 57 @42773 has 42 MA's), (75, 42812), (88, 42881), (108, 42983), (119, 43070), (121, 43082), (122, 43085),

Gene: Beem_113 Start: 64609, Stop: 64944, Start Num: 56

Candidate Starts for Beem_113:

(Start: 56 @64609 has 13 MA's), (83, 64678), (100, 64771), (119, 64909),

Gene: Beezoo_55 Start: 39729, Stop: 40079, Start Num: 47

Candidate Starts for Beezoo_55:

(Start: 47 @39729 has 67 MA's), (Start: 53 @39735 has 8 MA's), (65, 39759), (77, 39789), (113, 40005),

Gene: Bella96_54 Start: 39510, Stop: 39860, Start Num: 48

Candidate Starts for Bella96_54:

(Start: 48 @39510 has 23 MA's), (Start: 53 @39516 has 8 MA's), (65, 39540), (77, 39570), (113, 39786),

Gene: Belladonna_53 Start: 38886, Stop: 39236, Start Num: 47

Candidate Starts for Belladonna_53:

(Start: 47 @38886 has 67 MA's), (Start: 53 @38892 has 8 MA's), (65, 38916), (77, 38946), (113, 39162),

Gene: Bellis_55 Start: 42642, Stop: 42983, Start Num: 54

Candidate Starts for Bellis_55:

(Start: 54 @42642 has 121 MA's), (105, 42828), (119, 42942),

Gene: Bench_68 Start: 43519, Stop: 43851, Start Num: 54

Candidate Starts for Bench_68:

(14, 43249), (15, 43267), (22, 43375), (Start: 54 @43519 has 121 MA's), (83, 43585), (86, 43615), (111, 43762), (119, 43816),

Gene: Bern_54 Start: 37720, Stop: 38070, Start Num: 47

Candidate Starts for Bern_54:

(Start: 47 @37720 has 67 MA's), (Start: 53 @37726 has 8 MA's), (65, 37750), (77, 37780), (113, 37996),

Gene: BetterKatz_57 Start: 39050, Stop: 39382, Start Num: 52

Candidate Starts for BetterKatz_57:

(33, 38987), (39, 39014), (Start: 52 @39050 has 27 MA's), (68, 39083), (79, 39104), (86, 39155), (100, 39215),

Gene: Big4_312 Start: 167840, Stop: 168223, Start Num: 41

Candidate Starts for Big4_312:

(Start: 41 @167840 has 2 MA's), (95, 168002), (99, 168026), (105, 168056),

Gene: BigCheese_57 Start: 42443, Stop: 42778, Start Num: 57

Candidate Starts for BigCheese_57:

(Start: 57 @42443 has 42 MA's), (67, 42467), (75, 42482), (88, 42551), (105, 42626), (108, 42653), (119, 42740), (121, 42752), (122, 42755),

Gene: Blizzard_53 Start: 39083, Stop: 39433, Start Num: 47

Candidate Starts for Blizzard_53:

(Start: 47 @39083 has 67 MA's), (Start: 53 @39089 has 8 MA's), (65, 39113), (77, 39143), (113, 39359),

Gene: BobsGarage_57 Start: 42443, Stop: 42778, Start Num: 57

Candidate Starts for BobsGarage_57:

(Start: 57 @42443 has 42 MA's), (67, 42467), (75, 42482), (88, 42551), (105, 42626), (108, 42653), (119, 42740), (121, 42752), (122, 42755),

Gene: Bock_58 Start: 39083, Stop: 39415, Start Num: 52

Candidate Starts for Bock_58:

(39, 39047), (Start: 52 @39083 has 27 MA's), (68, 39116), (79, 39137), (86, 39188), (100, 39248),

Gene: Boiiii_53 Start: 39085, Stop: 39435, Start Num: 47

Candidate Starts for Boiiii_53:

(Start: 47 @39085 has 67 MA's), (Start: 53 @39091 has 8 MA's), (65, 39115), (77, 39145), (113, 39361),

Gene: BourbonZero_56 Start: 42690, Stop: 43031, Start Num: 54

Candidate Starts for BourbonZero_56:

(Start: 54 @42690 has 121 MA's), (105, 42876), (119, 42990), (121, 43002),

Gene: BrainDrainer_55 Start: 41309, Stop: 41656, Start Num: 57

Candidate Starts for BrainDrainer_55:

(Start: 57 @41309 has 42 MA's), (77, 41354), (100, 41474), (114, 41585), (119, 41615), (122, 41630),

Gene: Breezona_57 Start: 42443, Stop: 42778, Start Num: 57

Candidate Starts for Breezona_57:

(Start: 57 @42443 has 42 MA's), (67, 42467), (75, 42482), (88, 42551), (105, 42626), (108, 42653), (119, 42740), (121, 42752), (122, 42755),

Gene: Bromden_56 Start: 41981, Stop: 42316, Start Num: 57

Candidate Starts for Bromden_56:

(Start: 57 @41981 has 42 MA's), (65, 41999), (77, 42026), (88, 42089), (114, 42245), (119, 42275), (122, 42290),

Gene: Bruin_62 Start: 42428, Stop: 42760, Start Num: 54

Candidate Starts for Bruin_62:

(14, 42158), (15, 42176), (22, 42284), (Start: 54 @42428 has 121 MA's), (83, 42494), (86, 42524), (111, 42671), (119, 42725),

Gene: Bryler_57 Start: 38538, Stop: 38885, Start Num: 54

Candidate Starts for Bryler_57:

(Start: 54 @38538 has 121 MA's), (80, 38595), (121, 38856), (123, 38865),

Gene: Brylie_57 Start: 38831, Stop: 39163, Start Num: 52

Candidate Starts for Brylie_57:

(33, 38768), (39, 38795), (Start: 52 @38831 has 27 MA's), (68, 38864), (79, 38885), (86, 38936), (100, 38996),

Gene: Buck_66 Start: 44136, Stop: 44468, Start Num: 54

Candidate Starts for Buck_66:

(Start: 54 @44136 has 121 MA's), (83, 44202), (86, 44232), (111, 44379), (119, 44433),

Gene: BugsBunny_65 Start: 43966, Stop: 44298, Start Num: 54

Candidate Starts for BugsBunny_65:

(14, 43696), (15, 43714), (22, 43822), (Start: 54 @43966 has 121 MA's), (83, 44032), (86, 44062), (111, 44209), (119, 44263),

Gene: CREW_53 Start: 38886, Stop: 39236, Start Num: 47

Candidate Starts for CREW_53:

(Start: 47 @38886 has 67 MA's), (Start: 53 @38892 has 8 MA's), (65, 38916), (77, 38946), (113, 39162),

Gene: Cactus_68 Start: 42909, Stop: 43241, Start Num: 54

Candidate Starts for Cactus_68:

(Start: 54 @42909 has 121 MA's), (83, 42975), (86, 43005), (111, 43152), (119, 43206),

Gene: Cafasso_85 Start: 51977, Stop: 52324, Start Num: 53

Candidate Starts for Cafasso_85:

(Start: 53 @51977 has 8 MA's), (68, 52010), (76, 52031), (83, 52058),

Gene: Cain_57 Start: 38526, Stop: 38873, Start Num: 54

Candidate Starts for Cain_57:

(Start: 54 @38526 has 121 MA's), (80, 38583), (121, 38844), (123, 38853),

Gene: CallaLilly_55 Start: 38809, Stop: 39159, Start Num: 47

Candidate Starts for CallaLilly_55:

(Start: 47 @38809 has 67 MA's), (Start: 53 @38815 has 8 MA's), (65, 38839), (77, 38869), (113, 39085),

Gene: Capricorn_53 Start: 38886, Stop: 39236, Start Num: 47

Candidate Starts for Capricorn_53:

(Start: 47 @38886 has 67 MA's), (Start: 53 @38892 has 8 MA's), (65, 38916), (77, 38946), (113, 39162),

Gene: CaseJules_55 Start: 39083, Stop: 39433, Start Num: 47

Candidate Starts for CaseJules_55:

(Start: 47 @39083 has 67 MA's), (Start: 53 @39089 has 8 MA's), (65, 39113), (77, 39143), (113, 39359),

Gene: Catfish_55 Start: 38322, Stop: 38657, Start Num: 51
Candidate Starts for Catfish_55:
(Start: 51 @38322 has 1 MA's), (83, 38400), (86, 38430), (89, 38451), (101, 38484), (102, 38499),
(119, 38619), (121, 38631),

Gene: Cen1621_32 Start: 22941, Stop: 23279, Start Num: 60
Candidate Starts for Cen1621_32:
(1, 22122), (5, 22497), (28, 22845), (Start: 60 @22941 has 1 MA's), (74, 22980), (86, 23043), (94,
23067), (125, 23268),

Gene: Chaser_53 Start: 41066, Stop: 41413, Start Num: 57
Candidate Starts for Chaser_53:
(Start: 57 @41066 has 42 MA's), (77, 41111), (114, 41342), (119, 41372), (122, 41387),

Gene: CheetoDust_52 Start: 38174, Stop: 38524, Start Num: 47
Candidate Starts for CheetoDust_52:
(Start: 47 @38174 has 67 MA's), (Start: 53 @38180 has 8 MA's), (65, 38204), (77, 38234), (113,
38450),

Gene: Chipper1996_980 Start: 62828, Stop: 63211, Start Num: 40
Candidate Starts for Chipper1996_980:
(Start: 40 @62828 has 19 MA's), (43, 62834), (63, 62879), (70, 62903), (76, 62918), (80, 62927), (86,
62972), (88, 62987), (91, 62999), (97, 63023), (100, 63032), (102, 63053), (107, 63086), (115, 63149),

Gene: Chocolat_97 Start: 62535, Stop: 62918, Start Num: 40
Candidate Starts for Chocolat_97:
(Start: 40 @62535 has 19 MA's), (43, 62541), (63, 62586), (70, 62610), (76, 62625), (80, 62634), (86,
62679), (88, 62694), (91, 62706), (97, 62730), (100, 62739), (102, 62760), (107, 62793), (115, 62856),

Gene: Chop_58 Start: 39602, Stop: 39934, Start Num: 52
Candidate Starts for Chop_58:
(39, 39566), (Start: 52 @39602 has 27 MA's), (68, 39635), (79, 39656), (86, 39707), (100, 39767),

Gene: ChotaBhai_65 Start: 43227, Stop: 43559, Start Num: 54
Candidate Starts for ChotaBhai_65:
(Start: 54 @43227 has 121 MA's), (83, 43293), (86, 43323), (111, 43470), (119, 43524),

Gene: Chris_55 Start: 39389, Stop: 39751, Start Num: 44
Candidate Starts for Chris_55:
(Start: 44 @39389 has 1 MA's), (Start: 59 @39419 has 2 MA's), (82, 39482), (121, 39725),

Gene: Chubster_97 Start: 62775, Stop: 63158, Start Num: 40
Candidate Starts for Chubster_97:
(Start: 40 @62775 has 19 MA's), (43, 62781), (63, 62826), (70, 62850), (76, 62865), (80, 62874), (86,
62919), (88, 62934), (91, 62946), (97, 62970), (100, 62979), (102, 63000), (107, 63033), (115, 63096),

Gene: Claus_57 Start: 42524, Stop: 42859, Start Num: 57
Candidate Starts for Claus_57:
(Start: 57 @42524 has 42 MA's), (67, 42548), (75, 42563), (88, 42632), (105, 42707), (108, 42734),
(119, 42821), (122, 42836),

Gene: Clautastrophe_55 Start: 42639, Stop: 42980, Start Num: 54
Candidate Starts for Clautastrophe_55:

(Start: 54 @42639 has 121 MA's), (75, 42681), (105, 42825), (119, 42939),

Gene: Clipper_57 Start: 39350, Stop: 39700, Start Num: 48

Candidate Starts for Clipper_57:

(Start: 48 @39350 has 23 MA's), (Start: 53 @39356 has 8 MA's), (65, 39380), (77, 39410), (113, 39626),

Gene: ClubL_10 Start: 2375, Stop: 2713, Start Num: 52

Candidate Starts for ClubL_10:

(Start: 52 @2375 has 27 MA's), (71, 2408), (83, 2444), (117, 2663),

Gene: Collard_47 Start: 37033, Stop: 37374, Start Num: 54

Candidate Starts for Collard_47:

(29, 36949), (Start: 54 @37033 has 121 MA's), (70, 37069), (88, 37150), (96, 37177), (100, 37195), (106, 37234), (116, 37318),

Gene: Colucci_100 Start: 63169, Stop: 63552, Start Num: 40

Candidate Starts for Colucci_100:

(Start: 40 @63169 has 19 MA's), (43, 63175), (63, 63220), (66, 63232), (70, 63244), (73, 63250), (74, 63253), (86, 63313), (88, 63328), (91, 63340), (100, 63373), (102, 63394),

Gene: Command613_67 Start: 43948, Stop: 44280, Start Num: 54

Candidate Starts for Command613_67:

(Start: 54 @43948 has 121 MA's), (83, 44014), (86, 44044), (111, 44191), (119, 44245),

Gene: Conboy_95 Start: 62284, Stop: 62667, Start Num: 40

Candidate Starts for Conboy_95:

(Start: 40 @62284 has 19 MA's), (43, 62290), (63, 62335), (70, 62359), (76, 62374), (80, 62383), (86, 62428), (88, 62443), (91, 62455), (97, 62479), (100, 62488), (102, 62509), (107, 62542), (115, 62605),

Gene: Cookies_62 Start: 43078, Stop: 43410, Start Num: 54

Candidate Starts for Cookies_62:

(Start: 54 @43078 has 121 MA's), (83, 43144), (86, 43174), (111, 43321), (119, 43375),

Gene: Courthouse_102 Start: 58624, Stop: 58959, Start Num: 56

Candidate Starts for Courthouse_102:

(Start: 56 @58624 has 13 MA's), (83, 58693), (100, 58786), (119, 58924),

Gene: CrimD_53 Start: 39006, Stop: 39356, Start Num: 48

Candidate Starts for CrimD_53:

(Start: 48 @39006 has 23 MA's), (Start: 53 @39012 has 8 MA's), (65, 39036), (77, 39066), (113, 39282),

Gene: Crossroads_57 Start: 42521, Stop: 42856, Start Num: 57

Candidate Starts for Crossroads_57:

(Start: 57 @42521 has 42 MA's), (67, 42545), (75, 42560), (88, 42629), (105, 42704), (108, 42731), (119, 42818), (121, 42830), (122, 42833),

Gene: Cucurbita_9 Start: 2375, Stop: 2713, Start Num: 52

Candidate Starts for Cucurbita_9:

(Start: 52 @2375 has 27 MA's), (83, 2444), (117, 2663),

Gene: Culver_9 Start: 2199, Stop: 2537, Start Num: 52

Candidate Starts for Culver_9:

(Start: 52 @2199 has 27 MA's), (71, 2232), (83, 2268), (117, 2487),

Gene: Curiosium_54 Start: 37470, Stop: 37817, Start Num: 48

Candidate Starts for Curiosium_54:

(Start: 48 @37470 has 23 MA's), (Start: 53 @37476 has 8 MA's), (65, 37500), (67, 37506), (106, 37680), (113, 37746), (122, 37797),

Gene: Czyszczone1_66 Start: 43418, Stop: 43750, Start Num: 54

Candidate Starts for Czyszczone1_66:

(14, 43148), (15, 43166), (22, 43274), (Start: 54 @43418 has 121 MA's), (83, 43484), (86, 43514), (111, 43661), (119, 43715),

Gene: DHan_58 Start: 42424, Stop: 42759, Start Num: 57

Candidate Starts for DHan_58:

(Start: 57 @42424 has 42 MA's), (67, 42448), (75, 42463), (88, 42532), (105, 42607), (108, 42634), (119, 42721), (121, 42733), (122, 42736),

Gene: Dadosky_50 Start: 37153, Stop: 37491, Start Num: 54

Candidate Starts for Dadosky_50:

(Start: 54 @37153 has 121 MA's), (77, 37204), (88, 37270), (106, 37354), (110, 37393), (112, 37408),

Gene: Daikon_67 Start: 44036, Stop: 44368, Start Num: 54

Candidate Starts for Daikon_67:

(Start: 54 @44036 has 121 MA's), (83, 44102), (86, 44132), (111, 44279), (119, 44333),

Gene: Dalmuri_53 Start: 38886, Stop: 39236, Start Num: 47

Candidate Starts for Dalmuri_53:

(Start: 47 @38886 has 67 MA's), (Start: 53 @38892 has 8 MA's), (65, 38916), (77, 38946), (113, 39162),

Gene: DanBing_57 Start: 42375, Stop: 42710, Start Num: 57

Candidate Starts for DanBing_57:

(Start: 57 @42375 has 42 MA's), (67, 42399), (88, 42483), (105, 42558), (108, 42585), (119, 42672), (121, 42684), (122, 42687),

Gene: Dartin_56 Start: 39469, Stop: 39807, Start Num: 54

Candidate Starts for Dartin_56:

(Start: 54 @39469 has 121 MA's), (75, 39511), (77, 39517), (88, 39583), (121, 39781),

Gene: Deby_53 Start: 38945, Stop: 39295, Start Num: 47

Candidate Starts for Deby_53:

(Start: 47 @38945 has 67 MA's), (Start: 53 @38951 has 8 MA's), (65, 38975), (77, 39005), (113, 39221),

Gene: DelRio_58 Start: 40013, Stop: 40345, Start Num: 52

Candidate Starts for DelRio_58:

(39, 39977), (Start: 52 @40013 has 27 MA's), (68, 40046), (79, 40067), (86, 40118), (100, 40178),

Gene: Devera_58 Start: 39525, Stop: 39875, Start Num: 48

Candidate Starts for Devera_58:

(Start: 48 @39525 has 23 MA's), (Start: 53 @39531 has 8 MA's), (65, 39555), (77, 39585), (113, 39801),

Gene: DoctorDiddles_64 Start: 43268, Stop: 43600, Start Num: 54

Candidate Starts for DoctorDiddles_64:

(Start: 54 @43268 has 121 MA's), (83, 43334), (86, 43364), (111, 43511), (119, 43565),

Gene: Dole_56 Start: 39528, Stop: 39878, Start Num: 48

Candidate Starts for Dole_56:

(Start: 48 @39528 has 23 MA's), (Start: 53 @39534 has 8 MA's), (65, 39558), (77, 39588), (113, 39804),

Gene: Douge_55 Start: 41060, Stop: 41407, Start Num: 57

Candidate Starts for Douge_55:

(Start: 57 @41060 has 42 MA's), (77, 41105), (114, 41336), (119, 41366), (122, 41381),

Gene: Douzhi_55 Start: 41137, Stop: 41484, Start Num: 57

Candidate Starts for Douzhi_55:

(Start: 57 @41137 has 42 MA's), (77, 41182), (100, 41302), (114, 41413), (119, 41443), (122, 41458),

Gene: DrHayes_54 Start: 39665, Stop: 40015, Start Num: 48

Candidate Starts for DrHayes_54:

(Start: 48 @39665 has 23 MA's), (Start: 53 @39671 has 8 MA's), (65, 39695), (77, 39725), (113, 39941),

Gene: DrSeegs_57 Start: 42443, Stop: 42778, Start Num: 57

Candidate Starts for DrSeegs_57:

(Start: 57 @42443 has 42 MA's), (67, 42467), (75, 42482), (88, 42551), (105, 42626), (108, 42653), (119, 42740), (121, 42752), (122, 42755),

Gene: DrYang_93 Start: 62321, Stop: 62704, Start Num: 40

Candidate Starts for DrYang_93:

(18, 62204), (Start: 40 @62321 has 19 MA's), (43, 62327), (69, 62393), (70, 62396), (86, 62465), (88, 62480), (91, 62492), (96, 62510), (103, 62549), (107, 62579), (115, 62642), (116, 62654), (122, 62684), (123, 62690),

Gene: Dublin_43 Start: 34571, Stop: 34242, Start Num: 62

Candidate Starts for Dublin_43:

(Start: 62 @34571 has 3 MA's), (83, 34505), (93, 34451), (98, 34424), (102, 34400), (104, 34394), (123, 34259),

Gene: DuncansLeg_56 Start: 42678, Stop: 43019, Start Num: 54

Candidate Starts for DuncansLeg_56:

(23, 42540), (Start: 54 @42678 has 121 MA's), (75, 42720), (105, 42864), (119, 42978), (121, 42990),

Gene: Durfee_53 Start: 39083, Stop: 39433, Start Num: 47

Candidate Starts for Durfee_53:

(Start: 47 @39083 has 67 MA's), (Start: 53 @39089 has 8 MA's), (65, 39113), (77, 39143), (113, 39359),

Gene: DustyDino_94 Start: 52270, Stop: 51923, Start Num: 46

Candidate Starts for DustyDino_94:

(26, 52348), (Start: 46 @52270 has 11 MA's), (66, 52234), (70, 52222), (86, 52159), (88, 52144), (92, 52138), (109, 52042),

Gene: Dusty_9 Start: 2199, Stop: 2537, Start Num: 52
Candidate Starts for Dusty_9:
(Start: 52 @2199 has 27 MA's), (71, 2232), (83, 2268), (117, 2487),

Gene: DyoEdafos_57 Start: 41342, Stop: 41689, Start Num: 57
Candidate Starts for DyoEdafos_57:
(Start: 57 @41342 has 42 MA's), (77, 41387), (90, 41462), (114, 41618), (119, 41648), (122, 41663),

Gene: EdgarPoe_96 Start: 62692, Stop: 63075, Start Num: 40
Candidate Starts for EdgarPoe_96:
(Start: 40 @62692 has 19 MA's), (43, 62698), (63, 62743), (70, 62767), (76, 62782), (80, 62791), (86, 62836), (88, 62851), (91, 62863), (97, 62887), (100, 62896), (102, 62917), (107, 62950), (115, 63013),

Gene: Edugator_47 Start: 38574, Stop: 38912, Start Num: 54
Candidate Starts for Edugator_47:
(Start: 54 @38574 has 121 MA's), (73, 38616), (77, 38625), (88, 38691), (106, 38775), (110, 38814), (112, 38829),

Gene: Efra2_56 Start: 38613, Stop: 38960, Start Num: 47
Candidate Starts for Efra2_56:
(Start: 47 @38613 has 67 MA's), (Start: 53 @38619 has 8 MA's), (65, 38643), (109, 38853), (113, 38889),

Gene: Ejimix_105 Start: 64303, Stop: 64638, Start Num: 56
Candidate Starts for Ejimix_105:
(Start: 56 @64303 has 13 MA's), (83, 64372), (100, 64465), (119, 64603),

Gene: Ekdilam_53 Start: 39489, Stop: 39833, Start Num: 48
Candidate Starts for Ekdilam_53:
(Start: 48 @39489 has 23 MA's), (77, 39546), (86, 39597), (110, 39735),

Gene: Ellson_55 Start: 42703, Stop: 43044, Start Num: 54
Candidate Starts for Ellson_55:
(Start: 54 @42703 has 121 MA's), (105, 42889), (119, 43003), (121, 43015),

Gene: Elph10_65 Start: 42916, Stop: 43248, Start Num: 54
Candidate Starts for Elph10_65:
(14, 42646), (15, 42664), (22, 42772), (Start: 54 @42916 has 121 MA's), (83, 42982), (86, 43012), (111, 43159), (119, 43213),

Gene: Emerson_54 Start: 38765, Stop: 39115, Start Num: 47
Candidate Starts for Emerson_54:
(Start: 47 @38765 has 67 MA's), (Start: 53 @38771 has 8 MA's), (65, 38795), (77, 38825), (113, 39041),

Gene: Engineer_10 Start: 2375, Stop: 2713, Start Num: 52
Candidate Starts for Engineer_10:
(Start: 52 @2375 has 27 MA's), (83, 2444), (117, 2663),

Gene: Erenyeager_90 Start: 51059, Stop: 50712, Start Num: 46
Candidate Starts for Erenyeager_90:
(26, 51137), (Start: 46 @51059 has 11 MA's), (66, 51023), (70, 51011), (86, 50948), (88, 50933), (92, 50927), (109, 50831),

Gene: Exile_27 Start: 24622, Stop: 24957, Start Num: 59

Candidate Starts for Exile_27:

(16, 24448), (Start: 59 @24622 has 2 MA's), (119, 24916),

Gene: FairyPath_65 Start: 44027, Stop: 44359, Start Num: 54

Candidate Starts for FairyPath_65:

(Start: 54 @44027 has 121 MA's), (83, 44093), (86, 44123), (111, 44270), (119, 44324),

Gene: Faith1_57 Start: 42443, Stop: 42778, Start Num: 57

Candidate Starts for Faith1_57:

(Start: 57 @42443 has 42 MA's), (67, 42467), (75, 42482), (88, 42551), (105, 42626), (108, 42653), (119, 42740), (121, 42752), (122, 42755),

Gene: FarmResident_56 Start: 41100, Stop: 41447, Start Num: 57

Candidate Starts for FarmResident_56:

(Start: 57 @41100 has 42 MA's), (77, 41145), (114, 41376), (119, 41406), (122, 41421),

Gene: Feyre_49 Start: 39381, Stop: 39719, Start Num: 54

Candidate Starts for Feyre_49:

(Start: 54 @39381 has 121 MA's), (100, 39543), (110, 39621), (112, 39636), (113, 39645), (118, 39675),

Gene: Finemlucis_57 Start: 42764, Stop: 43099, Start Num: 57

Candidate Starts for Finemlucis_57:

(Start: 57 @42764 has 42 MA's), (67, 42788), (75, 42803), (88, 42872), (105, 42947), (108, 42974), (119, 43061), (121, 43073), (122, 43076),

Gene: Finnry_56 Start: 42903, Stop: 43244, Start Num: 54

Candidate Starts for Finnry_56:

(Start: 54 @42903 has 121 MA's), (105, 43089), (119, 43203), (121, 43215),

Gene: FireRed_69 Start: 44405, Stop: 44737, Start Num: 54

Candidate Starts for FireRed_69:

(14, 44135), (15, 44153), (22, 44261), (Start: 54 @44405 has 121 MA's), (83, 44471), (86, 44501), (111, 44648), (119, 44702),

Gene: Flypotenuse_61 Start: 42899, Stop: 43231, Start Num: 54

Candidate Starts for Flypotenuse_61:

(Start: 54 @42899 has 121 MA's), (83, 42965), (86, 42995), (111, 43142), (119, 43196),

Gene: Fork_86 Start: 51009, Stop: 50662, Start Num: 46

Candidate Starts for Fork_86:

(26, 51087), (Start: 46 @51009 has 11 MA's), (66, 50973), (70, 50961), (86, 50898), (88, 50883), (92, 50877), (102, 50832), (104, 50826),

Gene: Francois_57 Start: 39089, Stop: 39421, Start Num: 52

Candidate Starts for Francois_57:

(33, 39026), (39, 39053), (Start: 52 @39089 has 27 MA's), (79, 39143), (86, 39194), (100, 39254),

Gene: Fribs8_56 Start: 42558, Stop: 42896, Start Num: 57

Candidate Starts for Fribs8_56:

(11, 42249), (Start: 57 @42558 has 42 MA's), (68, 42585), (80, 42609), (83, 42627), (105, 42747), (109, 42786), (123, 42879),

Gene: Gabriela_54 Start: 40893, Stop: 41228, Start Num: 57

Candidate Starts for Gabriela_54:

(Start: 57 @40893 has 42 MA's), (67, 40917), (75, 40932), (88, 41001), (105, 41076), (108, 41103), (119, 41190), (121, 41202), (122, 41205),

Gene: Gage_67 Start: 43689, Stop: 44021, Start Num: 54

Candidate Starts for Gage_67:

(Start: 54 @43689 has 121 MA's), (83, 43755), (86, 43785), (111, 43932), (119, 43986),

Gene: Ganymede_54 Start: 39147, Stop: 39497, Start Num: 47

Candidate Starts for Ganymede_54:

(Start: 47 @39147 has 67 MA's), (Start: 53 @39153 has 8 MA's), (65, 39177), (77, 39207), (82, 39225), (113, 39423),

Gene: Gardann_58 Start: 42479, Stop: 42814, Start Num: 57

Candidate Starts for Gardann_58:

(Start: 57 @42479 has 42 MA's), (67, 42503), (75, 42518), (88, 42587), (105, 42662), (108, 42689), (119, 42776), (121, 42788), (122, 42791),

Gene: Geeche_9 Start: 2194, Stop: 2532, Start Num: 52

Candidate Starts for Geeche_9:

(Start: 52 @2194 has 27 MA's), (83, 2263), (117, 2482), (123, 2512),

Gene: Gemini_70 Start: 44206, Stop: 44538, Start Num: 54

Candidate Starts for Gemini_70:

(Start: 54 @44206 has 121 MA's), (83, 44272), (86, 44302), (111, 44449), (119, 44503),

Gene: Gengar_48 Start: 37992, Stop: 38330, Start Num: 54

Candidate Starts for Gengar_48:

(Start: 54 @37992 has 121 MA's), (100, 38154), (110, 38232), (112, 38247), (113, 38256), (118, 38286),

Gene: Geraldini_56 Start: 39818, Stop: 40168, Start Num: 47

Candidate Starts for Geraldini_56:

(Start: 47 @39818 has 67 MA's), (Start: 53 @39824 has 8 MA's), (65, 39848), (77, 39878), (113, 40094),

Gene: Glexan_64 Start: 44026, Stop: 44358, Start Num: 54

Candidate Starts for Glexan_64:

(Start: 54 @44026 has 121 MA's), (83, 44092), (86, 44122), (111, 44269), (119, 44323),

Gene: GoldenSpark_69 Start: 43689, Stop: 44021, Start Num: 54

Candidate Starts for GoldenSpark_69:

(Start: 54 @43689 has 121 MA's), (83, 43755), (86, 43785), (111, 43932), (119, 43986),

Gene: Goldilocks_68 Start: 43190, Stop: 43522, Start Num: 54

Candidate Starts for Goldilocks_68:

(Start: 54 @43190 has 121 MA's), (83, 43256), (86, 43286), (111, 43433), (119, 43487),

Gene: GooberAzure_68 Start: 43689, Stop: 44021, Start Num: 54

Candidate Starts for GooberAzure_68:

(Start: 54 @43689 has 121 MA's), (83, 43755), (86, 43785), (111, 43932), (119, 43986),

Gene: GrandSlam_58 Start: 39602, Stop: 39934, Start Num: 52

Candidate Starts for GrandSlam_58:

(39, 39566), (Start: 52 @39602 has 27 MA's), (68, 39635), (79, 39656), (86, 39707), (100, 39767),

Gene: Guanica15_55 Start: 38358, Stop: 38705, Start Num: 47

Candidate Starts for Guanica15_55:

(Start: 47 @38358 has 67 MA's), (Start: 53 @38364 has 8 MA's), (65, 38388), (77, 38418), (109, 38598), (113, 38634),

Gene: Guillsminger_49 Start: 37963, Stop: 38301, Start Num: 54

Candidate Starts for Guillsminger_49:

(Start: 54 @37963 has 121 MA's), (100, 38125), (110, 38203), (112, 38218), (113, 38227),

Gene: GuuelaD_56 Start: 42558, Stop: 42893, Start Num: 57

Candidate Starts for GuuelaD_56:

(Start: 57 @42558 has 42 MA's), (67, 42582), (75, 42597), (88, 42666), (105, 42741), (108, 42768), (119, 42855), (121, 42867), (122, 42870),

Gene: Hafay_58 Start: 42547, Stop: 42882, Start Num: 57

Candidate Starts for Hafay_58:

(Start: 57 @42547 has 42 MA's), (67, 42571), (75, 42586), (88, 42655), (105, 42730), (108, 42757), (119, 42844), (121, 42856), (122, 42859),

Gene: Halley_113 Start: 64619, Stop: 64954, Start Num: 56

Candidate Starts for Halley_113:

(Start: 56 @64619 has 13 MA's), (83, 64688), (100, 64781), (119, 64919),

Gene: Hamood_58 Start: 39602, Stop: 39934, Start Num: 52

Candidate Starts for Hamood_58:

(39, 39566), (Start: 52 @39602 has 27 MA's), (68, 39635), (79, 39656), (86, 39707), (100, 39767),

Gene: HanKaySha_65 Start: 42999, Stop: 43331, Start Num: 54

Candidate Starts for HanKaySha_65:

(Start: 54 @42999 has 121 MA's), (83, 43065), (86, 43095), (111, 43242), (119, 43296),

Gene: Harella_65 Start: 44542, Stop: 44874, Start Num: 54

Candidate Starts for Harella_65:

(Start: 54 @44542 has 121 MA's), (83, 44608), (86, 44638), (111, 44785), (119, 44839),

Gene: HedwigODU_53 Start: 38771, Stop: 39121, Start Num: 47

Candidate Starts for HedwigODU_53:

(Start: 47 @38771 has 67 MA's), (Start: 53 @38777 has 8 MA's), (65, 38801), (77, 38831), (113, 39047),

Gene: Heftyboy_48 Start: 38138, Stop: 38476, Start Num: 54

Candidate Starts for Heftyboy_48:

(2, 37655), (7, 37781), (Start: 54 @38138 has 121 MA's), (100, 38300), (110, 38378), (112, 38393), (113, 38402), (118, 38432),

Gene: Hirko_75 Start: 46796, Stop: 47161, Start Num: 42

Candidate Starts for Hirko_75:

(Start: 42 @46796 has 1 MA's), (84, 46922), (122, 47144),

Gene: HollowPurple_90 Start: 51568, Stop: 51221, Start Num: 46

Candidate Starts for HollowPurple_90:

(26, 51646), (Start: 46 @51568 has 11 MA's), (66, 51532), (70, 51520), (86, 51457), (88, 51442), (92, 51436), (102, 51391), (104, 51385),

Gene: Holt_70 Start: 44103, Stop: 44435, Start Num: 54

Candidate Starts for Holt_70:

(Start: 54 @44103 has 121 MA's), (83, 44169), (86, 44199), (111, 44346), (119, 44400),

Gene: Homura_53 Start: 38886, Stop: 39236, Start Num: 47

Candidate Starts for Homura_53:

(Start: 47 @38886 has 67 MA's), (Start: 53 @38892 has 8 MA's), (65, 38916), (77, 38946), (113, 39162),

Gene: Hoonter_68 Start: 43689, Stop: 44021, Start Num: 54

Candidate Starts for Hoonter_68:

(Start: 54 @43689 has 121 MA's), (83, 43755), (86, 43785), (111, 43932), (119, 43986),

Gene: Hokey_65 Start: 43531, Stop: 43863, Start Num: 54

Candidate Starts for Hokey_65:

(14, 43261), (15, 43279), (22, 43387), (Start: 54 @43531 has 121 MA's), (83, 43597), (86, 43627), (111, 43774), (119, 43828),

Gene: HufflyPuff_68 Start: 44361, Stop: 44693, Start Num: 54

Candidate Starts for HufflyPuff_68:

(14, 44091), (15, 44109), (22, 44217), (Start: 54 @44361 has 121 MA's), (83, 44427), (86, 44457), (111, 44604), (119, 44658),

Gene: HumptyDumpty_97 Start: 62495, Stop: 62878, Start Num: 40

Candidate Starts for HumptyDumpty_97:

(Start: 40 @62495 has 19 MA's), (43, 62501), (63, 62546), (70, 62570), (76, 62585), (80, 62594), (86, 62639), (88, 62654), (91, 62666), (97, 62690), (100, 62699), (102, 62720), (107, 62753), (115, 62816),

Gene: Hyperbowlee_53 Start: 39083, Stop: 39433, Start Num: 47

Candidate Starts for Hyperbowlee_53:

(Start: 47 @39083 has 67 MA's), (Start: 53 @39089 has 8 MA's), (65, 39113), (77, 39143), (113, 39359),

Gene: Icee_66 Start: 43356, Stop: 43688, Start Num: 54

Candidate Starts for Icee_66:

(Start: 54 @43356 has 121 MA's), (83, 43422), (86, 43452), (111, 43599), (119, 43653),

Gene: Illumine_56 Start: 39527, Stop: 39877, Start Num: 48

Candidate Starts for Illumine_56:

(Start: 48 @39527 has 23 MA's), (Start: 53 @39533 has 8 MA's), (65, 39557), (77, 39587), (113, 39803),

Gene: Inky_53 Start: 38886, Stop: 39236, Start Num: 47

Candidate Starts for Inky_53:

(Start: 47 @38886 has 67 MA's), (Start: 53 @38892 has 8 MA's), (65, 38916), (77, 38946), (113, 39162),

Gene: InvictusManeo_47 Start: 37076, Stop: 37417, Start Num: 54

Candidate Starts for InvictusManeo_47:

(29, 36992), (Start: 54 @37076 has 121 MA's), (70, 37112), (88, 37193), (96, 37220), (100, 37238), (106, 37277), (116, 37361),

Gene: Issa7_89 Start: 51024, Stop: 50677, Start Num: 46

Candidate Starts for Issa7_89:

(26, 51102), (Start: 46 @51024 has 11 MA's), (66, 50988), (70, 50976), (86, 50913), (88, 50898), (92, 50892), (109, 50796),

Gene: Itos_56 Start: 41349, Stop: 41684, Start Num: 57

Candidate Starts for Itos_56:

(Start: 57 @41349 has 42 MA's), (67, 41373), (75, 41388), (88, 41457), (105, 41532), (108, 41559), (119, 41646), (121, 41658), (122, 41661),

Gene: JAWS_53 Start: 38760, Stop: 39110, Start Num: 47

Candidate Starts for JAWS_53:

(Start: 47 @38760 has 67 MA's), (Start: 53 @38766 has 8 MA's), (65, 38790), (77, 38820), (113, 39036),

Gene: JaNo_96 Start: 62466, Stop: 62849, Start Num: 40

Candidate Starts for JaNo_96:

(Start: 40 @62466 has 19 MA's), (43, 62472), (63, 62517), (70, 62541), (76, 62556), (80, 62565), (86, 62610), (88, 62625), (91, 62637), (97, 62661), (100, 62670), (102, 62691), (107, 62724), (115, 62787),

Gene: Jace_70 Start: 41191, Stop: 41544, Start Num: 57

Candidate Starts for Jace_70:

(21, 41044), (36, 41131), (45, 41170), (Start: 57 @41191 has 42 MA's), (83, 41263), (86, 41290), (119, 41500),

Gene: Jarvi_53 Start: 38886, Stop: 39236, Start Num: 47

Candidate Starts for Jarvi_53:

(Start: 47 @38886 has 67 MA's), (Start: 53 @38892 has 8 MA's), (65, 38916), (77, 38946), (113, 39162),

Gene: JayCookie_97 Start: 63028, Stop: 63411, Start Num: 40

Candidate Starts for JayCookie_97:

(Start: 40 @63028 has 19 MA's), (43, 63034), (63, 63079), (70, 63103), (76, 63118), (80, 63127), (86, 63172), (88, 63187), (91, 63199), (97, 63223), (100, 63232), (102, 63253), (107, 63286), (115, 63349),

Gene: Jayhawk_54 Start: 38769, Stop: 39119, Start Num: 47

Candidate Starts for Jayhawk_54:

(Start: 47 @38769 has 67 MA's), (Start: 53 @38775 has 8 MA's), (65, 38799), (77, 38829), (113, 39045),

Gene: JeTaime_65 Start: 44183, Stop: 44515, Start Num: 54

Candidate Starts for JeTaime_65:

(Start: 54 @44183 has 121 MA's), (83, 44249), (86, 44279), (111, 44426), (119, 44480),

Gene: Jeckyll_53 Start: 38886, Stop: 39236, Start Num: 47

Candidate Starts for Jeckyll_53:

(Start: 47 @38886 has 67 MA's), (Start: 53 @38892 has 8 MA's), (65, 38916), (77, 38946), (113, 39162),

Gene: Jobypre_56 Start: 42639, Stop: 42980, Start Num: 54

Candidate Starts for Jobypre_56:

(Start: 54 @42639 has 121 MA's), (75, 42681), (105, 42825), (119, 42939),

Gene: Joy99_53 Start: 38815, Stop: 39165, Start Num: 47

Candidate Starts for Joy99_53:

(Start: 47 @38815 has 67 MA's), (Start: 53 @38821 has 8 MA's), (65, 38845), (77, 38875), (113, 39091),

Gene: Jubie_55 Start: 42774, Stop: 43115, Start Num: 54

Candidate Starts for Jubie_55:

(Start: 54 @42774 has 121 MA's), (75, 42816), (105, 42960), (119, 43074),

Gene: JuicyJay_108 Start: 65744, Stop: 66079, Start Num: 56

Candidate Starts for JuicyJay_108:

(Start: 56 @65744 has 13 MA's), (83, 65813), (100, 65906), (119, 66044),

Gene: Jumbo_66 Start: 57675, Stop: 57277, Start Num: 35

Candidate Starts for Jumbo_66:

(32, 57687), (Start: 35 @57675 has 1 MA's), (66, 57594), (77, 57567), (81, 57558), (83, 57543), (119, 57315),

Gene: KBurrousTX_95 Start: 63905, Stop: 64288, Start Num: 40

Candidate Starts for KBurrousTX_95:

(18, 63788), (Start: 40 @63905 has 19 MA's), (43, 63911), (64, 63959), (70, 63980), (73, 63986), (74, 63989), (76, 63995), (86, 64049), (88, 64064), (91, 64076), (96, 64094), (100, 64109), (102, 64130), (105, 64139), (115, 64226), (116, 64238), (122, 64268), (123, 64274),

Gene: Kabreeze_97 Start: 62552, Stop: 62935, Start Num: 40

Candidate Starts for Kabreeze_97:

(Start: 40 @62552 has 19 MA's), (43, 62558), (63, 62603), (70, 62627), (76, 62642), (80, 62651), (86, 62696), (88, 62711), (91, 62723), (97, 62747), (100, 62756), (102, 62777), (107, 62810), (115, 62873),

Gene: Kahlid_57 Start: 42449, Stop: 42784, Start Num: 57

Candidate Starts for Kahlid_57:

(Start: 57 @42449 has 42 MA's), (67, 42473), (75, 42488), (88, 42557), (105, 42632), (108, 42659), (119, 42746), (121, 42758), (122, 42761),

Gene: Kanye_62 Start: 43038, Stop: 43370, Start Num: 54

Candidate Starts for Kanye_62:

(Start: 54 @43038 has 121 MA's), (83, 43104), (86, 43134), (111, 43281), (119, 43335),

Gene: KashFlow_104 Start: 59500, Stop: 59835, Start Num: 56

Candidate Starts for KashFlow_104:

(Start: 56 @59500 has 13 MA's), (83, 59569), (100, 59662), (119, 59800),

Gene: KiSi_57 Start: 39435, Stop: 39782, Start Num: 48

Candidate Starts for KiSi_57:

(Start: 48 @39435 has 23 MA's), (65, 39465), (86, 39546), (110, 39684), (116, 39729), (121, 39756), (122, 39759),

Gene: Kimchi_69 Start: 43692, Stop: 44024, Start Num: 54

Candidate Starts for Kimchi_69:

(Start: 54 @43692 has 121 MA's), (83, 43758), (86, 43788), (111, 43935), (119, 43989),

Gene: Kingsolomon_55 Start: 42646, Stop: 42987, Start Num: 54

Candidate Starts for Kingsolomon_55:

(Start: 54 @42646 has 121 MA's), (105, 42832), (119, 42946),

Gene: KirDoubleO7_54 Start: 42677, Stop: 43018, Start Num: 54

Candidate Starts for KirDoubleO7_54:

(Start: 54 @42677 has 121 MA's), (105, 42863), (119, 42977), (121, 42989),

Gene: Kratio_46 Start: 36625, Stop: 36966, Start Num: 54

Candidate Starts for Kratio_46:

(Start: 54 @36625 has 121 MA's), (70, 36661), (88, 36742), (96, 36769), (100, 36787), (106, 36826), (116, 36910),

Gene: Kropertea_53 Start: 41244, Stop: 41591, Start Num: 57

Candidate Starts for Kropertea_53:

(Start: 57 @41244 has 42 MA's), (77, 41289), (90, 41364), (114, 41520), (119, 41550), (122, 41565),

Gene: Krueger_60 Start: 39517, Stop: 39858, Start Num: 54

Candidate Starts for Krueger_60:

(Start: 54 @39517 has 121 MA's), (80, 39574), (121, 39835),

Gene: Krypton555_57 Start: 42871, Stop: 43212, Start Num: 54

Candidate Starts for Krypton555_57:

(Start: 54 @42871 has 121 MA's), (105, 43057), (119, 43171), (121, 43183),

Gene: Larva_49 Start: 38025, Stop: 38363, Start Num: 54

Candidate Starts for Larva_49:

(Start: 54 @38025 has 121 MA's), (73, 38067), (77, 38076), (88, 38142), (106, 38226), (110, 38265), (112, 38280),

Gene: LaterM_54 Start: 39652, Stop: 40002, Start Num: 48

Candidate Starts for LaterM_54:

(Start: 48 @39652 has 23 MA's), (Start: 53 @39658 has 8 MA's), (65, 39682), (113, 39928),

Gene: LeMond_57 Start: 39416, Stop: 39763, Start Num: 48

Candidate Starts for LeMond_57:

(Start: 48 @39416 has 23 MA's), (65, 39446), (86, 39527), (110, 39665), (116, 39710), (121, 39737),

Gene: Leston_48 Start: 38092, Stop: 38430, Start Num: 54

Candidate Starts for Leston_48:

(Start: 54 @38092 has 121 MA's), (100, 38254), (110, 38332), (112, 38347), (113, 38356), (118, 38386),

Gene: Lewan_58 Start: 42503, Stop: 42838, Start Num: 57

Candidate Starts for Lewan_58:

(Start: 57 @42503 has 42 MA's), (67, 42527), (75, 42542), (88, 42611), (105, 42686), (108, 42713), (119, 42800), (121, 42812), (122, 42815),

Gene: LilDestine_57 Start: 42476, Stop: 42811, Start Num: 57

Candidate Starts for LilDestine_57:

(Start: 57 @42476 has 42 MA's), (67, 42500), (75, 42515), (88, 42584), (105, 42659), (108, 42686), (119, 42773), (121, 42785), (122, 42788),

Gene: Lilac_67 Start: 43316, Stop: 43648, Start Num: 54

Candidate Starts for Lilac_67:

(14, 43046), (15, 43064), (22, 43172), (Start: 54 @43316 has 121 MA's), (83, 43382), (86, 43412), (111, 43559), (119, 43613),

Gene: Lilbeanie_82 Start: 51693, Stop: 52034, Start Num: 53

Candidate Starts for Lilbeanie_82:

(34, 51633), (Start: 53 @51693 has 8 MA's), (83, 51771), (104, 51885), (117, 51990), (121, 52011), (123, 52020),

Gene: Lilizi_66 Start: 42990, Stop: 43322, Start Num: 54

Candidate Starts for Lilizi_66:

(14, 42720), (15, 42738), (22, 42846), (Start: 54 @42990 has 121 MA's), (83, 43056), (86, 43086), (111, 43233), (119, 43287),

Gene: LindNT_52 Start: 38974, Stop: 39324, Start Num: 47

Candidate Starts for LindNT_52:

(Start: 47 @38974 has 67 MA's), (Start: 53 @38980 has 8 MA's), (65, 39004), (77, 39034), (113, 39250),

Gene: Linus_97 Start: 63000, Stop: 63383, Start Num: 40

Candidate Starts for Linus_97:

(Start: 40 @63000 has 19 MA's), (43, 63006), (63, 63051), (70, 63075), (76, 63090), (80, 63099), (86, 63144), (88, 63159), (91, 63171), (100, 63204), (102, 63225), (107, 63258), (115, 63321),

Gene: LiyuLake_55 Start: 42693, Stop: 43034, Start Num: 54

Candidate Starts for LiyuLake_55:

(Start: 54 @42693 has 121 MA's), (105, 42879), (119, 42993), (121, 43005),

Gene: Llorens_53 Start: 38886, Stop: 39236, Start Num: 47

Candidate Starts for Llorens_53:

(Start: 47 @38886 has 67 MA's), (Start: 53 @38892 has 8 MA's), (65, 38916), (77, 38946), (113, 39162),

Gene: Loadrie_56 Start: 42531, Stop: 42866, Start Num: 57

Candidate Starts for Loadrie_56:

(Start: 57 @42531 has 42 MA's), (67, 42555), (75, 42570), (88, 42639), (105, 42714), (108, 42741), (119, 42828), (121, 42840), (122, 42843),

Gene: Lolly9_55 Start: 42464, Stop: 42805, Start Num: 54

Candidate Starts for Lolly9_55:

(Start: 54 @42464 has 121 MA's), (88, 42575), (105, 42650), (118, 42758), (119, 42764), (121, 42776),

Gene: Lozinak_10 Start: 2375, Stop: 2713, Start Num: 52

Candidate Starts for Lozinak_10:

(Start: 52 @2375 has 27 MA's), (83, 2444), (117, 2663),

Gene: Lucky2013_104 Start: 59065, Stop: 59400, Start Num: 56

Candidate Starts for Lucky2013_104:

(Start: 56 @59065 has 13 MA's), (83, 59134), (100, 59227), (119, 59365),

Gene: Lumos_57 Start: 42636, Stop: 42977, Start Num: 54

Candidate Starts for Lumos_57:

(Start: 54 @42636 has 121 MA's), (75, 42678), (105, 42822), (119, 42936),

Gene: Lunahalos_53 Start: 38886, Stop: 39236, Start Num: 47

Candidate Starts for Lunahalos_53:

(Start: 47 @38886 has 67 MA's), (Start: 53 @38892 has 8 MA's), (65, 38916), (77, 38946), (113, 39162),

Gene: Lyell_90 Start: 51220, Stop: 50873, Start Num: 46

Candidate Starts for Lyell_90:

(26, 51298), (Start: 46 @51220 has 11 MA's), (66, 51184), (70, 51172), (86, 51109), (88, 51094), (92, 51088), (109, 50992),

Gene: Lymara_94 Start: 61459, Stop: 61842, Start Num: 40

Candidate Starts for Lymara_94:

(Start: 40 @61459 has 19 MA's), (43, 61465), (64, 61513), (70, 61534), (73, 61540), (76, 61549), (86, 61603), (88, 61618), (91, 61630), (97, 61654), (100, 61663), (115, 61780), (122, 61822),

Gene: MISSy_66 Start: 43414, Stop: 43746, Start Num: 54

Candidate Starts for MISSy_66:

(14, 43144), (15, 43162), (22, 43270), (Start: 54 @43414 has 121 MA's), (83, 43480), (86, 43510), (111, 43657), (119, 43711),

Gene: MPhalcon_66 Start: 43407, Stop: 43739, Start Num: 54

Candidate Starts for MPhalcon_66:

(14, 43137), (15, 43155), (22, 43263), (Start: 54 @43407 has 121 MA's), (83, 43473), (86, 43503), (111, 43650), (119, 43704),

Gene: MaVan_56 Start: 41910, Stop: 42248, Start Num: 57

Candidate Starts for MaVan_56:

(10, 41589), (11, 41601), (Start: 57 @41910 has 42 MA's), (68, 41937), (80, 41961), (83, 41979), (105, 42099), (109, 42138), (123, 42231),

Gene: MacKat_48 Start: 34234, Stop: 34584, Start Num: 48

Candidate Starts for MacKat_48:

(Start: 48 @34234 has 23 MA's), (Start: 53 @34240 has 8 MA's), (65, 34264), (77, 34294), (113, 34510),

Gene: MalagasyRose_56 Start: 38407, Stop: 38751, Start Num: 49

Candidate Starts for MalagasyRose_56:

(Start: 49 @38407 has 1 MA's), (55, 38416), (66, 38434), (68, 38440), (83, 38482), (86, 38512), (88, 38527), (96, 38557), (105, 38602), (121, 38725),

Gene: MarkPhew_56 Start: 39122, Stop: 39454, Start Num: 59

Candidate Starts for MarkPhew_56:

(Start: 53 @39113 has 8 MA's), (Start: 59 @39122 has 2 MA's), (65, 39137), (86, 39218), (121, 39428),

Gene: Marshmallow_63 Start: 44184, Stop: 44516, Start Num: 54
Candidate Starts for Marshmallow_63:
(Start: 54 @44184 has 121 MA's), (83, 44250), (86, 44280), (111, 44427), (119, 44481),

Gene: MarysWell_43 Start: 34814, Stop: 34485, Start Num: 62
Candidate Starts for MarysWell_43:
(Start: 62 @34814 has 3 MA's), (83, 34748), (93, 34694), (98, 34667), (102, 34643), (104, 34637),
(123, 34502),

Gene: Maxxinista_67 Start: 43286, Stop: 43618, Start Num: 54
Candidate Starts for Maxxinista_67:
(14, 43016), (15, 43034), (22, 43142), (Start: 54 @43286 has 121 MA's), (83, 43352), (86, 43382),
(111, 43529), (119, 43583),

Gene: McMater_56 Start: 39469, Stop: 39807, Start Num: 54
Candidate Starts for McMater_56:
(Start: 54 @39469 has 121 MA's), (75, 39511), (77, 39517), (88, 39583), (121, 39781),

Gene: MeaningOfLife_54 Start: 39641, Stop: 39991, Start Num: 47
Candidate Starts for MeaningOfLife_54:
(Start: 47 @39641 has 67 MA's), (Start: 53 @39647 has 8 MA's), (65, 39671), (77, 39701), (79, 39704),
(113, 39917),

Gene: Megsy_55 Start: 39042, Stop: 39392, Start Num: 47
Candidate Starts for Megsy_55:
(Start: 47 @39042 has 67 MA's), (65, 39072), (106, 39252), (113, 39318),

Gene: MiaZeal_107 Start: 59696, Stop: 60031, Start Num: 56
Candidate Starts for MiaZeal_107:
(Start: 56 @59696 has 13 MA's), (83, 59765), (100, 59858), (119, 59996),

Gene: Miley16_57 Start: 42443, Stop: 42778, Start Num: 57
Candidate Starts for Miley16_57:
(Start: 57 @42443 has 42 MA's), (67, 42467), (75, 42482), (88, 42551), (105, 42626), (108, 42653),
(119, 42740), (121, 42752), (122, 42755),

Gene: MiniLon_59 Start: 42465, Stop: 42806, Start Num: 54
Candidate Starts for MiniLon_59:
(Start: 54 @42465 has 121 MA's), (88, 42576), (105, 42651), (118, 42759), (119, 42765), (121, 42777),

Gene: MiniMac_59 Start: 42463, Stop: 42804, Start Num: 54
Candidate Starts for MiniMac_59:
(Start: 54 @42463 has 121 MA's), (88, 42574), (105, 42649), (118, 42757), (119, 42763), (121, 42775),

Gene: Miryou_51 Start: 40294, Stop: 40632, Start Num: 54
Candidate Starts for Miryou_51:
(Start: 54 @40294 has 121 MA's), (100, 40456), (110, 40534), (112, 40549), (113, 40558), (118,
40588),

Gene: Misfit_66 Start: 44426, Stop: 44758, Start Num: 54
Candidate Starts for Misfit_66:

(14, 44156), (15, 44174), (22, 44282), (Start: 54 @44426 has 121 MA's), (83, 44492), (86, 44522), (111, 44669), (119, 44723),

Gene: Miskis_12 Start: 2444, Stop: 2713, Start Num: 83

Candidate Starts for Miskis_12:

(Start: 52 @2375 has 27 MA's), (83, 2444), (117, 2663),

Gene: MkaliMitinis3_58 Start: 42515, Stop: 42850, Start Num: 57

Candidate Starts for MkaliMitinis3_58:

(Start: 57 @42515 has 42 MA's), (67, 42539), (75, 42554), (88, 42623), (105, 42698), (108, 42725), (119, 42812), (121, 42824), (122, 42827),

Gene: ModicumRichard_85 Start: 52045, Stop: 52392, Start Num: 53

Candidate Starts for ModicumRichard_85:

(37, 51994), (Start: 53 @52045 has 8 MA's), (68, 52078), (76, 52099), (83, 52126),

Gene: Moostard_55 Start: 42642, Stop: 42983, Start Num: 54

Candidate Starts for Moostard_55:

(Start: 54 @42642 has 121 MA's), (105, 42828), (119, 42942),

Gene: Mordred_97 Start: 62591, Stop: 62974, Start Num: 40

Candidate Starts for Mordred_97:

(Start: 40 @62591 has 19 MA's), (43, 62597), (63, 62642), (70, 62666), (76, 62681), (80, 62690), (86, 62735), (88, 62750), (91, 62762), (97, 62786), (100, 62795), (102, 62816), (107, 62849), (115, 62912),

Gene: Morgana_92 Start: 54214, Stop: 54561, Start Num: 53

Candidate Starts for Morgana_92:

(Start: 53 @54214 has 8 MA's), (68, 54247), (76, 54268), (83, 54295),

Gene: Mosby_61 Start: 42709, Stop: 43041, Start Num: 54

Candidate Starts for Mosby_61:

(14, 42439), (15, 42457), (22, 42565), (Start: 54 @42709 has 121 MA's), (83, 42775), (86, 42805), (111, 42952), (119, 43006),

Gene: MoyaNatalis_96 Start: 62474, Stop: 62857, Start Num: 40

Candidate Starts for MoyaNatalis_96:

(Start: 40 @62474 has 19 MA's), (43, 62480), (63, 62525), (70, 62549), (76, 62564), (80, 62573), (86, 62618), (88, 62633), (91, 62645), (97, 62669), (100, 62678), (102, 62699), (107, 62732), (115, 62795),

Gene: MsGreen_56 Start: 42639, Stop: 42980, Start Num: 54

Candidate Starts for MsGreen_56:

(Start: 54 @42639 has 121 MA's), (75, 42681), (105, 42825), (119, 42939),

Gene: Mulch_57 Start: 38831, Stop: 39163, Start Num: 52

Candidate Starts for Mulch_57:

(33, 38768), (39, 38795), (Start: 52 @38831 has 27 MA's), (68, 38864), (79, 38885), (86, 38936), (100, 38996),

Gene: Murica_68 Start: 44361, Stop: 44693, Start Num: 54

Candidate Starts for Murica_68:

(14, 44091), (15, 44109), (22, 44217), (Start: 54 @44361 has 121 MA's), (83, 44427), (86, 44457), (111, 44604), (119, 44658),

Gene: Murucutumbu_54 Start: 39751, Stop: 40101, Start Num: 48
Candidate Starts for Murucutumbu_54:
(Start: 48 @39751 has 23 MA's), (Start: 53 @39757 has 8 MA's), (65, 39781), (113, 40027),

Gene: Musetta_89 Start: 51559, Stop: 51212, Start Num: 46
Candidate Starts for Musetta_89:
(26, 51637), (Start: 46 @51559 has 11 MA's), (66, 51523), (70, 51511), (86, 51448), (88, 51433), (92, 51427), (109, 51331),

Gene: Mynx_54 Start: 39090, Stop: 39440, Start Num: 47
Candidate Starts for Mynx_54:
(Start: 47 @39090 has 67 MA's), (Start: 53 @39096 has 8 MA's), (65, 39120), (77, 39150), (113, 39366),

Gene: Myrale_65 Start: 44049, Stop: 44381, Start Num: 54
Candidate Starts for Myrale_65:
(Start: 54 @44049 has 121 MA's), (83, 44115), (86, 44145), (111, 44292), (119, 44346),

Gene: Nadeem_57 Start: 38819, Stop: 39151, Start Num: 52
Candidate Starts for Nadeem_57:
(33, 38756), (39, 38783), (Start: 52 @38819 has 27 MA's), (68, 38852), (79, 38873), (86, 38924), (100, 38984),

Gene: Nala_67 Start: 43919, Stop: 44251, Start Num: 54
Candidate Starts for Nala_67:
(14, 43649), (15, 43667), (22, 43775), (Start: 54 @43919 has 121 MA's), (83, 43985), (86, 44015), (111, 44162), (119, 44216),

Gene: NancyRae_56 Start: 38817, Stop: 39149, Start Num: 52
Candidate Starts for NancyRae_56:
(39, 38781), (Start: 52 @38817 has 27 MA's), (68, 38850), (79, 38871), (86, 38922), (100, 38982),

Gene: Necrophoxinus_92 Start: 51906, Stop: 51559, Start Num: 46
Candidate Starts for Necrophoxinus_92:
(26, 51984), (Start: 46 @51906 has 11 MA's), (66, 51870), (70, 51858), (86, 51795), (88, 51780), (92, 51774), (109, 51678),

Gene: Neighly_50 Start: 38024, Stop: 38362, Start Num: 54
Candidate Starts for Neighly_50:
(Start: 54 @38024 has 121 MA's), (73, 38066), (77, 38075), (88, 38141), (106, 38225), (110, 38264), (112, 38279),

Gene: NelitzaMV_63 Start: 42998, Stop: 43330, Start Num: 54
Candidate Starts for NelitzaMV_63:
(Start: 54 @42998 has 121 MA's), (83, 43064), (86, 43094), (111, 43241), (119, 43295),

Gene: Nergal_50 Start: 36801, Stop: 37136, Start Num: 54
Candidate Starts for Nergal_50:
(38, 36756), (Start: 54 @36801 has 121 MA's), (75, 36846), (116, 37083), (119, 37098), (121, 37110), (122, 37113),

Gene: Netyap_58 Start: 42444, Stop: 42779, Start Num: 57
Candidate Starts for Netyap_58:

(Start: 57 @42444 has 42 MA's), (67, 42468), (75, 42483), (88, 42552), (105, 42627), (108, 42654), (119, 42741), (121, 42753), (122, 42756),

Gene: Neville_70 Start: 44606, Stop: 44950, Start Num: 53

Candidate Starts for Neville_70:

(13, 44336), (17, 44444), (24, 44501), (25, 44507), (32, 44540), (Start: 53 @44606 has 8 MA's), (65, 44627), (83, 44675), (85, 44702), (102, 44783), (105, 44792), (117, 44894), (124, 44933),

Gene: Nibb_55 Start: 38811, Stop: 39158, Start Num: 48

Candidate Starts for Nibb_55:

(Start: 48 @38811 has 23 MA's), (Start: 54 @38820 has 121 MA's), (77, 38871), (86, 38922), (121, 39132),

Gene: Nibbles_55 Start: 41590, Stop: 41928, Start Num: 57

Candidate Starts for Nibbles_55:

(11, 41281), (Start: 57 @41590 has 42 MA's), (68, 41617), (80, 41641), (83, 41659), (105, 41779), (109, 41818), (123, 41911),

Gene: Nicholas_55 Start: 42646, Stop: 42987, Start Num: 54

Candidate Starts for Nicholas_55:

(Start: 54 @42646 has 121 MA's), (105, 42832), (119, 42946),

Gene: Nicholasp3_57 Start: 42479, Stop: 42814, Start Num: 57

Candidate Starts for Nicholasp3_57:

(Start: 57 @42479 has 42 MA's), (67, 42503), (75, 42518), (88, 42587), (105, 42662), (108, 42689), (119, 42776), (121, 42788), (122, 42791),

Gene: Niklas_56 Start: 39530, Stop: 39868, Start Num: 54

Candidate Starts for Niklas_56:

(Start: 54 @39530 has 121 MA's), (75, 39572), (77, 39578), (88, 39644), (121, 39842),

Gene: Nimrod_66 Start: 44619, Stop: 44951, Start Num: 54

Candidate Starts for Nimrod_66:

(14, 44349), (15, 44367), (22, 44475), (Start: 54 @44619 has 121 MA's), (83, 44685), (86, 44715), (111, 44862), (119, 44916),

Gene: Norvs_10 Start: 2375, Stop: 2713, Start Num: 52

Candidate Starts for Norvs_10:

(Start: 52 @2375 has 27 MA's), (83, 2444), (117, 2663),

Gene: ObLaDi_85 Start: 52071, Stop: 52418, Start Num: 53

Candidate Starts for ObLaDi_85:

(Start: 53 @52071 has 8 MA's), (68, 52104), (76, 52125), (83, 52152),

Gene: OkiRoe_48 Start: 37965, Stop: 38303, Start Num: 54

Candidate Starts for OkiRoe_48:

(Start: 54 @37965 has 121 MA's), (100, 38127), (110, 38205), (112, 38220), (113, 38229), (118, 38259),

Gene: Omnicron_51 Start: 37572, Stop: 37910, Start Num: 54

Candidate Starts for Omnicron_51:

(3, 37089), (12, 37275), (Start: 54 @37572 has 121 MA's), (70, 37608), (73, 37614), (100, 37734), (110, 37812), (112, 37827), (113, 37836), (119, 37872),

Gene: OrionPax_64 Start: 43004, Stop: 43336, Start Num: 54

Candidate Starts for OrionPax_64:

(Start: 54 @43004 has 121 MA's), (83, 43070), (86, 43100), (111, 43247), (119, 43301),

Gene: Oscar_57 Start: 39321, Stop: 39668, Start Num: 48

Candidate Starts for Oscar_57:

(Start: 48 @39321 has 23 MA's), (65, 39351), (86, 39432), (110, 39570), (116, 39615), (121, 39642),

Gene: PSonyx_49 Start: 34991, Stop: 34641, Start Num: 61

Candidate Starts for PSonyx_49:

(Start: 61 @34991 has 1 MA's), (83, 34925), (119, 34688),

Gene: PYPDinur_53 Start: 41170, Stop: 41517, Start Num: 57

Candidate Starts for PYPDinur_53:

(Start: 57 @41170 has 42 MA's), (77, 41215), (100, 41335), (114, 41446), (119, 41476), (122, 41491),

Gene: Padfoot_53 Start: 39083, Stop: 39433, Start Num: 47

Candidate Starts for Padfoot_53:

(Start: 47 @39083 has 67 MA's), (Start: 53 @39089 has 8 MA's), (65, 39113), (77, 39143), (113, 39359),

Gene: Padpat_55 Start: 38765, Stop: 39115, Start Num: 47

Candidate Starts for Padpat_55:

(Start: 47 @38765 has 67 MA's), (Start: 53 @38771 has 8 MA's), (65, 38795), (77, 38825), (113, 39041),

Gene: Palpatine_67 Start: 44391, Stop: 44723, Start Num: 54

Candidate Starts for Palpatine_67:

(14, 44121), (15, 44139), (22, 44247), (Start: 54 @44391 has 121 MA's), (83, 44457), (86, 44487), (111, 44634), (119, 44688),

Gene: Paola_48 Start: 37963, Stop: 38301, Start Num: 54

Candidate Starts for Paola_48:

(Start: 54 @37963 has 121 MA's), (100, 38125), (110, 38203), (112, 38218), (113, 38227),

Gene: Parada_57 Start: 38831, Stop: 39163, Start Num: 52

Candidate Starts for Parada_57:

(33, 38768), (39, 38795), (Start: 52 @38831 has 27 MA's), (68, 38864), (79, 38885), (86, 38936), (100, 38996),

Gene: Pat3_63 Start: 42153, Stop: 42485, Start Num: 54

Candidate Starts for Pat3_63:

(Start: 54 @42153 has 121 MA's), (83, 42219), (86, 42249), (111, 42396), (119, 42450),

Gene: Peanam_56 Start: 39488, Stop: 39826, Start Num: 54

Candidate Starts for Peanam_56:

(Start: 54 @39488 has 121 MA's), (75, 39530), (77, 39536), (88, 39602), (121, 39800),

Gene: Peel_53 Start: 38888, Stop: 39238, Start Num: 47

Candidate Starts for Peel_53:

(Start: 47 @38888 has 67 MA's), (Start: 53 @38894 has 8 MA's), (65, 38918), (77, 38948), (113, 39164),

Gene: Petra64142_69 Start: 44855, Stop: 45187, Start Num: 54

Candidate Starts for Petra64142_69:

(14, 44585), (15, 44603), (22, 44711), (Start: 54 @44855 has 121 MA's), (83, 44921), (86, 44951), (111, 45098), (119, 45152),

Gene: Pharb_52 Start: 38109, Stop: 38447, Start Num: 58

Candidate Starts for Pharb_52:

(Start: 58 @38109 has 2 MA's), (68, 38133), (77, 38154), (82, 38169), (90, 38229), (98, 38268), (121, 38424), (122, 38427),

Gene: PhatBacter_69 Start: 44405, Stop: 44737, Start Num: 54

Candidate Starts for PhatBacter_69:

(14, 44135), (15, 44153), (22, 44261), (Start: 54 @44405 has 121 MA's), (83, 44471), (86, 44501), (111, 44648), (119, 44702),

Gene: Phaux_67 Start: 44403, Stop: 44735, Start Num: 54

Candidate Starts for Phaux_67:

(14, 44133), (15, 44151), (22, 44259), (Start: 54 @44403 has 121 MA's), (83, 44469), (86, 44499), (111, 44646), (119, 44700),

Gene: PhelpsODU_55 Start: 38455, Stop: 38796, Start Num: 54

Candidate Starts for PhelpsODU_55:

(Start: 54 @38455 has 121 MA's), (80, 38512), (121, 38773),

Gene: PhinkBoden_11 Start: 2875, Stop: 3213, Start Num: 52

Candidate Starts for PhinkBoden_11:

(Start: 52 @2875 has 27 MA's), (83, 2944), (117, 3163), (123, 3193),

Gene: Phrank_57 Start: 38516, Stop: 38863, Start Num: 54

Candidate Starts for Phrank_57:

(Start: 54 @38516 has 121 MA's), (80, 38573), (121, 38834), (123, 38843),

Gene: Piatt_53 Start: 39083, Stop: 39433, Start Num: 47

Candidate Starts for Piatt_53:

(Start: 47 @39083 has 67 MA's), (Start: 53 @39089 has 8 MA's), (65, 39113), (77, 39143), (113, 39359),

Gene: Pimento_59 Start: 38730, Stop: 39062, Start Num: 52

Candidate Starts for Pimento_59:

(33, 38667), (39, 38694), (50, 38727), (Start: 52 @38730 has 27 MA's), (68, 38763), (79, 38784), (86, 38835), (100, 38895),

Gene: Pokerus_52 Start: 38818, Stop: 39168, Start Num: 47

Candidate Starts for Pokerus_52:

(Start: 47 @38818 has 67 MA's), (Start: 53 @38824 has 8 MA's), (65, 38848), (77, 38878), (113, 39094),

Gene: Policronamos_69 Start: 44403, Stop: 44735, Start Num: 54

Candidate Starts for Policronamos_69:

(14, 44133), (15, 44151), (22, 44259), (Start: 54 @44403 has 121 MA's), (83, 44469), (86, 44499), (111, 44646), (119, 44700),

Gene: Poochiewood_54 Start: 40600, Stop: 40935, Start Num: 57
Candidate Starts for Poochiewood_54:
(Start: 57 @40600 has 42 MA's), (88, 40711), (114, 40867), (119, 40897),

Gene: Porcelain_105 Start: 59693, Stop: 60028, Start Num: 56
Candidate Starts for Porcelain_105:
(Start: 56 @59693 has 13 MA's), (83, 59762), (100, 59855), (119, 59993),

Gene: PrincessTrina_98 Start: 62782, Stop: 63165, Start Num: 40
Candidate Starts for PrincessTrina_98:
(Start: 40 @62782 has 19 MA's), (43, 62788), (63, 62833), (70, 62857), (76, 62872), (80, 62881), (86, 62926), (88, 62941), (91, 62953), (97, 62977), (100, 62986), (102, 63007), (107, 63040), (115, 63103),

Gene: Prithvi_54 Start: 38974, Stop: 39324, Start Num: 47
Candidate Starts for Prithvi_54:
(Start: 47 @38974 has 67 MA's), (Start: 53 @38980 has 8 MA's), (65, 39004), (77, 39034), (113, 39250),

Gene: Psycho_48 Start: 37150, Stop: 37488, Start Num: 54
Candidate Starts for Psycho_48:
(Start: 54 @37150 has 121 MA's), (77, 37201), (88, 37267), (106, 37351), (110, 37390), (112, 37405),

Gene: Pumpkin_68 Start: 44054, Stop: 44386, Start Num: 54
Candidate Starts for Pumpkin_68:
(Start: 54 @44054 has 121 MA's), (83, 44120), (86, 44150), (111, 44297), (119, 44351),

Gene: Quallification_66 Start: 44038, Stop: 44370, Start Num: 54
Candidate Starts for Quallification_66:
(Start: 54 @44038 has 121 MA's), (83, 44104), (86, 44134), (111, 44281), (119, 44335),

Gene: Quby_54 Start: 41023, Stop: 41370, Start Num: 57
Candidate Starts for Quby_54:
(Start: 57 @41023 has 42 MA's), (77, 41068), (114, 41299), (119, 41329), (122, 41344),

Gene: QuincyRose_52 Start: 39147, Stop: 39497, Start Num: 47
Candidate Starts for QuincyRose_52:
(Start: 47 @39147 has 67 MA's), (Start: 53 @39153 has 8 MA's), (65, 39177), (77, 39207), (82, 39225), (113, 39423),

Gene: Ramen_54 Start: 38773, Stop: 39123, Start Num: 47
Candidate Starts for Ramen_54:
(Start: 47 @38773 has 67 MA's), (Start: 53 @38779 has 8 MA's), (65, 38803), (77, 38833), (113, 39049),

Gene: Rando14_50 Start: 36149, Stop: 36487, Start Num: 54
Candidate Starts for Rando14_50:
(Start: 54 @36149 has 121 MA's), (70, 36185), (73, 36191), (100, 36311), (110, 36389), (113, 36413),

Gene: Rapunzel97_54 Start: 38769, Stop: 39119, Start Num: 47
Candidate Starts for Rapunzel97_54:
(Start: 47 @38769 has 67 MA's), (Start: 53 @38775 has 8 MA's), (65, 38799), (77, 38829), (113, 39045),

Gene: Redno2_103 Start: 60400, Stop: 60735, Start Num: 56
Candidate Starts for Redno2_103:
(Start: 56 @60400 has 13 MA's), (83, 60469), (100, 60562), (119, 60700),

Gene: Richo_56 Start: 39469, Stop: 39807, Start Num: 54
Candidate Starts for Richo_56:
(Start: 54 @39469 has 121 MA's), (75, 39511), (77, 39517), (88, 39583), (121, 39781),

Gene: Rimmer_66 Start: 43746, Stop: 44078, Start Num: 54
Candidate Starts for Rimmer_66:
(Start: 54 @43746 has 121 MA's), (83, 43812), (86, 43842), (111, 43989), (119, 44043),

Gene: RiverMonster_65 Start: 43574, Stop: 43906, Start Num: 54
Candidate Starts for RiverMonster_65:
(14, 43304), (15, 43322), (22, 43430), (Start: 54 @43574 has 121 MA's), (83, 43640), (86, 43670),
(111, 43817), (119, 43871),

Gene: Rose5_54 Start: 40612, Stop: 40947, Start Num: 57
Candidate Starts for Rose5_54:
(Start: 57 @40612 has 42 MA's), (88, 40723), (114, 40879), (119, 40909),

Gene: RosiePosie_97 Start: 62647, Stop: 63030, Start Num: 40
Candidate Starts for RosiePosie_97:
(Start: 40 @62647 has 19 MA's), (43, 62653), (63, 62698), (70, 62722), (76, 62737), (80, 62746), (86,
62791), (88, 62806), (91, 62818), (97, 62842), (100, 62851), (102, 62872), (107, 62905), (115, 62968),

Gene: Rosmarinus_53 Start: 38874, Stop: 39224, Start Num: 47
Candidate Starts for Rosmarinus_53:
(Start: 47 @38874 has 67 MA's), (Start: 53 @38880 has 8 MA's), (65, 38904), (77, 38934), (113,
39150),

Gene: Rumpelstiltskin_56 Start: 41872, Stop: 42207, Start Num: 57
Candidate Starts for Rumpelstiltskin_56:
(Start: 57 @41872 has 42 MA's), (67, 41896), (75, 41911), (88, 41980), (105, 42055), (108, 42082),
(119, 42169), (121, 42181), (122, 42184),

Gene: RunningBrook_92 Start: 52270, Stop: 51923, Start Num: 46
Candidate Starts for RunningBrook_92:
(26, 52348), (Start: 46 @52270 has 11 MA's), (66, 52234), (70, 52222), (86, 52159), (88, 52144), (92,
52138), (109, 52042),

Gene: Samty_56 Start: 42647, Stop: 42988, Start Num: 54
Candidate Starts for Samty_56:
(Start: 54 @42647 has 121 MA's), (105, 42833), (119, 42947), (121, 42959),

Gene: SamuelLPlaqson_54 Start: 39665, Stop: 40015, Start Num: 48
Candidate Starts for SamuelLPlaqson_54:
(Start: 48 @39665 has 23 MA's), (Start: 53 @39671 has 8 MA's), (65, 39695), (77, 39725), (113,
39941),

Gene: Sarshaun_57 Start: 42539, Stop: 42874, Start Num: 57
Candidate Starts for Sarshaun_57:

(Start: 57 @42539 has 42 MA's), (67, 42563), (75, 42578), (88, 42647), (105, 42722), (108, 42749), (119, 42836), (121, 42848), (122, 42851),

Gene: Sassay_60 Start: 41671, Stop: 42003, Start Num: 54

Candidate Starts for Sassay_60:

(Start: 54 @41671 has 121 MA's), (83, 41737), (86, 41767), (111, 41914), (119, 41968),

Gene: Scarlett_57 Start: 39316, Stop: 39663, Start Num: 48

Candidate Starts for Scarlett_57:

(Start: 48 @39316 has 23 MA's), (65, 39346), (86, 39427), (110, 39565), (116, 39610), (121, 39637),

Gene: Scavito_98 Start: 62640, Stop: 63023, Start Num: 40

Candidate Starts for Scavito_98:

(Start: 40 @62640 has 19 MA's), (43, 62646), (63, 62691), (70, 62715), (76, 62730), (80, 62739), (86, 62784), (88, 62799), (91, 62811), (97, 62835), (100, 62844), (102, 62865), (107, 62898), (115, 62961),

Gene: Shadow1_59 Start: 39359, Stop: 39703, Start Num: 54

Candidate Starts for Shadow1_59:

(4, 38927), (6, 38954), (8, 39011), (19, 39212), (Start: 54 @39359 has 121 MA's), (80, 39416), (121, 39677), (123, 39686),

Gene: Shaobing_56 Start: 39506, Stop: 39844, Start Num: 54

Candidate Starts for Shaobing_56:

(Start: 54 @39506 has 121 MA's), (75, 39548), (77, 39554), (88, 39620), (121, 39818),

Gene: Sheng711_55 Start: 41147, Stop: 41494, Start Num: 57

Candidate Starts for Sheng711_55:

(Start: 57 @41147 has 42 MA's), (77, 41192), (100, 41312), (114, 41423), (119, 41453), (122, 41468),

Gene: ShereKhan_64 Start: 43962, Stop: 44294, Start Num: 54

Candidate Starts for ShereKhan_64:

(Start: 54 @43962 has 121 MA's), (83, 44028), (86, 44058), (111, 44205), (119, 44259),

Gene: ShiaSurprise_54 Start: 39083, Stop: 39433, Start Num: 47

Candidate Starts for ShiaSurprise_54:

(Start: 47 @39083 has 67 MA's), (Start: 53 @39089 has 8 MA's), (65, 39113), (77, 39143), (113, 39359),

Gene: SirDuracell_64 Start: 42245, Stop: 42577, Start Num: 54

Candidate Starts for SirDuracell_64:

(Start: 54 @42245 has 121 MA's), (83, 42311), (86, 42341), (111, 42488), (119, 42542),

Gene: Slimphazie_53 Start: 38769, Stop: 39119, Start Num: 47

Candidate Starts for Slimphazie_53:

(Start: 47 @38769 has 67 MA's), (Start: 53 @38775 has 8 MA's), (65, 38799), (77, 38829), (113, 39045),

Gene: Smoothie_10 Start: 2375, Stop: 2713, Start Num: 52

Candidate Starts for Smoothie_10:

(Start: 52 @2375 has 27 MA's), (83, 2444), (117, 2663),

Gene: Snenia_55 Start: 42640, Stop: 42981, Start Num: 54

Candidate Starts for Snenia_55:

(Start: 54 @42640 has 121 MA's), (75, 42682), (105, 42826), (119, 42940),

Gene: SoSeph_48 Start: 38138, Stop: 38476, Start Num: 54

Candidate Starts for SoSeph_48:

(2, 37655), (7, 37781), (Start: 54 @38138 has 121 MA's), (100, 38300), (110, 38378), (112, 38393), (113, 38402), (118, 38432),

Gene: Soap141_57 Start: 42539, Stop: 42874, Start Num: 57

Candidate Starts for Soap141_57:

(Start: 57 @42539 has 42 MA's), (67, 42563), (75, 42578), (88, 42647), (105, 42722), (108, 42749), (119, 42836), (121, 42848), (122, 42851),

Gene: Soondubu_27 Start: 24626, Stop: 24961, Start Num: 59

Candidate Starts for Soondubu_27:

(16, 24452), (Start: 59 @24626 has 2 MA's), (119, 24920),

Gene: Sotrice96_66 Start: 43652, Stop: 43984, Start Num: 54

Candidate Starts for Sotrice96_66:

(Start: 54 @43652 has 121 MA's), (83, 43718), (86, 43748), (111, 43895), (119, 43949),

Gene: Spock_53 Start: 38887, Stop: 39237, Start Num: 47

Candidate Starts for Spock_53:

(Start: 47 @38887 has 67 MA's), (Start: 53 @38893 has 8 MA's), (65, 38917), (77, 38947), (113, 39163),

Gene: Squint_105 Start: 59815, Stop: 60150, Start Num: 56

Candidate Starts for Squint_105:

(Start: 56 @59815 has 13 MA's), (83, 59884), (100, 59977), (119, 60115),

Gene: Stark_66 Start: 43460, Stop: 43792, Start Num: 54

Candidate Starts for Stark_66:

(Start: 54 @43460 has 121 MA's), (83, 43526), (86, 43556), (111, 43703), (119, 43757),

Gene: StevieWelch_91 Start: 51363, Stop: 51016, Start Num: 46

Candidate Starts for StevieWelch_91:

(Start: 46 @51363 has 11 MA's), (70, 51315), (86, 51252), (88, 51237), (92, 51231), (109, 51135),

Gene: Stinson_54 Start: 39274, Stop: 39624, Start Num: 48

Candidate Starts for Stinson_54:

(Start: 48 @39274 has 23 MA's), (Start: 53 @39280 has 8 MA's), (65, 39304), (77, 39334), (113, 39550), (120, 39595),

Gene: StolenFromERC_68 Start: 43689, Stop: 44021, Start Num: 54

Candidate Starts for StolenFromERC_68:

(Start: 54 @43689 has 121 MA's), (83, 43755), (86, 43785), (111, 43932), (119, 43986),

Gene: Sulley_53 Start: 38933, Stop: 39283, Start Num: 48

Candidate Starts for Sulley_53:

(Start: 48 @38933 has 23 MA's), (Start: 53 @38939 has 8 MA's), (65, 38963), (77, 38993), (113, 39209),

Gene: Sunflower1121_60 Start: 39505, Stop: 39849, Start Num: 54

Candidate Starts for Sunflower1121_60:

(4, 39073), (6, 39100), (8, 39157), (19, 39358), (Start: 54 @39505 has 121 MA's), (80, 39562), (121, 39823), (123, 39832),

Gene: Superphikiman_104 Start: 58906, Stop: 59241, Start Num: 56

Candidate Starts for Superphikiman_104:

(Start: 56 @58906 has 13 MA's), (83, 58975), (100, 59068), (119, 59206),

Gene: Survivors_57 Start: 41802, Stop: 42128, Start Num: 57

Candidate Starts for Survivors_57:

(10, 41481), (11, 41493), (Start: 57 @41802 has 42 MA's), (68, 41829), (80, 41853), (83, 41871), (93, 41931), (105, 41988), (121, 42111), (123, 42120),

Gene: Syra333_59 Start: 39526, Stop: 39870, Start Num: 54

Candidate Starts for Syra333_59:

(Start: 54 @39526 has 121 MA's), (121, 39844), (123, 39853),

Gene: TClif_56 Start: 39191, Stop: 39532, Start Num: 54

Candidate Starts for TClif_56:

(Start: 54 @39191 has 121 MA's), (69, 39224), (80, 39248), (119, 39497), (121, 39509),

Gene: TMaxx_65 Start: 37726, Stop: 37325, Start Num: 32

Candidate Starts for TMaxx_65:

(9, 37999), (32, 37726), (105, 37471), (110, 37417),

Gene: Tachez_53 Start: 38731, Stop: 39081, Start Num: 47

Candidate Starts for Tachez_53:

(Start: 47 @38731 has 67 MA's), (Start: 53 @38737 has 8 MA's), (65, 38761), (77, 38791), (113, 39007),

Gene: TaiwanKao_55 Start: 39036, Stop: 39386, Start Num: 47

Candidate Starts for TaiwanKao_55:

(Start: 47 @39036 has 67 MA's), (Start: 53 @39042 has 8 MA's), (65, 39066), (106, 39246), (113, 39312),

Gene: Terminus_68 Start: 44426, Stop: 44758, Start Num: 54

Candidate Starts for Terminus_68:

(14, 44156), (15, 44174), (22, 44282), (Start: 54 @44426 has 121 MA's), (83, 44492), (86, 44522), (111, 44669), (119, 44723),

Gene: Theia_42 Start: 34792, Stop: 34463, Start Num: 62

Candidate Starts for Theia_42:

(Start: 62 @34792 has 3 MA's), (83, 34726), (93, 34672), (98, 34645), (102, 34621), (104, 34615), (123, 34480),

Gene: Thyatira_51 Start: 40300, Stop: 40638, Start Num: 54

Candidate Starts for Thyatira_51:

(Start: 54 @40300 has 121 MA's), (100, 40462), (110, 40540), (112, 40555), (113, 40564), (118, 40594),

Gene: Tierra_57 Start: 39327, Stop: 39674, Start Num: 54

Candidate Starts for Tierra_57:

(Start: 54 @39327 has 121 MA's), (80, 39384), (121, 39645), (123, 39654),

Gene: TiniBug_54 Start: 39661, Stop: 40011, Start Num: 48

Candidate Starts for TiniBug_54:

(Start: 48 @39661 has 23 MA's), (Start: 53 @39667 has 8 MA's), (65, 39691), (77, 39721), (113, 39937),

Gene: Tiri_54 Start: 39061, Stop: 39411, Start Num: 47

Candidate Starts for Tiri_54:

(Start: 47 @39061 has 67 MA's), (Start: 53 @39067 has 8 MA's), (65, 39091), (77, 39121), (113, 39337),

Gene: Tomaszewski_60 Start: 42805, Stop: 43137, Start Num: 54

Candidate Starts for Tomaszewski_60:

(Start: 54 @42805 has 121 MA's), (83, 42871), (86, 42901), (111, 43048), (119, 43102),

Gene: Toniann_10 Start: 2375, Stop: 2713, Start Num: 52

Candidate Starts for Toniann_10:

(Start: 52 @2375 has 27 MA's), (83, 2444), (117, 2663),

Gene: Tophat_98 Start: 62829, Stop: 63212, Start Num: 40

Candidate Starts for Tophat_98:

(Start: 40 @62829 has 19 MA's), (43, 62835), (63, 62880), (70, 62904), (76, 62919), (80, 62928), (86, 62973), (88, 62988), (91, 63000), (97, 63024), (100, 63033), (102, 63054), (107, 63087), (115, 63150),

Gene: Topper_53 Start: 38886, Stop: 39236, Start Num: 47

Candidate Starts for Topper_53:

(Start: 47 @38886 has 67 MA's), (Start: 53 @38892 has 8 MA's), (65, 38916), (77, 38946), (113, 39162),

Gene: Tourach_56 Start: 42528, Stop: 42863, Start Num: 57

Candidate Starts for Tourach_56:

(Start: 57 @42528 has 42 MA's), (67, 42552), (88, 42636), (105, 42711), (108, 42738), (114, 42795), (119, 42825), (121, 42837), (122, 42840),

Gene: Trax_72 Start: 45288, Stop: 45629, Start Num: 53

Candidate Starts for Trax_72:

(Start: 53 @45288 has 8 MA's), (65, 45309), (67, 45315), (83, 45357), (85, 45384), (102, 45465), (105, 45474), (110, 45525), (124, 45615),

Gene: TreyKay_54 Start: 38974, Stop: 39324, Start Num: 47

Candidate Starts for TreyKay_54:

(Start: 47 @38974 has 67 MA's), (Start: 53 @38980 has 8 MA's), (65, 39004), (77, 39034), (113, 39250),

Gene: TriFive_56 Start: 42639, Stop: 42980, Start Num: 54

Candidate Starts for TriFive_56:

(Start: 54 @42639 has 121 MA's), (75, 42681), (105, 42825), (119, 42939),

Gene: TribbleTrouble_52 Start: 38960, Stop: 39298, Start Num: 58

Candidate Starts for TribbleTrouble_52:

(Start: 58 @38960 has 2 MA's), (68, 38984), (72, 38993), (82, 39020), (90, 39080), (119, 39263), (121, 39275), (122, 39278),

Gene: TruffulaTree_53 Start: 38765, Stop: 39115, Start Num: 47

Candidate Starts for TruffulaTree_53:

(Start: 47 @38765 has 67 MA's), (Start: 53 @38771 has 8 MA's), (65, 38795), (77, 38825), (113, 39041),

Gene: Twitch_53 Start: 38888, Stop: 39238, Start Num: 47

Candidate Starts for Twitch_53:

(Start: 47 @38888 has 67 MA's), (Start: 53 @38894 has 8 MA's), (65, 38918), (77, 38948), (113, 39164),

Gene: Tyson_54 Start: 40614, Stop: 40952, Start Num: 57

Candidate Starts for Tyson_54:

(Start: 57 @40614 has 42 MA's), (88, 40725), (114, 40884), (119, 40914),

Gene: Unicorn_55 Start: 38455, Stop: 38796, Start Num: 54

Candidate Starts for Unicorn_55:

(Start: 54 @38455 has 121 MA's), (80, 38512), (121, 38773),

Gene: Urkel_54 Start: 39665, Stop: 40015, Start Num: 48

Candidate Starts for Urkel_54:

(Start: 48 @39665 has 23 MA's), (Start: 53 @39671 has 8 MA's), (65, 39695), (77, 39725), (113, 39941),

Gene: Validus_58 Start: 39687, Stop: 40025, Start Num: 54

Candidate Starts for Validus_58:

(Start: 54 @39687 has 121 MA's), (69, 39717), (75, 39729), (77, 39735), (88, 39801), (106, 39885), (121, 39999), (122, 40002),

Gene: Veliki_54 Start: 38751, Stop: 39101, Start Num: 47

Candidate Starts for Veliki_54:

(Start: 47 @38751 has 67 MA's), (Start: 53 @38757 has 8 MA's), (65, 38781), (77, 38811), (113, 39027),

Gene: Vetric_57 Start: 42483, Stop: 42818, Start Num: 57

Candidate Starts for Vetric_57:

(Start: 57 @42483 has 42 MA's), (67, 42507), (75, 42522), (88, 42591), (105, 42666), (108, 42693), (119, 42780), (121, 42792), (122, 42795),

Gene: ViviJ_47 Start: 36833, Stop: 37174, Start Num: 54

Candidate Starts for ViviJ_47:

(29, 36749), (Start: 54 @36833 has 121 MA's), (70, 36869), (88, 36950), (96, 36977), (100, 36995), (106, 37034), (116, 37118),

Gene: Waterfoul_49 Start: 38200, Stop: 38538, Start Num: 54

Candidate Starts for Waterfoul_49:

(2, 37717), (7, 37843), (Start: 54 @38200 has 121 MA's), (100, 38362), (110, 38440), (112, 38455), (113, 38464), (118, 38494),

Gene: Welcome_92 Start: 51722, Stop: 51375, Start Num: 46

Candidate Starts for Welcome_92:

(26, 51800), (Start: 46 @51722 has 11 MA's), (66, 51686), (70, 51674), (86, 51611), (88, 51596), (92, 51590), (102, 51545), (104, 51539),

Gene: WheatThin_56 Start: 38819, Stop: 39151, Start Num: 52

Candidate Starts for WheatThin_56:

(33, 38756), (39, 38783), (Start: 52 @38819 has 27 MA's), (68, 38852), (79, 38873), (86, 38924), (100, 38984),

Gene: Whirlwind_56 Start: 42457, Stop: 42798, Start Num: 54

Candidate Starts for Whirlwind_56:

(Start: 54 @42457 has 121 MA's), (75, 42499), (105, 42643), (119, 42757), (121, 42769),

Gene: Wigglewobble_57 Start: 42503, Stop: 42838, Start Num: 57

Candidate Starts for Wigglewobble_57:

(Start: 57 @42503 has 42 MA's), (67, 42527), (75, 42542), (88, 42611), (105, 42686), (108, 42713), (119, 42800), (121, 42812), (122, 42815),

Gene: Wilder_58 Start: 42449, Stop: 42784, Start Num: 57

Candidate Starts for Wilder_58:

(Start: 57 @42449 has 42 MA's), (67, 42473), (75, 42488), (88, 42557), (105, 42632), (108, 42659), (119, 42746), (121, 42758), (122, 42761),

Gene: Willez_60 Start: 41671, Stop: 42003, Start Num: 54

Candidate Starts for Willez_60:

(Start: 54 @41671 has 121 MA's), (83, 41737), (86, 41767), (111, 41914), (119, 41968),

Gene: WilliamBoone_9 Start: 2227, Stop: 2568, Start Num: 52

Candidate Starts for WilliamBoone_9:

(Start: 52 @2227 has 27 MA's), (83, 2299), (117, 2518),

Gene: Winky_57 Start: 42443, Stop: 42778, Start Num: 57

Candidate Starts for Winky_57:

(Start: 57 @42443 has 42 MA's), (67, 42467), (75, 42482), (88, 42551), (105, 42626), (108, 42653), (119, 42740), (121, 42752), (122, 42755),

Gene: Wyatt2_55 Start: 40612, Stop: 40947, Start Num: 57

Candidate Starts for Wyatt2_55:

(Start: 57 @40612 has 42 MA's), (88, 40723), (114, 40879), (119, 40909),

Gene: Ximenita_60 Start: 39523, Stop: 39867, Start Num: 54

Candidate Starts for Ximenita_60:

(Start: 54 @39523 has 121 MA's), (80, 39580), (121, 39841), (123, 39850),

Gene: YassJohnny_62 Start: 42844, Stop: 43176, Start Num: 54

Candidate Starts for YassJohnny_62:

(14, 42574), (15, 42592), (22, 42700), (Start: 54 @42844 has 121 MA's), (83, 42910), (86, 42940), (111, 43087), (119, 43141),

Gene: Youngblood_68 Start: 44356, Stop: 44688, Start Num: 54

Candidate Starts for Youngblood_68:

(14, 44086), (15, 44104), (22, 44212), (Start: 54 @44356 has 121 MA's), (83, 44422), (86, 44452), (111, 44599), (119, 44653),

Gene: YoureAdopted_52 Start: 38889, Stop: 39239, Start Num: 47

Candidate Starts for YoureAdopted_52:

(Start: 47 @38889 has 67 MA's), (Start: 53 @38895 has 8 MA's), (65, 38919), (77, 38949), (113, 39165),

Gene: Yuma_89 Start: 51231, Stop: 50884, Start Num: 46

Candidate Starts for Yuma_89:

(26, 51309), (Start: 46 @51231 has 11 MA's), (66, 51195), (70, 51183), (86, 51120), (88, 51105), (92, 51099), (109, 51003),

Gene: Yuna_59 Start: 40160, Stop: 40498, Start Num: 53

Candidate Starts for Yuna_59:

(Start: 53 @40160 has 8 MA's), (69, 40196), (86, 40259), (121, 40472),

Gene: Yunkel11_55 Start: 38357, Stop: 38704, Start Num: 47

Candidate Starts for Yunkel11_55:

(Start: 47 @38357 has 67 MA's), (Start: 53 @38363 has 8 MA's), (65, 38387), (77, 38417), (109, 38597), (113, 38633),

Gene: Zabiza_48 Start: 35076, Stop: 35426, Start Num: 47

Candidate Starts for Zabiza_48:

(Start: 47 @35076 has 67 MA's), (Start: 53 @35082 has 8 MA's), (65, 35106), (77, 35136), (113, 35352),

Gene: Zakai_58 Start: 42769, Stop: 43104, Start Num: 57

Candidate Starts for Zakai_58:

(Start: 57 @42769 has 42 MA's), (67, 42793), (75, 42808), (88, 42877), (105, 42952), (108, 42979), (119, 43066), (121, 43078), (122, 43081),

Gene: Zareef_58 Start: 41900, Stop: 42238, Start Num: 57

Candidate Starts for Zareef_58:

(10, 41579), (11, 41591), (Start: 57 @41900 has 42 MA's), (68, 41927), (80, 41951), (83, 41969), (105, 42089), (109, 42128), (123, 42221),

Gene: Zavala_55 Start: 39050, Stop: 39400, Start Num: 47

Candidate Starts for Zavala_55:

(Start: 47 @39050 has 67 MA's), (Start: 53 @39056 has 8 MA's), (65, 39080), (77, 39110), (113, 39326),

Gene: ZhongYanYuan_55 Start: 42338, Stop: 42673, Start Num: 57

Candidate Starts for ZhongYanYuan_55:

(Start: 57 @42338 has 42 MA's), (67, 42362), (75, 42377), (88, 42446), (105, 42521), (108, 42548), (119, 42635), (121, 42647), (122, 42650),

Gene: Zooman_297 Start: 168299, Stop: 168673, Start Num: 41

Candidate Starts for Zooman_297:

(Start: 41 @168299 has 2 MA's), (99, 168473), (102, 168494), (105, 168503), (109, 168545), (118, 168611),