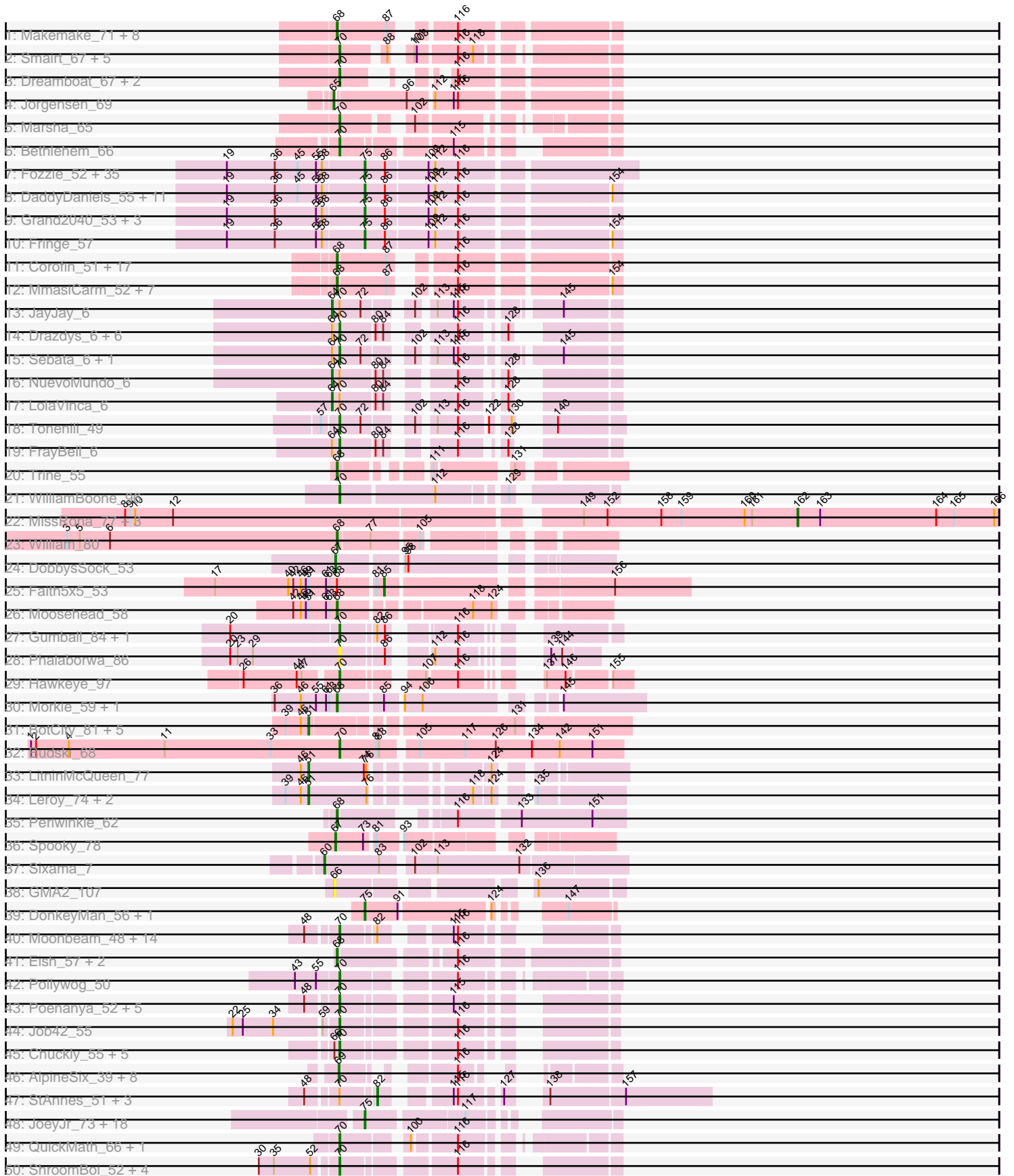
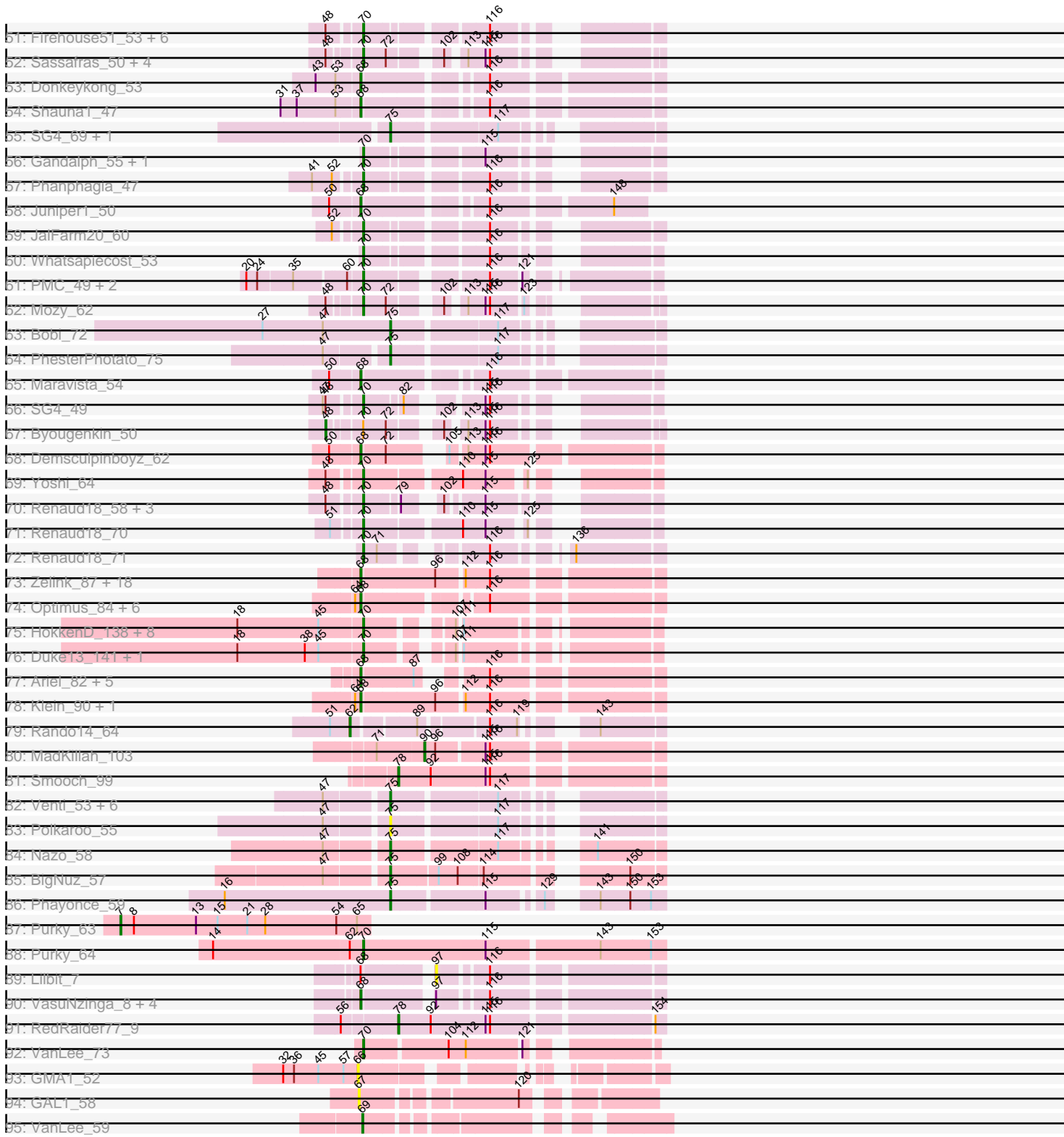


Pham 224205



Pham 224205



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 224205 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224205 has 329 members, 19 are drafts.

Phages represented in each track:

- Track 1 : Makemake_71, Carlyle_66, Blue_65, Fascinus_60, Paraselene_66, Maroc7_64, Graduation_70, Bigfoot_58, CactusRose_66
- Track 2 : Smairt_67, PhrostyMug_65, Sunshine924_70, Mule_62, Aeneas_68, BaconJack_70
- Track 3 : Dreamboat_67, PherrisBueller_66, Jasper_66
- Track 4 : Jorgensen_69
- Track 5 : Marsha_65
- Track 6 : Bethlehem_66
- Track 7 : Fozzie_52, Thora_53, Squid_53, Surely_53, Chorkpop_53, Daffy_53, Kwadwo_52, Haleema_52, CamL_53, Morgushi_53, Puhltonio_53, Mosaic_52, Lasso_53, Samaymay_53, QueenBeane_53, Sophia_52, Mana_52, Timmi_52, LeeLot_53, Maru_53, Serendipity_53, Banjo_52, Potter_52, Cosmolli16_54, SassyCat97_52, TomBombadil_53, TallGrassMM_53, Solosis_52, Held_53, Vortex_53, Hertubise_53, Oosterbaan_53, Xavier_52, MitKao_53, Zelda_53, Cannibal_53
- Track 8 : DaddyDaniels_55, Childish_53, Soile_54, HighStump_55, Longacauda_54, Brilliant_55, Kahve_53, HenryJackson_53, Craff_56, Legolas_55, Nicole21_54, Orwigg_53
- Track 9 : Grand2040_53, Mesh1_54, Giraffe_54, Lumine_54
- Track 10 : Fringe_57
- Track 11 : Corofin_51, Abinghost_51, Audrey_51, Halfpint_50, Nozo_51, Baloo_51, Kamiyu_51, Neos5_51, OrangeOswald_51, Akoma_51, Philly_50, Phlyer_51, Athena_52, SynergyX_51, Daisy_51, GlenHope_52, Chandler_51, ChaChing_51
- Track 12 : MmasiCarm_52, Obutu_52, Casbah_51, Rita1961_52, Gervas_52, Mortcellus_51, Kronus_51, Phayeta_53
- Track 13 : JayJay_6
- Track 14 : Drazdys_6, Tyke_6, DTDevon_6, Specks_6, Dandelion_5, Nappy_5, Pier_6
- Track 15 : Sebata_6, LinStu_6
- Track 16 : NuevoMundo_6
- Track 17 : LolaVinca_6
- Track 18 : Tonenili_49
- Track 19 : FrayBell_6
- Track 20 : Trine_55
- Track 21 : WilliamBoone_96
- Track 22 : MissRona_77, Blueberry_76, Gambino_79, Azula_77
- Track 23 : William_80

- Track 24 : DobbysSock_53
- Track 25 : Faith5x5_53
- Track 26 : Moosehead_58
- Track 27 : Gumball_84, SirHarley_86
- Track 28 : Phalaborwa_86
- Track 29 : Hawkeye_97
- Track 30 : Morkie_59, PhorbesPhlower_55
- Track 31 : BotCity_81, Asapag_74, Ecliptus_80, BENtherdunthat_78, Frickyeah_80, Birdsong_73
- Track 32 : Budski_68
- Track 33 : LitninMcQueen_77
- Track 34 : Leroy_74, OneDirection_52, Holliday_79
- Track 35 : Periwinkle_62
- Track 36 : Spooky_78
- Track 37 : Sixama_7
- Track 38 : GMA2_107
- Track 39 : DonkeyMan_56, Tarzan_58
- Track 40 : Moonbeam_48, DLane_48, XFactor_50, Ardmore_44, Melissauren88_50, CaptainTrips_49, Royals2015_55, MinionDave_51, Phalconet_51, Tweety_52, Batiatus_50, Madiba_50, PhesterPotato_54, Hamulus_53, MilleniumForce_52
- Track 41 : Eish_57, Estave1_55, DoRead_55
- Track 42 : Pollywog_50
- Track 43 : Poenanya_52, Cornucopia_55, Doomphist_52, DotProduct_48, GigiOuiOui_49, OwlsT2W_53
- Track 44 : Job42_55
- Track 45 : Chuckly_55, Phasih_51, Ogopogo_57, Sparkdehlily_60, Aubs_53, TDanisky_60
- Track 46 : AlpineSix_39, Yoshi_44, Seabastian_39, Ochi17_37, OfUltron_39, Llama_39, Modragons_38, Jinglebell_38, Oksu_39
- Track 47 : StAnnes_51, Filuzino_50, Violac_56, IMpilo_49
- Track 48 : JoeyJr_73, Doomphist_76, Empress_71, KingMidas_72, PHappiness_73, Poenanya_76, Nimbo_65, OldBen_70, Geralt_66, Daenerys_72, Inventum_71, RedBird_74, Polka14_77, Dorothy_74, Deb65_66, Leperchaun_71, RitaG_73, Scottish_71, Sassafras_74
- Track 49 : QuickMath_66, Kimberlium_67
- Track 50 : ShroomBoi_52, Kenuha5_50, Bipolar_49, SuperGrey_52, KristaRAM_51
- Track 51 : Firehouse51_53, Chevrolet_59, ArcusAngelus_56, RockyHorror_53, Zerg_52, Doug_55, Che8_55
- Track 52 : Sassafras_50, Dante_53, DaWorst_54, DaddyRickover_52, Inventum_47
- Track 53 : Donkeykong_53
- Track 54 : Shauna1_47
- Track 55 : SG4_69, Hegedechwinu_72
- Track 56 : Gandalph_55, Polka14_51
- Track 57 : Phanphagia_47
- Track 58 : Juniper1_50
- Track 59 : JalFarm20_60
- Track 60 : Whatsapiecost_53
- Track 61 : PMC_49, Rockne_53, Boomer_57
- Track 62 : Mozy_62
- Track 63 : Bobi_72
- Track 64 : PhesterPotato_75
- Track 65 : Maravista_54
- Track 66 : SG4_49

- Track 67 : Byougenkin_50
- Track 68 : Demsculpinboyz_62
- Track 69 : Yoshi_64
- Track 70 : Renaud18_58, DeadP_58, Taj_56, Wee_55
- Track 71 : Renaud18_70
- Track 72 : Renaud18_71
- Track 73 : Zelink_87, Dallas_89, Halley_91, JuicyJay_87, Bombitas_78, Dove_75, Bagrid_89, DmpstrDiver_90, Odette_88, Constella_75, NihilNomen_91, Hughesyang_90, Beem_90, HokkenD_79, Phoebus_92, Kalah2_84, Yeet_83, ThreeRngTarjay_87, Schatzie_85
- Track 74 : Optimus_84, Madiba_63, BAKA_91, Mova_66, EricMillard_83, Minerva_89, MadMen_50
- Track 75 : HokkenD_138, Dove_131, NihilNomen_147, Redno2_140, Beem_147, KashFlow_144, Yeet_139, JuicyJay_141, Bombitas_133
- Track 76 : Duke13_141, EricMillard_137
- Track 77 : Ariel_82, Porcelain_82, Lucky2013_80, MiaZeal_83, Squint_83, Courthouse_78
- Track 78 : Klein_90, Wanda_94
- Track 79 : Rando14_64
- Track 80 : MadKillah_103
- Track 81 : Smooch_99
- Track 82 : Venti_53, Langerak_53, Kari_52, Etoile_52, FirstPlacePfu_54, Fishburne_52, Bartholomew_52
- Track 83 : Polkaroo_55
- Track 84 : Nazo_58
- Track 85 : BigNuz_57
- Track 86 : Phayonce_59
- Track 87 : Purky_63
- Track 88 : Purky_64
- Track 89 : Lilbit_7
- Track 90 : VasuNzinga_8, FeliMaine_7, Pringar_6, Clarkson_7, Beelzebub_8
- Track 91 : RedRaider77_9
- Track 92 : VanLee_73
- Track 93 : GMA1_52
- Track 94 : GAL1_58
- Track 95 : VanLee_59

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

The start number called the most often in the published annotations is 70, it was called in 103 of the 310 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aeneas_68, ArcusAngelus_56, Ardmore_44, Aubs_53, BaconJack_70, Batiatus_50, Beem_147, Bethlehem_66, Bipolar_49, Bombitas_133, Boomer_57, Budski_68, CaptainTrips_49, Che8_55, Chevrolet_59, Chuckly_55, Cornucopia_55, DLane_48, DTDevon_6, DaWorst_54, DaddyRickover_52, Dandelion_5, Dante_53, DeadP_58, Doomphist_52, DotProduct_48, Doug_55, Dove_131, Drazdys_6, Dreamboat_67, Duke13_141, EricMillard_137, Firehouse51_53, FrayBell_6, Gandalph_55, GigiOuiOui_49, Gumball_84, Hamulus_53, Hawkeye_97, HokkenD_138,

Inventum_47, JalFarm20_60, Jasper_66, Job42_55, JuicyJay_141, KashFlow_144, Kenuha5_50, Kimberlium_67, KristaRAM_51, LinStu_6, Madiba_50, Marsha_65, Melissauren88_50, MilleniumForce_52, MinionDave_51, Moonbeam_48, Mozy_62, Mule_62, Nappy_5, NihilNomen_147, Ogoopogo_57, OwlsT2W_53, PMC_49, Phalaborwa_86, Phalconet_51, Phanphagia_47, Phasih_51, PherrisBueller_66, PhesterPhotato_54, PhrostyMug_65, Pier_6, Poenanya_52, Polka14_51, Pollywog_50, Purky_64, QuickMath_66, Redno2_140, Renaud18_58, Renaud18_70, Renaud18_71, Rockne_53, RockyHorror_53, Royals2015_55, SG4_49, Sassafras_50, Sebata_6, ShroomBoi_52, SirHarley_86, Smairt_67, Sparkdehlily_60, Specks_6, Sunshine924_70, SuperGrey_52, TDanisky_60, Taj_56, Tonenili_49, Tweety_52, Tyke_6, VanLee_73, Wee_55, Whatsapiecost_53, WilliamBoone_96, XFactor_50, Yeet_139, Yoshi_64, Zerg_52,

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

- Byougenkin_50, Filuzino_50, IMPilo_49, JayJay_6, LolaVinca_6, NuevoMundo_6, StAnnes_51, Violac_56,

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

- Abinghost_51, Akoma_51, AlpineSix_39, Ariel_82, Asapag_74, Athena_52, Audrey_51, Azula_77, BAKA_91, BENtherdunthat_78, Bagrid_89, Baloo_51, Banjo_52, Bartholomew_52, Beelzebub_8, Beem_90, BigNuz_57, Bigfoot_58, Birdsong_73, Blue_65, Blueberry_76, Bobi_72, Bombitas_78, BotCity_81, Brilliant_55, CactusRose_66, CamL_53, Cannibal_53, Carlyle_66, Casbah_51, ChaChing_51, Chandler_51, Childish_53, Chorkpop_53, Clarkson_7, Constella_75, Corofin_51, Cosmolli16_54, Courthouse_78, Craff_56, DaddyDaniels_55, Daenerys_72, Daffy_53, Daisy_51, Dallas_89, Deb65_66, Demsculpinboyz_62, DmpstrDiver_90, DoRead_55, DobbysSock_53, DonkeyMan_56, Donkeykong_53, Doomphist_76, Dorothy_74, Dove_75, Ecliptus_80, Eish_57, Empress_71, EricMillard_83, Estave1_55, Etoile_52, Faith5x5_53, Fascinus_60, FeliMaine_7, FirstPlacePfu_54, Fishburne_52, Fozzie_52, Frickyeah_80, Fringe_57, GAL1_58, GMA1_52, GMA2_107, Gambino_79, Geralt_66, Gervas_52, Giraffe_54, GlenHope_52, Graduation_70, Grand2040_53, Haleema_52, Halfpint_50, Halley_91, Hegedechwinu_72, Held_53, HenryJackson_53, Hertubise_53, HighStump_55, HokkenD_79, Holliday_79, Hughesyang_90, Inventum_71, Jinglebell_38, JoeyJr_73, Jorgensen_69, JuicyJay_87, Juniper1_50, Kahve_53, Kalah2_84, Kamiyu_51, Kari_52, KingMidas_72, Klein_90, Kronus_51, Kwadwo_52, Langerak_53, Lasso_53, LeeLot_53, Legolas_55, Leperchaun_71, Leroy_74, Lilbit_7, LitninMcQueen_77, Llama_39, Longacauda_54, Lucky2013_80, Lumine_54, MadKillah_103, MadMen_50, Madiba_63, Makemake_71, Mana_52, Maravista_54, Maroc7_64, Maru_53, Mesh1_54, MiaZeal_83, Minerva_89, MissRona_77, MitKao_53, MmasiCarm_52, Modragons_38, Moosehead_58, Morgushi_53, Morkie_59, Mortcellus_51, Mosaic_52, Mova_66, Nazo_58, Neos5_51, Nicole21_54, NihilNomen_91, Nimbo_65, Nozo_51, Obutu_52, Ochi17_37, Odette_88, OfUltron_39, Oksu_39, OldBen_70, OneDirection_52, Oosterbaan_53, Optimus_84, OrangeOswald_51, Orwigg_53, PHappiness_73, Paraselene_66, Periwinkle_62, Phayeta_53, Phayonce_59, PhesterPhotato_75, Philly_50, Phlyer_51, Phoebus_92, PhorbesPhlower_55, Poenanya_76, Polka14_77, Polkaroo_55, Porcelain_82, Potter_52, Pringar_6, Puhltonio_53, Purky_63, QueenBeane_53, Rando14_64, RedBird_74, RedRaider77_9, Rita1961_52, RitaG_73, SG4_69, Samaymay_53, Sassafras_74, SassyCat97_52, Schatzie_85, Scottish_71, Seabastian_39, Serendipity_53, Shauna1_47, Sixama_7, Smooch_99, Soile_54, Solosis_52, Sophia_52, Spooky_78, Squid_53, Squint_83, Surely_53, SynergyX_51, TallGrassMM_53, Tarzan_58, Thora_53, ThreeRngTarjay_87, Timmi_52,

TomBombadil_53, Trine_55, VanLee_59, VasuNzinga_8, Venti_53, Vortex_53, Wanda_94, William_80, Xavier_52, Yeet_83, Yoshi_44, Zelda_53, Zelink_87,

Summary by start number:

Start 7:

- Found in 1 of 329 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 310
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Purky_63 (P6),

Start 48:

- Found in 45 of 329 (13.7%) of genes in pham
- Manual Annotations of this start: 1 of 310
- Called 2.2% of time when present
- Phage (with cluster) where this start called: Byougenkin_50 (F1),

Start 51:

- Found in 14 of 329 (4.3%) of genes in pham
- Manual Annotations of this start: 8 of 310
- Called 71.4% of time when present
- Phage (with cluster) where this start called: Asapag_74 (DN1), BENtherdunthat_78 (DN1), Birdsong_73 (DN), BotCity_81 (DN), Ecliptus_80 (DN), Frickyeah_80 (DN1), Holliday_79 (DN1), Leroy_74 (DN1), LitninMcQueen_77 (DN1), OneDirection_52 (CZ6),

Start 60:

- Found in 4 of 329 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 310
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Sixama_7 (DS),

Start 62:

- Found in 2 of 329 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 310
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Rando14_64 (K5),

Start 64:

- Found in 22 of 329 (6.7%) of genes in pham
- Manual Annotations of this start: 3 of 310
- Called 13.6% of time when present
- Phage (with cluster) where this start called: JayJay_6 (C1), LolaVinca_6 (C1), NuevoMundo_6 (C1),

Start 65:

- Found in 2 of 329 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 310
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Jorgensen_69 (A1),

Start 66:

- Found in 8 of 329 (2.4%) of genes in pham

- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: GMA1_52 (singleton), GMA2_107 (DS),

Start 67:

- Found in 3 of 329 (0.9%) of genes in pham
- Manual Annotations of this start: 2 of 310
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DobbysSock_53 (CZ4), GAL1_58 (singleton), Spooky_78 (DN2),

Start 68:

- Found in 90 of 329 (27.4%) of genes in pham
- Manual Annotations of this start: 85 of 310
- Called 97.8% of time when present
- Phage (with cluster) where this start called: Abingghost_51 (B3), Akoma_51 (B3), Ariel_82 (J), Athena_52 (B3), Audrey_51 (B3), BAKA_91 (J), Bagrid_89 (J), Baloo_51 (B3), Beelzebub_8 (S), Beem_90 (J), Bigfoot_58 (A1), Blue_65 (A1), Bombitas_78 (J), CactusRose_66 (A1), Carlyle_66 (A1), Casbah_51 (B3), ChaChing_51 (B3), Chandler_51 (B3), Clarkson_7 (S), Constella_75 (J), Corofin_51 (B3), Courthouse_78 (J), Daisy_51 (B3), Dallas_89 (J), Demsculpinboyz_62 (F2), DmpstrDiver_90 (J), DoRead_55 (F1), Donkeykong_53 (F1), Dove_75 (J), Eish_57 (F1), EricMillard_83 (J), Estave1_55 (F1), Fascinus_60 (A1), FeliMaine_7 (S), Gervas_52 (B3), GlenHope_52 (B3), Graduation_70 (A1), Halfpint_50 (B3), Halley_91 (J), HokkenD_79 (J), Hughesyang_90 (J), JuicyJay_87 (J), Juniper1_50 (F1), Kalah2_84 (J), Kamiyu_51 (B3), Klein_90 (J), Kronus_51 (B3), Lucky2013_80 (J), MadMen_50 (F1), Madiba_63 (F1), Makemake_71 (A1), Maravista_54 (F1), Maroc7_64 (A1), MiaZeal_83 (J), Minerva_89 (J), MmasiCarm_52 (B3), Moosehead_58 (CZ6), Morkie_59 (DH), Mortcellus_51 (B3), Mova_66 (F1), Neos5_51 (B3), NihilNomen_91 (J), Nozo_51 (B3), Obutu_52 (B3), Odette_88 (J), Optimus_84 (J), OrangeOswald_51 (B3), Paraselene_66 (A1), Periwinkle_62 (DN1), Phayeta_53 (B3), Philly_50 (B3), Phlyer_51 (B3), Phoebus_92 (J), PhorbesPhlower_55 (DH), Porcelain_82 (J), Pringar_6 (S), Rita1961_52 (B3), Schatzie_85 (J), Shauna1_47 (F1), Squint_83 (J), SynergyX_51 (B3), ThreeRngTarjay_87 (J), Trine_55 (CD), VasuNzinga_8 (S), Wanda_94 (J), William_80 (CV), Yeet_83 (J), Zelink_87 (J),

Start 69:

- Found in 10 of 329 (3.0%) of genes in pham
- Manual Annotations of this start: 9 of 310
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AlpineSix_39 (F1), Jinglebell_38 (F1), Llama_39 (F1), Modragons_38 (F1), Ochi17_37 (F1), OfUltron_39 (F1), Oksu_39 (F1), Seabastian_39 (F1), VanLee_59 (singleton), Yoshi_44 (F2),

Start 70:

- Found in 114 of 329 (34.7%) of genes in pham
- Manual Annotations of this start: 103 of 310
- Called 93.0% of time when present
- Phage (with cluster) where this start called: Aeneas_68 (A1), ArcusAngelus_56 (F1), Ardmore_44 (F1), Aubs_53 (F1), BaconJack_70 (A1), Batiatus_50 (F1), Beem_147 (J), Bethlehem_66 (A1), Bipolar_49 (F1), Bombitas_133 (J), Boomer_57 (F1), Budski_68 (DN), CaptainTrips_49 (F1), Che8_55 (F1), Chevrolet_59 (F1), Chuckly_55 (F1), Cornucopia_55 (F1), DLane_48 (F1), DTDevon_6 (C1),

DaWorst_54 (F1), DaddyRickover_52 (F1), Dandelion_5 (C1), Dante_53 (F1), DeadP_58 (F1), Doomphist_52 (F1), DotProduct_48 (F1), Doug_55 (F1), Dove_131 (J), Drazdys_6 (C1), Dreamboat_67 (A1), Duke13_141 (J), EricMillard_137 (J), Firehouse51_53 (F1), FrayBell_6 (C1), Gandolph_55 (F1), GigiOuiOui_49 (F1), Gumball_84 (D1), Hamulus_53 (F1), Hawkeye_97 (D2), HokkenD_138 (J), Inventum_47 (F1), JalFarm20_60 (F1), Jasper_66 (A1), Job42_55 (F1), JuicyJay_141 (J), KashFlow_144 (J), Kenuha5_50 (F1), Kimberlium_67 (F1), KristaRAM_51 (F1), LinStu_6 (C1), Madiba_50 (F1), Marsha_65 (A1), Melissauren88_50 (F1), MilleniumForce_52 (F1), MinionDave_51 (F1), Moonbeam_48 (F1), Mozy_62 (F1), Mule_62 (A1), Nappy_5 (C1), NihilNomen_147 (J), Ogopogo_57 (F1), OwisT2W_53 (F1), PMC_49 (F1), Phalaborwa_86 (D1), Phalconet_51 (F1), Phanphagia_47 (F1), Phasih_51 (F1), PherrisBueller_66 (A1), PhesterPotato_54 (F1), PhrostyMug_65 (A1), Pier_6 (C1), Poenanya_52 (F1), Polka14_51 (F1), Pollywog_50 (F1), Purky_64 (P6), QuickMath_66 (F1), Redno2_140 (J), Renaud18_58 (F4), Renaud18_70 (F4), Renaud18_71 (F4), Rockne_53 (F1), RockyHorror_53 (F1), Royals2015_55 (F1), SG4_49 (F1), Sassafras_50 (F1), Sebata_6 (C1), ShroomBoi_52 (F1), SirHarley_86 (D1), Smairt_67 (A1), Sparkdehlily_60 (F1), Specks_6 (C1), Sunshine924_70 (A1), SuperGrey_52 (F1), TDanisky_60 (F1), Taj_56 (F1), Tonenili_49 (C1), Tweety_52 (F1), Tyke_6 (C1), VanLee_73 (singleton), Wee_55 (F1), Whatsapiecost_53 (F1), WilliamBoone_96 (CQ1), XFactor_50 (F1), Yeet_139 (J), Yoshi_64 (F2), Zerg_52 (F1),

Start 75:

- Found in 89 of 329 (27.1%) of genes in pham
- Manual Annotations of this start: 85 of 310
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Banjo_52 (B1), Bartholomew_52 (P1), BigNuz_57 (P4), Bobi_72 (F1), Brilliant_55 (B1), CamL_53 (B1), Cannibal_53 (B1), Childish_53 (B1), Chorkpop_53 (B1), Cosmolli16_54 (B1), Craff_56 (B1), DaddyDaniels_55 (B1), Daenerys_72 (F1), Daffy_53 (B1), Deb65_66 (F1), DonkeyMan_56 (DY), Doomphist_76 (F1), Dorothy_74 (F1), Empress_71 (F1), Etoile_52 (P1), FirstPlacePfu_54 (P1), Fishburne_52 (P1), Fozzie_52 (B1), Fringe_57 (B1), Geralt_66 (F1), Giraffe_54 (B1), Grand2040_53 (B1), Haleema_52 (B1), Hegedechwinu_72 (F1), Held_53 (B1), HenryJackson_53 (B1), Hertubise_53 (B1), HighStump_55 (B1), Inventum_71 (F1), JoeyJr_73 (F1), Kahve_53 (B1), Kari_52 (P1), KingMidas_72 (F1), Kwadwo_52 (B1), Langerak_53 (P1), Lasso_53 (B1), LeeLot_53 (B1), Legolas_55 (B1), Leperchaun_71 (F1), Longacauda_54 (B1), Lumine_54 (B1), Mana_52 (B1), Maru_53 (B1), Mesh1_54 (B1), MitKao_53 (B1), Morgushi_53 (B1), Mosaic_52 (B1), Nazo_58 (P4), Nicole21_54 (B1), Nimbo_65 (F1), OldBen_70 (F1), Oosterbaan_53 (B1), Orwigg_53 (B1), PHappiness_73 (F1), Phayonce_59 (P5), PhesterPotato_75 (F1), Poenanya_76 (F1), Polka14_77 (F1), Polkaroo_55 (P1), Potter_52 (B1), Puhltonio_53 (B1), QueenBeane_53 (B1), RedBird_74 (F1), RitaG_73 (F1), SG4_69 (F1), Samaymay_53 (B1), Sassafras_74 (F1), SassyCat97_52 (B1), Scottish_71 (F1), Serendipity_53 (B1), Soile_54 (B1), Solosis_52 (B1), Sophia_52 (B1), Squid_53 (B1), Surely_53 (B1), TallGrassMM_53 (B1), Tarzan_58 (DY), Thora_53 (B1), Timmi_52 (B1), TomBombadil_53 (B1), Venti_53 (P1), Vortex_53 (B1), Xavier_52 (B1), Zelda_53 (B1),

Start 78:

- Found in 2 of 329 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 310
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RedRaider77_9 (S), Smooch_99 (O),

Start 82:

- Found in 22 of 329 (6.7%) of genes in pham
- Manual Annotations of this start: 2 of 310
- Called 18.2% of time when present
- Phage (with cluster) where this start called: Filuzino_50 (F1), IMpilo_49 (F1), StAnnes_51 (F1), Violac_56 (F1),

Start 85:

- Found in 3 of 329 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 310
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Faith5x5_53 (CZ6),

Start 90:

- Found in 1 of 329 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 310
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MadKillah_103 (O),

Start 97:

- Found in 6 of 329 (1.8%) of genes in pham
- No Manual Annotations of this start.
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Lilbit_7 (S),

Start 162:

- Found in 4 of 329 (1.2%) of genes in pham
- Manual Annotations of this start: 4 of 310
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azula_77 (CV), Blueberry_76 (CV), Gambino_79 (CV), MissRona_77 (CV),

Summary by clusters:

There are 29 clusters represented in this pham: DN, singleton, CQ1, DH, CZ6, CZ4, K5, DY, DS, A1, DN1, DN2, C1, P1, P6, P4, P5, J, O, CD, S, CV, F1, F2, F4, B1, B3, D2, D1,

Info for manual annotations of cluster A1:

- Start number 65 was manually annotated 1 time for cluster A1.
- Start number 68 was manually annotated 9 times for cluster A1.
- Start number 70 was manually annotated 11 times for cluster A1.

Info for manual annotations of cluster B1:

- Start number 75 was manually annotated 53 times for cluster B1.

Info for manual annotations of cluster B3:

- Start number 68 was manually annotated 26 times for cluster B3.

Info for manual annotations of cluster C1:

- Start number 64 was manually annotated 3 times for cluster C1.
- Start number 70 was manually annotated 11 times for cluster C1.

Info for manual annotations of cluster CD:

- Start number 68 was manually annotated 1 time for cluster CD.

Info for manual annotations of cluster CQ1:

- Start number 70 was manually annotated 1 time for cluster CQ1.

Info for manual annotations of cluster CV:

- Start number 68 was manually annotated 1 time for cluster CV.
- Start number 162 was manually annotated 4 times for cluster CV.

Info for manual annotations of cluster CZ4:

- Start number 67 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster CZ6:

- Start number 51 was manually annotated 1 time for cluster CZ6.
- Start number 68 was manually annotated 1 time for cluster CZ6.
- Start number 85 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster D1:

- Start number 70 was manually annotated 2 times for cluster D1.

Info for manual annotations of cluster D2:

- Start number 70 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster DH:

- Start number 68 was manually annotated 2 times for cluster DH.

Info for manual annotations of cluster DN:

- Start number 51 was manually annotated 2 times for cluster DN.
- Start number 70 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 51 was manually annotated 5 times for cluster DN1.
- Start number 68 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 67 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster DS:

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

Info for manual annotations of cluster DY:

- Start number 75 was manually annotated 1 time for cluster DY.

Info for manual annotations of cluster F1:

- Start number 48 was manually annotated 1 time for cluster F1.
- Start number 68 was manually annotated 9 times for cluster F1.
- Start number 69 was manually annotated 7 times for cluster F1.
- Start number 70 was manually annotated 59 times for cluster F1.
- Start number 75 was manually annotated 23 times for cluster F1.
- Start number 82 was manually annotated 2 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 68 was manually annotated 1 time for cluster F2.
- Start number 69 was manually annotated 1 time for cluster F2.
- Start number 70 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster F4:

- Start number 70 was manually annotated 3 times for cluster F4.

Info for manual annotations of cluster J:

- Start number 68 was manually annotated 29 times for cluster J.
- Start number 70 was manually annotated 11 times for cluster J.

Info for manual annotations of cluster K5:

- Start number 62 was manually annotated 1 time for cluster K5.

Info for manual annotations of cluster O:

- Start number 78 was manually annotated 1 time for cluster O.
- Start number 90 was manually annotated 1 time for cluster O.

Info for manual annotations of cluster P1:

- Start number 75 was manually annotated 5 times for cluster P1.

Info for manual annotations of cluster P4:

- Start number 75 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 75 was manually annotated 1 time for cluster P5.

Info for manual annotations of cluster P6:

- Start number 7 was manually annotated 1 time for cluster P6.
- Start number 70 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster S:

- Start number 68 was manually annotated 5 times for cluster S.
- Start number 78 was manually annotated 1 time for cluster S.

Gene Information:

Gene: Abinghost_51 Start: 45404, Stop: 45135, Start Num: 68

Candidate Starts for Abinghost_51:

(Start: 68 @45404 has 85 MA's), (87, 45350), (116, 45302),

Gene: Aeneas_68 Start: 44278, Stop: 44033, Start Num: 70

Candidate Starts for Aeneas_68:

(Start: 70 @44278 has 103 MA's), (88, 44236), (101, 44224), (103, 44221), (116, 44182), (118, 44164),

Gene: Akoma_51 Start: 45415, Stop: 45146, Start Num: 68

Candidate Starts for Akoma_51:

(Start: 68 @45415 has 85 MA's), (87, 45361), (116, 45313),

Gene: AlpineSix_39 Start: 31200, Stop: 31009, Start Num: 69

Candidate Starts for AlpineSix_39:
(Start: 69 @31200 has 9 MA's), (116, 31110),

Gene: ArcusAngelus_56 Start: 38441, Stop: 38683, Start Num: 70
Candidate Starts for ArcusAngelus_56:
(Start: 48 @38411 has 1 MA's), (Start: 70 @38441 has 103 MA's), (116, 38552),

Gene: Ardmore_44 Start: 35217, Stop: 35447, Start Num: 70
Candidate Starts for Ardmore_44:
(Start: 48 @35187 has 1 MA's), (Start: 70 @35217 has 103 MA's), (Start: 82 @35253 has 2 MA's),
(115, 35313), (116, 35316),

Gene: Ariel_82 Start: 49253, Stop: 48984, Start Num: 68
Candidate Starts for Ariel_82:
(Start: 68 @49253 has 85 MA's), (87, 49199), (116, 49151),

Gene: Asapag_74 Start: 43606, Stop: 43938, Start Num: 51
Candidate Starts for Asapag_74:
(39, 43579), (46, 43597), (Start: 51 @43606 has 8 MA's), (131, 43819),

Gene: Athena_52 Start: 46162, Stop: 45893, Start Num: 68
Candidate Starts for Athena_52:
(Start: 68 @46162 has 85 MA's), (87, 46108), (116, 46060),

Gene: Aubs_53 Start: 37222, Stop: 37464, Start Num: 70
Candidate Starts for Aubs_53:
(66, 37216), (Start: 70 @37222 has 103 MA's), (116, 37333),

Gene: Audrey_51 Start: 45410, Stop: 45141, Start Num: 68
Candidate Starts for Audrey_51:
(Start: 68 @45410 has 85 MA's), (87, 45356), (116, 45308),

Gene: Azula_77 Start: 48141, Stop: 48380, Start Num: 162
Candidate Starts for Azula_77:
(8, 47394), (9, 47400), (10, 47406), (12, 47451), (149, 47889), (152, 47916), (158, 47979), (159,
48003), (160, 48078), (161, 48087), (Start: 162 @48141 has 4 MA's), (163, 48168), (164, 48306), (165,
48327), (166, 48375),

Gene: BAKA_91 Start: 56921, Stop: 57199, Start Num: 68
Candidate Starts for BAKA_91:
(Start: 64 @56915 has 3 MA's), (Start: 68 @56921 has 85 MA's), (116, 57032),

Gene: BENtherdunthat_78 Start: 44652, Stop: 44984, Start Num: 51
Candidate Starts for BENtherdunthat_78:
(39, 44625), (46, 44643), (Start: 51 @44652 has 8 MA's), (131, 44865),

Gene: BaconJack_70 Start: 45368, Stop: 45123, Start Num: 70
Candidate Starts for BaconJack_70:
(Start: 70 @45368 has 103 MA's), (88, 45326), (101, 45314), (103, 45311), (116, 45272), (118, 45254),

Gene: Bagrid_89 Start: 55770, Stop: 56066, Start Num: 68
Candidate Starts for Bagrid_89:
(Start: 68 @55770 has 85 MA's), (96, 55848), (112, 55875), (116, 55899),

Gene: Baloo_51 Start: 45413, Stop: 45144, Start Num: 68
Candidate Starts for Baloo_51:
(Start: 68 @45413 has 85 MA's), (87, 45359), (116, 45311),

Gene: Banjo_52 Start: 47062, Stop: 46769, Start Num: 75
Candidate Starts for Banjo_52:
(19, 47221), (36, 47164), (45, 47137), (55, 47116), (58, 47110), (Start: 75 @47062 has 85 MA's), (86, 47038), (109, 46990), (112, 46984), (116, 46960),

Gene: Bartholomew_52 Start: 36036, Stop: 36263, Start Num: 75
Candidate Starts for Bartholomew_52:
(47, 35973), (Start: 75 @36036 has 85 MA's), (117, 36135),

Gene: Batiatus_50 Start: 37046, Stop: 37276, Start Num: 70
Candidate Starts for Batiatus_50:
(Start: 48 @37016 has 1 MA's), (Start: 70 @37046 has 103 MA's), (Start: 82 @37082 has 2 MA's), (115, 37142), (116, 37145),

Gene: Beelzebub_8 Start: 2535, Stop: 2807, Start Num: 68
Candidate Starts for Beelzebub_8:
(Start: 68 @2535 has 85 MA's), (97, 2598), (116, 2640),

Gene: Beem_90 Start: 56631, Stop: 56927, Start Num: 68
Candidate Starts for Beem_90:
(Start: 68 @56631 has 85 MA's), (96, 56709), (112, 56736), (116, 56760),

Gene: Beem_147 Start: 78045, Stop: 78290, Start Num: 70
Candidate Starts for Beem_147:
(18, 77910), (45, 78000), (Start: 70 @78045 has 103 MA's), (107, 78117), (111, 78120),

Gene: Bethlehem_66 Start: 44024, Stop: 43779, Start Num: 70
Candidate Starts for Bethlehem_66:
(Start: 70 @44024 has 103 MA's), (115, 43916),

Gene: BigNuz_57 Start: 39875, Stop: 40117, Start Num: 75
Candidate Starts for BigNuz_57:
(47, 39812), (Start: 75 @39875 has 85 MA's), (99, 39920), (108, 39941), (114, 39965), (150, 40085),

Gene: Bigfoot_58 Start: 41545, Stop: 41276, Start Num: 68
Candidate Starts for Bigfoot_58:
(Start: 68 @41545 has 85 MA's), (87, 41491), (116, 41443),

Gene: Bipolar_49 Start: 36854, Stop: 37099, Start Num: 70
Candidate Starts for Bipolar_49:
(30, 36770), (35, 36788), (52, 36830), (Start: 70 @36854 has 103 MA's), (116, 36965),

Gene: Birdsong_73 Start: 43342, Stop: 43674, Start Num: 51
Candidate Starts for Birdsong_73:
(39, 43315), (46, 43333), (Start: 51 @43342 has 8 MA's), (131, 43555),

Gene: Blue_65 Start: 43245, Stop: 42976, Start Num: 68
Candidate Starts for Blue_65:

(Start: 68 @43245 has 85 MA's), (87, 43191), (116, 43143),

Gene: Blueberry_76 Start: 48141, Stop: 48380, Start Num: 162

Candidate Starts for Blueberry_76:

(8, 47394), (9, 47400), (10, 47406), (12, 47451), (149, 47889), (152, 47916), (158, 47979), (159, 48003), (160, 48078), (161, 48087), (Start: 162 @48141 has 4 MA's), (163, 48168), (164, 48306), (165, 48327), (166, 48375),

Gene: Bobi_72 Start: 44458, Stop: 44685, Start Num: 75

Candidate Starts for Bobi_72:

(27, 44317), (47, 44383), (Start: 75 @44458 has 85 MA's), (117, 44557),

Gene: Bombitas_78 Start: 53794, Stop: 54090, Start Num: 68

Candidate Starts for Bombitas_78:

(Start: 68 @53794 has 85 MA's), (96, 53872), (112, 53899), (116, 53923),

Gene: Bombitas_133 Start: 75456, Stop: 75701, Start Num: 70

Candidate Starts for Bombitas_133:

(18, 75321), (45, 75411), (Start: 70 @75456 has 103 MA's), (107, 75528), (111, 75531),

Gene: Boomer_57 Start: 38978, Stop: 39235, Start Num: 70

Candidate Starts for Boomer_57:

(20, 38864), (24, 38876), (35, 38912), (Start: 60 @38963 has 1 MA's), (Start: 70 @38978 has 103 MA's), (116, 39089), (121, 39119),

Gene: BotCity_81 Start: 46160, Stop: 46492, Start Num: 51

Candidate Starts for BotCity_81:

(39, 46133), (46, 46151), (Start: 51 @46160 has 8 MA's), (131, 46373),

Gene: Brilliant_55 Start: 47604, Stop: 47335, Start Num: 75

Candidate Starts for Brilliant_55:

(19, 47763), (36, 47706), (45, 47679), (55, 47658), (58, 47652), (Start: 75 @47604 has 85 MA's), (86, 47580), (109, 47532), (112, 47526), (116, 47502), (154, 47346),

Gene: Budski_68 Start: 41006, Stop: 41320, Start Num: 70

Candidate Starts for Budski_68:

(1, 40640), (2, 40646), (4, 40685), (11, 40799), (33, 40925), (Start: 70 @41006 has 103 MA's), (81, 41048), (83, 41051), (105, 41087), (117, 41138), (126, 41174), (134, 41216), (142, 41249), (151, 41285),

Gene: Byougenkin_50 Start: 36870, Stop: 37133, Start Num: 48

Candidate Starts for Byougenkin_50:

(Start: 48 @36870 has 1 MA's), (Start: 70 @36900 has 103 MA's), (72, 36924), (102, 36966), (113, 36981), (115, 36999), (116, 37002),

Gene: CactusRose_66 Start: 42565, Stop: 42296, Start Num: 68

Candidate Starts for CactusRose_66:

(Start: 68 @42565 has 85 MA's), (87, 42511), (116, 42463),

Gene: CamL_53 Start: 47369, Stop: 47076, Start Num: 75

Candidate Starts for CamL_53:

(19, 47528), (36, 47471), (45, 47444), (55, 47423), (58, 47417), (Start: 75 @47369 has 85 MA's), (86, 47345), (109, 47297), (112, 47291), (116, 47267),

Gene: Cannibal_53 Start: 47352, Stop: 47059, Start Num: 75

Candidate Starts for Cannibal_53:

(19, 47511), (36, 47454), (45, 47427), (55, 47406), (58, 47400), (Start: 75 @47352 has 85 MA's), (86, 47328), (109, 47280), (112, 47274), (116, 47250),

Gene: CaptainTrips_49 Start: 36066, Stop: 36296, Start Num: 70

Candidate Starts for CaptainTrips_49:

(Start: 48 @36036 has 1 MA's), (Start: 70 @36066 has 103 MA's), (Start: 82 @36102 has 2 MA's), (115, 36162), (116, 36165),

Gene: Carlyle_66 Start: 41351, Stop: 41082, Start Num: 68

Candidate Starts for Carlyle_66:

(Start: 68 @41351 has 85 MA's), (87, 41297), (116, 41249),

Gene: Casbah_51 Start: 45725, Stop: 45456, Start Num: 68

Candidate Starts for Casbah_51:

(Start: 68 @45725 has 85 MA's), (87, 45671), (116, 45623), (154, 45467),

Gene: ChaChing_51 Start: 45427, Stop: 45158, Start Num: 68

Candidate Starts for ChaChing_51:

(Start: 68 @45427 has 85 MA's), (87, 45373), (116, 45325),

Gene: Chandler_51 Start: 46194, Stop: 45925, Start Num: 68

Candidate Starts for Chandler_51:

(Start: 68 @46194 has 85 MA's), (87, 46140), (116, 46092),

Gene: Che8_55 Start: 38308, Stop: 38550, Start Num: 70

Candidate Starts for Che8_55:

(Start: 48 @38278 has 1 MA's), (Start: 70 @38308 has 103 MA's), (116, 38419),

Gene: Chevrolet_59 Start: 38442, Stop: 38684, Start Num: 70

Candidate Starts for Chevrolet_59:

(Start: 48 @38412 has 1 MA's), (Start: 70 @38442 has 103 MA's), (116, 38553),

Gene: Childish_53 Start: 47631, Stop: 47362, Start Num: 75

Candidate Starts for Childish_53:

(19, 47790), (36, 47733), (45, 47706), (55, 47685), (58, 47679), (Start: 75 @47631 has 85 MA's), (86, 47607), (109, 47559), (112, 47553), (116, 47529), (154, 47373),

Gene: Chorkpop_53 Start: 47108, Stop: 46815, Start Num: 75

Candidate Starts for Chorkpop_53:

(19, 47267), (36, 47210), (45, 47183), (55, 47162), (58, 47156), (Start: 75 @47108 has 85 MA's), (86, 47084), (109, 47036), (112, 47030), (116, 47006),

Gene: Chuckly_55 Start: 37799, Stop: 38041, Start Num: 70

Candidate Starts for Chuckly_55:

(66, 37793), (Start: 70 @37799 has 103 MA's), (116, 37910),

Gene: Clarkson_7 Start: 2311, Stop: 2583, Start Num: 68

Candidate Starts for Clarkson_7:

(Start: 68 @2311 has 85 MA's), (97, 2374), (116, 2416),

Gene: Constella_75 Start: 50768, Stop: 51064, Start Num: 68
Candidate Starts for Constella_75:
(Start: 68 @50768 has 85 MA's), (96, 50846), (112, 50873), (116, 50897),

Gene: Cornucopia_55 Start: 38144, Stop: 38386, Start Num: 70
Candidate Starts for Cornucopia_55:
(Start: 48 @38114 has 1 MA's), (Start: 70 @38144 has 103 MA's), (115, 38252),

Gene: Corofin_51 Start: 45437, Stop: 45168, Start Num: 68
Candidate Starts for Corofin_51:
(Start: 68 @45437 has 85 MA's), (87, 45383), (116, 45335),

Gene: Cosmolli16_54 Start: 47811, Stop: 47542, Start Num: 75
Candidate Starts for Cosmolli16_54:
(19, 47970), (36, 47913), (45, 47886), (55, 47865), (58, 47859), (Start: 75 @47811 has 85 MA's), (86, 47787), (109, 47739), (112, 47733), (116, 47709),

Gene: Courthouse_78 Start: 48853, Stop: 48584, Start Num: 68
Candidate Starts for Courthouse_78:
(Start: 68 @48853 has 85 MA's), (87, 48799), (116, 48751),

Gene: Craff_56 Start: 48056, Stop: 47787, Start Num: 75
Candidate Starts for Craff_56:
(19, 48215), (36, 48158), (45, 48131), (55, 48110), (58, 48104), (Start: 75 @48056 has 85 MA's), (86, 48032), (109, 47984), (112, 47978), (116, 47954), (154, 47798),

Gene: DLane_48 Start: 36148, Stop: 36381, Start Num: 70
Candidate Starts for DLane_48:
(Start: 48 @36118 has 1 MA's), (Start: 70 @36148 has 103 MA's), (Start: 82 @36184 has 2 MA's), (115, 36244), (116, 36247),

Gene: DTDevon_6 Start: 1888, Stop: 2115, Start Num: 70
Candidate Starts for DTDevon_6:
(Start: 64 @1879 has 3 MA's), (Start: 70 @1888 has 103 MA's), (80, 1924), (84, 1933), (116, 1987), (128, 2026),

Gene: DaWorst_54 Start: 38043, Stop: 38276, Start Num: 70
Candidate Starts for DaWorst_54:
(Start: 48 @38013 has 1 MA's), (Start: 70 @38043 has 103 MA's), (72, 38067), (102, 38109), (113, 38124), (115, 38142), (116, 38145),

Gene: DaddyDaniels_55 Start: 47588, Stop: 47319, Start Num: 75
Candidate Starts for DaddyDaniels_55:
(19, 47747), (36, 47690), (45, 47663), (55, 47642), (58, 47636), (Start: 75 @47588 has 85 MA's), (86, 47564), (109, 47516), (112, 47510), (116, 47486), (154, 47330),

Gene: DaddyRickover_52 Start: 37670, Stop: 37903, Start Num: 70
Candidate Starts for DaddyRickover_52:
(Start: 48 @37640 has 1 MA's), (Start: 70 @37670 has 103 MA's), (72, 37694), (102, 37736), (113, 37751), (115, 37769), (116, 37772),

Gene: Daenerys_72 Start: 47067, Stop: 47294, Start Num: 75
Candidate Starts for Daenerys_72:

(Start: 75 @47067 has 85 MA's), (117, 47166),

Gene: Daffy_53 Start: 47094, Stop: 46801, Start Num: 75

Candidate Starts for Daffy_53:

(19, 47253), (36, 47196), (45, 47169), (55, 47148), (58, 47142), (Start: 75 @47094 has 85 MA's), (86, 47070), (109, 47022), (112, 47016), (116, 46992),

Gene: Daisy_51 Start: 45439, Stop: 45170, Start Num: 68

Candidate Starts for Daisy_51:

(Start: 68 @45439 has 85 MA's), (87, 45385), (116, 45337),

Gene: Dallas_89 Start: 55552, Stop: 55848, Start Num: 68

Candidate Starts for Dallas_89:

(Start: 68 @55552 has 85 MA's), (96, 55630), (112, 55657), (116, 55681),

Gene: Dandelion_5 Start: 1888, Stop: 2115, Start Num: 70

Candidate Starts for Dandelion_5:

(Start: 64 @1879 has 3 MA's), (Start: 70 @1888 has 103 MA's), (80, 1924), (84, 1933), (116, 1987), (128, 2026),

Gene: Dante_53 Start: 37036, Stop: 37266, Start Num: 70

Candidate Starts for Dante_53:

(Start: 48 @37006 has 1 MA's), (Start: 70 @37036 has 103 MA's), (72, 37060), (102, 37099), (113, 37114), (115, 37132), (116, 37135),

Gene: DeadP_58 Start: 38932, Stop: 39159, Start Num: 70

Candidate Starts for DeadP_58:

(Start: 48 @38902 has 1 MA's), (Start: 70 @38932 has 103 MA's), (79, 38965), (102, 38989), (115, 39022),

Gene: Deb65_66 Start: 44788, Stop: 45015, Start Num: 75

Candidate Starts for Deb65_66:

(Start: 75 @44788 has 85 MA's), (117, 44887),

Gene: Demsculpinboyz_62 Start: 36874, Stop: 37140, Start Num: 68

Candidate Starts for Demsculpinboyz_62:

(50, 36844), (Start: 68 @36874 has 85 MA's), (72, 36898), (105, 36940), (113, 36955), (115, 36973), (116, 36976),

Gene: DmpstrDiver_90 Start: 55966, Stop: 56262, Start Num: 68

Candidate Starts for DmpstrDiver_90:

(Start: 68 @55966 has 85 MA's), (96, 56044), (112, 56071), (116, 56095),

Gene: DoRead_55 Start: 36172, Stop: 36447, Start Num: 68

Candidate Starts for DoRead_55:

(Start: 68 @36172 has 85 MA's), (116, 36283),

Gene: DobbysSock_53 Start: 39107, Stop: 39373, Start Num: 67

Candidate Starts for DobbysSock_53:

(Start: 67 @39107 has 2 MA's), (95, 39173), (98, 39176),

Gene: DonkeyMan_56 Start: 38401, Stop: 38625, Start Num: 75

Candidate Starts for DonkeyMan_56:

(Start: 75 @38401 has 85 MA's), (91, 38437), (124, 38530), (147, 38578),

Gene: Donkeykong_53 Start: 39067, Stop: 39345, Start Num: 68
Candidate Starts for Donkeykong_53:
(43, 39022), (53, 39043), (Start: 68 @39067 has 85 MA's), (116, 39178),

Gene: Doomphist_76 Start: 46880, Stop: 47107, Start Num: 75
Candidate Starts for Doomphist_76:
(Start: 75 @46880 has 85 MA's), (117, 46979),

Gene: Doomphist_52 Start: 38179, Stop: 38421, Start Num: 70
Candidate Starts for Doomphist_52:
(Start: 48 @38149 has 1 MA's), (Start: 70 @38179 has 103 MA's), (115, 38287),

Gene: Dorothy_74 Start: 45505, Stop: 45732, Start Num: 75
Candidate Starts for Dorothy_74:
(Start: 75 @45505 has 85 MA's), (117, 45604),

Gene: DotProduct_48 Start: 36209, Stop: 36451, Start Num: 70
Candidate Starts for DotProduct_48:
(Start: 48 @36179 has 1 MA's), (Start: 70 @36209 has 103 MA's), (115, 36317),

Gene: Doug_55 Start: 38300, Stop: 38542, Start Num: 70
Candidate Starts for Doug_55:
(Start: 48 @38270 has 1 MA's), (Start: 70 @38300 has 103 MA's), (116, 38411),

Gene: Dove_75 Start: 52060, Stop: 52356, Start Num: 68
Candidate Starts for Dove_75:
(Start: 68 @52060 has 85 MA's), (96, 52138), (112, 52165), (116, 52189),

Gene: Dove_131 Start: 73030, Stop: 73275, Start Num: 70
Candidate Starts for Dove_131:
(18, 72895), (45, 72985), (Start: 70 @73030 has 103 MA's), (107, 73102), (111, 73105),

Gene: Drazdys_6 Start: 1888, Stop: 2115, Start Num: 70
Candidate Starts for Drazdys_6:
(Start: 64 @1879 has 3 MA's), (Start: 70 @1888 has 103 MA's), (80, 1924), (84, 1933), (116, 1987),
(128, 2026),

Gene: Dreamboat_67 Start: 41780, Stop: 41553, Start Num: 70
Candidate Starts for Dreamboat_67:
(Start: 70 @41780 has 103 MA's), (116, 41720),

Gene: Duke13_141 Start: 74732, Stop: 74977, Start Num: 70
Candidate Starts for Duke13_141:
(18, 74597), (38, 74672), (45, 74687), (Start: 70 @74732 has 103 MA's), (107, 74804), (111, 74807),

Gene: Ecliptus_80 Start: 46255, Stop: 46587, Start Num: 51
Candidate Starts for Ecliptus_80:
(39, 46228), (46, 46246), (Start: 51 @46255 has 8 MA's), (131, 46468),

Gene: Eish_57 Start: 38353, Stop: 38628, Start Num: 68
Candidate Starts for Eish_57:

(Start: 68 @38353 has 85 MA's), (116, 38464),

Gene: Empress_71 Start: 45691, Stop: 45918, Start Num: 75

Candidate Starts for Empress_71:

(Start: 75 @45691 has 85 MA's), (117, 45790),

Gene: EricMillard_83 Start: 55716, Stop: 55994, Start Num: 68

Candidate Starts for EricMillard_83:

(Start: 64 @55710 has 3 MA's), (Start: 68 @55716 has 85 MA's), (116, 55827),

Gene: EricMillard_137 Start: 76084, Stop: 76329, Start Num: 70

Candidate Starts for EricMillard_137:

(18, 75949), (38, 76024), (45, 76039), (Start: 70 @76084 has 103 MA's), (107, 76156), (111, 76159),

Gene: Estave1_55 Start: 37717, Stop: 37980, Start Num: 68

Candidate Starts for Estave1_55:

(Start: 68 @37717 has 85 MA's), (116, 37828),

Gene: Etoile_52 Start: 36036, Stop: 36263, Start Num: 75

Candidate Starts for Etoile_52:

(47, 35973), (Start: 75 @36036 has 85 MA's), (117, 36135),

Gene: Faith5x5_53 Start: 34268, Stop: 34585, Start Num: 85

Candidate Starts for Faith5x5_53:

(17, 34076), (40, 34163), (42, 34169), (46, 34178), (49, 34184), (Start: 51 @34187 has 8 MA's), (61, 34208), (63, 34211), (Start: 68 @34220 has 85 MA's), (81, 34259), (Start: 85 @34268 has 1 MA's), (156, 34496),

Gene: Fascinus_60 Start: 42059, Stop: 41790, Start Num: 68

Candidate Starts for Fascinus_60:

(Start: 68 @42059 has 85 MA's), (87, 42005), (116, 41957),

Gene: FeliMaine_7 Start: 2312, Stop: 2584, Start Num: 68

Candidate Starts for FeliMaine_7:

(Start: 68 @2312 has 85 MA's), (97, 2375), (116, 2417),

Gene: Filuzino_50 Start: 36021, Stop: 36323, Start Num: 82

Candidate Starts for Filuzino_50:

(Start: 48 @35955 has 1 MA's), (Start: 70 @35985 has 103 MA's), (Start: 82 @36021 has 2 MA's), (115, 36081), (116, 36084), (127, 36123), (138, 36144), (157, 36222),

Gene: Firehouse51_53 Start: 39958, Stop: 40203, Start Num: 70

Candidate Starts for Firehouse51_53:

(Start: 48 @39928 has 1 MA's), (Start: 70 @39958 has 103 MA's), (116, 40069),

Gene: FirstPlacePfu_54 Start: 36068, Stop: 36295, Start Num: 75

Candidate Starts for FirstPlacePfu_54:

(47, 36005), (Start: 75 @36068 has 85 MA's), (117, 36167),

Gene: Fishburne_52 Start: 36036, Stop: 36263, Start Num: 75

Candidate Starts for Fishburne_52:

(47, 35973), (Start: 75 @36036 has 85 MA's), (117, 36135),

Gene: Fozzie_52 Start: 47398, Stop: 47105, Start Num: 75
Candidate Starts for Fozzie_52:
(19, 47557), (36, 47500), (45, 47473), (55, 47452), (58, 47446), (Start: 75 @47398 has 85 MA's), (86, 47374), (109, 47326), (112, 47320), (116, 47296),

Gene: FrayBell_6 Start: 1888, Stop: 2115, Start Num: 70
Candidate Starts for FrayBell_6:
(Start: 64 @1879 has 3 MA's), (Start: 70 @1888 has 103 MA's), (80, 1924), (84, 1933), (116, 1987), (128, 2026),

Gene: Frickyeah_80 Start: 44783, Stop: 45115, Start Num: 51
Candidate Starts for Frickyeah_80:
(39, 44756), (46, 44774), (Start: 51 @44783 has 8 MA's), (131, 44996),

Gene: Fringe_57 Start: 48533, Stop: 48264, Start Num: 75
Candidate Starts for Fringe_57:
(19, 48692), (36, 48635), (55, 48587), (58, 48581), (Start: 75 @48533 has 85 MA's), (86, 48509), (109, 48461), (112, 48455), (116, 48431), (154, 48275),

Gene: GAL1_58 Start: 39448, Stop: 39708, Start Num: 67
Candidate Starts for GAL1_58:
(Start: 67 @39448 has 2 MA's), (120, 39592),

Gene: GMA1_52 Start: 32897, Stop: 33145, Start Num: 66
Candidate Starts for GMA1_52:
(32, 32816), (36, 32828), (45, 32855), (57, 32882), (66, 32897),

Gene: GMA2_107 Start: 94211, Stop: 93939, Start Num: 66
Candidate Starts for GMA2_107:
(66, 94211), (136, 94031),

Gene: Gambino_79 Start: 48141, Stop: 48380, Start Num: 162
Candidate Starts for Gambino_79:
(8, 47394), (9, 47400), (10, 47406), (12, 47451), (149, 47889), (152, 47916), (158, 47979), (159, 48003), (160, 48078), (161, 48087), (Start: 162 @48141 has 4 MA's), (163, 48168), (164, 48306), (165, 48327), (166, 48375),

Gene: Gandalph_55 Start: 37415, Stop: 37660, Start Num: 70
Candidate Starts for Gandalph_55:
(Start: 70 @37415 has 103 MA's), (115, 37523),

Gene: Geralt_66 Start: 44787, Stop: 45014, Start Num: 75
Candidate Starts for Geralt_66:
(Start: 75 @44787 has 85 MA's), (117, 44886),

Gene: Gervas_52 Start: 45854, Stop: 45585, Start Num: 68
Candidate Starts for Gervas_52:
(Start: 68 @45854 has 85 MA's), (87, 45800), (116, 45752), (154, 45596),

Gene: GigiOuiOui_49 Start: 36354, Stop: 36596, Start Num: 70
Candidate Starts for GigiOuiOui_49:
(Start: 48 @36324 has 1 MA's), (Start: 70 @36354 has 103 MA's), (115, 36462),

Gene: Giraffe_54 Start: 47592, Stop: 47323, Start Num: 75
Candidate Starts for Giraffe_54:
(19, 47751), (36, 47694), (55, 47646), (58, 47640), (Start: 75 @47592 has 85 MA's), (86, 47568), (109, 47520), (112, 47514), (116, 47490),

Gene: GlenHope_52 Start: 45405, Stop: 45136, Start Num: 68
Candidate Starts for GlenHope_52:
(Start: 68 @45405 has 85 MA's), (87, 45351), (116, 45303),

Gene: Graduation_70 Start: 43891, Stop: 43622, Start Num: 68
Candidate Starts for Graduation_70:
(Start: 68 @43891 has 85 MA's), (87, 43837), (116, 43789),

Gene: Grand2040_53 Start: 47586, Stop: 47317, Start Num: 75
Candidate Starts for Grand2040_53:
(19, 47745), (36, 47688), (55, 47640), (58, 47634), (Start: 75 @47586 has 85 MA's), (86, 47562), (109, 47514), (112, 47508), (116, 47484),

Gene: Gumball_84 Start: 60133, Stop: 60360, Start Num: 70
Candidate Starts for Gumball_84:
(20, 60010), (Start: 70 @60133 has 103 MA's), (Start: 82 @60169 has 2 MA's), (86, 60178), (116, 60232),

Gene: Haleema_52 Start: 47090, Stop: 46797, Start Num: 75
Candidate Starts for Haleema_52:
(19, 47249), (36, 47192), (45, 47165), (55, 47144), (58, 47138), (Start: 75 @47090 has 85 MA's), (86, 47066), (109, 47018), (112, 47012), (116, 46988),

Gene: Halfpint_50 Start: 45230, Stop: 44961, Start Num: 68
Candidate Starts for Halfpint_50:
(Start: 68 @45230 has 85 MA's), (87, 45176), (116, 45128),

Gene: Halley_91 Start: 56631, Stop: 56927, Start Num: 68
Candidate Starts for Halley_91:
(Start: 68 @56631 has 85 MA's), (96, 56709), (112, 56736), (116, 56760),

Gene: Hamulus_53 Start: 37796, Stop: 38026, Start Num: 70
Candidate Starts for Hamulus_53:
(Start: 48 @37766 has 1 MA's), (Start: 70 @37796 has 103 MA's), (Start: 82 @37832 has 2 MA's), (115, 37892), (116, 37895),

Gene: Hawkeye_97 Start: 61659, Stop: 61895, Start Num: 70
Candidate Starts for Hawkeye_97:
(26, 61557), (44, 61620), (47, 61626), (Start: 70 @61659 has 103 MA's), (107, 61728), (116, 61758), (137, 61809), (146, 61830), (155, 61872),

Gene: Hegedechwinu_72 Start: 43105, Stop: 43332, Start Num: 75
Candidate Starts for Hegedechwinu_72:
(Start: 75 @43105 has 85 MA's), (117, 43204),

Gene: Held_53 Start: 47095, Stop: 46802, Start Num: 75
Candidate Starts for Held_53:

(19, 47254), (36, 47197), (45, 47170), (55, 47149), (58, 47143), (Start: 75 @47095 has 85 MA's), (86, 47071), (109, 47023), (112, 47017), (116, 46993),

Gene: HenryJackson_53 Start: 47620, Stop: 47351, Start Num: 75

Candidate Starts for HenryJackson_53:

(19, 47779), (36, 47722), (45, 47695), (55, 47674), (58, 47668), (Start: 75 @47620 has 85 MA's), (86, 47596), (109, 47548), (112, 47542), (116, 47518), (154, 47362),

Gene: Hertubise_53 Start: 47387, Stop: 47094, Start Num: 75

Candidate Starts for Hertubise_53:

(19, 47546), (36, 47489), (45, 47462), (55, 47441), (58, 47435), (Start: 75 @47387 has 85 MA's), (86, 47363), (109, 47315), (112, 47309), (116, 47285),

Gene: HighStump_55 Start: 48156, Stop: 47887, Start Num: 75

Candidate Starts for HighStump_55:

(19, 48315), (36, 48258), (45, 48231), (55, 48210), (58, 48204), (Start: 75 @48156 has 85 MA's), (86, 48132), (109, 48084), (112, 48078), (116, 48054), (154, 47898),

Gene: HokkenD_138 Start: 77055, Stop: 77300, Start Num: 70

Candidate Starts for HokkenD_138:

(18, 76920), (45, 77010), (Start: 70 @77055 has 103 MA's), (107, 77127), (111, 77130),

Gene: HokkenD_79 Start: 54900, Stop: 55196, Start Num: 68

Candidate Starts for HokkenD_79:

(Start: 68 @54900 has 85 MA's), (96, 54978), (112, 55005), (116, 55029),

Gene: Holliday_79 Start: 47725, Stop: 48021, Start Num: 51

Candidate Starts for Holliday_79:

(39, 47698), (46, 47716), (Start: 51 @47725 has 8 MA's), (76, 47791), (118, 47878), (124, 47896), (135, 47923),

Gene: Hughesyang_90 Start: 56589, Stop: 56885, Start Num: 68

Candidate Starts for Hughesyang_90:

(Start: 68 @56589 has 85 MA's), (96, 56667), (112, 56694), (116, 56718),

Gene: IMpilo_49 Start: 35464, Stop: 35766, Start Num: 82

Candidate Starts for IMpilo_49:

(Start: 48 @35398 has 1 MA's), (Start: 70 @35428 has 103 MA's), (Start: 82 @35464 has 2 MA's), (115, 35524), (116, 35527), (127, 35566), (138, 35587), (157, 35665),

Gene: Inventum_71 Start: 45703, Stop: 45930, Start Num: 75

Candidate Starts for Inventum_71:

(Start: 75 @45703 has 85 MA's), (117, 45802),

Gene: Inventum_47 Start: 36162, Stop: 36395, Start Num: 70

Candidate Starts for Inventum_47:

(Start: 48 @36132 has 1 MA's), (Start: 70 @36162 has 103 MA's), (72, 36186), (102, 36228), (113, 36243), (115, 36261), (116, 36264),

Gene: JalFarm20_60 Start: 39595, Stop: 39840, Start Num: 70

Candidate Starts for JalFarm20_60:

(52, 39571), (Start: 70 @39595 has 103 MA's), (116, 39706),

Gene: Jasper_66 Start: 41666, Stop: 41439, Start Num: 70

Candidate Starts for Jasper_66:

(Start: 70 @41666 has 103 MA's), (116, 41606),

Gene: JayJay_6 Start: 1730, Stop: 1996, Start Num: 64

Candidate Starts for JayJay_6:

(Start: 64 @1730 has 3 MA's), (Start: 70 @1739 has 103 MA's), (72, 1763), (102, 1805), (113, 1820), (115, 1838), (116, 1841), (145, 1937),

Gene: Jinglebell_38 Start: 31199, Stop: 31008, Start Num: 69

Candidate Starts for Jinglebell_38:

(Start: 69 @31199 has 9 MA's), (116, 31109),

Gene: Job42_55 Start: 39394, Stop: 39636, Start Num: 70

Candidate Starts for Job42_55:

(22, 39280), (25, 39292), (34, 39328), (59, 39379), (Start: 70 @39394 has 103 MA's), (116, 39505),

Gene: JoeyJr_73 Start: 46692, Stop: 46919, Start Num: 75

Candidate Starts for JoeyJr_73:

(Start: 75 @46692 has 85 MA's), (117, 46791),

Gene: Jorgensen_69 Start: 42799, Stop: 42503, Start Num: 65

Candidate Starts for Jorgensen_69:

(Start: 65 @42799 has 1 MA's), (96, 42721), (112, 42694), (115, 42673), (116, 42670),

Gene: JuicyJay_87 Start: 57765, Stop: 58061, Start Num: 68

Candidate Starts for JuicyJay_87:

(Start: 68 @57765 has 85 MA's), (96, 57843), (112, 57870), (116, 57894),

Gene: JuicyJay_141 Start: 79181, Stop: 79426, Start Num: 70

Candidate Starts for JuicyJay_141:

(18, 79046), (45, 79136), (Start: 70 @79181 has 103 MA's), (107, 79253), (111, 79256),

Gene: Juniper1_50 Start: 36588, Stop: 36851, Start Num: 68

Candidate Starts for Juniper1_50:

(50, 36558), (Start: 68 @36588 has 85 MA's), (116, 36699), (148, 36819),

Gene: Kahve_53 Start: 47617, Stop: 47348, Start Num: 75

Candidate Starts for Kahve_53:

(19, 47776), (36, 47719), (45, 47692), (55, 47671), (58, 47665), (Start: 75 @47617 has 85 MA's), (86, 47593), (109, 47545), (112, 47539), (116, 47515), (154, 47359),

Gene: Kalah2_84 Start: 55924, Stop: 56220, Start Num: 68

Candidate Starts for Kalah2_84:

(Start: 68 @55924 has 85 MA's), (96, 56002), (112, 56029), (116, 56053),

Gene: Kamiyu_51 Start: 45383, Stop: 45114, Start Num: 68

Candidate Starts for Kamiyu_51:

(Start: 68 @45383 has 85 MA's), (87, 45329), (116, 45281),

Gene: Kari_52 Start: 36033, Stop: 36260, Start Num: 75

Candidate Starts for Kari_52:

(47, 35970), (Start: 75 @36033 has 85 MA's), (117, 36132),

Gene: KashFlow_144 Start: 76087, Stop: 76332, Start Num: 70
Candidate Starts for KashFlow_144:
(18, 75952), (45, 76042), (Start: 70 @76087 has 103 MA's), (107, 76159), (111, 76162),

Gene: Kenuha5_50 Start: 36123, Stop: 36365, Start Num: 70
Candidate Starts for Kenuha5_50:
(30, 36039), (35, 36057), (52, 36099), (Start: 70 @36123 has 103 MA's), (116, 36234),

Gene: Kimberlium_67 Start: 43095, Stop: 43343, Start Num: 70
Candidate Starts for Kimberlium_67:
(Start: 70 @43095 has 103 MA's), (100, 43158), (116, 43200),

Gene: KingMidas_72 Start: 46106, Stop: 46333, Start Num: 75
Candidate Starts for KingMidas_72:
(Start: 75 @46106 has 85 MA's), (117, 46205),

Gene: Klein_90 Start: 55600, Stop: 55896, Start Num: 68
Candidate Starts for Klein_90:
(Start: 64 @55594 has 3 MA's), (Start: 68 @55600 has 85 MA's), (96, 55678), (112, 55705), (116, 55729),

Gene: KristaRAM_51 Start: 38223, Stop: 38468, Start Num: 70
Candidate Starts for KristaRAM_51:
(30, 38139), (35, 38157), (52, 38199), (Start: 70 @38223 has 103 MA's), (116, 38334),

Gene: Kronus_51 Start: 46457, Stop: 46188, Start Num: 68
Candidate Starts for Kronus_51:
(Start: 68 @46457 has 85 MA's), (87, 46403), (116, 46355), (154, 46199),

Gene: Kwadwo_52 Start: 47069, Stop: 46776, Start Num: 75
Candidate Starts for Kwadwo_52:
(19, 47228), (36, 47171), (45, 47144), (55, 47123), (58, 47117), (Start: 75 @47069 has 85 MA's), (86, 47045), (109, 46997), (112, 46991), (116, 46967),

Gene: Langerak_53 Start: 36052, Stop: 36279, Start Num: 75
Candidate Starts for Langerak_53:
(47, 35989), (Start: 75 @36052 has 85 MA's), (117, 36151),

Gene: Lasso_53 Start: 47344, Stop: 47051, Start Num: 75
Candidate Starts for Lasso_53:
(19, 47503), (36, 47446), (45, 47419), (55, 47398), (58, 47392), (Start: 75 @47344 has 85 MA's), (86, 47320), (109, 47272), (112, 47266), (116, 47242),

Gene: LeeLot_53 Start: 47396, Stop: 47103, Start Num: 75
Candidate Starts for LeeLot_53:
(19, 47555), (36, 47498), (45, 47471), (55, 47450), (58, 47444), (Start: 75 @47396 has 85 MA's), (86, 47372), (109, 47324), (112, 47318), (116, 47294),

Gene: Legolas_55 Start: 48053, Stop: 47784, Start Num: 75
Candidate Starts for Legolas_55:
(19, 48212), (36, 48155), (45, 48128), (55, 48107), (58, 48101), (Start: 75 @48053 has 85 MA's), (86, 48029), (109, 47981), (112, 47975), (116, 47951), (154, 47795),

Gene: Leperchaun_71 Start: 45926, Stop: 46153, Start Num: 75

Candidate Starts for Leperchaun_71:

(Start: 75 @45926 has 85 MA's), (117, 46025),

Gene: Leroy_74 Start: 43665, Stop: 43955, Start Num: 51

Candidate Starts for Leroy_74:

(39, 43638), (46, 43656), (Start: 51 @43665 has 8 MA's), (76, 43731), (118, 43818), (124, 43836), (135, 43863),

Gene: Lilbit_7 Start: 2375, Stop: 2584, Start Num: 97

Candidate Starts for Lilbit_7:

(Start: 68 @2312 has 85 MA's), (97, 2375), (116, 2417),

Gene: LinStu_6 Start: 2738, Stop: 2995, Start Num: 70

Candidate Starts for LinStu_6:

(Start: 64 @2729 has 3 MA's), (Start: 70 @2738 has 103 MA's), (72, 2762), (102, 2804), (113, 2819), (115, 2837), (116, 2840), (145, 2936),

Gene: LitninMcQueen_77 Start: 44377, Stop: 44670, Start Num: 51

Candidate Starts for LitninMcQueen_77:

(46, 44368), (Start: 51 @44377 has 8 MA's), (74, 44440), (76, 44443), (124, 44548),

Gene: Llama_39 Start: 31198, Stop: 31007, Start Num: 69

Candidate Starts for Llama_39:

(Start: 69 @31198 has 9 MA's), (116, 31108),

Gene: LolaVinca_6 Start: 1879, Stop: 2115, Start Num: 64

Candidate Starts for LolaVinca_6:

(Start: 64 @1879 has 3 MA's), (Start: 70 @1888 has 103 MA's), (80, 1924), (84, 1933), (116, 1987), (128, 2026),

Gene: Longacauda_54 Start: 48016, Stop: 47747, Start Num: 75

Candidate Starts for Longacauda_54:

(19, 48175), (36, 48118), (45, 48091), (55, 48070), (58, 48064), (Start: 75 @48016 has 85 MA's), (86, 47992), (109, 47944), (112, 47938), (116, 47914), (154, 47758),

Gene: Lucky2013_80 Start: 49269, Stop: 49000, Start Num: 68

Candidate Starts for Lucky2013_80:

(Start: 68 @49269 has 85 MA's), (87, 49215), (116, 49167),

Gene: Lumine_54 Start: 47804, Stop: 47535, Start Num: 75

Candidate Starts for Lumine_54:

(19, 47963), (36, 47906), (55, 47858), (58, 47852), (Start: 75 @47804 has 85 MA's), (86, 47780), (109, 47732), (112, 47726), (116, 47702),

Gene: MadKillah_103 Start: 62045, Stop: 61815, Start Num: 90

Candidate Starts for MadKillah_103:

(71, 62096), (Start: 90 @62045 has 1 MA's), (96, 62033), (115, 61985), (116, 61982),

Gene: MadMen_50 Start: 36869, Stop: 37144, Start Num: 68

Candidate Starts for MadMen_50:

(Start: 64 @36863 has 3 MA's), (Start: 68 @36869 has 85 MA's), (116, 36980),

Gene: Madiba_63 Start: 40537, Stop: 40815, Start Num: 68
Candidate Starts for Madiba_63:
(Start: 64 @40531 has 3 MA's), (Start: 68 @40537 has 85 MA's), (116, 40648),

Gene: Madiba_50 Start: 35664, Stop: 35894, Start Num: 70
Candidate Starts for Madiba_50:
(Start: 48 @35634 has 1 MA's), (Start: 70 @35664 has 103 MA's), (Start: 82 @35700 has 2 MA's),
(115, 35760), (116, 35763),

Gene: Makemake_71 Start: 44586, Stop: 44317, Start Num: 68
Candidate Starts for Makemake_71:
(Start: 68 @44586 has 85 MA's), (87, 44532), (116, 44484),

Gene: Mana_52 Start: 47084, Stop: 46791, Start Num: 75
Candidate Starts for Mana_52:
(19, 47243), (36, 47186), (45, 47159), (55, 47138), (58, 47132), (Start: 75 @47084 has 85 MA's), (86,
47060), (109, 47012), (112, 47006), (116, 46982),

Gene: Maravista_54 Start: 38807, Stop: 39082, Start Num: 68
Candidate Starts for Maravista_54:
(50, 38777), (Start: 68 @38807 has 85 MA's), (116, 38918),

Gene: Maroc7_64 Start: 43049, Stop: 42780, Start Num: 68
Candidate Starts for Maroc7_64:
(Start: 68 @43049 has 85 MA's), (87, 42995), (116, 42947),

Gene: Marsha_65 Start: 43596, Stop: 43360, Start Num: 70
Candidate Starts for Marsha_65:
(Start: 70 @43596 has 103 MA's), (102, 43536),

Gene: Maru_53 Start: 47523, Stop: 47254, Start Num: 75
Candidate Starts for Maru_53:
(19, 47682), (36, 47625), (45, 47598), (55, 47577), (58, 47571), (Start: 75 @47523 has 85 MA's), (86,
47499), (109, 47451), (112, 47445), (116, 47421),

Gene: Melissauren88_50 Start: 36304, Stop: 36534, Start Num: 70
Candidate Starts for Melissauren88_50:
(Start: 48 @36274 has 1 MA's), (Start: 70 @36304 has 103 MA's), (Start: 82 @36340 has 2 MA's),
(115, 36400), (116, 36403),

Gene: Mesh1_54 Start: 47616, Stop: 47323, Start Num: 75
Candidate Starts for Mesh1_54:
(19, 47775), (36, 47718), (55, 47670), (58, 47664), (Start: 75 @47616 has 85 MA's), (86, 47592), (109,
47544), (112, 47538), (116, 47514),

Gene: MiaZeal_83 Start: 49925, Stop: 49656, Start Num: 68
Candidate Starts for MiaZeal_83:
(Start: 68 @49925 has 85 MA's), (87, 49871), (116, 49823),

Gene: MilleniumForce_52 Start: 38325, Stop: 38558, Start Num: 70
Candidate Starts for MilleniumForce_52:

(Start: 48 @38295 has 1 MA's), (Start: 70 @38325 has 103 MA's), (Start: 82 @38361 has 2 MA's), (115, 38421), (116, 38424),

Gene: Minerva_89 Start: 56566, Stop: 56844, Start Num: 68

Candidate Starts for Minerva_89:

(Start: 64 @56560 has 3 MA's), (Start: 68 @56566 has 85 MA's), (116, 56677),

Gene: MinionDave_51 Start: 36841, Stop: 37071, Start Num: 70

Candidate Starts for MinionDave_51:

(Start: 48 @36811 has 1 MA's), (Start: 70 @36841 has 103 MA's), (Start: 82 @36877 has 2 MA's), (115, 36937), (116, 36940),

Gene: MissRona_77 Start: 48142, Stop: 48381, Start Num: 162

Candidate Starts for MissRona_77:

(8, 47395), (9, 47401), (10, 47407), (12, 47452), (149, 47890), (152, 47917), (158, 47980), (159, 48004), (160, 48079), (161, 48088), (Start: 162 @48142 has 4 MA's), (163, 48169), (164, 48307), (165, 48328), (166, 48376),

Gene: MitKao_53 Start: 47094, Stop: 46801, Start Num: 75

Candidate Starts for MitKao_53:

(19, 47253), (36, 47196), (45, 47169), (55, 47148), (58, 47142), (Start: 75 @47094 has 85 MA's), (86, 47070), (109, 47022), (112, 47016), (116, 46992),

Gene: MmasiCarm_52 Start: 45904, Stop: 45635, Start Num: 68

Candidate Starts for MmasiCarm_52:

(Start: 68 @45904 has 85 MA's), (87, 45850), (116, 45802), (154, 45646),

Gene: Modragons_38 Start: 31043, Stop: 30852, Start Num: 69

Candidate Starts for Modragons_38:

(Start: 69 @31043 has 9 MA's), (116, 30953),

Gene: Moonbeam_48 Start: 36361, Stop: 36591, Start Num: 70

Candidate Starts for Moonbeam_48:

(Start: 48 @36331 has 1 MA's), (Start: 70 @36361 has 103 MA's), (Start: 82 @36397 has 2 MA's), (115, 36457), (116, 36460),

Gene: Moosehead_58 Start: 34673, Stop: 34924, Start Num: 68

Candidate Starts for Moosehead_58:

(42, 34622), (46, 34631), (49, 34637), (Start: 51 @34640 has 8 MA's), (61, 34661), (63, 34664), (Start: 68 @34673 has 85 MA's), (118, 34805), (124, 34823),

Gene: Morgushi_53 Start: 47083, Stop: 46790, Start Num: 75

Candidate Starts for Morgushi_53:

(19, 47242), (36, 47185), (45, 47158), (55, 47137), (58, 47131), (Start: 75 @47083 has 85 MA's), (86, 47059), (109, 47011), (112, 47005), (116, 46981),

Gene: Morkie_59 Start: 36074, Stop: 36376, Start Num: 68

Candidate Starts for Morkie_59:

(36, 36002), (46, 36032), (55, 36050), (61, 36062), (63, 36065), (Start: 68 @36074 has 85 MA's), (Start: 85 @36122 has 1 MA's), (94, 36140), (106, 36161), (145, 36284),

Gene: Mortcellus_51 Start: 46511, Stop: 46242, Start Num: 68

Candidate Starts for Mortcellus_51:

(Start: 68 @46511 has 85 MA's), (87, 46457), (116, 46409), (154, 46253),

Gene: Mosaic_52 Start: 47088, Stop: 46795, Start Num: 75

Candidate Starts for Mosaic_52:

(19, 47247), (36, 47190), (45, 47163), (55, 47142), (58, 47136), (Start: 75 @47088 has 85 MA's), (86, 47064), (109, 47016), (112, 47010), (116, 46986),

Gene: Mova_66 Start: 41041, Stop: 41319, Start Num: 68

Candidate Starts for Mova_66:

(Start: 64 @41035 has 3 MA's), (Start: 68 @41041 has 85 MA's), (116, 41152),

Gene: Mozy_62 Start: 39946, Stop: 40173, Start Num: 70

Candidate Starts for Mozy_62:

(Start: 48 @39916 has 1 MA's), (Start: 70 @39946 has 103 MA's), (72, 39970), (102, 40012), (113, 40027), (115, 40045), (116, 40048), (123, 40078),

Gene: Mule_62 Start: 41651, Stop: 41406, Start Num: 70

Candidate Starts for Mule_62:

(Start: 70 @41651 has 103 MA's), (88, 41609), (101, 41597), (103, 41594), (116, 41555), (118, 41537),

Gene: Nappy_5 Start: 1734, Stop: 1961, Start Num: 70

Candidate Starts for Nappy_5:

(Start: 64 @1725 has 3 MA's), (Start: 70 @1734 has 103 MA's), (80, 1770), (84, 1779), (116, 1833), (128, 1872),

Gene: Nazo_58 Start: 40075, Stop: 40302, Start Num: 75

Candidate Starts for Nazo_58:

(47, 40012), (Start: 75 @40075 has 85 MA's), (117, 40174), (141, 40237),

Gene: Neos5_51 Start: 46209, Stop: 45940, Start Num: 68

Candidate Starts for Neos5_51:

(Start: 68 @46209 has 85 MA's), (87, 46155), (116, 46107),

Gene: Nicole21_54 Start: 47889, Stop: 47620, Start Num: 75

Candidate Starts for Nicole21_54:

(19, 48048), (36, 47991), (45, 47964), (55, 47943), (58, 47937), (Start: 75 @47889 has 85 MA's), (86, 47865), (109, 47817), (112, 47811), (116, 47787), (154, 47631),

Gene: NihilNomen_147 Start: 77126, Stop: 77371, Start Num: 70

Candidate Starts for NihilNomen_147:

(18, 76991), (45, 77081), (Start: 70 @77126 has 103 MA's), (107, 77198), (111, 77201),

Gene: NihilNomen_91 Start: 56718, Stop: 57014, Start Num: 68

Candidate Starts for NihilNomen_91:

(Start: 68 @56718 has 85 MA's), (96, 56796), (112, 56823), (116, 56847),

Gene: Nimbo_65 Start: 44790, Stop: 45017, Start Num: 75

Candidate Starts for Nimbo_65:

(Start: 75 @44790 has 85 MA's), (117, 44889),

Gene: Nozo_51 Start: 46173, Stop: 45904, Start Num: 68

Candidate Starts for Nozo_51:

(Start: 68 @46173 has 85 MA's), (87, 46119), (116, 46071),

Gene: NuevoMundo_6 Start: 1876, Stop: 2112, Start Num: 64
Candidate Starts for NuevoMundo_6:
(Start: 64 @1876 has 3 MA's), (Start: 70 @1885 has 103 MA's), (80, 1921), (84, 1930), (116, 1984),
(128, 2023),

Gene: Obutu_52 Start: 45859, Stop: 45590, Start Num: 68
Candidate Starts for Obutu_52:
(Start: 68 @45859 has 85 MA's), (87, 45805), (116, 45757), (154, 45601),

Gene: Ochi17_37 Start: 30650, Stop: 30459, Start Num: 69
Candidate Starts for Ochi17_37:
(Start: 69 @30650 has 9 MA's), (116, 30560),

Gene: Odette_88 Start: 55760, Stop: 56056, Start Num: 68
Candidate Starts for Odette_88:
(Start: 68 @55760 has 85 MA's), (96, 55838), (112, 55865), (116, 55889),

Gene: OfUltron_39 Start: 31199, Stop: 31008, Start Num: 69
Candidate Starts for OfUltron_39:
(Start: 69 @31199 has 9 MA's), (116, 31109),

Gene: Ogopogo_57 Start: 37928, Stop: 38170, Start Num: 70
Candidate Starts for Ogopogo_57:
(66, 37922), (Start: 70 @37928 has 103 MA's), (116, 38039),

Gene: Oksu_39 Start: 31043, Stop: 30852, Start Num: 69
Candidate Starts for Oksu_39:
(Start: 69 @31043 has 9 MA's), (116, 30953),

Gene: OldBen_70 Start: 46182, Stop: 46409, Start Num: 75
Candidate Starts for OldBen_70:
(Start: 75 @46182 has 85 MA's), (117, 46281),

Gene: OneDirection_52 Start: 33066, Stop: 33362, Start Num: 51
Candidate Starts for OneDirection_52:
(39, 33039), (46, 33057), (Start: 51 @33066 has 8 MA's), (76, 33132), (118, 33219), (124, 33237),
(135, 33264),

Gene: Oosterbaan_53 Start: 47374, Stop: 47081, Start Num: 75
Candidate Starts for Oosterbaan_53:
(19, 47533), (36, 47476), (45, 47449), (55, 47428), (58, 47422), (Start: 75 @47374 has 85 MA's), (86,
47350), (109, 47302), (112, 47296), (116, 47272),

Gene: Optimus_84 Start: 55270, Stop: 55548, Start Num: 68
Candidate Starts for Optimus_84:
(Start: 64 @55264 has 3 MA's), (Start: 68 @55270 has 85 MA's), (116, 55381),

Gene: OrangeOswald_51 Start: 45414, Stop: 45145, Start Num: 68
Candidate Starts for OrangeOswald_51:
(Start: 68 @45414 has 85 MA's), (87, 45360), (116, 45312),

Gene: Orwigg_53 Start: 47574, Stop: 47305, Start Num: 75

Candidate Starts for Orwigg_53:

(19, 47733), (36, 47676), (45, 47649), (55, 47628), (58, 47622), (Start: 75 @47574 has 85 MA's), (86, 47550), (109, 47502), (112, 47496), (116, 47472), (154, 47316),

Gene: OwlsT2W_53 Start: 37646, Stop: 37888, Start Num: 70

Candidate Starts for OwlsT2W_53:

(Start: 48 @37616 has 1 MA's), (Start: 70 @37646 has 103 MA's), (115, 37754),

Gene: PHappiness_73 Start: 47011, Stop: 47238, Start Num: 75

Candidate Starts for PHappiness_73:

(Start: 75 @47011 has 85 MA's), (117, 47110),

Gene: PMC_49 Start: 37214, Stop: 37471, Start Num: 70

Candidate Starts for PMC_49:

(20, 37100), (24, 37112), (35, 37148), (Start: 60 @37199 has 1 MA's), (Start: 70 @37214 has 103 MA's), (116, 37325), (121, 37355),

Gene: Paraselene_66 Start: 43378, Stop: 43109, Start Num: 68

Candidate Starts for Paraselene_66:

(Start: 68 @43378 has 85 MA's), (87, 43324), (116, 43276),

Gene: Periwinkle_62 Start: 38089, Stop: 38367, Start Num: 68

Candidate Starts for Periwinkle_62:

(Start: 68 @38089 has 85 MA's), (116, 38185), (133, 38251), (151, 38329),

Gene: Phalaborwa_86 Start: 60456, Stop: 60659, Start Num: 70

Candidate Starts for Phalaborwa_86:

(20, 60330), (23, 60339), (29, 60357), (Start: 70 @60456 has 103 MA's), (86, 60501), (112, 60534), (116, 60558), (139, 60609), (144, 60621),

Gene: Phalconet_51 Start: 36608, Stop: 36838, Start Num: 70

Candidate Starts for Phalconet_51:

(Start: 48 @36578 has 1 MA's), (Start: 70 @36608 has 103 MA's), (Start: 82 @36644 has 2 MA's), (115, 36704), (116, 36707),

Gene: Phanphagia_47 Start: 36555, Stop: 36800, Start Num: 70

Candidate Starts for Phanphagia_47:

(41, 36510), (52, 36531), (Start: 70 @36555 has 103 MA's), (116, 36666),

Gene: Phasih_51 Start: 37693, Stop: 37935, Start Num: 70

Candidate Starts for Phasih_51:

(66, 37687), (Start: 70 @37693 has 103 MA's), (116, 37804),

Gene: Phayeta_53 Start: 45741, Stop: 45472, Start Num: 68

Candidate Starts for Phayeta_53:

(Start: 68 @45741 has 85 MA's), (87, 45687), (116, 45639), (154, 45483),

Gene: Phayonce_59 Start: 40788, Stop: 41024, Start Num: 75

Candidate Starts for Phayonce_59:

(16, 40608), (Start: 75 @40788 has 85 MA's), (115, 40881), (129, 40929), (143, 40959), (150, 40989), (153, 41010),

Gene: PherrisBueller_66 Start: 41317, Stop: 41090, Start Num: 70

Candidate Starts for PherrisBueller_66:
(Start: 70 @41317 has 103 MA's), (116, 41257),

Gene: PhesterPhotato_75 Start: 45749, Stop: 45976, Start Num: 75
Candidate Starts for PhesterPhotato_75:
(47, 45686), (Start: 75 @45749 has 85 MA's), (117, 45848),

Gene: PhesterPhotato_54 Start: 37593, Stop: 37826, Start Num: 70
Candidate Starts for PhesterPhotato_54:
(Start: 48 @37563 has 1 MA's), (Start: 70 @37593 has 103 MA's), (Start: 82 @37629 has 2 MA's),
(115, 37689), (116, 37692),

Gene: Philly_50 Start: 45265, Stop: 44996, Start Num: 68
Candidate Starts for Philly_50:
(Start: 68 @45265 has 85 MA's), (87, 45211), (116, 45163),

Gene: Phlyer_51 Start: 46154, Stop: 45885, Start Num: 68
Candidate Starts for Phlyer_51:
(Start: 68 @46154 has 85 MA's), (87, 46100), (116, 46052),

Gene: Phoebus_92 Start: 57900, Stop: 58196, Start Num: 68
Candidate Starts for Phoebus_92:
(Start: 68 @57900 has 85 MA's), (96, 57978), (112, 58005), (116, 58029),

Gene: PhorbesPhlower_55 Start: 35141, Stop: 35443, Start Num: 68
Candidate Starts for PhorbesPhlower_55:
(36, 35069), (46, 35099), (55, 35117), (61, 35129), (63, 35132), (Start: 68 @35141 has 85 MA's),
(Start: 85 @35189 has 1 MA's), (94, 35207), (106, 35228), (145, 35351),

Gene: PhrostyMug_65 Start: 43825, Stop: 43580, Start Num: 70
Candidate Starts for PhrostyMug_65:
(Start: 70 @43825 has 103 MA's), (88, 43783), (101, 43771), (103, 43768), (116, 43729), (118, 43711),

Gene: Pier_6 Start: 1888, Stop: 2115, Start Num: 70
Candidate Starts for Pier_6:
(Start: 64 @1879 has 3 MA's), (Start: 70 @1888 has 103 MA's), (80, 1924), (84, 1933), (116, 1987),
(128, 2026),

Gene: Poenanya_52 Start: 38179, Stop: 38421, Start Num: 70
Candidate Starts for Poenanya_52:
(Start: 48 @38149 has 1 MA's), (Start: 70 @38179 has 103 MA's), (115, 38287),

Gene: Poenanya_76 Start: 46880, Stop: 47107, Start Num: 75
Candidate Starts for Poenanya_76:
(Start: 75 @46880 has 85 MA's), (117, 46979),

Gene: Polka14_77 Start: 47670, Stop: 47897, Start Num: 75
Candidate Starts for Polka14_77:
(Start: 75 @47670 has 85 MA's), (117, 47769),

Gene: Polka14_51 Start: 36782, Stop: 37027, Start Num: 70
Candidate Starts for Polka14_51:
(Start: 70 @36782 has 103 MA's), (115, 36890),

Gene: Polkaroo_55 Start: 37375, Stop: 37602, Start Num: 75

Candidate Starts for Polkaroo_55:

(47, 37312), (Start: 75 @37375 has 85 MA's), (117, 37474),

Gene: Pollywog_50 Start: 37066, Stop: 37320, Start Num: 70

Candidate Starts for Pollywog_50:

(43, 37018), (55, 37042), (Start: 70 @37066 has 103 MA's), (116, 37177),

Gene: Porcelain_82 Start: 49925, Stop: 49656, Start Num: 68

Candidate Starts for Porcelain_82:

(Start: 68 @49925 has 85 MA's), (87, 49871), (116, 49823),

Gene: Potter_52 Start: 47105, Stop: 46812, Start Num: 75

Candidate Starts for Potter_52:

(19, 47264), (36, 47207), (45, 47180), (55, 47159), (58, 47153), (Start: 75 @47105 has 85 MA's), (86, 47081), (109, 47033), (112, 47027), (116, 47003),

Gene: Pringar_6 Start: 1866, Stop: 2138, Start Num: 68

Candidate Starts for Pringar_6:

(Start: 68 @1866 has 85 MA's), (97, 1929), (116, 1971),

Gene: Puhltonio_53 Start: 47379, Stop: 47086, Start Num: 75

Candidate Starts for Puhltonio_53:

(19, 47538), (36, 47481), (45, 47454), (55, 47433), (58, 47427), (Start: 75 @47379 has 85 MA's), (86, 47355), (109, 47307), (112, 47301), (116, 47277),

Gene: Purky_63 Start: 41280, Stop: 41552, Start Num: 7

Candidate Starts for Purky_63:

(Start: 7 @41280 has 1 MA's), (8, 41295), (13, 41364), (15, 41388), (21, 41421), (28, 41439), (54, 41517), (Start: 65 @41538 has 1 MA's),

Gene: Purky_64 Start: 41545, Stop: 41862, Start Num: 70

Candidate Starts for Purky_64:

(14, 41383), (Start: 62 @41530 has 1 MA's), (Start: 70 @41545 has 103 MA's), (115, 41677), (143, 41794), (153, 41848),

Gene: QueenBeane_53 Start: 47369, Stop: 47076, Start Num: 75

Candidate Starts for QueenBeane_53:

(19, 47528), (36, 47471), (45, 47444), (55, 47423), (58, 47417), (Start: 75 @47369 has 85 MA's), (86, 47345), (109, 47297), (112, 47291), (116, 47267),

Gene: QuickMath_66 Start: 43318, Stop: 43566, Start Num: 70

Candidate Starts for QuickMath_66:

(Start: 70 @43318 has 103 MA's), (100, 43381), (116, 43423),

Gene: Rando14_64 Start: 42240, Stop: 42497, Start Num: 62

Candidate Starts for Rando14_64:

(Start: 51 @42219 has 8 MA's), (Start: 62 @42240 has 1 MA's), (89, 42300), (116, 42360), (119, 42390), (143, 42435),

Gene: RedBird_74 Start: 45372, Stop: 45599, Start Num: 75

Candidate Starts for RedBird_74:

(Start: 75 @45372 has 85 MA's), (117, 45471),

Gene: RedRaider77_9 Start: 2886, Stop: 3152, Start Num: 78

Candidate Starts for RedRaider77_9:

(56, 2829), (Start: 78 @2886 has 2 MA's), (92, 2922), (115, 2982), (116, 2985), (154, 3141),

Gene: Redno2_140 Start: 75128, Stop: 75373, Start Num: 70

Candidate Starts for Redno2_140:

(18, 74993), (45, 75083), (Start: 70 @75128 has 103 MA's), (107, 75200), (111, 75203),

Gene: Renaud18_58 Start: 38221, Stop: 38445, Start Num: 70

Candidate Starts for Renaud18_58:

(Start: 48 @38191 has 1 MA's), (Start: 70 @38221 has 103 MA's), (79, 38254), (102, 38278), (115, 38311),

Gene: Renaud18_70 Start: 41973, Stop: 42221, Start Num: 70

Candidate Starts for Renaud18_70:

(Start: 51 @41946 has 8 MA's), (Start: 70 @41973 has 103 MA's), (110, 42069), (115, 42093), (125, 42126),

Gene: Renaud18_71 Start: 42261, Stop: 42503, Start Num: 70

Candidate Starts for Renaud18_71:

(Start: 70 @42261 has 103 MA's), (71, 42276), (116, 42354), (136, 42414),

Gene: Rita1961_52 Start: 45860, Stop: 45591, Start Num: 68

Candidate Starts for Rita1961_52:

(Start: 68 @45860 has 85 MA's), (87, 45806), (116, 45758), (154, 45602),

Gene: RitaG_73 Start: 46813, Stop: 47040, Start Num: 75

Candidate Starts for RitaG_73:

(Start: 75 @46813 has 85 MA's), (117, 46912),

Gene: Rockne_53 Start: 37214, Stop: 37471, Start Num: 70

Candidate Starts for Rockne_53:

(20, 37100), (24, 37112), (35, 37148), (Start: 60 @37199 has 1 MA's), (Start: 70 @37214 has 103 MA's), (116, 37325), (121, 37355),

Gene: RockyHorror_53 Start: 37057, Stop: 37299, Start Num: 70

Candidate Starts for RockyHorror_53:

(Start: 48 @37027 has 1 MA's), (Start: 70 @37057 has 103 MA's), (116, 37168),

Gene: Royals2015_55 Start: 37315, Stop: 37545, Start Num: 70

Candidate Starts for Royals2015_55:

(Start: 48 @37285 has 1 MA's), (Start: 70 @37315 has 103 MA's), (Start: 82 @37351 has 2 MA's), (115, 37411), (116, 37414),

Gene: SG4_69 Start: 43478, Stop: 43705, Start Num: 75

Candidate Starts for SG4_69:

(Start: 75 @43478 has 85 MA's), (117, 43577),

Gene: SG4_49 Start: 36037, Stop: 36267, Start Num: 70

Candidate Starts for SG4_49:

(47, 36004), (Start: 48 @36007 has 1 MA's), (Start: 70 @36037 has 103 MA's), (Start: 82 @36073 has 2 MA's), (115, 36133), (116, 36136),

Gene: Samaymay_53 Start: 47369, Stop: 47076, Start Num: 75

Candidate Starts for Samaymay_53:

(19, 47528), (36, 47471), (45, 47444), (55, 47423), (58, 47417), (Start: 75 @47369 has 85 MA's), (86, 47345), (109, 47297), (112, 47291), (116, 47267),

Gene: Sassafras_50 Start: 36161, Stop: 36394, Start Num: 70

Candidate Starts for Sassafras_50:

(Start: 48 @36131 has 1 MA's), (Start: 70 @36161 has 103 MA's), (72, 36185), (102, 36227), (113, 36242), (115, 36260), (116, 36263),

Gene: Sassafras_74 Start: 45702, Stop: 45929, Start Num: 75

Candidate Starts for Sassafras_74:

(Start: 75 @45702 has 85 MA's), (117, 45801),

Gene: SassyCat97_52 Start: 47096, Stop: 46803, Start Num: 75

Candidate Starts for SassyCat97_52:

(19, 47255), (36, 47198), (45, 47171), (55, 47150), (58, 47144), (Start: 75 @47096 has 85 MA's), (86, 47072), (109, 47024), (112, 47018), (116, 46994),

Gene: Schatzie_85 Start: 55507, Stop: 55803, Start Num: 68

Candidate Starts for Schatzie_85:

(Start: 68 @55507 has 85 MA's), (96, 55585), (112, 55612), (116, 55636),

Gene: Scottish_71 Start: 45361, Stop: 45588, Start Num: 75

Candidate Starts for Scottish_71:

(Start: 75 @45361 has 85 MA's), (117, 45460),

Gene: Seabastian_39 Start: 31199, Stop: 31008, Start Num: 69

Candidate Starts for Seabastian_39:

(Start: 69 @31199 has 9 MA's), (116, 31109),

Gene: Sebata_6 Start: 2738, Stop: 2995, Start Num: 70

Candidate Starts for Sebata_6:

(Start: 64 @2729 has 3 MA's), (Start: 70 @2738 has 103 MA's), (72, 2762), (102, 2804), (113, 2819), (115, 2837), (116, 2840), (145, 2936),

Gene: Serendipity_53 Start: 47393, Stop: 47100, Start Num: 75

Candidate Starts for Serendipity_53:

(19, 47552), (36, 47495), (45, 47468), (55, 47447), (58, 47441), (Start: 75 @47393 has 85 MA's), (86, 47369), (109, 47321), (112, 47315), (116, 47291),

Gene: Shauna1_47 Start: 36503, Stop: 36781, Start Num: 68

Candidate Starts for Shauna1_47:

(31, 36419), (37, 36437), (53, 36479), (Start: 68 @36503 has 85 MA's), (116, 36614),

Gene: ShroomBoi_52 Start: 36993, Stop: 37238, Start Num: 70

Candidate Starts for ShroomBoi_52:

(30, 36909), (35, 36927), (52, 36969), (Start: 70 @36993 has 103 MA's), (116, 37104),

Gene: SirHarley_86 Start: 60117, Stop: 60344, Start Num: 70

Candidate Starts for SirHarley_86:

(20, 59994), (Start: 70 @60117 has 103 MA's), (Start: 82 @60153 has 2 MA's), (86, 60162), (116, 60216),

Gene: Sixama_7 Start: 2706, Stop: 2383, Start Num: 60

Candidate Starts for Sixama_7:

(Start: 60 @2706 has 1 MA's), (83, 2649), (102, 2619), (113, 2592), (132, 2502),

Gene: Smairt_67 Start: 44819, Stop: 44574, Start Num: 70

Candidate Starts for Smairt_67:

(Start: 70 @44819 has 103 MA's), (88, 44777), (101, 44765), (103, 44762), (116, 44723), (118, 44705),

Gene: Smooch_99 Start: 62468, Stop: 62202, Start Num: 78

Candidate Starts for Smooch_99:

(Start: 78 @62468 has 2 MA's), (92, 62432), (115, 62372), (116, 62369),

Gene: Soile_54 Start: 47617, Stop: 47348, Start Num: 75

Candidate Starts for Soile_54:

(19, 47776), (36, 47719), (45, 47692), (55, 47671), (58, 47665), (Start: 75 @47617 has 85 MA's), (86, 47593), (109, 47545), (112, 47539), (116, 47515), (154, 47359),

Gene: Solosis_52 Start: 47090, Stop: 46797, Start Num: 75

Candidate Starts for Solosis_52:

(19, 47249), (36, 47192), (45, 47165), (55, 47144), (58, 47138), (Start: 75 @47090 has 85 MA's), (86, 47066), (109, 47018), (112, 47012), (116, 46988),

Gene: Sophia_52 Start: 47084, Stop: 46791, Start Num: 75

Candidate Starts for Sophia_52:

(19, 47243), (36, 47186), (45, 47159), (55, 47138), (58, 47132), (Start: 75 @47084 has 85 MA's), (86, 47060), (109, 47012), (112, 47006), (116, 46982),

Gene: Sparkdehlily_60 Start: 38797, Stop: 39039, Start Num: 70

Candidate Starts for Sparkdehlily_60:

(66, 38791), (Start: 70 @38797 has 103 MA's), (116, 38908),

Gene: Specks_6 Start: 1888, Stop: 2115, Start Num: 70

Candidate Starts for Specks_6:

(Start: 64 @1879 has 3 MA's), (Start: 70 @1888 has 103 MA's), (80, 1924), (84, 1933), (116, 1987), (128, 2026),

Gene: Spooky_78 Start: 45719, Stop: 45976, Start Num: 67

Candidate Starts for Spooky_78:

(Start: 67 @45719 has 2 MA's), (73, 45749), (81, 45758), (93, 45782),

Gene: Squid_53 Start: 47096, Stop: 46803, Start Num: 75

Candidate Starts for Squid_53:

(19, 47255), (36, 47198), (45, 47171), (55, 47150), (58, 47144), (Start: 75 @47096 has 85 MA's), (86, 47072), (109, 47024), (112, 47018), (116, 46994),

Gene: Squint_83 Start: 50044, Stop: 49775, Start Num: 68

Candidate Starts for Squint_83:

(Start: 68 @50044 has 85 MA's), (87, 49990), (116, 49942),

Gene: StAnnes_51 Start: 37319, Stop: 37621, Start Num: 82
Candidate Starts for StAnnes_51:
(Start: 48 @37253 has 1 MA's), (Start: 70 @37283 has 103 MA's), (Start: 82 @37319 has 2 MA's),
(115, 37379), (116, 37382), (127, 37421), (138, 37442), (157, 37520),

Gene: Sunshine924_70 Start: 43095, Stop: 42850, Start Num: 70
Candidate Starts for Sunshine924_70:
(Start: 70 @43095 has 103 MA's), (88, 43053), (101, 43041), (103, 43038), (116, 42999), (118, 42981),

Gene: SuperGrey_52 Start: 37962, Stop: 38207, Start Num: 70
Candidate Starts for SuperGrey_52:
(30, 37878), (35, 37896), (52, 37938), (Start: 70 @37962 has 103 MA's), (116, 38073),

Gene: Surely_53 Start: 47386, Stop: 47093, Start Num: 75
Candidate Starts for Surely_53:
(19, 47545), (36, 47488), (45, 47461), (55, 47440), (58, 47434), (Start: 75 @47386 has 85 MA's), (86,
47362), (109, 47314), (112, 47308), (116, 47284),

Gene: SynergyX_51 Start: 45415, Stop: 45146, Start Num: 68
Candidate Starts for SynergyX_51:
(Start: 68 @45415 has 85 MA's), (87, 45361), (116, 45313),

Gene: TDanisky_60 Start: 38797, Stop: 39039, Start Num: 70
Candidate Starts for TDanisky_60:
(66, 38791), (Start: 70 @38797 has 103 MA's), (116, 38908),

Gene: Taj_56 Start: 38142, Stop: 38369, Start Num: 70
Candidate Starts for Taj_56:
(Start: 48 @38112 has 1 MA's), (Start: 70 @38142 has 103 MA's), (79, 38175), (102, 38199), (115,
38232),

Gene: TallGrassMM_53 Start: 47000, Stop: 46707, Start Num: 75
Candidate Starts for TallGrassMM_53:
(19, 47159), (36, 47102), (45, 47075), (55, 47054), (58, 47048), (Start: 75 @47000 has 85 MA's), (86,
46976), (109, 46928), (112, 46922), (116, 46898),

Gene: Tarzan_58 Start: 37656, Stop: 37880, Start Num: 75
Candidate Starts for Tarzan_58:
(Start: 75 @37656 has 85 MA's), (91, 37692), (124, 37785), (147, 37833),

Gene: Thora_53 Start: 47382, Stop: 47089, Start Num: 75
Candidate Starts for Thora_53:
(19, 47541), (36, 47484), (45, 47457), (55, 47436), (58, 47430), (Start: 75 @47382 has 85 MA's), (86,
47358), (109, 47310), (112, 47304), (116, 47280),

Gene: ThreeRngTarjay_87 Start: 56792, Stop: 57088, Start Num: 68
Candidate Starts for ThreeRngTarjay_87:
(Start: 68 @56792 has 85 MA's), (96, 56870), (112, 56897), (116, 56921),

Gene: Timmi_52 Start: 47085, Stop: 46792, Start Num: 75
Candidate Starts for Timmi_52:
(19, 47244), (36, 47187), (45, 47160), (55, 47139), (58, 47133), (Start: 75 @47085 has 85 MA's), (86,
47061), (109, 47013), (112, 47007), (116, 46983),

Gene: TomBombadil_53 Start: 47370, Stop: 47077, Start Num: 75

Candidate Starts for TomBombadil_53:

(19, 47529), (36, 47472), (45, 47445), (55, 47424), (58, 47418), (Start: 75 @47370 has 85 MA's), (86, 47346), (109, 47298), (112, 47292), (116, 47268),

Gene: Tonenili_49 Start: 15568, Stop: 15810, Start Num: 70

Candidate Starts for Tonenili_49:

(57, 15550), (Start: 70 @15568 has 103 MA's), (72, 15592), (102, 15634), (113, 15649), (116, 15670), (122, 15700), (130, 15718), (140, 15739),

Gene: Trine_55 Start: 39935, Stop: 39684, Start Num: 68

Candidate Starts for Trine_55:

(Start: 68 @39935 has 85 MA's), (111, 39860), (131, 39788),

Gene: Tweety_52 Start: 37774, Stop: 38004, Start Num: 70

Candidate Starts for Tweety_52:

(Start: 48 @37744 has 1 MA's), (Start: 70 @37774 has 103 MA's), (Start: 82 @37810 has 2 MA's), (115, 37870), (116, 37873),

Gene: Tyke_6 Start: 1888, Stop: 2115, Start Num: 70

Candidate Starts for Tyke_6:

(Start: 64 @1879 has 3 MA's), (Start: 70 @1888 has 103 MA's), (80, 1924), (84, 1933), (116, 1987), (128, 2026),

Gene: VanLee_73 Start: 43882, Stop: 44154, Start Num: 70

Candidate Starts for VanLee_73:

(Start: 70 @43882 has 103 MA's), (104, 43969), (112, 43987), (121, 44041),

Gene: VanLee_59 Start: 39559, Stop: 39819, Start Num: 69

Candidate Starts for VanLee_59:

(Start: 69 @39559 has 9 MA's),

Gene: VasuNzinga_8 Start: 2535, Stop: 2807, Start Num: 68

Candidate Starts for VasuNzinga_8:

(Start: 68 @2535 has 85 MA's), (97, 2598), (116, 2640),

Gene: Venti_53 Start: 36036, Stop: 36263, Start Num: 75

Candidate Starts for Venti_53:

(47, 35973), (Start: 75 @36036 has 85 MA's), (117, 36135),

Gene: Violac_56 Start: 38701, Stop: 39003, Start Num: 82

Candidate Starts for Violac_56:

(Start: 48 @38635 has 1 MA's), (Start: 70 @38665 has 103 MA's), (Start: 82 @38701 has 2 MA's), (115, 38761), (116, 38764), (127, 38803), (138, 38824), (157, 38902),

Gene: Vortex_53 Start: 47080, Stop: 46787, Start Num: 75

Candidate Starts for Vortex_53:

(19, 47239), (36, 47182), (45, 47155), (55, 47134), (58, 47128), (Start: 75 @47080 has 85 MA's), (86, 47056), (109, 47008), (112, 47002), (116, 46978),

Gene: Wanda_94 Start: 55909, Stop: 56205, Start Num: 68

Candidate Starts for Wanda_94:

(Start: 64 @55903 has 3 MA's), (Start: 68 @55909 has 85 MA's), (96, 55987), (112, 56014), (116, 56038),

Gene: Wee_55 Start: 38414, Stop: 38641, Start Num: 70

Candidate Starts for Wee_55:

(Start: 48 @38384 has 1 MA's), (Start: 70 @38414 has 103 MA's), (79, 38447), (102, 38471), (115, 38504),

Gene: Whatsapiecost_53 Start: 36689, Stop: 36931, Start Num: 70

Candidate Starts for Whatsapiecost_53:

(Start: 70 @36689 has 103 MA's), (116, 36800),

Gene: William_80 Start: 49369, Stop: 49632, Start Num: 68

Candidate Starts for William_80:

(3, 49048), (5, 49063), (6, 49099), (Start: 68 @49369 has 85 MA's), (77, 49405), (105, 49456),

Gene: WilliamBoone_96 Start: 57383, Stop: 57652, Start Num: 70

Candidate Starts for WilliamBoone_96:

(Start: 70 @57383 has 103 MA's), (112, 57488), (129, 57554),

Gene: XFactor_50 Start: 36012, Stop: 36242, Start Num: 70

Candidate Starts for XFactor_50:

(Start: 48 @35982 has 1 MA's), (Start: 70 @36012 has 103 MA's), (Start: 82 @36048 has 2 MA's), (115, 36108), (116, 36111),

Gene: Xavier_52 Start: 47087, Stop: 46794, Start Num: 75

Candidate Starts for Xavier_52:

(19, 47246), (36, 47189), (45, 47162), (55, 47141), (58, 47135), (Start: 75 @47087 has 85 MA's), (86, 47063), (109, 47015), (112, 47009), (116, 46985),

Gene: Yeet_83 Start: 55009, Stop: 55305, Start Num: 68

Candidate Starts for Yeet_83:

(Start: 68 @55009 has 85 MA's), (96, 55087), (112, 55114), (116, 55138),

Gene: Yeet_139 Start: 77084, Stop: 77329, Start Num: 70

Candidate Starts for Yeet_139:

(18, 76949), (45, 77039), (Start: 70 @77084 has 103 MA's), (107, 77156), (111, 77159),

Gene: Yoshi_44 Start: 30151, Stop: 29960, Start Num: 69

Candidate Starts for Yoshi_44:

(Start: 69 @30151 has 9 MA's), (116, 30061),

Gene: Yoshi_64 Start: 38747, Stop: 38995, Start Num: 70

Candidate Starts for Yoshi_64:

(Start: 48 @38717 has 1 MA's), (Start: 70 @38747 has 103 MA's), (110, 38843), (115, 38867), (125, 38900),

Gene: Zelda_53 Start: 47424, Stop: 47131, Start Num: 75

Candidate Starts for Zelda_53:

(19, 47583), (36, 47526), (45, 47499), (55, 47478), (58, 47472), (Start: 75 @47424 has 85 MA's), (86, 47400), (109, 47352), (112, 47346), (116, 47322),

Gene: Zelink_87 Start: 57104, Stop: 57400, Start Num: 68

Candidate Starts for Zelink_87:

(Start: 68 @57104 has 85 MA's), (96, 57182), (112, 57209), (116, 57233),

Gene: Zerg_52 Start: 37166, Stop: 37408, Start Num: 70

Candidate Starts for Zerg_52:

(Start: 48 @37136 has 1 MA's), (Start: 70 @37166 has 103 MA's), (116, 37277),