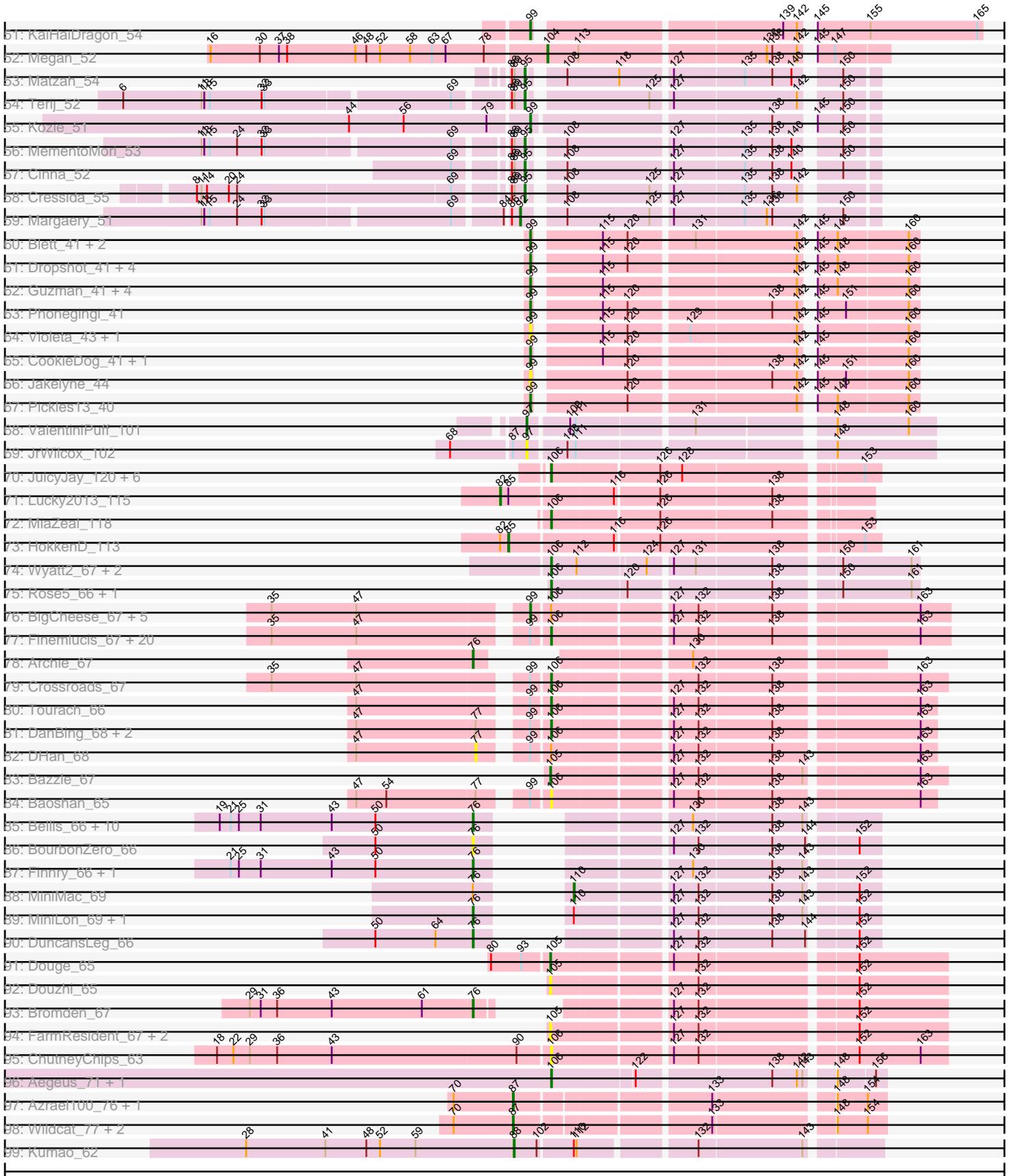


Pham 283398



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 283398 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283398 has 353 members, 55 are drafts.

Phages represented in each track:

- Track 1 : JustASigh_98
- Track 2 : Niblet_27
- Track 3 : HannahPhantana_32, Bedetta_34, Amelia_32, Cote_33, Pineda_33, Coral_31, Colusalem_32, Jerole_32
- Track 4 : PhirstandPhine_34, Melons_32
- Track 5 : Kepler_32, Daob_33
- Track 6 : Antrice_34
- Track 7 : Lunar_32
- Track 8 : Zhuangyuan_35
- Track 9 : OtsoOtso_32, Polka_31
- Track 10 : PhluffyCoco_30, Atlantica_30, RedFox_30, Juno112_29, DanHam62_30, AmiCi24_29, HamCheese_30, Glotell_31
- Track 11 : Babushka_27
- Track 12 : Renna12_29
- Track 13 : Andrew_31
- Track 14 : Leona_29
- Track 15 : BritBrat_66
- Track 16 : ODay_78
- Track 17 : LitninMcQueen_71
- Track 18 : Horus_72
- Track 19 : Squiddly_73, Spooky_68
- Track 20 : Kuwabara_72, Ecliptus_75, CheeseTouch_74
- Track 21 : Ronaldo_98, Guey18_100, Volt_99, Fryberger_95
- Track 22 : Keelan_96
- Track 23 : Trax_71
- Track 24 : Rabbitrun_72
- Track 25 : Marshmallow_75, Cookies_74, ChotaBhai_77, SirDuracell_76, Bask21_77, TeamEdward_79, YassJohnny_74, Pat3_75, Tomaszewski_72, OrionPax_76, Amao_77, DoctorDiddles_76
- Track 26 : HufflyPuff_80, PaddyBaddy_77, Goku_75, Bogg_77, Teaspoon_78, Buck_78, Petra64142_81, NoSleep_78, Highbury_76, Glexan_76, TeardropMSU_73, Lilizi_78, Thresher_79, Lilac_79, Inca_74, 244_78, MISSy_78, Nimrod_78, Stank_80, Gage_79, Moldemort_80, Phaja_75, HanKaySha_77, Becksu_76, Bruin_74, BilboSwaggins_75, StellaBean_75, Bench_80, AmericanBeauty_81, Myrale_77, Manda_78, Ukulele_72, Rimmer_78, Kostya_77, SophKB_74, FoghornLeghorn_71, Miniwave_72, Pumpkin_80, IHOP_75, Icee_78, Sassay_72, MPhalcon_78, Balomoji_77, Dusk_74, Kanye_74, Saints25_76, Cactus_80, Quallification_78,

JeTaime_77, Simpliphy_76, BadStone_74, GooberAzure_80, PhatBacter_81, ChosenOne_77, Palpatine_79, xkcd_80, Lilpickle_76, Holt_82, Murica_80, Rakim_78, Adnama_81, Gemini_82, MadamMonkfish_77, Greep_81, Mindy_76, Mosby_73, Dumbo_77, Kimchi_81, Phaux_79, NelitzaMV_75, Eureka_75, TBrady12_80, BigBubba_77, Hopey_77, Brewer_72, CrystalP_76, Phrux_74, BugsBunny_77, Cjw1_77, Hoonter_80, Willez_72, BaboJay_74, Asriel_76, Henry_75, Barbarian_76, Xandras_76, Tuco_78, Contagion_73, NonchalantPear_75, Goldilocks_80, StolenFromERC_80, GoldenSpark_81, Traaww1_73, Flypotenuse_73, Daikon_79, Easy2Say_78, Filch_78, ShamWow_77, Porky_76, Czyszczo1_78, RiverMonster_77, Sotrice96_78, Harella_77, Elph10_77, Policronamos_80, Youngblood_80, Toto_75, Murphy_77, Pharsalus_74, Command613_79, Gator_75, StormChicken_79, Stark_78, Elite2014_76, Misfit_78, Maxxinista_79, Emmina_77, Tarkin_76, Argent26_81, ABCat_74, Terminus_80, Wiggin_79, Ptowny_74, DrDrey_77, MollyToe_72, Paperbeatsrock_76, Thimble_78

- Track 27 : Budgie_85
- Track 28 : Nala_79, FireRed_81
- Track 29 : FairyPath_77
- Track 30 : Merry_, Sunny_
- Track 31 : Crisis_55, CrazyRich_53, Jefe_54
- Track 32 : Glorp_55, Yeti_54, Honeyfin_55
- Track 33 : Hermeonysus_53, Onika_53, Rockwell_53, PiperSansNom_54
- Track 34 : Teamocil_56, Gina_56
- Track 35 : Ganandorf_53, Piperis_54, Phorgeous_53
- Track 36 : PierreOrion_54, Jollipop_54
- Track 37 : ClearAsMud_57, NoodlelyBoi_55
- Track 38 : Tyumbra_54
- Track 39 : Skugga_53
- Track 40 : Kowalski_53, BrazzalePHS_53, Ramiel05_53
- Track 41 : Shrubaron_56, Fireman_56, RobsFeet_57, Metamorphoo_56
- Track 42 : BeagleBug_53, Quhwah_57, Shotgun_53, Antares_54, PhedwardCullen_52, Savannah_53
- Track 43 : Ariadne_62, Smarties_62
- Track 44 : Pulchra_55
- Track 45 : LittleFortune_55, Scumberland_55, Cranjis_55
- Track 46 : Paschalis_53
- Track 47 : Lucretia_54
- Track 48 : SirFrank_54
- Track 49 : Busephilis_53, Phrancesco_54
- Track 50 : Zapato_53
- Track 51 : KaiHaiDragon_54
- Track 52 : Megan_52
- Track 53 : Matzah_54
- Track 54 : Terij_52
- Track 55 : Kozie_51
- Track 56 : MementoMori_53
- Track 57 : Cinna_52
- Track 58 : Cressida_55
- Track 59 : Margaery_51
- Track 60 : Blett_41, NCRodriguez_42, Bush_42
- Track 61 : Dropshot_41, Mariel_44, Warren_41, Antuna_42, MenE_42
- Track 62 : Guzman_41, Appa_41, Winchester007_57, PhillyJawn_42, Losacky_42
- Track 63 : Phonegingi_41
- Track 64 : Violeta_43, Carrillo_43

- Track 65 : CookieDog_41, Phingu_44
- Track 66 : Jakelyne_44
- Track 67 : Pickles13_40
- Track 68 : ValentiniPuff_101
- Track 69 : JrWilcox_102
- Track 70 : JuicyJay_120, Phoebus_124, Thibault_106, Dallas_124, Beem_125, NihilNomen_125, Dove_109
- Track 71 : Lucky2013_115
- Track 72 : MiaZeal_118
- Track 73 : HokkenD_113
- Track 74 : Wyatt2_67, AvadaKedavra_66, Tyson_67
- Track 75 : Rose5_66, Wamburggrxpress_66
- Track 76 : BigCheese_67, Vetric_67, Lewan_68, BobsGarage_67, Nicholasp3_67, Underpass_58
- Track 77 : Finemlucis_67, GuuelaD_66, Itos_66, Rumpelstiltskin_66, Winky_67, Wigglewiggles_67, Zakai_68, Lynnae_69, Gardann_68, Breezona_67, Sarshaun_68, LilDestine_67, Kahlid_67, Miley16_67, MkaliMitinis3_68, Loadrie_66, Wilder_68, Gabriela_64, OverPar_69, Rossetti_69, Hafay_69
- Track 78 : Archie_67
- Track 79 : Crossroads_67
- Track 80 : Tourach_66
- Track 81 : DanBing_68, Claus_67, ZhongYanYuan_66
- Track 82 : DHan_68
- Track 83 : Bazzle_67
- Track 84 : Baoshan_65
- Track 85 : Bellis_66, Krypton555_67, TriFive_67, MsGreen_66, Snenia_65, Jubie_65, Lumos_67, Clautastrophe_65, Jobypre_66, Whirlwind_66, Red305_66
- Track 86 : BourbonZero_66
- Track 87 : Finnry_66, Samty_66
- Track 88 : MiniMac_69
- Track 89 : MiniLon_69, Lolly9_65
- Track 90 : DuncansLeg_66
- Track 91 : Douge_65
- Track 92 : Douzhi_65
- Track 93 : Bromden_67
- Track 94 : FarmResident_67, Quby_65, PYPDinur_63
- Track 95 : ChutneyChips_63
- Track 96 : Aegeus_71, Baudelaire_71
- Track 97 : Azrael100_76, Cosmo_77
- Track 98 : Wildcat_77, MaryV_77, EniyanLRS_168
- Track 99 : Kumao_62

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

The start number called the most often in the published annotations is 106, it was called in 173 of the 298 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 244_78, ABCat_74, Adnama_81, Aegeus_71, Amao_77, AmericanBeauty_81, Argent26_81, Asriel_76, AvadaKedavra_66, BaboJay_74, BadStone_74,

Balomoji_77, Baoshan_65, Barbarian_76, Bask21_77, Baudelaire_71, Becksu_76, Beem_125, Bench_80, BigBubba_77, BilboSwaggins_75, Bogg_77, Breezona_67, Brewer_72, BritBrat_66, Bruin_74, Buck_78, Budgie_85, BugsBunny_77, Cactus_80, CheeseTouch_74, ChosenOne_77, ChotaBhai_77, ChutneyChips_63, Cjw1_77, Claus_67, Command613_79, Contagion_73, Cookies_74, Crossroads_67, CrystalP_76, Czystoczon1_78, Daikon_79, Dallas_124, DanBing_68, DoctorDiddles_76, Dove_109, DrDrey_77, Dumbo_77, Dusk_74, Easy2Say_78, Ecliptus_75, Elite2014_76, Elph10_77, Emmina_77, Eureka_75, FairyPath_77, Filch_78, Finemlucis_67, FireRed_81, Flypotenuse_73, FoghornLeghorn_71, Fryberger_95, Gabriela_64, Gage_79, Gardann_68, Gator_75, Gemini_82, Glexan_76, Goku_75, GoldenSpark_81, Goldilocks_80, GooberAzure_80, Greep_81, Guey18_100, GuuelaD_66, Hafay_69, HanKaySha_77, Harella_77, Henry_75, Highbury_76, Holt_82, Hoonter_80, Hopey_77, Horus_72, HufflyPuff_80, IHOP_75, Icee_78, Inca_74, Itos_66, JeTaime_77, JuicyJay_120, Kahlid_67, Kanye_74, Kimchi_81, Kostya_77, Kuwabara_72, LilDestine_67, Lilac_79, Lilizi_78, Lilpickle_76, LitninMcQueen_71, Loadrie_66, Lynnae_69, MISSy_78, MPhalcon_78, MadamMonkfish_77, Manda_78, Marshmallow_75, Maxxinista_79, MiaZeal_118, Miley16_67, Mindy_76, Miniwave_72, Misfit_78, MkaliMitinis3_68, Moldemort_80, MollyToe_72, Mosby_73, Murica_80, Murphy_77, Myrale_77, Nala_79, NelitzaMV_75, NihilNomen_125, Nimrod_78, NoSleep_78, NonchalantPear_75, ODay_78, OrionPax_76, OverPar_69, PaddyBaddy_77, Palpatine_79, Paperbeatsrock_76, Pat3_75, Petra64142_81, Phaja_75, Pharsalus_74, PhatBacter_81, Phaux_79, Phoebus_124, Phrux_74, Policronamos_80, Porky_76, Ptowny_74, Pumpkin_80, Quallification_78, Rakim_78, Rimmer_78, RiverMonster_77, Ronaldo_98, Rose5_66, Rossetti_69, Rumpelstiltskin_66, Saints25_76, Sarshaun_68, Sassay_72, ShamWow_77, Simpliphy_76, SirDuracell_76, SophKB_74, Sotrice96_78, Spooky_68, Squiddly_73, Stank_80, Stark_78, StellaBean_75, StolenFromERC_80, StormChicken_79, TBrady12_80, Tarkin_76, TeamEdward_79, TeardropMSU_73, Teaspoon_78, Terminus_80, Thibault_106, Thimble_78, Thresher_79, Tomaszewski_72, Toto_75, Tourach_66, Traaww1_73, Tuco_78, Tyson_67, Ukulele_72, Volt_99, Wamburggrxpress_66, Wigg_79, Wigglewiggle_67, Wilder_68, Willez_72, Winky_67, Wyatt2_67, Xandras_76, YassJohnny_74, Youngblood_80, Zakai_68, ZhongYanYuan_66, xkcd_80,

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

- BigCheese_67, BobsGarage_67, DHan_68, Lewan_68, Nicholasp3_67, Underpass_58, Vetrix_67,

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

- Amelia_32, AmiCi24_29, Andrew_31, Antares_54, Antrice_34, Antuna_42, Appa_41, Archie_67, Ariadne_62, Atlantica_30, Azrael100_76, Babushka_27, Bazzle_67, BeagleBug_53, Bedetta_34, Bellis_66, Blett_41, BourbonZero_66, BrazzalePHS_53, Bromden_67, Busephilis_53, Bush_42, Carrillo_43, Cinna_52, Clautastrophe_65, ClearAsMud_57, Colusalem_32, CookieDog_41, Coral_31, Cosmo_77, Cote_33, Cranjjs_55, CrazyRich_53, Cressida_55, Crisis_55, DanHam62_30, Daob_33, Douge_65, Douzhi_65, Dropshot_41, DuncansLeg_66, EniyanLRS_168, FarmResident_67, Finnry_66, Fireman_56, Ganandorf_53, Gina_56, Glorp_55, Glotell_31, Guzman_41, HamCheese_30, HannahPhantana_32, Hermeonysus_53, HokkenD_113, Honeyfin_55, Jakelyne_44, Jefe_54, Jerole_32, Jobypre_66, Jollipop_54, JrWilcox_102, Jubie_65, Juno112_29, JustASigh_98, KaiHaiDragon_54, Keelan_96, Kepler_32, Kowalski_53, Kozie_51, Krypton555_67, Kumao_62, Leona_29, LittleFortune_55, Lolly9_65, Losacky_42, Lucky2013_115,

Lucretia_54, Lumos_67, Lunar_32, Margaery_51, Mariel_44, MaryV_77, Matzah_54, Megan_52, Melons_32, MementoMori_53, MenE_42, Merry_, Metamorphoo_56, MiniLon_69, MiniMac_69, MsGreen_66, NCRodriguez_42, Niblet_27, NoodlelyBoi_55, Onika_53, OtsoOtso_32, PYPDinur_63, Paschalis_53, PhedwardCullen_52, PhillyJawn_42, Phingu_44, PhirstandPhine_34, PhluffyCoco_30, Phonegingi_41, Phorgeous_53, Phrancesco_54, Pickles13_40, PierreOrion_54, Pineda_33, PiperSansNom_54, Piperis_54, Polka_31, Pulchra_55, Quby_65, Quhwah_57, Rabbitrun_72, Ramiel05_53, Red305_66, RedFox_30, Renna12_29, RobsFeet_57, Rockwell_53, Samty_66, Savannah_53, Scumberland_55, Shotgun_53, Shrubaron_56, SirFrank_54, Skugga_53, Smarties_62, Snenia_65, Sunny_, Teamocil_56, Terij_52, Trax_71, TriFive_67, Tyumbra_54, ValentiniPuff_101, Violeta_43, Warren_41, Whirlwind_66, Wildcat_77, Winchester007_57, Yeti_54, Zapato_53, Zhuangyuan_35,

Summary by start number:

Start 76:

- Found in 20 of 353 (5.7%) of genes in pham
- Manual Annotations of this start: 17 of 298
- Called 95.0% of time when present
- Phage (with cluster) where this start called: Archie_67 (L2), Bellis_66 (L3), BourbonZero_66 (L3), Bromden_67 (L4), Clautastrophe_65 (L3), DuncansLeg_66 (L3), Finnry_66 (L3), Jobypre_66 (L3), Jubie_65 (L3), Krypton555_67 (L3), Lolly9_65 (L3), Lumos_67 (L3), MiniLon_69 (L3), MsGreen_66 (L3), Red305_66 (L3), Samty_66 (L3), Snenia_65 (L3), TriFive_67 (L3), Whirlwind_66 (L3),

Start 77:

- Found in 5 of 353 (1.4%) of genes in pham
- No Manual Annotations of this start.
- Called 20.0% of time when present
- Phage (with cluster) where this start called: DHan_68 (L2),

Start 82:

- Found in 2 of 353 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 298
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Lucky2013_115 (J),

Start 85:

- Found in 2 of 353 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 298
- Called 50.0% of time when present
- Phage (with cluster) where this start called: HokkenD_113 (J),

Start 87:

- Found in 6 of 353 (1.7%) of genes in pham
- Manual Annotations of this start: 5 of 298
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Azrael100_76 (V), Cosmo_77 (V), EniyanLRS_168 (V), MaryV_77 (V), Wildcat_77 (V),

Start 88:

- Found in 28 of 353 (7.9%) of genes in pham

- Manual Annotations of this start: 24 of 298
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amelia_32 (AS2), AmiCi24_29 (AS3), Atlantica_30 (AS3), Babushka_27 (AS3), Bedetta_34 (AS2), Colusalem_32 (AS2), Coral_31 (AS2), Cote_33 (AS2), DanHam62_30 (AS3), Daob_33 (AS2), Glotell_31 (AS3), HamCheese_30 (AS3), HannahPhantana_32 (AS2), Jerole_32 (AS2), Juno112_29 (AS3), Kepler_32 (AS2), Kumao_62 (singleton), Leona_29 (AS3), Lunar_32 (AS2), Melons_32 (AS2), Niblet_27 (AS1), OtsoOtso_32 (AS2), PhirstandPhine_34 (AS2), PhluffyCoco_30 (AS3), Pineda_33 (AS2), Polka_31 (AS2), RedFox_30 (AS3), Renna12_29 (AS3),

Start 91:

- Found in 2 of 353 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 298
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antrice_34 (AS2), Zhuangyuan_35 (AS2),

Start 92:

- Found in 1 of 353 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 298
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Margaery_51 (EI),

Start 95:

- Found in 9 of 353 (2.5%) of genes in pham
- Manual Annotations of this start: 6 of 298
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Andrew_31 (AS3), Cinna_52 (EI), Cressida_55 (EI), Matzah_54 (EI), MementoMori_53 (EI), Terij_52 (EI),

Start 96:

- Found in 1 of 353 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 298
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SirFrank_54 (EC),

Start 97:

- Found in 14 of 353 (4.0%) of genes in pham
- Manual Annotations of this start: 12 of 298
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Busephilis_53 (EC), Ganandorf_53 (EC), Glorp_55 (EC), Honeyfin_55 (EC), JrWilcox_102 (GL), Lucretia_54 (EC), Merry_ (EC), Phorgeous_53 (EC), Phrancesco_54 (EC), Piperis_54 (EC), Pulchra_55 (EC), Sunny_ (EC), ValentiniPuff_101 (GL), Yeti_54 (EC),

Start 98:

- Found in 3 of 353 (0.8%) of genes in pham
- Manual Annotations of this start: 2 of 298
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gina_56 (EC), Skugga_53 (EC), Teamocil_56 (EC),

Start 99:

- Found in 88 of 353 (24.9%) of genes in pham
- Manual Annotations of this start: 46 of 298
- Called 68.2% of time when present
- Phage (with cluster) where this start called: Antares_54 (EC), Antuna_42 (GA), Appa_41 (GA), Ariadne_62 (EC), BeagleBug_53 (EC), BigCheese_67 (L2), Blett_41 (GA), BobsGarage_67 (L2), BrazzalePHS_53 (EC), Bush_42 (GA), Carrillo_43 (GA), ClearAsMud_57 (EC), CookieDog_41 (GA), Cranjis_55 (EC), CrazyRich_53 (EC), Crisis_55 (EC), Dropshot_41 (GA), Fireman_56 (EC), Guzman_41 (GA), Hermeonysus_53 (EC), Jakelyne_44 (GA), Jefe_54 (EC), Jollipop_54 (EC), KaiHaiDragon_54 (EC), Kowalski_53 (EC), Kozie_51 (EI), Lewan_68 (L2), LittleFortune_55 (EC), Losacky_42 (GA), Mariel_44 (GA), MenE_42 (GA), Metamorphoo_56 (EC), NCRodriguez_42 (GA), Nicholasp3_67 (L2), NoodlelyBoi_55 (EC), Onika_53 (EC), Paschalis_53 (EC), PhedwardCullen_52 (EC), PhillyJawn_42 (GA), Phingu_44 (GA), Phonegingi_41 (GA), Pickles13_40 (GA), PierreOrion_54 (EC), PiperSansNom_54 (EC), Quhwah_57 (EC), Ramiel05_53 (EC), RobsFeet_57 (EC), Rockwell_53 (EC), Savannah_53 (EC), Scumberland_55 (EC), Shotgun_53 (EC), Shrubaron_56 (EC), Smarties_62 (EC), Tyumbra_54 (EC), Underpass_58 (L2), Vetrix_67 (L2), Violeta_43 (GA), Warren_41 (GA), Winchester007_57 (GA), Zapato_53 (EC),

Start 100:

- Found in 2 of 353 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 298
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rabbitrun_72 (DU2), Trax_71 (DU2),

Start 101:

- Found in 1 of 353 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 298
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Keelan_96 (DP),

Start 104:

- Found in 1 of 353 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 298
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Megan_52 (EC),

Start 105:

- Found in 6 of 353 (1.7%) of genes in pham
- Manual Annotations of this start: 2 of 298
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bazzle_67 (L2), Douge_65 (L4), Douzhi_65 (L4), FarmResident_67 (L4), PYPDinur_63 (L4), Quby_65 (L4),

Start 106:

- Found in 206 of 353 (58.4%) of genes in pham
- Manual Annotations of this start: 173 of 298
- Called 96.6% of time when present
- Phage (with cluster) where this start called: 244_78 (E), ABCat_74 (E), Adnama_81 (E), Aegeus_71 (L5), Amao_77 (E), AmericanBeauty_81 (E), Argent26_81 (E), Asriel_76 (E), AvadaKedavra_66 (L1), BaboJay_74 (E), BadStone_74 (E),

Balomoji_77 (E), Baoshan_65 (L2), Barbarian_76 (E), Bask21_77 (E), Baudelaire_71 (L5), Becksu_76 (E), Beem_125 (J), Bench_80 (E), BigBubba_77 (E), BilboSwaggins_75 (E), Bogg_77 (E), Breezonia_67 (L2), Brewer_72 (E), BritBrat_66 (CY2), Bruin_74 (E), Buck_78 (E), Budgie_85 (E), BugsBunny_77 (E), Cactus_80 (E), CheeseTouch_74 (DN1), ChosenOne_77 (E), ChotaBhai_77 (E), ChutneyChips_63 (L4), Cjw1_77 (E), Claus_67 (L2), Command613_79 (E), Contagion_73 (E), Cookies_74 (E), Crossroads_67 (L2), CrystalP_76 (E), Czyszczonek_78 (E), Daikon_79 (E), Dallas_124 (J), DanBing_68 (L2), DoctorDiddles_76 (E), Dove_109 (J), DrDrey_77 (E), Dumbo_77 (E), Dusk_74 (E), Easy2Say_78 (E), Ecliptus_75 (DN), Elite2014_76 (E), Elph10_77 (E), Emmina_77 (E), Eureka_75 (E), FairyPath_77 (E), Filch_78 (E), Finemlucis_67 (L2), FireRed_81 (E), Flypotenuse_73 (E), FoghornLeghorn_71 (E), Fryberger_95 (DP), Gabriela_64 (L2), Gage_79 (E), Gardann_68 (L2), Gator_75 (E), Gemini_82 (E), Glexan_76 (E), Goku_75 (E), GoldenSpark_81 (E), Goldilocks_80 (E), GooberAzure_80 (E), Greep_81 (E), Guey18_100 (DP), GuuelaD_66 (L2), Hafay_69 (L2), HanKaySha_77 (E), Harella_77 (E), Henry_75 (E), Highbury_76 (E), Holt_82 (E), Hoonter_80 (E), Hopey_77 (E), Horus_72 (DN1), HufflyPuff_80 (E), IHOP_75 (E), Icee_78 (E), Inca_74 (E), Itos_66 (L2), JeTaime_77 (E), JuicyJay_120 (J), Kahlid_67 (L2), Kanye_74 (E), Kimchi_81 (E), Kostya_77 (E), Kuwabara_72 (DN4), LilDestine_67 (L2), Lilac_79 (E), Lilizi_78 (E), Lilpickle_76 (E), LitninMcQueen_71 (DN1), Loadrie_66 (L2), Lynnae_69 (L2), MISSy_78 (E), MPhalcon_78 (E), MadamMonkfish_77 (E), Manda_78 (E), Marshmallow_75 (E), Maxxinista_79 (E), MiaZeal_118 (J), Miley16_67 (L2), Mindy_76 (E), Miniwave_72 (E), Misfit_78 (E), MkaliMitinis3_68 (L2), Moldemort_80 (E), MollyToe_72 (E), Mosby_73 (E), Murica_80 (E), Murphy_77 (E), Myrale_77 (E), Nala_79 (E), NelitzaMV_75 (E), NihilNomen_125 (J), Nimrod_78 (E), NoSleep_78 (E), NonchalantPear_75 (E), ODay_78 (DN), OrionPax_76 (E), OverPar_69 (L2), PaddyBaddy_77 (E), Palpatine_79 (E), Paperbeatsrock_76 (E), Pat3_75 (E), Petra64142_81 (E), Phaja_75 (E), Pharsalus_74 (E), PhatBacter_81 (E), Phaux_79 (E), Phoebus_124 (J), Phrux_74 (E), Policronamos_80 (E), Porky_76 (E), Ptowny_74 (E), Pumpkin_80 (E), Quallification_78 (E), Rakim_78 (E), Rimmer_78 (E), RiverMonster_77 (E), Ronaldo_98 (DP), Rose5_66 (L1), Rossetti_69 (L2), Rumpelstiltskin_66 (L2), Saints25_76 (E), Sarshaun_68 (L2), Sassay_72 (E), ShamWow_77 (E), Simpliphy_76 (E), SirDuracell_76 (E), SophKB_74 (E), Sotrice96_78 (E), Spooky_68 (DN2), Squiddly_73 (DN2), Stank_80 (E), Stark_78 (E), StellaBean_75 (E), StolenFromERC_80 (E), StormChicken_79 (E), TBrady12_80 (E), Tarkin_76 (E), TeamEdward_79 (E), TeardropMSU_73 (E), Teaspoon_78 (E), Terminus_80 (E), Thibault_106 (J), Thimble_78 (E), Thresher_79 (E), Tomaszewski_72 (E), Toto_75 (E), Tourach_66 (L2), Traaww1_73 (E), Tuco_78 (E), Tyson_67 (L1), Ukulele_72 (E), Volt_99 (DP), Wamburgexpress_66 (L1), Wiggin_79 (E), Wigglewobble_67 (L2), Wilder_68 (L2), Willez_72 (E), Winky_67 (L2), Wyatt2_67 (L1), Xandras_76 (E), YassJohnny_74 (E), Youngblood_80 (E), Zakai_68 (L2), ZhongYanYuan_66 (L2), xkcd_80 (E),

Start 108:

- Found in 7 of 353 (2.0%) of genes in pham
- Manual Annotations of this start: 1 of 298
- Called 14.3% of time when present
- Phage (with cluster) where this start called: JustASigh_98 (AH),

Start 110:

- Found in 18 of 353 (5.1%) of genes in pham
- Manual Annotations of this start: 1 of 298
- Called 5.6% of time when present

- Phage (with cluster) where this start called: MiniMac_69 (L3),

Summary by clusters:

There are 24 clusters represented in this pham: DN, singleton, CY2, L1, EI, DP, DN4, DN1, DN2, DU2, AS3, AS2, AS1, E, AH, J, EC, L4, L5, L2, L3, GA, V, GL,

Info for manual annotations of cluster AH:

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

Info for manual annotations of cluster AS2:

- Start number 88 was manually annotated 12 times for cluster AS2.
- Start number 91 was manually annotated 1 time for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 88 was manually annotated 11 times for cluster AS3.
- Start number 95 was manually annotated 1 time for cluster AS3.

Info for manual annotations of cluster CY2:

- Start number 106 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster DN:

- Start number 106 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 106 was manually annotated 3 times for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 106 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster DN4:

- Start number 106 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster DP:

- Start number 101 was manually annotated 1 time for cluster DP.
- Start number 106 was manually annotated 4 times for cluster DP.

Info for manual annotations of cluster DU2:

- Start number 100 was manually annotated 2 times for cluster DU2.

Info for manual annotations of cluster E:

- Start number 106 was manually annotated 126 times for cluster E.

Info for manual annotations of cluster EC:

- Start number 96 was manually annotated 1 time for cluster EC.
- Start number 97 was manually annotated 11 times for cluster EC.
- Start number 98 was manually annotated 2 times for cluster EC.
- Start number 99 was manually annotated 28 times for cluster EC.
- Start number 104 was manually annotated 1 time for cluster EC.

Info for manual annotations of cluster EI:

- Start number 92 was manually annotated 1 time for cluster EI.

- Start number 95 was manually annotated 5 times for cluster EI.
- Start number 99 was manually annotated 1 time for cluster EI.

Info for manual annotations of cluster GA:

- Start number 99 was manually annotated 11 times for cluster GA.

Info for manual annotations of cluster GL:

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

Info for manual annotations of cluster J:

- Start number 82 was manually annotated 1 time for cluster J.
- Start number 85 was manually annotated 1 time for cluster J.
- Start number 106 was manually annotated 8 times for cluster J.

Info for manual annotations of cluster L1:

- Start number 106 was manually annotated 5 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 76 was manually annotated 1 time for cluster L2.
- Start number 99 was manually annotated 6 times for cluster L2.
- Start number 105 was manually annotated 1 time for cluster L2.
- Start number 106 was manually annotated 19 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 76 was manually annotated 15 times for cluster L3.
- Start number 110 was manually annotated 1 time for cluster L3.

Info for manual annotations of cluster L4:

- Start number 76 was manually annotated 1 time for cluster L4.
- Start number 105 was manually annotated 1 time for cluster L4.

Info for manual annotations of cluster L5:

- Start number 106 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster V:

- Start number 87 was manually annotated 5 times for cluster V.

Gene Information:

Gene: 244_78 Start: 48609, Stop: 48926, Start Num: 106

Candidate Starts for 244_78:

(51, 48426), (Start: 106 @48609 has 173 MA's), (131, 48750),

Gene: ABCat_74 Start: 48962, Stop: 49279, Start Num: 106

Candidate Starts for ABCat_74:

(51, 48779), (Start: 106 @48962 has 173 MA's), (131, 49103),

Gene: Adnama_81 Start: 48988, Stop: 49305, Start Num: 106

Candidate Starts for Adnama_81:

(51, 48805), (Start: 106 @48988 has 173 MA's), (131, 49129),

Gene: Aegeus_71 Start: 46495, Stop: 46824, Start Num: 106
Candidate Starts for Aegeus_71:
(Start: 106 @46495 has 173 MA's), (122, 46579), (138, 46717), (142, 46744), (143, 46750), (148, 46774), (156, 46813),

Gene: Amao_77 Start: 48382, Stop: 48699, Start Num: 106
Candidate Starts for Amao_77:
(51, 48199), (Start: 106 @48382 has 173 MA's), (Start: 110 @48406 has 1 MA's), (131, 48523),

Gene: Amelia_32 Start: 21518, Stop: 21165, Start Num: 88
Candidate Starts for Amelia_32:
(53, 21644), (60, 21605), (Start: 88 @21518 has 24 MA's), (123, 21389), (130, 21344), (144, 21224),

Gene: AmericanBeauty_81 Start: 49131, Stop: 49448, Start Num: 106
Candidate Starts for AmericanBeauty_81:
(51, 48948), (Start: 106 @49131 has 173 MA's), (131, 49272),

Gene: AmiCi24_29 Start: 20870, Stop: 20517, Start Num: 88
Candidate Starts for AmiCi24_29:
(3, 21272), (34, 21122), (71, 20927), (Start: 88 @20870 has 24 MA's), (107, 20837), (123, 20741),

Gene: Andrew_31 Start: 20815, Stop: 20462, Start Num: 95
Candidate Starts for Andrew_31:
(9, 21166), (71, 20890), (Start: 95 @20815 has 6 MA's), (123, 20686), (144, 20521),

Gene: Antares_54 Start: 35918, Stop: 36367, Start Num: 99
Candidate Starts for Antares_54:
(Start: 99 @35918 has 46 MA's), (132, 36077), (142, 36182), (145, 36188), (155, 36245), (165, 36362),

Gene: Antrice_34 Start: 22599, Stop: 22243, Start Num: 91
Candidate Starts for Antrice_34:
(53, 22743), (71, 22668), (Start: 91 @22599 has 1 MA's), (107, 22563), (119, 22491), (123, 22467),

Gene: Antuna_42 Start: 25698, Stop: 26075, Start Num: 99
Candidate Starts for Antuna_42:
(Start: 99 @25698 has 46 MA's), (115, 25761), (120, 25788), (142, 25962), (145, 25968), (148, 25989), (160, 26064),

Gene: Appa_41 Start: 25620, Stop: 25997, Start Num: 99
Candidate Starts for Appa_41:
(Start: 99 @25620 has 46 MA's), (115, 25683), (142, 25884), (145, 25890), (148, 25911), (160, 25986),

Gene: Archie_67 Start: 46551, Stop: 46892, Start Num: 76
Candidate Starts for Archie_67:
(Start: 76 @46551 has 17 MA's), (130, 46698),

Gene: Argent26_81 Start: 48769, Stop: 49086, Start Num: 106
Candidate Starts for Argent26_81:
(51, 48586), (Start: 106 @48769 has 173 MA's), (131, 48910),

Gene: Ariadne_62 Start: 37502, Stop: 37951, Start Num: 99
Candidate Starts for Ariadne_62:

(79, 37460), (Start: 99 @37502 has 46 MA's), (114, 37553), (132, 37661), (142, 37766), (145, 37772), (165, 37946),

Gene: Asriel_76 Start: 47325, Stop: 47642, Start Num: 106

Candidate Starts for Asriel_76:

(51, 47142), (Start: 106 @47325 has 173 MA's), (131, 47466),

Gene: Atlantica_30 Start: 20871, Stop: 20518, Start Num: 88

Candidate Starts for Atlantica_30:

(3, 21273), (34, 21123), (71, 20928), (Start: 88 @20871 has 24 MA's), (107, 20838), (123, 20742),

Gene: AvadaKedavra_66 Start: 45153, Stop: 45521, Start Num: 106

Candidate Starts for AvadaKedavra_66:

(Start: 106 @45153 has 173 MA's), (112, 45180), (124, 45249), (127, 45270), (131, 45294), (138, 45375), (150, 45438), (161, 45513),

Gene: Azrael100_76 Start: 48787, Stop: 49152, Start Num: 87

Candidate Starts for Azrael100_76:

(70, 48724), (Start: 87 @48787 has 5 MA's), (133, 48979), (148, 49099), (154, 49132),

Gene: BaboJay_74 Start: 48162, Stop: 48479, Start Num: 106

Candidate Starts for BaboJay_74:

(51, 47979), (Start: 106 @48162 has 173 MA's), (131, 48303),

Gene: Babushka_27 Start: 20785, Stop: 20432, Start Num: 88

Candidate Starts for Babushka_27:

(34, 21037), (71, 20842), (Start: 88 @20785 has 24 MA's), (107, 20752), (123, 20656), (132, 20605), (144, 20491), (148, 20467),

Gene: BadStone_74 Start: 48531, Stop: 48848, Start Num: 106

Candidate Starts for BadStone_74:

(51, 48348), (Start: 106 @48531 has 173 MA's), (131, 48672),

Gene: Balomoji_77 Start: 49092, Stop: 49409, Start Num: 106

Candidate Starts for Balomoji_77:

(51, 48909), (Start: 106 @49092 has 173 MA's), (131, 49233),

Gene: Baoshan_65 Start: 46306, Stop: 46692, Start Num: 106

Candidate Starts for Baoshan_65:

(47, 46120), (54, 46153), (77, 46249), (Start: 99 @46288 has 46 MA's), (Start: 106 @46306 has 173 MA's), (127, 46423), (132, 46450), (138, 46528), (163, 46675),

Gene: Barbarian_76 Start: 47325, Stop: 47642, Start Num: 106

Candidate Starts for Barbarian_76:

(51, 47142), (Start: 106 @47325 has 173 MA's), (131, 47466),

Gene: Bask21_77 Start: 47945, Stop: 48262, Start Num: 106

Candidate Starts for Bask21_77:

(51, 47762), (Start: 106 @47945 has 173 MA's), (Start: 110 @47969 has 1 MA's), (131, 48086),

Gene: Baudelaire_71 Start: 46495, Stop: 46824, Start Num: 106

Candidate Starts for Baudelaire_71:

(Start: 106 @46495 has 173 MA's), (122, 46579), (138, 46717), (142, 46744), (143, 46750), (148, 46774), (156, 46813),

Gene: Bazzle_67 Start: 46701, Stop: 47099, Start Num: 105

Candidate Starts for Bazzle_67:

(Start: 105 @46701 has 2 MA's), (127, 46818), (132, 46845), (138, 46923), (143, 46956), (163, 47070),

Gene: BeagleBug_53 Start: 35699, Stop: 36148, Start Num: 99

Candidate Starts for BeagleBug_53:

(Start: 99 @35699 has 46 MA's), (132, 35858), (142, 35963), (145, 35969), (155, 36026), (165, 36143),

Gene: Becksu_76 Start: 49161, Stop: 49478, Start Num: 106

Candidate Starts for Becksu_76:

(51, 48978), (Start: 106 @49161 has 173 MA's), (131, 49302),

Gene: Bedetta_34 Start: 21656, Stop: 21303, Start Num: 88

Candidate Starts for Bedetta_34:

(53, 21782), (60, 21743), (Start: 88 @21656 has 24 MA's), (123, 21527), (130, 21482), (144, 21362),

Gene: Beem_125 Start: 69590, Stop: 69922, Start Num: 106

Candidate Starts for Beem_125:

(Start: 106 @69590 has 173 MA's), (126, 69701), (128, 69725), (153, 69905),

Gene: Bellis_66 Start: 46470, Stop: 46802, Start Num: 76

Candidate Starts for Bellis_66:

(19, 46194), (21, 46206), (25, 46215), (31, 46239), (43, 46317), (50, 46365), (Start: 76 @46470 has 17 MA's), (130, 46614), (138, 46698), (143, 46731),

Gene: Bench_80 Start: 48629, Stop: 48946, Start Num: 106

Candidate Starts for Bench_80:

(51, 48446), (Start: 106 @48629 has 173 MA's), (131, 48770),

Gene: BigBubba_77 Start: 48341, Stop: 48658, Start Num: 106

Candidate Starts for BigBubba_77:

(51, 48158), (Start: 106 @48341 has 173 MA's), (131, 48482),

Gene: BigCheese_67 Start: 46345, Stop: 46764, Start Num: 99

Candidate Starts for BigCheese_67:

(35, 46084), (47, 46177), (Start: 99 @46345 has 46 MA's), (Start: 106 @46363 has 173 MA's), (127, 46480), (132, 46507), (138, 46585), (163, 46732),

Gene: BilboSwaggins_75 Start: 48970, Stop: 49287, Start Num: 106

Candidate Starts for BilboSwaggins_75:

(51, 48787), (Start: 106 @48970 has 173 MA's), (131, 49111),

Gene: Blett_41 Start: 25800, Stop: 26177, Start Num: 99

Candidate Starts for Blett_41:

(Start: 99 @25800 has 46 MA's), (115, 25863), (120, 25890), (131, 25956), (142, 26064), (145, 26070), (148, 26091), (160, 26166),

Gene: BobsGarage_67 Start: 46345, Stop: 46764, Start Num: 99

Candidate Starts for BobsGarage_67:

(35, 46084), (47, 46177), (Start: 99 @46345 has 46 MA's), (Start: 106 @46363 has 173 MA's), (127, 46480), (132, 46507), (138, 46585), (163, 46732),

Gene: Bogg_77 Start: 47908, Stop: 48225, Start Num: 106

Candidate Starts for Bogg_77:

(51, 47725), (Start: 106 @47908 has 173 MA's), (131, 48049),

Gene: BourbonZero_66 Start: 46515, Stop: 46847, Start Num: 76

Candidate Starts for BourbonZero_66:

(50, 46410), (Start: 76 @46515 has 17 MA's), (127, 46638), (132, 46665), (138, 46743), (144, 46779), (152, 46824),

Gene: BrazzalePHS_53 Start: 35714, Stop: 36163, Start Num: 99

Candidate Starts for BrazzalePHS_53:

(26, 35405), (27, 35408), (49, 35549), (65, 35621), (Start: 99 @35714 has 46 MA's), (142, 35978), (145, 35984), (155, 36041), (165, 36158),

Gene: Breezona_67 Start: 46363, Stop: 46764, Start Num: 106

Candidate Starts for Breezona_67:

(35, 46084), (47, 46177), (Start: 99 @46345 has 46 MA's), (Start: 106 @46363 has 173 MA's), (127, 46480), (132, 46507), (138, 46585), (163, 46732),

Gene: Brewer_72 Start: 47431, Stop: 47748, Start Num: 106

Candidate Starts for Brewer_72:

(51, 47248), (Start: 106 @47431 has 173 MA's), (131, 47572),

Gene: BritBrat_66 Start: 43849, Stop: 44178, Start Num: 106

Candidate Starts for BritBrat_66:

(66, 43735), (Start: 95 @43825 has 6 MA's), (Start: 106 @43849 has 173 MA's), (127, 43963), (130, 43984), (138, 44068), (141, 44092), (154, 44158), (157, 44170),

Gene: Bromden_67 Start: 46292, Stop: 46696, Start Num: 76

Candidate Starts for Bromden_67:

(29, 46049), (31, 46061), (36, 46079), (43, 46139), (61, 46238), (Start: 76 @46292 has 17 MA's), (127, 46415), (132, 46442), (152, 46601),

Gene: Bruin_74 Start: 47505, Stop: 47822, Start Num: 106

Candidate Starts for Bruin_74:

(51, 47322), (Start: 106 @47505 has 173 MA's), (131, 47646),

Gene: Buck_78 Start: 49210, Stop: 49527, Start Num: 106

Candidate Starts for Buck_78:

(51, 49027), (Start: 106 @49210 has 173 MA's), (131, 49351),

Gene: Budgie_85 Start: 49000, Stop: 49317, Start Num: 106

Candidate Starts for Budgie_85:

(1, 48439), (2, 48445), (5, 48532), (51, 48817), (Start: 106 @49000 has 173 MA's), (Start: 110 @49024 has 1 MA's), (131, 49141),

Gene: BugsBunny_77 Start: 49037, Stop: 49354, Start Num: 106

Candidate Starts for BugsBunny_77:

(51, 48854), (Start: 106 @49037 has 173 MA's), (131, 49178),

Gene: Busephilis_53 Start: 35622, Stop: 36074, Start Num: 97

Candidate Starts for Busephilis_53:

(Start: 97 @35622 has 12 MA's), (114, 35676), (132, 35784), (142, 35889), (155, 35952), (165, 36069),

Gene: Bush_42 Start: 25748, Stop: 26125, Start Num: 99

Candidate Starts for Bush_42:

(Start: 99 @25748 has 46 MA's), (115, 25811), (120, 25838), (131, 25904), (142, 26012), (145, 26018), (148, 26039), (160, 26114),

Gene: Cactus_80 Start: 47986, Stop: 48303, Start Num: 106

Candidate Starts for Cactus_80:

(51, 47803), (Start: 106 @47986 has 173 MA's), (131, 48127),

Gene: Carrillo_43 Start: 25721, Stop: 26098, Start Num: 99

Candidate Starts for Carrillo_43:

(Start: 99 @25721 has 46 MA's), (115, 25784), (120, 25811), (129, 25871), (142, 25985), (145, 25991), (160, 26087),

Gene: CheeseTouch_74 Start: 39429, Stop: 39758, Start Num: 106

Candidate Starts for CheeseTouch_74:

(Start: 106 @39429 has 173 MA's), (127, 39543), (130, 39564), (138, 39648), (141, 39672), (150, 39711), (154, 39738), (157, 39750),

Gene: ChosenOne_77 Start: 47986, Stop: 48303, Start Num: 106

Candidate Starts for ChosenOne_77:

(51, 47803), (Start: 106 @47986 has 173 MA's), (131, 48127),

Gene: ChotaBhai_77 Start: 48310, Stop: 48627, Start Num: 106

Candidate Starts for ChotaBhai_77:

(51, 48127), (Start: 106 @48310 has 173 MA's), (Start: 110 @48334 has 1 MA's), (131, 48451),

Gene: ChutneyChips_63 Start: 45296, Stop: 45694, Start Num: 106

Candidate Starts for ChutneyChips_63:

(18, 44936), (22, 44954), (29, 44972), (36, 45002), (43, 45062), (90, 45263), (Start: 106 @45296 has 173 MA's), (127, 45413), (132, 45440), (152, 45599), (163, 45665),

Gene: Cinna_52 Start: 36948, Stop: 37283, Start Num: 95

Candidate Starts for Cinna_52:

(69, 36891), (86, 36936), (89, 36939), (Start: 95 @36948 has 6 MA's), (Start: 108 @36975 has 1 MA's), (127, 37083), (135, 37158), (138, 37188), (140, 37209), (150, 37248),

Gene: Cjw1_77 Start: 49683, Stop: 50000, Start Num: 106

Candidate Starts for Cjw1_77:

(51, 49500), (Start: 106 @49683 has 173 MA's), (131, 49824),

Gene: Claus_67 Start: 46444, Stop: 46830, Start Num: 106

Candidate Starts for Claus_67:

(47, 46258), (77, 46387), (Start: 99 @46426 has 46 MA's), (Start: 106 @46444 has 173 MA's), (127, 46561), (132, 46588), (138, 46666), (163, 46813),

Gene: Clautastrophe_65 Start: 46467, Stop: 46799, Start Num: 76

Candidate Starts for Clautastrophe_65:

(19, 46191), (21, 46203), (25, 46212), (31, 46236), (43, 46314), (50, 46362), (Start: 76 @46467 has 17 MA's), (130, 46611), (138, 46695), (143, 46728),

Gene: ClearAsMud_57 Start: 36175, Stop: 36624, Start Num: 99

Candidate Starts for ClearAsMud_57:

(23, 35857), (40, 35944), (42, 35962), (60, 36061), (75, 36115), (Start: 99 @36175 has 46 MA's), (132, 36334), (134, 36370), (139, 36424), (142, 36439), (145, 36445), (155, 36502), (165, 36619),

Gene: Colusalem_32 Start: 21495, Stop: 21142, Start Num: 88

Candidate Starts for Colusalem_32:

(53, 21621), (60, 21582), (Start: 88 @21495 has 24 MA's), (123, 21366), (130, 21321), (144, 21201),

Gene: Command613_79 Start: 49025, Stop: 49342, Start Num: 106

Candidate Starts for Command613_79:

(51, 48842), (Start: 106 @49025 has 173 MA's), (131, 49166),

Gene: Contagion_73 Start: 47786, Stop: 48103, Start Num: 106

Candidate Starts for Contagion_73:

(51, 47603), (Start: 106 @47786 has 173 MA's), (131, 47927),

Gene: CookieDog_41 Start: 25721, Stop: 26098, Start Num: 99

Candidate Starts for CookieDog_41:

(Start: 99 @25721 has 46 MA's), (115, 25784), (120, 25811), (142, 25985), (145, 25991), (160, 26087),

Gene: Cookies_74 Start: 48167, Stop: 48484, Start Num: 106

Candidate Starts for Cookies_74:

(51, 47984), (Start: 106 @48167 has 173 MA's), (Start: 110 @48191 has 1 MA's), (131, 48308),

Gene: Coral_31 Start: 21357, Stop: 21004, Start Num: 88

Candidate Starts for Coral_31:

(53, 21483), (60, 21444), (Start: 88 @21357 has 24 MA's), (123, 21228), (130, 21183), (144, 21063),

Gene: Cosmo_77 Start: 48788, Stop: 49153, Start Num: 87

Candidate Starts for Cosmo_77:

(70, 48725), (Start: 87 @48788 has 5 MA's), (133, 48980), (148, 49100), (154, 49133),

Gene: Cote_33 Start: 21834, Stop: 21481, Start Num: 88

Candidate Starts for Cote_33:

(53, 21960), (60, 21921), (Start: 88 @21834 has 24 MA's), (123, 21705), (130, 21660), (144, 21540),

Gene: Cranjis_55 Start: 35873, Stop: 36322, Start Num: 99

Candidate Starts for Cranjis_55:

(7, 35447), (26, 35564), (27, 35567), (49, 35708), (65, 35780), (Start: 99 @35873 has 46 MA's), (142, 36137), (145, 36143), (155, 36200), (165, 36317),

Gene: CrazyRich_53 Start: 35682, Stop: 36131, Start Num: 99

Candidate Starts for CrazyRich_53:

(26, 35373), (27, 35376), (49, 35517), (65, 35589), (Start: 99 @35682 has 46 MA's), (132, 35841), (142, 35946), (145, 35952), (155, 36009), (165, 36126),

Gene: Cressida_55 Start: 36599, Stop: 36934, Start Num: 95

Candidate Starts for Cressida_55:

(8, 36272), (11, 36275), (14, 36281), (20, 36305), (24, 36314), (69, 36542), (86, 36587), (89, 36590), (Start: 95 @36599 has 6 MA's), (Start: 108 @36626 has 1 MA's), (125, 36716), (127, 36734), (135, 36809), (138, 36839), (142, 36866),

Gene: Crisis_55 Start: 35673, Stop: 36122, Start Num: 99

Candidate Starts for Crisis_55:

(26, 35364), (27, 35367), (49, 35508), (65, 35580), (Start: 99 @35673 has 46 MA's), (132, 35832), (142, 35937), (145, 35943), (155, 36000), (165, 36117),

Gene: Crossroads_67 Start: 46441, Stop: 46839, Start Num: 106

Candidate Starts for Crossroads_67:

(35, 46162), (47, 46255), (Start: 99 @46423 has 46 MA's), (Start: 106 @46441 has 173 MA's), (132, 46585), (138, 46663), (163, 46810),

Gene: CrystalP_76 Start: 48970, Stop: 49287, Start Num: 106

Candidate Starts for CrystalP_76:

(51, 48787), (Start: 106 @48970 has 173 MA's), (131, 49111),

Gene: Czyszczone1_78 Start: 48492, Stop: 48809, Start Num: 106

Candidate Starts for Czyszczone1_78:

(51, 48309), (Start: 106 @48492 has 173 MA's), (131, 48633),

Gene: DHan_68 Start: 46287, Stop: 46730, Start Num: 77

Candidate Starts for DHan_68:

(47, 46158), (77, 46287), (Start: 99 @46326 has 46 MA's), (Start: 106 @46344 has 173 MA's), (127, 46461), (132, 46488), (138, 46566), (163, 46713),

Gene: Daikon_79 Start: 49113, Stop: 49430, Start Num: 106

Candidate Starts for Daikon_79:

(51, 48930), (Start: 106 @49113 has 173 MA's), (131, 49254),

Gene: Dallas_124 Start: 69105, Stop: 69437, Start Num: 106

Candidate Starts for Dallas_124:

(Start: 106 @69105 has 173 MA's), (126, 69216), (128, 69240), (153, 69420),

Gene: DanBing_68 Start: 46313, Stop: 46699, Start Num: 106

Candidate Starts for DanBing_68:

(47, 46127), (77, 46256), (Start: 99 @46295 has 46 MA's), (Start: 106 @46313 has 173 MA's), (127, 46430), (132, 46457), (138, 46535), (163, 46682),

Gene: DanHam62_30 Start: 20871, Stop: 20518, Start Num: 88

Candidate Starts for DanHam62_30:

(3, 21273), (34, 21123), (71, 20928), (Start: 88 @20871 has 24 MA's), (107, 20838), (123, 20742),

Gene: Daob_33 Start: 21852, Stop: 21499, Start Num: 88

Candidate Starts for Daob_33:

(53, 21978), (60, 21939), (Start: 88 @21852 has 24 MA's), (123, 21723), (144, 21558),

Gene: DoctorDiddles_76 Start: 48354, Stop: 48671, Start Num: 106

Candidate Starts for DoctorDiddles_76:

(51, 48171), (Start: 106 @48354 has 173 MA's), (Start: 110 @48378 has 1 MA's), (131, 48495),

Gene: Douge_65 Start: 45034, Stop: 45432, Start Num: 105

Candidate Starts for Douge_65:

(80, 44974), (93, 45007), (Start: 105 @45034 has 2 MA's), (127, 45151), (132, 45178), (152, 45337),

Gene: Douzhi_65 Start: 45087, Stop: 45485, Start Num: 105

Candidate Starts for Douzhi_65:

(Start: 105 @45087 has 2 MA's), (132, 45231), (152, 45390),

Gene: Dove_109 Start: 64018, Stop: 64350, Start Num: 106

Candidate Starts for Dove_109:

(Start: 106 @64018 has 173 MA's), (126, 64129), (128, 64153), (153, 64333),

Gene: DrDrey_77 Start: 49411, Stop: 49728, Start Num: 106

Candidate Starts for DrDrey_77:

(51, 49228), (Start: 106 @49411 has 173 MA's), (131, 49552),

Gene: Dropshot_41 Start: 25455, Stop: 25832, Start Num: 99

Candidate Starts for Dropshot_41:

(Start: 99 @25455 has 46 MA's), (115, 25518), (120, 25545), (142, 25719), (145, 25725), (148, 25746),
(160, 25821),

Gene: Dumbo_77 Start: 47891, Stop: 48208, Start Num: 106

Candidate Starts for Dumbo_77:

(51, 47708), (Start: 106 @47891 has 173 MA's), (131, 48032),

Gene: DuncansLeg_66 Start: 46503, Stop: 46835, Start Num: 76

Candidate Starts for DuncansLeg_66:

(50, 46398), (64, 46464), (Start: 76 @46503 has 17 MA's), (127, 46626), (132, 46653), (138, 46731),
(144, 46767), (152, 46812),

Gene: Dusk_74 Start: 48191, Stop: 48508, Start Num: 106

Candidate Starts for Dusk_74:

(51, 48008), (Start: 106 @48191 has 173 MA's), (131, 48332),

Gene: Easy2Say_78 Start: 49435, Stop: 49752, Start Num: 106

Candidate Starts for Easy2Say_78:

(51, 49252), (Start: 106 @49435 has 173 MA's), (131, 49576),

Gene: Ecliptus_75 Start: 44750, Stop: 45079, Start Num: 106

Candidate Starts for Ecliptus_75:

(Start: 106 @44750 has 173 MA's), (127, 44864), (130, 44885), (138, 44969), (141, 44993), (150,
45032), (154, 45059), (157, 45071),

Gene: Elite2014_76 Start: 47985, Stop: 48302, Start Num: 106

Candidate Starts for Elite2014_76:

(51, 47802), (Start: 106 @47985 has 173 MA's), (131, 48126),

Gene: Elph10_77 Start: 47990, Stop: 48307, Start Num: 106

Candidate Starts for Elph10_77:

(51, 47807), (Start: 106 @47990 has 173 MA's), (131, 48131),

Gene: Emmina_77 Start: 47892, Stop: 48209, Start Num: 106

Candidate Starts for Emmina_77:

(51, 47709), (Start: 106 @47892 has 173 MA's), (131, 48033),

Gene: EniyanLRS_168 Start: 48527, Stop: 48892, Start Num: 87
Candidate Starts for EniyanLRS_168:
(70, 48464), (Start: 87 @48527 has 5 MA's), (133, 48719), (148, 48839), (154, 48872),

Gene: Eureka_75 Start: 48456, Stop: 48773, Start Num: 106
Candidate Starts for Eureka_75:
(51, 48273), (Start: 106 @48456 has 173 MA's), (131, 48597),

Gene: FairyPath_77 Start: 49104, Stop: 49421, Start Num: 106
Candidate Starts for FairyPath_77:
(51, 48921), (Start: 106 @49104 has 173 MA's), (Start: 110 @49128 has 1 MA's), (131, 49245),

Gene: FarmResident_67 Start: 45043, Stop: 45441, Start Num: 105
Candidate Starts for FarmResident_67:
(Start: 105 @45043 has 2 MA's), (127, 45160), (132, 45187), (152, 45346),

Gene: Filch_78 Start: 47917, Stop: 48234, Start Num: 106
Candidate Starts for Filch_78:
(51, 47734), (Start: 106 @47917 has 173 MA's), (131, 48058),

Gene: Finemlucis_67 Start: 46684, Stop: 47085, Start Num: 106
Candidate Starts for Finemlucis_67:
(35, 46405), (47, 46498), (Start: 99 @46666 has 46 MA's), (Start: 106 @46684 has 173 MA's), (127, 46801), (132, 46828), (138, 46906), (163, 47053),

Gene: Finnry_66 Start: 46731, Stop: 47063, Start Num: 76
Candidate Starts for Finnry_66:
(21, 46467), (25, 46476), (31, 46500), (43, 46578), (50, 46626), (Start: 76 @46731 has 17 MA's), (130, 46875), (138, 46959), (143, 46992),

Gene: FireRed_81 Start: 49479, Stop: 49796, Start Num: 106
Candidate Starts for FireRed_81:
(51, 49296), (Start: 106 @49479 has 173 MA's), (131, 49620),

Gene: Fireman_56 Start: 37569, Stop: 38018, Start Num: 99
Candidate Starts for Fireman_56:
(Start: 99 @37569 has 46 MA's), (114, 37620), (132, 37728), (142, 37833), (145, 37839), (165, 38013),

Gene: Flypotenuse_73 Start: 47976, Stop: 48293, Start Num: 106
Candidate Starts for Flypotenuse_73:
(51, 47793), (Start: 106 @47976 has 173 MA's), (131, 48117),

Gene: FoghornLeghorn_71 Start: 46989, Stop: 47306, Start Num: 106
Candidate Starts for FoghornLeghorn_71:
(51, 46806), (Start: 106 @46989 has 173 MA's), (131, 47130),

Gene: Fryberger_95 Start: 48138, Stop: 48464, Start Num: 106
Candidate Starts for Fryberger_95:
(Start: 106 @48138 has 173 MA's), (121, 48219), (134, 48303), (137, 48342), (144, 48381),

Gene: Gabriela_64 Start: 44813, Stop: 45211, Start Num: 106
Candidate Starts for Gabriela_64:

(35, 44534), (47, 44627), (Start: 99 @44795 has 46 MA's), (Start: 106 @44813 has 173 MA's), (127, 44930), (132, 44957), (138, 45035), (163, 45182),

Gene: Gage_79 Start: 48769, Stop: 49086, Start Num: 106

Candidate Starts for Gage_79:

(51, 48586), (Start: 106 @48769 has 173 MA's), (131, 48910),

Gene: Ganandorf_53 Start: 35703, Stop: 36155, Start Num: 97

Candidate Starts for Ganandorf_53:

(Start: 97 @35703 has 12 MA's), (114, 35757), (132, 35865), (142, 35970), (145, 35976), (155, 36033), (165, 36150),

Gene: Gardann_68 Start: 46399, Stop: 46797, Start Num: 106

Candidate Starts for Gardann_68:

(35, 46120), (47, 46213), (Start: 99 @46381 has 46 MA's), (Start: 106 @46399 has 173 MA's), (127, 46516), (132, 46543), (138, 46621), (163, 46768),

Gene: Gator_75 Start: 48822, Stop: 49139, Start Num: 106

Candidate Starts for Gator_75:

(51, 48639), (Start: 106 @48822 has 173 MA's), (131, 48963),

Gene: Gemini_82 Start: 49286, Stop: 49603, Start Num: 106

Candidate Starts for Gemini_82:

(51, 49103), (Start: 106 @49286 has 173 MA's), (131, 49427),

Gene: Gina_56 Start: 35677, Stop: 36126, Start Num: 98

Candidate Starts for Gina_56:

(79, 35638), (Start: 98 @35677 has 2 MA's), (114, 35728), (132, 35836), (142, 35941), (145, 35947), (158, 36025),

Gene: Glexan_76 Start: 49106, Stop: 49423, Start Num: 106

Candidate Starts for Glexan_76:

(51, 48923), (Start: 106 @49106 has 173 MA's), (131, 49247),

Gene: Glorp_55 Start: 35704, Stop: 36156, Start Num: 97

Candidate Starts for Glorp_55:

(Start: 97 @35704 has 12 MA's), (114, 35758), (125, 35821), (132, 35866), (142, 35971), (145, 35977), (155, 36034), (165, 36151),

Gene: Glotell_31 Start: 21028, Stop: 20675, Start Num: 88

Candidate Starts for Glotell_31:

(3, 21430), (34, 21280), (71, 21085), (Start: 88 @21028 has 24 MA's), (107, 20995), (123, 20899),

Gene: Goku_75 Start: 48185, Stop: 48502, Start Num: 106

Candidate Starts for Goku_75:

(51, 48002), (Start: 106 @48185 has 173 MA's), (131, 48326),

Gene: GoldenSpark_81 Start: 48769, Stop: 49086, Start Num: 106

Candidate Starts for GoldenSpark_81:

(51, 48586), (Start: 106 @48769 has 173 MA's), (131, 48910),

Gene: Goldilocks_80 Start: 48267, Stop: 48584, Start Num: 106

Candidate Starts for Goldilocks_80:

(51, 48084), (Start: 106 @48267 has 173 MA's), (131, 48408),

Gene: GooberAzure_80 Start: 48769, Stop: 49086, Start Num: 106

Candidate Starts for GooberAzure_80:

(51, 48586), (Start: 106 @48769 has 173 MA's), (131, 48910),

Gene: Greep_81 Start: 49768, Stop: 50085, Start Num: 106

Candidate Starts for Greep_81:

(51, 49585), (Start: 106 @49768 has 173 MA's), (131, 49909),

Gene: Guey18_100 Start: 49458, Stop: 49784, Start Num: 106

Candidate Starts for Guey18_100:

(Start: 106 @49458 has 173 MA's), (121, 49539), (134, 49623), (137, 49662), (144, 49701),

Gene: GuuelaD_66 Start: 46478, Stop: 46879, Start Num: 106

Candidate Starts for GuuelaD_66:

(35, 46199), (47, 46292), (Start: 99 @46460 has 46 MA's), (Start: 106 @46478 has 173 MA's), (127, 46595), (132, 46622), (138, 46700), (163, 46847),

Gene: Guzman_41 Start: 25719, Stop: 26096, Start Num: 99

Candidate Starts for Guzman_41:

(Start: 99 @25719 has 46 MA's), (115, 25782), (142, 25983), (145, 25989), (148, 26010), (160, 26085),

Gene: Hafay_69 Start: 46467, Stop: 46868, Start Num: 106

Candidate Starts for Hafay_69:

(35, 46188), (47, 46281), (Start: 99 @46449 has 46 MA's), (Start: 106 @46467 has 173 MA's), (127, 46584), (132, 46611), (138, 46689), (163, 46836),

Gene: HamCheese_30 Start: 20856, Stop: 20503, Start Num: 88

Candidate Starts for HamCheese_30:

(3, 21258), (34, 21108), (71, 20913), (Start: 88 @20856 has 24 MA's), (107, 20823), (123, 20727),

Gene: HanKaySha_77 Start: 48070, Stop: 48387, Start Num: 106

Candidate Starts for HanKaySha_77:

(51, 47887), (Start: 106 @48070 has 173 MA's), (131, 48211),

Gene: HannahPhantana_32 Start: 21514, Stop: 21161, Start Num: 88

Candidate Starts for HannahPhantana_32:

(53, 21640), (60, 21601), (Start: 88 @21514 has 24 MA's), (123, 21385), (130, 21340), (144, 21220),

Gene: Harella_77 Start: 49622, Stop: 49939, Start Num: 106

Candidate Starts for Harella_77:

(51, 49439), (Start: 106 @49622 has 173 MA's), (131, 49763),

Gene: Henry_75 Start: 48410, Stop: 48727, Start Num: 106

Candidate Starts for Henry_75:

(51, 48227), (Start: 106 @48410 has 173 MA's), (131, 48551),

Gene: Hermeonysus_53 Start: 35602, Stop: 36051, Start Num: 99

Candidate Starts for Hermeonysus_53:

(Start: 99 @35602 has 46 MA's), (132, 35761), (142, 35866), (155, 35929), (165, 36046),

Gene: Highbury_76 Start: 48058, Stop: 48375, Start Num: 106

Candidate Starts for Highbury_76:

(51, 47875), (Start: 106 @48058 has 173 MA's), (131, 48199),

Gene: HokkenD_113 Start: 67777, Stop: 68151, Start Num: 85

Candidate Starts for HokkenD_113:

(Start: 82 @67768 has 1 MA's), (Start: 85 @67777 has 1 MA's), (116, 67885), (126, 67930), (153, 68134),

Gene: Holt_82 Start: 49183, Stop: 49500, Start Num: 106

Candidate Starts for Holt_82:

(51, 49000), (Start: 106 @49183 has 173 MA's), (131, 49324),

Gene: Honeyfin_55 Start: 35891, Stop: 36343, Start Num: 97

Candidate Starts for Honeyfin_55:

(Start: 97 @35891 has 12 MA's), (114, 35945), (125, 36008), (132, 36053), (142, 36158), (145, 36164), (155, 36221), (165, 36338),

Gene: Hoonter_80 Start: 48769, Stop: 49086, Start Num: 106

Candidate Starts for Hoonter_80:

(51, 48586), (Start: 106 @48769 has 173 MA's), (131, 48910),

Gene: Hokey_77 Start: 48602, Stop: 48919, Start Num: 106

Candidate Starts for Hokey_77:

(51, 48419), (Start: 106 @48602 has 173 MA's), (131, 48743),

Gene: Horus_72 Start: 44321, Stop: 44650, Start Num: 106

Candidate Starts for Horus_72:

(66, 44207), (Start: 95 @44297 has 6 MA's), (Start: 106 @44321 has 173 MA's), (112, 44348), (127, 44435), (138, 44540), (141, 44564), (150, 44603), (154, 44630), (157, 44642),

Gene: HufflyPuff_80 Start: 49435, Stop: 49752, Start Num: 106

Candidate Starts for HufflyPuff_80:

(51, 49252), (Start: 106 @49435 has 173 MA's), (131, 49576),

Gene: IHOP_75 Start: 48534, Stop: 48851, Start Num: 106

Candidate Starts for IHOP_75:

(51, 48351), (Start: 106 @48534 has 173 MA's), (131, 48675),

Gene: Icee_78 Start: 48433, Stop: 48750, Start Num: 106

Candidate Starts for Icee_78:

(51, 48250), (Start: 106 @48433 has 173 MA's), (131, 48574),

Gene: Inca_74 Start: 47059, Stop: 47376, Start Num: 106

Candidate Starts for Inca_74:

(51, 46876), (Start: 106 @47059 has 173 MA's), (131, 47200),

Gene: Itos_66 Start: 45269, Stop: 45670, Start Num: 106

Candidate Starts for Itos_66:

(35, 44990), (47, 45083), (Start: 99 @45251 has 46 MA's), (Start: 106 @45269 has 173 MA's), (127, 45386), (132, 45413), (138, 45491), (163, 45638),

Gene: Jakelyne_44 Start: 25830, Stop: 26207, Start Num: 99

Candidate Starts for Jakelyne_44:

(Start: 99 @25830 has 46 MA's), (120, 25920), (138, 26067), (142, 26094), (145, 26100), (151, 26130), (160, 26196),

Gene: JeTaime_77 Start: 49251, Stop: 49568, Start Num: 106

Candidate Starts for JeTaime_77:

(51, 49068), (Start: 106 @49251 has 173 MA's), (131, 49392),

Gene: Jefe_54 Start: 35660, Stop: 36109, Start Num: 99

Candidate Starts for Jefe_54:

(26, 35351), (27, 35354), (49, 35495), (65, 35567), (Start: 99 @35660 has 46 MA's), (132, 35819), (142, 35924), (145, 35930), (155, 35987), (165, 36104),

Gene: Jerole_32 Start: 21637, Stop: 21284, Start Num: 88

Candidate Starts for Jerole_32:

(53, 21763), (60, 21724), (Start: 88 @21637 has 24 MA's), (123, 21508), (130, 21463), (144, 21343),

Gene: Jobypre_66 Start: 46467, Stop: 46799, Start Num: 76

Candidate Starts for Jobypre_66:

(19, 46191), (21, 46203), (25, 46212), (31, 46236), (43, 46314), (50, 46362), (Start: 76 @46467 has 17 MA's), (130, 46611), (138, 46695), (143, 46728),

Gene: Jollipop_54 Start: 35999, Stop: 36448, Start Num: 99

Candidate Starts for Jollipop_54:

(7, 35573), (26, 35690), (27, 35693), (49, 35834), (65, 35906), (Start: 99 @35999 has 46 MA's), (125, 36113), (132, 36158), (142, 36263), (145, 36269), (155, 36326), (165, 36443),

Gene: JrWilcox_102 Start: 57042, Stop: 57449, Start Num: 97

Candidate Starts for JrWilcox_102:

(68, 56964), (Start: 87 @57027 has 5 MA's), (Start: 97 @57042 has 12 MA's), (Start: 108 @57078 has 1 MA's), (111, 57087), (148, 57342),

Gene: Jubie_65 Start: 46602, Stop: 46934, Start Num: 76

Candidate Starts for Jubie_65:

(19, 46326), (21, 46338), (25, 46347), (31, 46371), (43, 46449), (50, 46497), (Start: 76 @46602 has 17 MA's), (130, 46746), (138, 46830), (143, 46863),

Gene: JuicyJay_120 Start: 70726, Stop: 71058, Start Num: 106

Candidate Starts for JuicyJay_120:

(Start: 106 @70726 has 173 MA's), (126, 70837), (128, 70861), (153, 71041),

Gene: Juno112_29 Start: 20872, Stop: 20519, Start Num: 88

Candidate Starts for Juno112_29:

(3, 21274), (34, 21124), (71, 20929), (Start: 88 @20872 has 24 MA's), (107, 20839), (123, 20743),

Gene: JustASigh_98 Start: 55410, Stop: 55766, Start Num: 108

Candidate Starts for JustASigh_98:

(81, 55332), (103, 55383), (Start: 108 @55410 has 1 MA's), (114, 55437), (124, 55491), (128, 55521), (130, 55533), (132, 55539), (142, 55644), (143, 55650), (148, 55689), (159, 55755),

Gene: Kahlid_67 Start: 46369, Stop: 46770, Start Num: 106

Candidate Starts for Kahlid_67:

(35, 46090), (47, 46183), (Start: 99 @46351 has 46 MA's), (Start: 106 @46369 has 173 MA's), (127, 46486), (132, 46513), (138, 46591), (163, 46738),

Gene: KaiHaiDragon_54 Start: 35596, Stop: 36045, Start Num: 99
Candidate Starts for KaiHaiDragon_54:
(Start: 99 @35596 has 46 MA's), (139, 35845), (142, 35860), (145, 35866), (155, 35923), (165, 36040),

Gene: Kanye_74 Start: 48115, Stop: 48432, Start Num: 106
Candidate Starts for Kanye_74:
(51, 47932), (Start: 106 @48115 has 173 MA's), (131, 48256),

Gene: Keelan_96 Start: 49018, Stop: 49347, Start Num: 101
Candidate Starts for Keelan_96:
(Start: 101 @49018 has 1 MA's), (121, 49114), (134, 49198), (137, 49237),

Gene: Kepler_32 Start: 21801, Stop: 21448, Start Num: 88
Candidate Starts for Kepler_32:
(53, 21927), (60, 21888), (Start: 88 @21801 has 24 MA's), (123, 21672), (144, 21507),

Gene: Kimchi_81 Start: 48772, Stop: 49089, Start Num: 106
Candidate Starts for Kimchi_81:
(51, 48589), (Start: 106 @48772 has 173 MA's), (131, 48913),

Gene: Kostya_77 Start: 48633, Stop: 48950, Start Num: 106
Candidate Starts for Kostya_77:
(51, 48450), (Start: 106 @48633 has 173 MA's), (131, 48774),

Gene: Kowalski_53 Start: 35709, Stop: 36158, Start Num: 99
Candidate Starts for Kowalski_53:
(26, 35400), (27, 35403), (49, 35544), (65, 35616), (Start: 99 @35709 has 46 MA's), (142, 35973),
(145, 35979), (155, 36036), (165, 36153),

Gene: Kozie_51 Start: 36191, Stop: 36532, Start Num: 99
Candidate Starts for Kozie_51:
(44, 35999), (56, 36059), (79, 36149), (Start: 99 @36191 has 46 MA's), (138, 36437), (145, 36470),
(150, 36497),

Gene: Krypton555_67 Start: 46693, Stop: 47025, Start Num: 76
Candidate Starts for Krypton555_67:
(19, 46417), (21, 46429), (25, 46438), (31, 46462), (43, 46540), (50, 46588), (Start: 76 @46693 has 17
MA's), (130, 46837), (138, 46921), (143, 46954),

Gene: Kumao_62 Start: 44058, Stop: 44420, Start Num: 88
Candidate Starts for Kumao_62:
(28, 43764), (41, 43851), (48, 43896), (52, 43911), (59, 43950), (Start: 88 @44058 has 24 MA's), (102,
44082), (Start: 110 @44118 has 1 MA's), (112, 44121), (132, 44235), (143, 44346),

Gene: Kuwabara_72 Start: 44078, Stop: 44407, Start Num: 106
Candidate Starts for Kuwabara_72:
(Start: 106 @44078 has 173 MA's), (127, 44192), (130, 44213), (138, 44297), (141, 44321), (150,
44360), (154, 44387), (157, 44399),

Gene: Leona_29 Start: 20943, Stop: 20590, Start Num: 88
Candidate Starts for Leona_29:
(34, 21195), (71, 21000), (Start: 88 @20943 has 24 MA's), (107, 20910), (123, 20814), (132, 20763),

Gene: Lewan_68 Start: 46405, Stop: 46821, Start Num: 99

Candidate Starts for Lewan_68:

(35, 46144), (47, 46237), (Start: 99 @46405 has 46 MA's), (Start: 106 @46423 has 173 MA's), (127, 46540), (132, 46567), (138, 46645), (163, 46792),

Gene: LilDestine_67 Start: 46396, Stop: 46797, Start Num: 106

Candidate Starts for LilDestine_67:

(35, 46117), (47, 46210), (Start: 99 @46378 has 46 MA's), (Start: 106 @46396 has 173 MA's), (127, 46513), (132, 46540), (138, 46618), (163, 46765),

Gene: Lilac_79 Start: 48387, Stop: 48704, Start Num: 106

Candidate Starts for Lilac_79:

(51, 48204), (Start: 106 @48387 has 173 MA's), (131, 48528),

Gene: Lilizi_78 Start: 48100, Stop: 48417, Start Num: 106

Candidate Starts for Lilizi_78:

(51, 47917), (Start: 106 @48100 has 173 MA's), (131, 48241),

Gene: Lilpickle_76 Start: 47985, Stop: 48302, Start Num: 106

Candidate Starts for Lilpickle_76:

(51, 47802), (Start: 106 @47985 has 173 MA's), (131, 48126),

Gene: LitninMcQueen_71 Start: 42944, Stop: 43273, Start Num: 106

Candidate Starts for LitninMcQueen_71:

(Start: 106 @42944 has 173 MA's), (138, 43163), (154, 43253), (157, 43265),

Gene: LittleFortune_55 Start: 35965, Stop: 36414, Start Num: 99

Candidate Starts for LittleFortune_55:

(7, 35539), (26, 35656), (27, 35659), (49, 35800), (65, 35872), (Start: 99 @35965 has 46 MA's), (142, 36229), (145, 36235), (155, 36292), (165, 36409),

Gene: Loadrie_66 Start: 46451, Stop: 46849, Start Num: 106

Candidate Starts for Loadrie_66:

(35, 46172), (47, 46265), (Start: 99 @46433 has 46 MA's), (Start: 106 @46451 has 173 MA's), (127, 46568), (132, 46595), (138, 46673), (163, 46820),

Gene: Lolly9_65 Start: 46290, Stop: 46622, Start Num: 76

Candidate Starts for Lolly9_65:

(Start: 76 @46290 has 17 MA's), (Start: 110 @46320 has 1 MA's), (127, 46413), (132, 46440), (138, 46518), (143, 46551), (152, 46599),

Gene: Losacky_42 Start: 25840, Stop: 26217, Start Num: 99

Candidate Starts for Losacky_42:

(Start: 99 @25840 has 46 MA's), (115, 25903), (142, 26104), (145, 26110), (148, 26131), (160, 26206),

Gene: Lucky2013_115 Start: 64045, Stop: 64419, Start Num: 82

Candidate Starts for Lucky2013_115:

(Start: 82 @64045 has 1 MA's), (Start: 85 @64054 has 1 MA's), (116, 64162), (126, 64207), (138, 64327),

Gene: Lucretia_54 Start: 35620, Stop: 36072, Start Num: 97

Candidate Starts for Lucretia_54:

(Start: 97 @35620 has 12 MA's), (114, 35674), (125, 35737), (132, 35782), (141, 35884), (142, 35887), (145, 35893), (155, 35950), (165, 36067),

Gene: Lumos_67 Start: 46464, Stop: 46796, Start Num: 76

Candidate Starts for Lumos_67:

(19, 46188), (21, 46200), (25, 46209), (31, 46233), (43, 46311), (50, 46359), (Start: 76 @46464 has 17 MA's), (130, 46608), (138, 46692), (143, 46725),

Gene: Lunar_32 Start: 21502, Stop: 21149, Start Num: 88

Candidate Starts for Lunar_32:

(53, 21628), (60, 21589), (Start: 88 @21502 has 24 MA's), (123, 21373), (130, 21328), (144, 21208),

Gene: Lynnae_69 Start: 46394, Stop: 46795, Start Num: 106

Candidate Starts for Lynnae_69:

(35, 46115), (47, 46208), (Start: 99 @46376 has 46 MA's), (Start: 106 @46394 has 173 MA's), (127, 46511), (132, 46538), (138, 46616), (163, 46763),

Gene: MISSy_78 Start: 48491, Stop: 48808, Start Num: 106

Candidate Starts for MISSy_78:

(51, 48308), (Start: 106 @48491 has 173 MA's), (131, 48632),

Gene: MPhalcon_78 Start: 48484, Stop: 48801, Start Num: 106

Candidate Starts for MPhalcon_78:

(51, 48301), (Start: 106 @48484 has 173 MA's), (131, 48625),

Gene: MadamMonkfish_77 Start: 47709, Stop: 48026, Start Num: 106

Candidate Starts for MadamMonkfish_77:

(51, 47526), (Start: 106 @47709 has 173 MA's), (131, 47850),

Gene: Manda_78 Start: 49571, Stop: 49888, Start Num: 106

Candidate Starts for Manda_78:

(51, 49388), (Start: 106 @49571 has 173 MA's), (131, 49712),

Gene: Margaery_51 Start: 36177, Stop: 36518, Start Num: 92

Candidate Starts for Margaery_51:

(11, 35859), (13, 35862), (15, 35868), (24, 35898), (32, 35925), (33, 35928), (69, 36120), (84, 36165), (86, 36168), (Start: 92 @36177 has 1 MA's), (Start: 108 @36210 has 1 MA's), (125, 36300), (127, 36318), (135, 36393), (136, 36417), (138, 36423), (150, 36483),

Gene: Mariel_44 Start: 26189, Stop: 26566, Start Num: 99

Candidate Starts for Mariel_44:

(Start: 99 @26189 has 46 MA's), (115, 26252), (120, 26279), (142, 26453), (145, 26459), (148, 26480), (160, 26555),

Gene: Marshmallow_75 Start: 49264, Stop: 49581, Start Num: 106

Candidate Starts for Marshmallow_75:

(51, 49081), (Start: 106 @49264 has 173 MA's), (Start: 110 @49288 has 1 MA's), (131, 49405),

Gene: MaryV_77 Start: 48609, Stop: 48974, Start Num: 87

Candidate Starts for MaryV_77:

(70, 48546), (Start: 87 @48609 has 5 MA's), (133, 48801), (148, 48921), (154, 48954),

Gene: Matzah_54 Start: 37029, Stop: 37364, Start Num: 95

Candidate Starts for Matzah_54:

(86, 37017), (89, 37020), (Start: 95 @37029 has 6 MA's), (Start: 108 @37056 has 1 MA's), (118, 37113), (127, 37164), (135, 37239), (138, 37269), (140, 37290), (150, 37329),

Gene: Maxxinista_79 Start: 48360, Stop: 48677, Start Num: 106

Candidate Starts for Maxxinista_79:

(51, 48177), (Start: 106 @48360 has 173 MA's), (131, 48501),

Gene: Megan_52 Start: 39265, Stop: 39606, Start Num: 104

Candidate Starts for Megan_52:

(16, 38917), (30, 38971), (37, 38992), (38, 39001), (46, 39076), (48, 39088), (52, 39103), (58, 39136), (63, 39160), (67, 39175), (78, 39217), (Start: 104 @39265 has 1 MA's), (113, 39298), (136, 39493), (138, 39499), (142, 39526), (145, 39532), (147, 39550),

Gene: Melons_32 Start: 21502, Stop: 21149, Start Num: 88

Candidate Starts for Melons_32:

(53, 21628), (60, 21589), (Start: 88 @21502 has 24 MA's), (123, 21373), (130, 21328), (144, 21208),

Gene: MementoMori_53 Start: 36606, Stop: 36941, Start Num: 95

Candidate Starts for MementoMori_53:

(11, 36288), (13, 36291), (15, 36297), (24, 36327), (32, 36354), (33, 36357), (69, 36549), (86, 36594), (89, 36597), (Start: 95 @36606 has 6 MA's), (Start: 108 @36633 has 1 MA's), (127, 36741), (135, 36816), (138, 36846), (140, 36867), (150, 36906),

Gene: MenE_42 Start: 25720, Stop: 26097, Start Num: 99

Candidate Starts for MenE_42:

(Start: 99 @25720 has 46 MA's), (115, 25783), (120, 25810), (142, 25984), (145, 25990), (148, 26011), (160, 26086),

Gene: Merry_ Start: 37459, Stop: 37911, Start Num: 97

Candidate Starts for Merry_:

(Start: 97 @37459 has 12 MA's), (134, 37657), (138, 37699), (165, 37906),

Gene: Metamorphoo_56 Start: 36831, Stop: 37280, Start Num: 99

Candidate Starts for Metamorphoo_56:

(Start: 99 @36831 has 46 MA's), (114, 36882), (132, 36990), (142, 37095), (145, 37101), (165, 37275),

Gene: MiaZeal_118 Start: 64854, Stop: 65177, Start Num: 106

Candidate Starts for MiaZeal_118:

(Start: 106 @64854 has 173 MA's), (126, 64965), (138, 65085),

Gene: Miley16_67 Start: 46363, Stop: 46764, Start Num: 106

Candidate Starts for Miley16_67:

(35, 46084), (47, 46177), (Start: 99 @46345 has 46 MA's), (Start: 106 @46363 has 173 MA's), (127, 46480), (132, 46507), (138, 46585), (163, 46732),

Gene: Mindy_76 Start: 47576, Stop: 47893, Start Num: 106

Candidate Starts for Mindy_76:

(51, 47393), (Start: 106 @47576 has 173 MA's), (131, 47717),

Gene: MiniLon_69 Start: 46291, Stop: 46623, Start Num: 76

Candidate Starts for MiniLon_69:

(Start: 76 @46291 has 17 MA's), (Start: 110 @46321 has 1 MA's), (127, 46414), (132, 46441), (138, 46519), (143, 46552), (152, 46600),

Gene: MiniMac_69 Start: 46319, Stop: 46621, Start Num: 110

Candidate Starts for MiniMac_69:

(Start: 76 @46289 has 17 MA's), (Start: 110 @46319 has 1 MA's), (127, 46412), (132, 46439), (138, 46517), (143, 46550), (152, 46598),

Gene: Miniwave_72 Start: 48029, Stop: 48346, Start Num: 106

Candidate Starts for Miniwave_72:

(51, 47846), (Start: 106 @48029 has 173 MA's), (131, 48170),

Gene: Misfit_78 Start: 49503, Stop: 49820, Start Num: 106

Candidate Starts for Misfit_78:

(51, 49320), (Start: 106 @49503 has 173 MA's), (131, 49644),

Gene: MkaliMitinis3_68 Start: 46435, Stop: 46833, Start Num: 106

Candidate Starts for MkaliMitinis3_68:

(35, 46156), (47, 46249), (Start: 99 @46417 has 46 MA's), (Start: 106 @46435 has 173 MA's), (127, 46552), (132, 46579), (138, 46657), (163, 46804),

Gene: Moldemort_80 Start: 48588, Stop: 48905, Start Num: 106

Candidate Starts for Moldemort_80:

(51, 48405), (Start: 106 @48588 has 173 MA's), (131, 48729),

Gene: MollyToe_72 Start: 47330, Stop: 47647, Start Num: 106

Candidate Starts for MollyToe_72:

(51, 47147), (Start: 106 @47330 has 173 MA's), (131, 47471),

Gene: Mosby_73 Start: 47786, Stop: 48103, Start Num: 106

Candidate Starts for Mosby_73:

(51, 47603), (Start: 106 @47786 has 173 MA's), (131, 47927),

Gene: MsGreen_66 Start: 46467, Stop: 46799, Start Num: 76

Candidate Starts for MsGreen_66:

(19, 46191), (21, 46203), (25, 46212), (31, 46236), (43, 46314), (50, 46362), (Start: 76 @46467 has 17 MA's), (130, 46611), (138, 46695), (143, 46728),

Gene: Murica_80 Start: 49435, Stop: 49752, Start Num: 106

Candidate Starts for Murica_80:

(51, 49252), (Start: 106 @49435 has 173 MA's), (131, 49576),

Gene: Murphy_77 Start: 48872, Stop: 49189, Start Num: 106

Candidate Starts for Murphy_77:

(51, 48689), (Start: 106 @48872 has 173 MA's), (131, 49013),

Gene: Myrale_77 Start: 49129, Stop: 49446, Start Num: 106

Candidate Starts for Myrale_77:

(51, 48946), (Start: 106 @49129 has 173 MA's), (131, 49270),

Gene: NCRodriguez_42 Start: 25942, Stop: 26319, Start Num: 99

Candidate Starts for NCRodriguez_42:

(Start: 99 @25942 has 46 MA's), (115, 26005), (120, 26032), (131, 26098), (142, 26206), (145, 26212), (148, 26233), (160, 26308),

Gene: Nala_79 Start: 48993, Stop: 49310, Start Num: 106

Candidate Starts for Nala_79:

(51, 48810), (Start: 106 @48993 has 173 MA's), (131, 49134),

Gene: NelitzaMV_75 Start: 48075, Stop: 48392, Start Num: 106

Candidate Starts for NelitzaMV_75:

(51, 47892), (Start: 106 @48075 has 173 MA's), (131, 48216),

Gene: Niblet_27 Start: 21668, Stop: 21147, Start Num: 88

Candidate Starts for Niblet_27:

(53, 21791), (60, 21752), (Start: 88 @21668 has 24 MA's), (123, 21539), (130, 21494), (132, 21488), (142, 21383), (144, 21374), (164, 21227),

Gene: Nicholasp3_67 Start: 46381, Stop: 46797, Start Num: 99

Candidate Starts for Nicholasp3_67:

(35, 46120), (47, 46213), (Start: 99 @46381 has 46 MA's), (Start: 106 @46399 has 173 MA's), (127, 46516), (132, 46543), (138, 46621), (163, 46768),

Gene: NihilNomen_125 Start: 68678, Stop: 69010, Start Num: 106

Candidate Starts for NihilNomen_125:

(Start: 106 @68678 has 173 MA's), (126, 68789), (128, 68813), (153, 68993),

Gene: Nimrod_78 Start: 49696, Stop: 50013, Start Num: 106

Candidate Starts for Nimrod_78:

(51, 49513), (Start: 106 @49696 has 173 MA's), (131, 49837),

Gene: NoSleep_78 Start: 48330, Stop: 48647, Start Num: 106

Candidate Starts for NoSleep_78:

(51, 48147), (Start: 106 @48330 has 173 MA's), (131, 48471),

Gene: NonchalantPear_75 Start: 48183, Stop: 48500, Start Num: 106

Candidate Starts for NonchalantPear_75:

(51, 48000), (Start: 106 @48183 has 173 MA's), (131, 48324),

Gene: NoodlelyBoi_55 Start: 36387, Stop: 36836, Start Num: 99

Candidate Starts for NoodlelyBoi_55:

(23, 36069), (40, 36156), (42, 36174), (60, 36273), (75, 36327), (Start: 99 @36387 has 46 MA's), (132, 36546), (134, 36582), (139, 36636), (142, 36651), (145, 36657), (155, 36714), (165, 36831),

Gene: ODay_78 Start: 45557, Stop: 45886, Start Num: 106

Candidate Starts for ODay_78:

(66, 45443), (Start: 95 @45533 has 6 MA's), (Start: 106 @45557 has 173 MA's), (112, 45584), (138, 45776), (154, 45866), (157, 45878),

Gene: Onika_53 Start: 35684, Stop: 36133, Start Num: 99

Candidate Starts for Onika_53:

(Start: 99 @35684 has 46 MA's), (132, 35843), (142, 35948), (155, 36011), (165, 36128),

Gene: OrionPax_76 Start: 48081, Stop: 48398, Start Num: 106

Candidate Starts for OrionPax_76:

(51, 47898), (Start: 106 @48081 has 173 MA's), (Start: 110 @48105 has 1 MA's), (131, 48222),

Gene: OtsoOtso_32 Start: 21366, Stop: 21013, Start Num: 88

Candidate Starts for OtsoOtso_32:

(53, 21492), (60, 21453), (Start: 88 @21366 has 24 MA's), (123, 21237), (130, 21192), (144, 21072),

Gene: OverPar_69 Start: 46451, Stop: 46849, Start Num: 106

Candidate Starts for OverPar_69:

(35, 46172), (47, 46265), (Start: 99 @46433 has 46 MA's), (Start: 106 @46451 has 173 MA's), (127, 46568), (132, 46595), (138, 46673), (163, 46820),

Gene: PYPDinur_63 Start: 45117, Stop: 45515, Start Num: 105

Candidate Starts for PYPDinur_63:

(Start: 105 @45117 has 2 MA's), (127, 45234), (132, 45261), (152, 45420),

Gene: PaddyBaddy_77 Start: 48084, Stop: 48401, Start Num: 106

Candidate Starts for PaddyBaddy_77:

(51, 47901), (Start: 106 @48084 has 173 MA's), (131, 48225),

Gene: Palpatine_79 Start: 49462, Stop: 49779, Start Num: 106

Candidate Starts for Palpatine_79:

(51, 49279), (Start: 106 @49462 has 173 MA's), (131, 49603),

Gene: Paperbeatsrock_76 Start: 48707, Stop: 49024, Start Num: 106

Candidate Starts for Paperbeatsrock_76:

(51, 48524), (Start: 106 @48707 has 173 MA's), (131, 48848),

Gene: Paschalis_53 Start: 35691, Stop: 36140, Start Num: 99

Candidate Starts for Paschalis_53:

(Start: 99 @35691 has 46 MA's), (122, 35790), (132, 35850), (142, 35955), (145, 35961), (155, 36018), (165, 36135),

Gene: Pat3_75 Start: 47239, Stop: 47556, Start Num: 106

Candidate Starts for Pat3_75:

(51, 47056), (Start: 106 @47239 has 173 MA's), (Start: 110 @47263 has 1 MA's), (131, 47380),

Gene: Petra64142_81 Start: 49926, Stop: 50243, Start Num: 106

Candidate Starts for Petra64142_81:

(51, 49743), (Start: 106 @49926 has 173 MA's), (131, 50067),

Gene: Phaja_75 Start: 48533, Stop: 48850, Start Num: 106

Candidate Starts for Phaja_75:

(51, 48350), (Start: 106 @48533 has 173 MA's), (131, 48674),

Gene: Pharsalus_74 Start: 48507, Stop: 48824, Start Num: 106

Candidate Starts for Pharsalus_74:

(51, 48324), (Start: 106 @48507 has 173 MA's), (131, 48648),

Gene: PhatBacter_81 Start: 49479, Stop: 49796, Start Num: 106

Candidate Starts for PhatBacter_81:

(51, 49296), (Start: 106 @49479 has 173 MA's), (131, 49620),

Gene: Phaux_79 Start: 49474, Stop: 49791, Start Num: 106

Candidate Starts for Phaux_79:

(51, 49291), (Start: 106 @49474 has 173 MA's), (131, 49615),

Gene: PhedwardCullen_52 Start: 35442, Stop: 35891, Start Num: 99

Candidate Starts for PhedwardCullen_52:

(Start: 99 @35442 has 46 MA's), (132, 35601), (142, 35706), (145, 35712), (155, 35769), (165, 35886),

Gene: PhillyJawn_42 Start: 25617, Stop: 25994, Start Num: 99

Candidate Starts for PhillyJawn_42:

(Start: 99 @25617 has 46 MA's), (115, 25680), (142, 25881), (145, 25887), (148, 25908), (160, 25983),

Gene: Phingu_44 Start: 25833, Stop: 26210, Start Num: 99

Candidate Starts for Phingu_44:

(Start: 99 @25833 has 46 MA's), (115, 25896), (120, 25923), (142, 26097), (145, 26103), (160, 26199),

Gene: PhirstandPhine_34 Start: 21645, Stop: 21292, Start Num: 88

Candidate Starts for PhirstandPhine_34:

(53, 21771), (60, 21732), (Start: 88 @21645 has 24 MA's), (123, 21516), (130, 21471), (144, 21351),

Gene: PhluffyCoco_30 Start: 20856, Stop: 20503, Start Num: 88

Candidate Starts for PhluffyCoco_30:

(3, 21258), (34, 21108), (71, 20913), (Start: 88 @20856 has 24 MA's), (107, 20823), (123, 20727),

Gene: Phoebus_124 Start: 70535, Stop: 70867, Start Num: 106

Candidate Starts for Phoebus_124:

(Start: 106 @70535 has 173 MA's), (126, 70646), (128, 70670), (153, 70850),

Gene: Phonegingi_41 Start: 25666, Stop: 26043, Start Num: 99

Candidate Starts for Phonegingi_41:

(Start: 99 @25666 has 46 MA's), (115, 25729), (120, 25756), (138, 25903), (142, 25930), (145, 25936), (151, 25966), (160, 26032),

Gene: Phorgeous_53 Start: 35522, Stop: 35974, Start Num: 97

Candidate Starts for Phorgeous_53:

(Start: 97 @35522 has 12 MA's), (114, 35576), (132, 35684), (142, 35789), (145, 35795), (155, 35852), (165, 35969),

Gene: Phrancesco_54 Start: 35812, Stop: 36264, Start Num: 97

Candidate Starts for Phrancesco_54:

(Start: 97 @35812 has 12 MA's), (114, 35866), (132, 35974), (142, 36079), (155, 36142), (165, 36259),

Gene: Phrux_74 Start: 48070, Stop: 48387, Start Num: 106

Candidate Starts for Phrux_74:

(51, 47887), (Start: 106 @48070 has 173 MA's), (131, 48211),

Gene: Pickles13_40 Start: 25930, Stop: 26307, Start Num: 99

Candidate Starts for Pickles13_40:

(Start: 99 @25930 has 46 MA's), (120, 26020), (142, 26194), (145, 26200), (148, 26221), (160, 26296),

Gene: PierreOrion_54 Start: 35858, Stop: 36307, Start Num: 99

Candidate Starts for PierreOrion_54:

(7, 35432), (26, 35549), (27, 35552), (49, 35693), (65, 35765), (Start: 99 @35858 has 46 MA's), (125, 35972), (132, 36017), (142, 36122), (145, 36128), (155, 36185), (165, 36302),

Gene: Pineda_33 Start: 21654, Stop: 21301, Start Num: 88

Candidate Starts for Pineda_33:

(53, 21780), (60, 21741), (Start: 88 @21654 has 24 MA's), (123, 21525), (130, 21480), (144, 21360),

Gene: PiperSansNom_54 Start: 35998, Stop: 36447, Start Num: 99

Candidate Starts for PiperSansNom_54:

(Start: 99 @35998 has 46 MA's), (132, 36157), (142, 36262), (155, 36325), (165, 36442),

Gene: Piperis_54 Start: 35645, Stop: 36097, Start Num: 97

Candidate Starts for Piperis_54:

(Start: 97 @35645 has 12 MA's), (114, 35699), (132, 35807), (142, 35912), (145, 35918), (155, 35975), (165, 36092),

Gene: Policronamos_80 Start: 49474, Stop: 49791, Start Num: 106

Candidate Starts for Policronamos_80:

(51, 49291), (Start: 106 @49474 has 173 MA's), (131, 49615),

Gene: Polka_31 Start: 21366, Stop: 21013, Start Num: 88

Candidate Starts for Polka_31:

(53, 21492), (60, 21453), (Start: 88 @21366 has 24 MA's), (123, 21237), (130, 21192), (144, 21072),

Gene: Porky_76 Start: 47900, Stop: 48217, Start Num: 106

Candidate Starts for Porky_76:

(51, 47717), (Start: 106 @47900 has 173 MA's), (131, 48041),

Gene: Ptowny_74 Start: 47369, Stop: 47686, Start Num: 106

Candidate Starts for Ptowny_74:

(51, 47186), (Start: 106 @47369 has 173 MA's), (131, 47510),

Gene: Pulchra_55 Start: 36042, Stop: 36494, Start Num: 97

Candidate Starts for Pulchra_55:

(Start: 97 @36042 has 12 MA's), (114, 36096), (125, 36159), (132, 36204), (142, 36309), (155, 36372), (165, 36489),

Gene: Pumpkin_80 Start: 49128, Stop: 49445, Start Num: 106

Candidate Starts for Pumpkin_80:

(51, 48945), (Start: 106 @49128 has 173 MA's), (131, 49269),

Gene: Quallification_78 Start: 49115, Stop: 49432, Start Num: 106

Candidate Starts for Quallification_78:

(51, 48932), (Start: 106 @49115 has 173 MA's), (131, 49256),

Gene: Quby_65 Start: 45009, Stop: 45407, Start Num: 105

Candidate Starts for Quby_65:

(Start: 105 @45009 has 2 MA's), (127, 45126), (132, 45153), (152, 45312),

Gene: Quhwah_57 Start: 36306, Stop: 36755, Start Num: 99

Candidate Starts for Quhwah_57:

(Start: 99 @36306 has 46 MA's), (132, 36465), (142, 36570), (145, 36576), (155, 36633), (165, 36750),

Gene: Rabbitrun_72 Start: 44571, Stop: 44918, Start Num: 100

Candidate Starts for Rabbitrun_72:

(62, 44460), (72, 44490), (73, 44493), (74, 44496), (83, 44538), (94, 44562), (Start: 100 @44571 has 2 MA's), (117, 44652), (138, 44808), (142, 44835), (146, 44847), (148, 44862), (149, 44865),

Gene: Rakim_78 Start: 48584, Stop: 48901, Start Num: 106
Candidate Starts for Rakim_78:
(51, 48401), (Start: 106 @48584 has 173 MA's), (131, 48725),

Gene: Ramiel05_53 Start: 35709, Stop: 36158, Start Num: 99
Candidate Starts for Ramiel05_53:
(26, 35400), (27, 35403), (49, 35544), (65, 35616), (Start: 99 @35709 has 46 MA's), (142, 35973),
(145, 35979), (155, 36036), (165, 36153),

Gene: Red305_66 Start: 46467, Stop: 46799, Start Num: 76
Candidate Starts for Red305_66:
(19, 46191), (21, 46203), (25, 46212), (31, 46236), (43, 46314), (50, 46362), (Start: 76 @46467 has 17 MA's), (130, 46611), (138, 46695), (143, 46728),

Gene: RedFox_30 Start: 20869, Stop: 20516, Start Num: 88
Candidate Starts for RedFox_30:
(3, 21271), (34, 21121), (71, 20926), (Start: 88 @20869 has 24 MA's), (107, 20836), (123, 20740),

Gene: Renna12_29 Start: 20890, Stop: 20534, Start Num: 88
Candidate Starts for Renna12_29:
(Start: 88 @20890 has 24 MA's), (107, 20857), (123, 20761), (144, 20596),

Gene: Rimmer_78 Start: 48820, Stop: 49137, Start Num: 106
Candidate Starts for Rimmer_78:
(51, 48637), (Start: 106 @48820 has 173 MA's), (131, 48961),

Gene: RiverMonster_77 Start: 48648, Stop: 48965, Start Num: 106
Candidate Starts for RiverMonster_77:
(51, 48465), (Start: 106 @48648 has 173 MA's), (131, 48789),

Gene: RobsFeet_57 Start: 37130, Stop: 37579, Start Num: 99
Candidate Starts for RobsFeet_57:
(Start: 99 @37130 has 46 MA's), (114, 37181), (132, 37289), (142, 37394), (145, 37400), (165, 37574),

Gene: Rockwell_53 Start: 35709, Stop: 36158, Start Num: 99
Candidate Starts for Rockwell_53:
(Start: 99 @35709 has 46 MA's), (132, 35868), (142, 35973), (155, 36036), (165, 36153),

Gene: Ronaldo_98 Start: 49040, Stop: 49366, Start Num: 106
Candidate Starts for Ronaldo_98:
(Start: 106 @49040 has 173 MA's), (121, 49121), (134, 49205), (137, 49244), (144, 49283),

Gene: Rose5_66 Start: 45488, Stop: 45859, Start Num: 106
Candidate Starts for Rose5_66:
(Start: 106 @45488 has 173 MA's), (120, 45566), (138, 45713), (150, 45776), (161, 45851),

Gene: Rossetti_69 Start: 46945, Stop: 47343, Start Num: 106
Candidate Starts for Rossetti_69:
(35, 46666), (47, 46759), (Start: 99 @46927 has 46 MA's), (Start: 106 @46945 has 173 MA's), (127, 47062), (132, 47089), (138, 47167), (163, 47314),

Gene: Rumpelstiltskin_66 Start: 45792, Stop: 46190, Start Num: 106

Candidate Starts for Rumpelstiltskin_66:

(35, 45513), (47, 45606), (Start: 99 @45774 has 46 MA's), (Start: 106 @45792 has 173 MA's), (127, 45909), (132, 45936), (138, 46014), (163, 46161),

Gene: Saints25_76 Start: 48058, Stop: 48375, Start Num: 106

Candidate Starts for Saints25_76:

(51, 47875), (Start: 106 @48058 has 173 MA's), (131, 48199),

Gene: Samty_66 Start: 46475, Stop: 46807, Start Num: 76

Candidate Starts for Samty_66:

(21, 46211), (25, 46220), (31, 46244), (43, 46322), (50, 46370), (Start: 76 @46475 has 17 MA's), (130, 46619), (138, 46703), (143, 46736),

Gene: Sarshaun_68 Start: 46459, Stop: 46857, Start Num: 106

Candidate Starts for Sarshaun_68:

(35, 46180), (47, 46273), (Start: 99 @46441 has 46 MA's), (Start: 106 @46459 has 173 MA's), (127, 46576), (132, 46603), (138, 46681), (163, 46828),

Gene: Sassay_72 Start: 46748, Stop: 47065, Start Num: 106

Candidate Starts for Sassay_72:

(51, 46565), (Start: 106 @46748 has 173 MA's), (131, 46889),

Gene: Savannah_53 Start: 35736, Stop: 36185, Start Num: 99

Candidate Starts for Savannah_53:

(Start: 99 @35736 has 46 MA's), (132, 35895), (142, 36000), (145, 36006), (155, 36063), (165, 36180),

Gene: Scumberland_55 Start: 35931, Stop: 36380, Start Num: 99

Candidate Starts for Scumberland_55:

(7, 35505), (26, 35622), (27, 35625), (49, 35766), (65, 35838), (Start: 99 @35931 has 46 MA's), (142, 36195), (145, 36201), (155, 36258), (165, 36375),

Gene: ShamWow_77 Start: 48970, Stop: 49287, Start Num: 106

Candidate Starts for ShamWow_77:

(51, 48787), (Start: 106 @48970 has 173 MA's), (131, 49111),

Gene: Shotgun_53 Start: 35535, Stop: 35984, Start Num: 99

Candidate Starts for Shotgun_53:

(Start: 99 @35535 has 46 MA's), (132, 35694), (142, 35799), (145, 35805), (155, 35862), (165, 35979),

Gene: Shrubaron_56 Start: 36743, Stop: 37192, Start Num: 99

Candidate Starts for Shrubaron_56:

(Start: 99 @36743 has 46 MA's), (114, 36794), (132, 36902), (142, 37007), (145, 37013), (165, 37187),

Gene: Simpliphy_76 Start: 48048, Stop: 48365, Start Num: 106

Candidate Starts for Simpliphy_76:

(51, 47865), (Start: 106 @48048 has 173 MA's), (131, 48189),

Gene: SirDuracell_76 Start: 47334, Stop: 47651, Start Num: 106

Candidate Starts for SirDuracell_76:

(51, 47151), (Start: 106 @47334 has 173 MA's), (Start: 110 @47358 has 1 MA's), (131, 47475),

Gene: SirFrank_54 Start: 35866, Stop: 36318, Start Num: 96
Candidate Starts for SirFrank_54:
(Start: 96 @35866 has 1 MA's), (116, 35944), (132, 36028), (134, 36064), (142, 36133), (160, 36238),
(165, 36313),

Gene: Skugga_53 Start: 35695, Stop: 36144, Start Num: 98
Candidate Starts for Skugga_53:
(4, 35245), (6, 35257), (10, 35341), (12, 35344), (17, 35356), (39, 35443), (45, 35506), (55, 35563),
(57, 35566), (79, 35656), (Start: 98 @35695 has 2 MA's), (114, 35746), (132, 35854), (142, 35959),
(165, 36139),

Gene: Smarties_62 Start: 37502, Stop: 37951, Start Num: 99
Candidate Starts for Smarties_62:
(79, 37460), (Start: 99 @37502 has 46 MA's), (114, 37553), (132, 37661), (142, 37766), (145, 37772),
(165, 37946),

Gene: Snenia_65 Start: 46468, Stop: 46800, Start Num: 76
Candidate Starts for Snenia_65:
(19, 46192), (21, 46204), (25, 46213), (31, 46237), (43, 46315), (50, 46363), (Start: 76 @46468 has 17
MA's), (130, 46612), (138, 46696), (143, 46729),

Gene: SophKB_74 Start: 47726, Stop: 48043, Start Num: 106
Candidate Starts for SophKB_74:
(51, 47543), (Start: 106 @47726 has 173 MA's), (131, 47867),

Gene: Sotrice96_78 Start: 48729, Stop: 49046, Start Num: 106
Candidate Starts for Sotrice96_78:
(51, 48546), (Start: 106 @48729 has 173 MA's), (131, 48870),

Gene: Spooky_68 Start: 42098, Stop: 42427, Start Num: 106
Candidate Starts for Spooky_68:
(Start: 106 @42098 has 173 MA's), (149, 42377), (154, 42407), (157, 42419),

Gene: Squiddly_73 Start: 46416, Stop: 46745, Start Num: 106
Candidate Starts for Squiddly_73:
(Start: 106 @46416 has 173 MA's), (149, 46695), (154, 46725), (157, 46737),

Gene: Stank_80 Start: 48987, Stop: 49304, Start Num: 106
Candidate Starts for Stank_80:
(51, 48804), (Start: 106 @48987 has 173 MA's), (131, 49128),

Gene: Stark_78 Start: 48531, Stop: 48848, Start Num: 106
Candidate Starts for Stark_78:
(51, 48348), (Start: 106 @48531 has 173 MA's), (131, 48672),

Gene: StellaBean_75 Start: 48294, Stop: 48611, Start Num: 106
Candidate Starts for StellaBean_75:
(51, 48111), (Start: 106 @48294 has 173 MA's), (131, 48435),

Gene: StolenFromERC_80 Start: 48769, Stop: 49086, Start Num: 106
Candidate Starts for StolenFromERC_80:
(51, 48586), (Start: 106 @48769 has 173 MA's), (131, 48910),

Gene: StormChicken_79 Start: 49427, Stop: 49744, Start Num: 106

Candidate Starts for StormChicken_79:

(51, 49244), (Start: 106 @49427 has 173 MA's), (131, 49568),

Gene: Sunny_ Start: 37461, Stop: 37913, Start Num: 97

Candidate Starts for Sunny_:

(Start: 97 @37461 has 12 MA's), (134, 37659), (138, 37701), (165, 37908),

Gene: TBrady12_80 Start: 48468, Stop: 48785, Start Num: 106

Candidate Starts for TBrady12_80:

(51, 48285), (Start: 106 @48468 has 173 MA's), (131, 48609),

Gene: Tarkin_76 Start: 48716, Stop: 49033, Start Num: 106

Candidate Starts for Tarkin_76:

(51, 48533), (Start: 106 @48716 has 173 MA's), (131, 48857),

Gene: TeamEdward_79 Start: 49421, Stop: 49738, Start Num: 106

Candidate Starts for TeamEdward_79:

(51, 49238), (Start: 106 @49421 has 173 MA's), (Start: 110 @49445 has 1 MA's), (131, 49562),

Gene: Teamocil_56 Start: 35776, Stop: 36225, Start Num: 98

Candidate Starts for Teamocil_56:

(79, 35737), (Start: 98 @35776 has 2 MA's), (114, 35827), (132, 35935), (142, 36040), (145, 36046), (158, 36124),

Gene: TeardropMSU_73 Start: 47716, Stop: 48033, Start Num: 106

Candidate Starts for TeardropMSU_73:

(51, 47533), (Start: 106 @47716 has 173 MA's), (131, 47857),

Gene: Teaspoon_78 Start: 48610, Stop: 48927, Start Num: 106

Candidate Starts for Teaspoon_78:

(51, 48427), (Start: 106 @48610 has 173 MA's), (131, 48751),

Gene: Terij_52 Start: 35668, Stop: 36003, Start Num: 95

Candidate Starts for Terij_52:

(6, 35263), (11, 35347), (13, 35350), (15, 35356), (32, 35413), (33, 35416), (69, 35608), (86, 35656), (89, 35659), (Start: 95 @35668 has 6 MA's), (125, 35785), (127, 35803), (142, 35935), (150, 35968),

Gene: Terminus_80 Start: 49503, Stop: 49820, Start Num: 106

Candidate Starts for Terminus_80:

(51, 49320), (Start: 106 @49503 has 173 MA's), (131, 49644),

Gene: Thibault_106 Start: 63336, Stop: 63668, Start Num: 106

Candidate Starts for Thibault_106:

(Start: 106 @63336 has 173 MA's), (126, 63447), (128, 63471), (153, 63651),

Gene: Thimble_78 Start: 47951, Stop: 48268, Start Num: 106

Candidate Starts for Thimble_78:

(51, 47768), (Start: 106 @47951 has 173 MA's), (131, 48092),

Gene: Thresher_79 Start: 49590, Stop: 49907, Start Num: 106

Candidate Starts for Thresher_79:

(51, 49407), (Start: 106 @49590 has 173 MA's), (131, 49731),

Gene: Tomaszewski_72 Start: 47879, Stop: 48196, Start Num: 106
Candidate Starts for Tomaszewski_72:
(51, 47696), (Start: 106 @47879 has 173 MA's), (Start: 110 @47903 has 1 MA's), (131, 48020),

Gene: Toto_75 Start: 48970, Stop: 49287, Start Num: 106
Candidate Starts for Toto_75:
(51, 48787), (Start: 106 @48970 has 173 MA's), (131, 49111),

Gene: Tourach_66 Start: 46445, Stop: 46831, Start Num: 106
Candidate Starts for Tourach_66:
(47, 46259), (Start: 99 @46427 has 46 MA's), (Start: 106 @46445 has 173 MA's), (127, 46562), (132, 46589), (138, 46667), (163, 46814),

Gene: Traaww1_73 Start: 48154, Stop: 48471, Start Num: 106
Candidate Starts for Traaww1_73:
(51, 47971), (Start: 106 @48154 has 173 MA's), (131, 48295),

Gene: Trax_71 Start: 44944, Stop: 45291, Start Num: 100
Candidate Starts for Trax_71:
(Start: 100 @44944 has 2 MA's), (117, 45025), (138, 45181), (142, 45208), (148, 45235), (149, 45238),

Gene: TriFive_67 Start: 46467, Stop: 46799, Start Num: 76
Candidate Starts for TriFive_67:
(19, 46191), (21, 46203), (25, 46212), (31, 46236), (43, 46314), (50, 46362), (Start: 76 @46467 has 17 MA's), (130, 46611), (138, 46695), (143, 46728),

Gene: Tuco_78 Start: 49478, Stop: 49795, Start Num: 106
Candidate Starts for Tuco_78:
(51, 49295), (Start: 106 @49478 has 173 MA's), (131, 49619),

Gene: Tyrumbra_54 Start: 36909, Stop: 37358, Start Num: 99
Candidate Starts for Tyrumbra_54:
(Start: 99 @36909 has 46 MA's), (114, 36960), (132, 37068), (142, 37173), (155, 37236), (165, 37353),

Gene: Tyson_67 Start: 45417, Stop: 45785, Start Num: 106
Candidate Starts for Tyson_67:
(Start: 106 @45417 has 173 MA's), (112, 45444), (124, 45513), (127, 45534), (131, 45558), (138, 45639), (150, 45702), (161, 45777),

Gene: Ukulele_72 Start: 47861, Stop: 48178, Start Num: 106
Candidate Starts for Ukulele_72:
(51, 47678), (Start: 106 @47861 has 173 MA's), (131, 48002),

Gene: Underpass_58 Start: 41417, Stop: 41833, Start Num: 99
Candidate Starts for Underpass_58:
(35, 41156), (47, 41249), (Start: 99 @41417 has 46 MA's), (Start: 106 @41435 has 173 MA's), (127, 41552), (132, 41579), (138, 41657), (163, 41804),

Gene: ValentiniPuff_101 Start: 57583, Stop: 57990, Start Num: 97
Candidate Starts for ValentiniPuff_101:
(Start: 97 @57583 has 12 MA's), (109, 57622), (111, 57628), (131, 57748), (148, 57883), (160, 57961),

Gene: Vetrrix_67 Start: 46385, Stop: 46804, Start Num: 99
Candidate Starts for Vetrrix_67:
(35, 46124), (47, 46217), (Start: 99 @46385 has 46 MA's), (Start: 106 @46403 has 173 MA's), (127, 46520), (132, 46547), (138, 46625), (163, 46772),

Gene: Violeta_43 Start: 25712, Stop: 26089, Start Num: 99
Candidate Starts for Violeta_43:
(Start: 99 @25712 has 46 MA's), (115, 25775), (120, 25802), (129, 25862), (142, 25976), (145, 25982), (160, 26078),

Gene: Volt_99 Start: 49204, Stop: 49530, Start Num: 106
Candidate Starts for Volt_99:
(Start: 106 @49204 has 173 MA's), (121, 49285), (134, 49369), (137, 49408), (144, 49447),

Gene: Wamburgexpress_66 Start: 45044, Stop: 45415, Start Num: 106
Candidate Starts for Wamburgexpress_66:
(Start: 106 @45044 has 173 MA's), (120, 45122), (138, 45269), (150, 45332), (161, 45407),

Gene: Warren_41 Start: 25673, Stop: 26050, Start Num: 99
Candidate Starts for Warren_41:
(Start: 99 @25673 has 46 MA's), (115, 25736), (120, 25763), (142, 25937), (145, 25943), (148, 25964), (160, 26039),

Gene: Whirlwind_66 Start: 46283, Stop: 46615, Start Num: 76
Candidate Starts for Whirlwind_66:
(19, 46007), (21, 46019), (25, 46028), (31, 46052), (43, 46130), (50, 46178), (Start: 76 @46283 has 17 MA's), (130, 46427), (138, 46511), (143, 46544),

Gene: Wiggin_79 Start: 48555, Stop: 48872, Start Num: 106
Candidate Starts for Wiggin_79:
(51, 48372), (Start: 106 @48555 has 173 MA's), (131, 48696),

Gene: Wigglewigggle_67 Start: 46423, Stop: 46821, Start Num: 106
Candidate Starts for Wigglewigggle_67:
(35, 46144), (47, 46237), (Start: 99 @46405 has 46 MA's), (Start: 106 @46423 has 173 MA's), (127, 46540), (132, 46567), (138, 46645), (163, 46792),

Gene: Wildcat_77 Start: 48619, Stop: 48984, Start Num: 87
Candidate Starts for Wildcat_77:
(70, 48556), (Start: 87 @48619 has 5 MA's), (133, 48811), (148, 48931), (154, 48964),

Gene: Wilder_68 Start: 46369, Stop: 46770, Start Num: 106
Candidate Starts for Wilder_68:
(35, 46090), (47, 46183), (Start: 99 @46351 has 46 MA's), (Start: 106 @46369 has 173 MA's), (127, 46486), (132, 46513), (138, 46591), (163, 46738),

Gene: Willez_72 Start: 46748, Stop: 47065, Start Num: 106
Candidate Starts for Willez_72:
(51, 46565), (Start: 106 @46748 has 173 MA's), (131, 46889),

Gene: Winchester007_57 Start: 31732, Stop: 32109, Start Num: 99
Candidate Starts for Winchester007_57:
(Start: 99 @31732 has 46 MA's), (115, 31795), (142, 31996), (145, 32002), (148, 32023), (160, 32098),

Gene: Winky_67 Start: 46363, Stop: 46764, Start Num: 106

Candidate Starts for Winky_67:

(35, 46084), (47, 46177), (Start: 99 @46345 has 46 MA's), (Start: 106 @46363 has 173 MA's), (127, 46480), (132, 46507), (138, 46585), (163, 46732),

Gene: Wyatt2_67 Start: 45415, Stop: 45783, Start Num: 106

Candidate Starts for Wyatt2_67:

(Start: 106 @45415 has 173 MA's), (112, 45442), (124, 45511), (127, 45532), (131, 45556), (138, 45637), (150, 45700), (161, 45775),

Gene: Xandras_76 Start: 47963, Stop: 48280, Start Num: 106

Candidate Starts for Xandras_76:

(51, 47780), (Start: 106 @47963 has 173 MA's), (131, 48104),

Gene: YassJohnny_74 Start: 47918, Stop: 48235, Start Num: 106

Candidate Starts for YassJohnny_74:

(51, 47735), (Start: 106 @47918 has 173 MA's), (Start: 110 @47942 has 1 MA's), (131, 48059),

Gene: Yeti_54 Start: 35678, Stop: 36130, Start Num: 97

Candidate Starts for Yeti_54:

(Start: 97 @35678 has 12 MA's), (114, 35732), (125, 35795), (132, 35840), (142, 35945), (145, 35951), (155, 36008), (165, 36125),

Gene: Youngblood_80 Start: 49430, Stop: 49747, Start Num: 106

Candidate Starts for Youngblood_80:

(51, 49247), (Start: 106 @49430 has 173 MA's), (131, 49571),

Gene: Zakai_68 Start: 46689, Stop: 47090, Start Num: 106

Candidate Starts for Zakai_68:

(35, 46410), (47, 46503), (Start: 99 @46671 has 46 MA's), (Start: 106 @46689 has 173 MA's), (127, 46806), (132, 46833), (138, 46911), (163, 47058),

Gene: Zapato_53 Start: 35894, Stop: 36343, Start Num: 99

Candidate Starts for Zapato_53:

(45, 35705), (57, 35765), (79, 35855), (Start: 99 @35894 has 46 MA's), (114, 35945), (132, 36053), (145, 36164), (155, 36221), (162, 36272),

Gene: ZhongYanYuan_66 Start: 46258, Stop: 46644, Start Num: 106

Candidate Starts for ZhongYanYuan_66:

(47, 46072), (77, 46201), (Start: 99 @46240 has 46 MA's), (Start: 106 @46258 has 173 MA's), (127, 46375), (132, 46402), (138, 46480), (163, 46627),

Gene: Zhuangyuan_35 Start: 22580, Stop: 22224, Start Num: 91

Candidate Starts for Zhuangyuan_35:

(53, 22724), (71, 22649), (Start: 91 @22580 has 1 MA's), (107, 22544), (123, 22448), (144, 22283), (152, 22235),

Gene: xkcd_80 Start: 49620, Stop: 49937, Start Num: 106

Candidate Starts for xkcd_80:

(51, 49437), (Start: 106 @49620 has 173 MA's), (131, 49761),