Pham 288963

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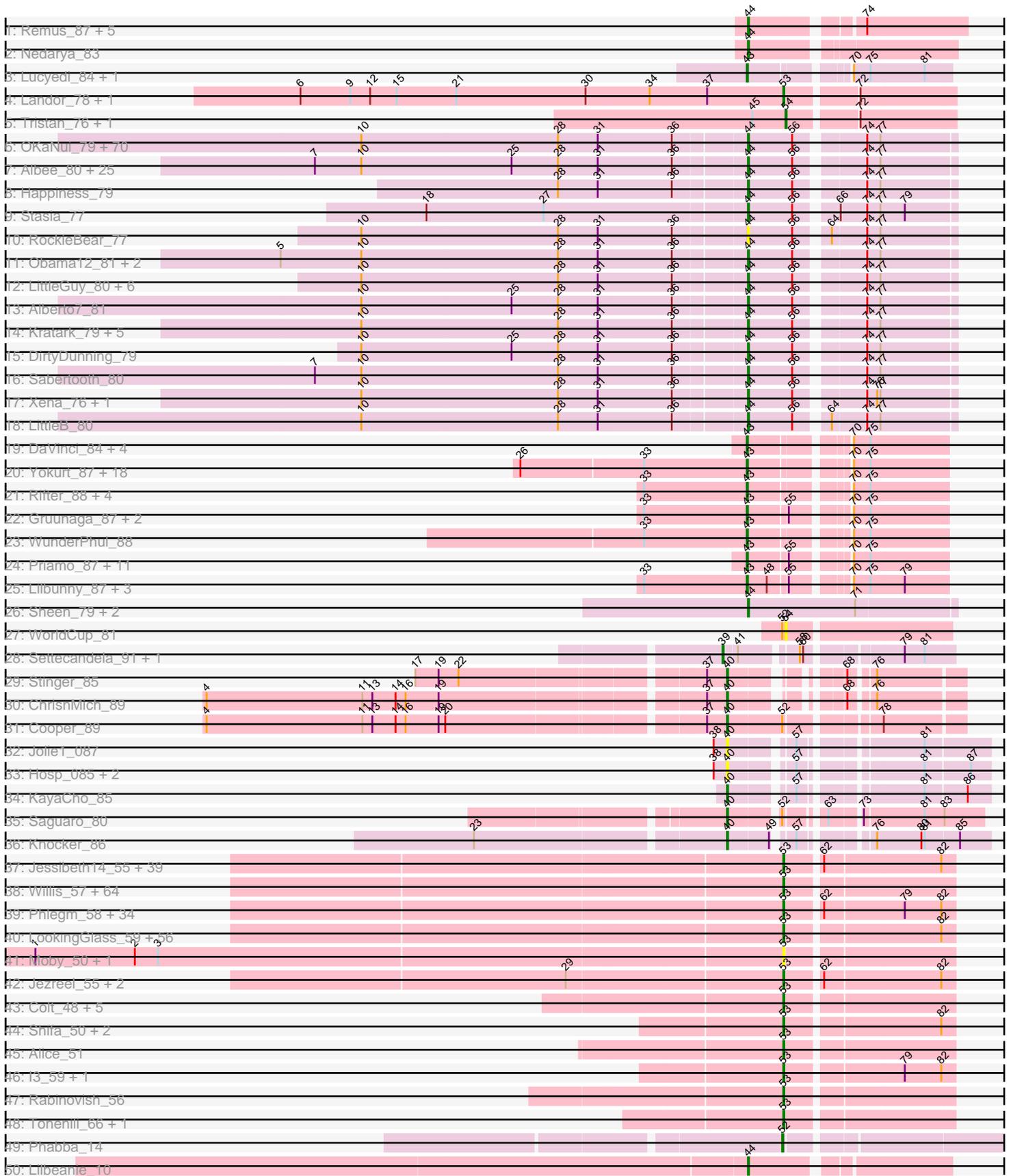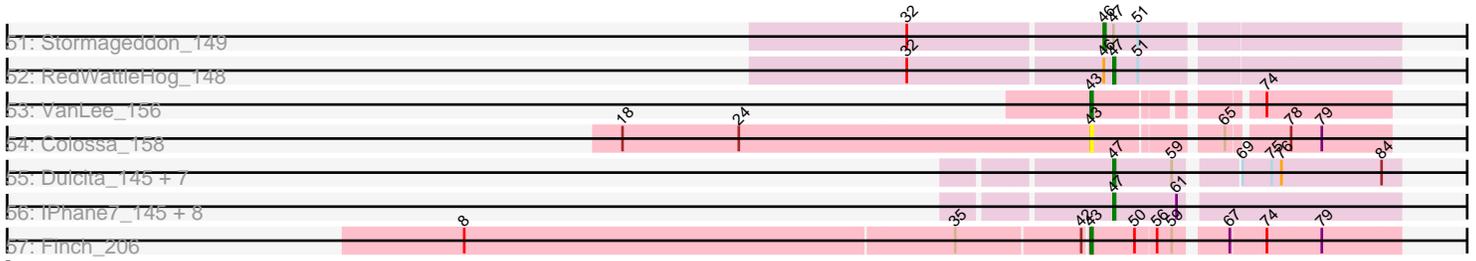|	
51: Stormageddon_149	
52: RedWattleHog_148	
53: VanLee_156	
54: Colossa_158	
55: Dulcita_145 + 7	
56: iPhone7_145 + 8	
57: Finch_206	

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 288963 Report

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

Pham number 288963 has 441 members, 58 are drafts.

Phages represented in each track:
• Track 1 : Remus_87, Soups_86, Epsocamisio_84, Rosalind_85, Ravana_89, Strosahl_87
• Track 2 : Nedarya_83
• Track 3 : Lucyedi_84, EagleEye_85
• Track 4 : Landor_78, Bactobuster_72
• Track 5 : Tristan_76, Jaan_78
• Track 6 : OKaNui_79, Eurydice_81, JoongJeon_79, Burger_78, LochMonster_81, Houdini22_79, Chaph_80, Mazhar510_80, Caelakin_78, Melvin_82, Bombshell_80, Millski_79, Relief_79, Wilbur_80, SenorClean_81, SteMason_76, Nemo27_79, Eapen_80, KekoraPapaka_77, Medusa_79, Romney_79, Phighter1804_80, Eris_79, CentreCat_80, Nebs_81, Lorenzo_80, SheldonCooper_80, Cerulean_82, Huxley_69, Bruiser_79, Thanksgivukkah_79, Ulysses_79, Scamp_80, Flux_81, Skipitt_79, Kampy_79, Dhanush_80, ChampagnePapi_83, Kyee_80, Palestino_79, Spino_79, PeterPeter_80, Ruin_80, Cocoaberry_80, TygerBlood_80, Pipcraft_76, Avle17_80, Phacado_80, Kremtemulon_77, MeeZee_79, Ohfah_81, Maverick_79, Eagle_79, Koan_77, Maxo_82, Cintron_80, NorthStar_77, Gadost_80, Clarenza_79, Kingmustik0402_80, KFPoly_79, Sultana_80, BangNhom_77, ICleared_79, Wander_80, TroyPia_81, Arturo_77, Koreni_79, NotAPhaseMom_79, Iracema64_80, Funston_79
• Track 7 : Albee_80, Pumbaa_80, Connomayer_80, TinaFeyge_78, TiroTheta9_79, Jaykayelowell_77, Polymorphads_81, Florean_80, Holli_79, Baby16_80, BubbleTrouble_79, Sparxx_81, Roosevelt_78, JetBlade_81, Morrow_82, LappelDuVide_80, Abdiel_79, Citius_80, Broseidon_80, Blackmoor_79, Shaka_78, Deano_77, HamSlice_76, Lunsford_80, Bartimeaus_80, Annyong_79
• Track 8 : Happiness_79
• Track 9 : Stasia_77
• Track 10 : RockieBear_77
• Track 11 : Obama12_81, Tinybot_79, LHTSCC_82
• Track 12 : LittleGuy_80, Eros_80, Phontbonne_80, Nyxis_79, Taquarus_79, Commander_78, Peaches_78
• Track 13 : Alberto7_81
• Track 14 : Kratark_79, Iceman_78, Shygu2_78, YoSam321_80, Rosa24_76, Lemur_80
• Track 15 : DirtyDunning_79
• Track 16 : Sabertooth_80
• Track 17 : Xena_76, Datway_77
• Track 18 : LittleB_80

- Track 19 : DaVinci_84, McFly_86, Chartreuse_85, Dorothea_86, Kipper29_86
- Track 20 : Yokurt_87, Neeharika16_85, Koko_89, Cookiedough_86, Helmet_90, Temprado_89, Pmask_85, SuperAwesome_86, Jordennis_84, GreedyLawyer_79, Blue7_89, Newrala_85, Indra_91, Zaka_88, BABullseye_79, BennyP_87, JewelBug_78, Garak_89, Wiks_87
- Track 21 : Rifter_88, Artemis2UCLA_87, CloudWang3_88, Hexamo_87, Roksolana_88
- Track 22 : Gruunaga_87, Hammer_88, Gladiator_84
- Track 23 : WunderPhul_88
- Track 24 : Priamo_87, Kazan_87, Zulu_89, EricB_84, Polyphemus_79, DelvinSonDorr_81, Candra_84, SuperCallie99_82, VohminGhazi_86, Hoot_81, Isiphiwo_82, SmellyB_86
- Track 25 : Lilbunny_87, BlessJoy_88, Tucker_88, ToneTone_85
- Track 26 : Sheen_79, Toro_80, FlyCatcher_82
- Track 27 : WorldCup_81
- Track 28 : Settecandela_91, Phrappuccino_91
- Track 29 : Stinger_85
- Track 30 : ChrisnMich_89
- Track 31 : Cooper_89
- Track 32 : Jolie1_087
- Track 33 : Hosp_085, 39HC_090, 40BC_090
- Track 34 : KayaCho_85
- Track 35 : Saguaro_80
- Track 36 : Knocker_86
- Track 37 : Jessibeth14_55, BadAgartude_56, QBert_51, Janiyra_58, ChickenPhender_52, Pupusa_62, Bezza_49, LinStu_58, Dietrick_50, Cali_54, Nidhogg_57, Trinitium_52, BigCity_62, Iota_51, MoMoMixon_57, CharlieB_54, LRRHood_53, ScottMcG_55, Turret_51, Grasshills_62, Koguma_53, JulietS_52, IkeLoa_51, Catera_55, ChaylaJr_52, Ronan_51, ET08_48, Izajani_58, Grungle_48, Lukilu_50, Shelob_59, Phox_55, Sebata_59, BeanWater_50, Rahel_57, Shaqnato_51, EggyFarm_62, Lethe_56, NoodleTree_57, Yassified_54
- Track 38 : Willis_57, NedWong_58, Mikro_55, ZygoTaiga_57, ErnieJ_56, Fludd_56, Lee7_55, Flabslab_53, Loanshark_57, Rizal_55, Salacia_59, FoxtrotP1_57, StubbySaigey_56, BananaFence_58, Bowman_56, Ewok_57, Cleatunium_53, PharkleMinkus_62, Pinkcreek_49, Cactojaque_51, MikeLiesln_57, Darko_56, Bread_57, Kboogie_57, Naval22_63, Ava3_58, Astraea_58, Delilah_57, McWolfish_55, PurduePete_56, Erdmann_58, Bipolarisk_56, Shrimp_57, TinyTim_57, Khaleesi_56, Napoleon13_54, YemiJoy2021_57, OrediggerDelux_55, Zalkecks_58, Wally_55, Daffodil_59, Norm_57, Basquiat_52, Maby2021_57, Tainan_62, EmToTheThree_60, Megamind_56, LordLeafolot_63, ParkTD_56, Blackbrain_51, Gizmo_58, Delylah_57, FrayBell_63, Spud_57, Stubby_52, SrishMeg2525_56, Yucca_57, Zeenon_59, FudgeTart_58, Chargie21_52, Ablatia_53, SVoro_56, Issimir_57, Pleione_59, Bonray_57
- Track 39 : Phlegm_58, Gamgam_56, Pivoine_55, Audrick_58, Patter_56, InigoMontoya_57, Derek_57, Capablanca_58, Atlantean_55, Naija_55, ValleyTerrace_56, Amataga_56, Littleton_56, Latch_56, YoungMoneyMata_56, SilverDipper_57, JPickles_54, Fixie_52, Babyland_55, CindyLou_57, SmallFry_56, JustHall_52, GlutenPhree_57, Jemmno_56, Momo_55, Quasimodo_56, McGee_55, Ghost_56, Substance289_53, Dessert_54, Ading_56, Tyke_58, Ngannou_51, Fongie_56, Belieber_51
- Track 40 : LookingGlass_59, Pier_59, Bangla1971_57, Adlitam_56, Burrough_57, Bigswole_63, Gabriel_58, Primadonna_53, Drazdys_56, Morizzled23_59, Specks_62, Essence_55, DTDevon_57, Concombre_62, LifeSavor_56, DirtMonster_53,

Matsumoto_55, Sauce_58, BackyardAgain_54, RoMag_51, Breeniome_58, Halldule_51, Labradorite_57, ShiaLabeouf_56, ArcherS7_56, Domi_51, InterFolia_65, Sprinklers_53, StephanieG_57, BobaPhatt_53, Jaygup_56, EasyJones_59, Chomp_55, JigglyPuff_61, Demodog_61, Bxz1_57, Pio_61, Tortoise16_54, JayJay_62, Shnickers_56, Roots515_56, Caravan_53, Nappy_59, Jedediah_57, Asterius_57, Melpomini_52, Guwapp_55, Rocha_55, Blackdragon_53, Dandelion_62, LolaVinca_60, Phusco_56, Duckfeet_50, Teardrop_56, NuevoMundo_62, Spec_54, EmmaElysia_55
• Track 41 : Moby_50, Moiqah_50
• Track 42 : Jezreel_55, DrPhinkDaddy_56, Kamryn_56
• Track 43 : Colt_48, Lunareta_54, Maturis_55, Blubba_47, Cane17_46, Montpel_54
• Track 44 : Shifa_50, HyRo_52, DeejaClivia_49
• Track 45 : Alice_51
• Track 46 : I3_59, Mangeria_60
• Track 47 : Rabinovish_56
• Track 48 : Tonenili_66, Vortrix_69
• Track 49 : Phabba_14
• Track 50 : Lilbeanie_10
• Track 51 : Stormageddon_149
• Track 52 : RedWattleHog_148
• Track 53 : VanLee_156
• Track 54 : Colossa_158
• Track 55 : Dulcita_145, Skinny_151, LilhomieP_144, Diminimus_145, PegLeg_148, Izel_144, Glaske16_147, Bongo_142
• Track 56 : IPhane7_145, Bricole_150, SlimJimmy_145, Auspice_148, FreakyGoo_147, KleverKiS_150, RoseMarie_152, TyDawg_141, TpudiCK_148
• Track 57 : Finch_206

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

The start number called the most often in the published annotations is 53, it was called in 182 of the 383 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Ablatia_53, Ading_56, Adlitam_56, Alice_51, Amataga_56, ArcherS7_56, Asterius_57, Astraea_58, Atlantean_55, Audrick_58, Ava3_58, Babyland_55, BackyardAgain_54, Bactobuster_72, BadAgartude_56, BananaFence_58, Bangla1971_57, Basquiat_52, BeanWater_50, Belieber_51, Bezza_49, BigCity_62, Bigswole_63, Bipolarisk_56, Blackbrain_51, Blackdragon_53, Blubba_47, BobaPhatt_53, Bonray_57, Bowman_56, Bread_57, Breeniome_58, Burrough_57, Bxz1_57, Cactojaque_51, Cali_54, Cane17_46, Capablanca_58, Caravan_53, Catera_55, Chargie21_52, CharlieB_54, ChaylaJr_52, ChickenPhender_52, Chomp_55, CindyLou_57, Cleatunium_53, Colt_48, Concombre_62, DTDevon_57, Daffodil_59, Dandelion_62, Darko_56, DeejaClivia_49, Delilah_57, Delylah_57, Demodog_61, Derek_57, Dessert_54, Dietrick_50, DirtMonster_53, Domi_51, DrPhinkDaddy_56, Drazdys_56, Duckfeet_50, ET08_48, EasyJones_59, EggyFarm_62, EmToTheThree_60, EmmaElysia_55, Erdmann_58, ErnieJ_56, Essence_55, Ewok_57, Fixie_52, Flabslab_53, Fludd_56, Fongie_56, FoxtrotP1_57, FrayBell_63, FudgeTart_58, Gabriel_58, Gamgam_56, Ghost_56, Gizmo_58, GlutenPhree_57, Grasshills_62, Grungle_48, Guwapp_55, Halldule_51, HyRo_52,

I3_59, IkeLoa_51, InigoMontoya_57, InterFolia_65, Iota_51, Issimir_57, Izajani_58, JPickles_54, Janiyra_58, JayJay_62, Jaygup_56, Jedediah_57, Jemmno_56, Jessibeth14_55, Jezreel_55, JigglyPuff_61, JulietS_52, JustHall_52, Kamryn_56, Kboogie_57, Khaleesi_56, Koguma_53, LRRHood_53, Labradorite_57, Landor_78, Latch_56, Lee7_55, Lethe_56, LifeSavor_56, LinStu_58, Littleton_56, Loanshark_57, LolaVinca_60, LookingGlass_59, LordLeafolot_63, Lukilu_50, Lunareta_54, Maby2021_57, Mangeria_60, Matsumoto_55, Maturis_55, McGee_55, McWolfish_55, Megamind_56, Melpomini_52, MikeLiesIn_57, Mikro_55, MoMoMixon_57, Moby_50, Moiqah_50, Momo_55, Montpel_54, Morizzled23_59, Naija_55, Napoleon13_54, Nappy_59, Naval22_63, NedWong_58, Ngannou_51, Nidhogg_57, NoodleTree_57, Norm_57, NuevoMundo_62, OrediggerDelux_55, ParkTD_56, Patter_56, PharkleMinkus_62, Phlegm_58, Phox_55, Phusco_56, Pier_59, Pinkcreek_49, Pio_61, Pivoine_55, Pleione_59, Primadonna_53, Pupusa_62, PurduePete_56, QBert_51, Quasimodo_56, Rabinovish_56, Rahel_57, Rizal_55, RoMag_51, Rocha_55, Ronan_51, Roots515_56, SVoro_56, Salacia_59, Sauce_58, ScottMcG_55, Sebata_59, Shaqnato_51, Shelob_59, ShiaLabeouf_56, Shifa_50, Shnickers_56, Shrimp_57, SilverDipper_57, SmallFry_56, Spec_54, Specks_62, Sprinklers_53, Spud_57, SrishMeg2525_56, StephanieG_57, StubbySaigey_56, Stubby_52, Substance289_53, Tainan_62, Teardrop_56, TinyTim_57, Tonenili_66, Tortoise16_54, Trinitium_52, Turret_51, Tyke_58, ValleyTerrace_56, Vortrix_69, Wally_55, Willis_57, Yassified_54, YemiJoy2021_57, YoungMoneyMata_56, Yucca_57, Zalkecks_58, Zeenon_59, ZygoTaiga_57,

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

Genes that do not have the "Most Annotated" start:
• 39HC_090, 40BC_090, Abdiel_79, Albee_80, Alberto7_81, Annyong_79, Artemis2UCLA_87, Arturo_77, Auspice_148, Avle17_80, BABullseye_79, Baby16_80, BangNhom_77, Bartimeaus_80, BennyP_87, Blackmoor_79, BlessJoy_88, Blue7_89, Bombshell_80, Bongo_142, Bricole_150, Broseidon_80, Bruiser_79, BubbleTrouble_79, Burger_78, Caelakin_78, Candra_84, CentreCat_80, Cerulean_82, ChampagnePapi_83, Chaph_80, Chartreuse_85, ChrisnMich_89, Cintron_80, Citius_80, Clarenza_79, CloudWang3_88, Cocoaberry_80, Colossa_158, Commander_78, Connomayer_80, Cookiedough_86, Cooper_89, DaVinci_84, Datway_77, Deano_77, DelvinSonDorr_81, Dhanush_80, Diminimus_145, DirtyDunning_79, Dorothea_86, Dulcita_145, EagleEye_85, Eagle_79, Eapen_80, Epsocamisio_84, EricB_84, Eris_79, Eros_80, Eurydice_81, Finch_206, Florean_80, Flux_81, FlyCatcher_82, FreakyGoo_147, Funston_79, Gadost_80, Garak_89, Gladiator_84, Glaske16_147, GreedyLawyer_79, Gruunaga_87, HamSlice_76, Hammer_88, Happiness_79, Helmet_90, Hexamo_87, Holli_79, Hoot_81, Hosp_085, Houdini22_79, Huxley_69, ICleared_79, IPhane7_145, Iceman_78, Indra_91, Iracema64_80, Isiphiwo_82, Izel_144, Jaan_78, Jaykayelowell_77, JetBlade_81, JewelBug_78, Jolie1_087, JoongJeon_79, Jordennis_84, KFPoly_79, Kampy_79, KayaCho_85, Kazan_87, KekoraPapaka_77, Kingmustik0402_80, Kipper29_86, KleverKiS_150, Knocker_86, Koan_77, Koko_89, Koreni_79, Kratark_79, Kremtemulon_77, Kyee_80, LHTSCC_82, LappelDuVide_80, Lemur_80, Lilbeanie_10, Lilbunny_87, LilhomieP_144, LittleB_80, LittleGuy_80, LochMonster_81, Lorenzo_80, Lucyedi_84, Lunsford_80, Maverick_79, Maxo_82, Mazhar510_80, McFly_86, Medusa_79, MeeZee_79, Melvin_82, Millski_79, Morrow_82, Nebs_81, Nedarya_83, Neeharika16_85, Nemo27_79, Newrala_85, NorthStar_77, NotAPhaseMom_79, Nyxis_79, OKaNui_79, Obama12_81, Ohfah_81, Palestino_79, Peaches_78, PegLeg_148, PeterPeter_80, Phabba_14, Phacado_80,

Phighter1804_80, Phontbonne_80, Phrappuccino_91, Pipcraft_76, Pmask_85, Polymorphads_81, Polyphemus_79, Priamo_87, Pumbaa_80, Ravana_89, RedWattleHog_148, Relief_79, Remus_87, Rifter_88, RockieBear_77, Roksolana_88, Romney_79, Roosevelt_78, Rosa24_76, Rosalind_85, RoseMarie_152, Ruin_80, Sabertooth_80, Saguaro_80, Scamp_80, SenorClean_81, Settecandela_91, Shaka_78, Sheen_79, SheldonCooper_80, Shygu2_78, Skinny_151, Skipitt_79, SlimJimmy_145, SmellyB_86, Soups_86, Sparxx_81, Spino_79, Stasia_77, SteMason_76, Stinger_85, Stormageddon_149, Strosahl_87, Sultana_80, SuperAwesome_86, SuperCallie99_82, Taquarus_79, Temprado_89, Thanksgivukkah_79, TinaFeyge_78, Tinybot_79, TiroTheta9_79, ToneTone_85, Toro_80, TpudiCK_148, Tristan_76, TroyPia_81, Tucker_88, TyDawg_141, TygerBlood_80, Ulysses_79, VanLee_156, VohminGhazi_86, Wander_80, Wiks_87, Wilbur_80, WorldCup_81, WunderPhul_88, Xena_76, YoSam321_80, Yokurt_87, Zaka_88, Zulu_89,

Summary by start number:

Start 39:
• Found in 2 of 441 (0.5%) of genes in pham
• Manual Annotations of this start: 2 of 383
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Phrappuccino_91 (AA), Settecandela_91 (AA),

Start 40:
• Found in 10 of 441 (2.3%) of genes in pham
• Manual Annotations of this start: 6 of 383
• Called 100.0% of time when present
• Phage (with cluster) where this start called: 39HC_090 (B6), 40BC_090 (B6), ChrisnMich_89 (B4), Cooper_89 (B4), Hosp_085 (B6), Jolie1_087 (B6), KayaCho_85 (B6), Knocker_86 (B9), Saguaro_80 (B7), Stinger_85 (B4),

Start 43:
• Found in 54 of 441 (12.2%) of genes in pham
• Manual Annotations of this start: 49 of 383
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Artemis2UCLA_87 (A6), BABullseye_79 (A6), BennyP_87 (A6), BlessJoy_88 (A6), Blue7_89 (A6), Candra_84 (A6), Chartreuse_85 (A6), CloudWang3_88 (A6), Colossa_158 (KA), Cookiedough_86 (A6), DaVinci_84 (A6), DelvinSonDorr_81 (A6), Dorothea_86 (A6), EagleEye_85 (A16), EricB_84 (A6), Finch_206 (singleton), Garak_89 (A6), Gladiator_84 (A6), GreedyLawyer_79 (A6), Gruunaga_87 (A6), Hammer_88 (A6), Helmet_90 (A6), Hexamo_87 (A6), Hoot_81 (A6), Indra_91 (A6), Isiphiwo_82 (A6), JewelBug_78 (A6), Jordennis_84 (A6), Kazan_87 (A6), Kipper29_86 (A6), Koko_89 (A6), Lilbunny_87 (A6), Lucyedi_84 (A16), McFly_86 (A6), Neeharika16_85 (A6), Newrala_85 (A6), Pmask_85 (A6), Polyphemus_79 (A6), Priamo_87 (A6), Rifter_88 (A6), Roksolana_88 (A6), SmellyB_86 (A6), SuperAwesome_86 (A6), SuperCallie99_82 (A6), Temprado_89 (A6), ToneTone_85 (A6), Tucker_88 (A6), VanLee_156 (KA), VohminGhazi_86 (A6), Wiks_87 (A6), WunderPhul_88 (A6), Yokurt_87 (A6), Zaka_88 (A6), Zulu_89 (A6),

Start 44:
• Found in 133 of 441 (30.2%) of genes in pham

• Manual Annotations of this start: 125 of 383
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Abdiel_79 (A4), Albee_80 (A4), Alberto7_81 (A4), Annyong_79 (A4), Arturo_77 (A4), Avle17_80 (A4), Baby16_80 (A4), BangNhom_77 (A4), Bartimeaus_80 (A4), Blackmoor_79 (A4), Bombshell_80 (A4), Broseidon_80 (A4), Bruiser_79 (A4), BubbleTrouble_79 (A4), Burger_78 (A4), Caelakin_78 (A4), CentreCat_80 (A4), Cerulean_82 (A4), ChampagnePapi_83 (A4), Chaph_80 (A4), Cintron_80 (A4), Citius_80 (A4), Clarenza_79 (A4), Cocoaberry_80 (A4), Commander_78 (A4), Connomayer_80 (A4), Datway_77 (A4), Deano_77 (A4), Dhanush_80 (A4), DirtyDunning_79 (A4), Eagle_79 (A4), Eapen_80 (A4), Epsocamisio_84 (A15), Eris_79 (A4), Eros_80 (A4), Eurydice_81 (A4), Florean_80 (A4), Flux_81 (A4), FlyCatcher_82 (A7), Funston_79 (A4), Gadost_80 (A4), HamSlice_76 (A4), Happiness_79 (A4), Holli_79 (A4), Houdini22_79 (A4), Huxley_69 (A4), ICleared_79 (A4), Iceman_78 (A4), Iracema64_80 (A4), Jaykayelowell_77 (A4), JetBlade_81 (A4), JoongJeon_79 (A4), KFPoly_79 (A4), Kampy_79 (A4), KekoraPapaka_77 (A4), Kingmustik0402_80 (A4), Koan_77 (A4), Koreni_79 (A4), Kratark_79 (A4), Kremtemulon_77 (A4), Kyee_80 (A4), LHTSCC_82 (A4), LappelDuVide_80 (A4), Lemur_80 (A4), Lilbeanie_10 (DE5), LittleB_80 (A4), LittleGuy_80 (A4), LochMonster_81 (A4), Lorenzo_80 (A4), Lunsford_80 (A4), Maverick_79 (A4), Maxo_82 (A4), Mazhar510_80 (A4), Medusa_79 (A4), MeeZee_79 (A4), Melvin_82 (A4), Millski_79 (A4), Morrow_82 (A4), Nebs_81 (A4), Nedarya_83 (A15), Nemo27_79 (A4), NorthStar_77 (A4), NotAPhaseMom_79 (A4), Nyxis_79 (A4), OKaNui_79 (A4), Obama12_81 (A4), Ohfah_81 (A4), Palestino_79 (A4), Peaches_78 (A4), PeterPeter_80 (A4), Phacado_80 (A4), Phighter1804_80 (A4), Phontbonne_80 (A4), Pipcraft_76 (A4), Polymorphads_81 (A4), Pumbaa_80 (A4), Ravana_89 (A15), Relief_79 (A4), Remus_87 (A15), RockieBear_77 (A4), Romney_79 (A4), Roosevelt_78 (A4), Rosa24_76 (A4), Rosalind_85 (A15), Ruin_80 (A4), Sabertooth_80 (A4), Scamp_80 (A4), SenorClean_81 (A4), Shaka_78 (A4), Sheen_79 (A7), SheldonCooper_80 (A4), Shygu2_78 (A4), Skipitt_79 (A4), Soups_86 (A15), Sparxx_81 (A4), Spino_79 (A4), Stasia_77 (A4), SteMason_76 (A4), Strosahl_87 (A15), Sultana_80 (A4), Taquarus_79 (A4), Thanksgivukkah_79 (A4), TinaFeyge_78 (A4), Tinybot_79 (A4), TiroTheta9_79 (A4), Toro_80 (A7), TroyPia_81 (A4), TygerBlood_80 (A4), Ulysses_79 (A4), Wander_80 (A4), Wilbur_80 (A4), Xena_76 (A4), YoSam321_80 (A4),

Start 46:
• Found in 2 of 441 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 383
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Stormageddon_149 (DX),

Start 47:
• Found in 19 of 441 (4.3%) of genes in pham
• Manual Annotations of this start: 15 of 383
• Called 94.7% of time when present
• Phage (with cluster) where this start called: Auspice_148 (M1), Bongo_142 (M1), Bricole_150 (M1), Diminimus_145 (M1), Dulcita_145 (M1), FreakyGoo_147 (M1), Glaske16_147 (M1), IPhane7_145 (M1), Izel_144 (M1), KleverKiS_150 (M1), LilhomieP_144 (M1), PegLeg_148 (M1), RedWattleHog_148 (DX), RoseMarie_152 (M1), Skinny_151 (M1), SlimJimmy_145 (M1), TpudiCK_148 (M1), TyDawg_141 (M1),

Start 52:

- Found in 4 of 441 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 383
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Phabba_14 (C2),

Start 53:
- Found in 219 of 441 (49.7%) of genes in pham
- Manual Annotations of this start: 182 of 383
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ablatia_53 (C1), Ading_56 (C1), Adlitam_56 (C1), Alice_51 (C1), Amataga_56 (C1), ArcherS7_56 (C1), Asterius_57 (C1), Astraea_58 (C1), Atlantean_55 (C1), Audrick_58 (C1), Ava3_58 (C1), Babyland_55 (C1), BackyardAgain_54 (C1), Bactobuster_72 (A2), BadAgartude_56 (C1), BananaFence_58 (C1), Bangla1971_57 (C1), Basquiat_52 (C1), BeanWater_50 (C1), Belieber_51 (C1), Bezza_49 (C1), BigCity_62 (C1), Bigswole_63 (C1), Bipolarisk_56 (C1), Blackbrain_51 (C1), Blackdragon_53 (C1), Blubba_47 (C1), BobaPhatt_53 (C1), Bonray_57 (C1), Bowman_56 (C1), Bread_57 (C1), Breeniome_58 (C1), Burrough_57 (C1), Bxz1_57 (C1), Cactojaque_51 (C1), Cali_54 (C1), Cane17_46 (C1), Capablanca_58 (C1), Caravan_53 (C1), Catera_55 (C1), Chargie21_52 (C1), CharlieB_54 (C1), ChaylaJr_52 (C1), ChickenPhender_52 (C1), Chomp_55 (C1), CindyLou_57 (C1), Cleatunium_53 (C1), Colt_48 (C1), Concombre_62 (C1), DTDevon_57 (C1), Daffodil_59 (C1), Dandelion_62 (C1), Darko_56 (C1), DeejaClivia_49 (C1), Delilah_57 (C1), Delylah_57 (C1), Demodog_61 (C1), Derek_57 (C1), Dessert_54 (C1), Dietrick_50 (C1), DirtMonster_53 (C1), Domi_51 (C1), DrPhinkDaddy_56 (C1), Drazdys_56 (C1), Duckfeet_50 (C1), ET08_48 (C1), EasyJones_59 (C1), EggyFarm_62 (C1), EmToTheThree_60 (C1), EmmaElysia_55 (C1), Erdmann_58 (C1), ErnieJ_56 (C1), Essence_55 (C1), Ewok_57 (C1), Fixie_52 (C1), Flabslab_53 (C1), Fludd_56 (C1), Fongie_56 (C1), FoxtrotP1_57 (C1), FrayBell_63 (C1), FudgeTart_58 (C1), Gabriel_58 (C1), Gamgam_56 (C1), Ghost_56 (C1), Gizmo_58 (C1), GlutenPhree_57 (C1), Grasshills_62 (C1), Grungle_48 (C1), Guwapp_55 (C1), Halldule_51 (C1), HyRo_52 (C1), I3_59 (C1), IkeLoa_51 (C1), InigoMontoya_57 (C1), InterFolia_65 (C1), Iota_51 (C1), Issimir_57 (C1), Izajani_58 (C1), JPickles_54 (C1), Janiyra_58 (C1), JayJay_62 (C1), Jaygup_56 (C1), Jedediah_57 (C1), Jemmno_56 (C1), Jessibeth14_55 (C1), Jezreel_55 (C1), JigglyPuff_61 (C1), JulietS_52 (C1), JustHall_52 (C1), Kamryn_56 (C1), Kboogie_57 (C1), Khaleesi_56 (C1), Koguma_53 (C1), LRRHood_53 (C1), Labradorite_57 (C1), Landor_78 (A2), Latch_56 (C1), Lee7_55 (C1), Lethe_56 (C1), LifeSavor_56 (C1), LinStu_58 (C1), Littleton_56 (C1), Loanshark_57 (C1), LolaVinca_60 (C1), LookingGlass_59 (C1), LordLeafolot_63 (C1), Lukilu_50 (C1), Lunareta_54 (C1), Maby2021_57 (C1), Mangeria_60 (C1), Matsumoto_55 (C1), Maturis_55 (C1), McGee_55 (C1), McWolfish_55 (C1), Megamind_56 (C1), Melpomini_52 (C1), MikeLiesIn_57 (C1), Mikro_55 (C1), MoMoMixon_57 (C1), Moby_50 (C1), Moiqah_50 (C1), Momo_55 (C1), Montpel_54 (C1), Morizzled23_59 (C1), Naija_55 (C1), Napoleon13_54 (C1), Nappy_59 (C1), Naval22_63 (C1), NedWong_58 (C1), Ngannou_51 (C1), Nidhogg_57 (C1), NoodleTree_57 (C1), Norm_57 (C1), NuevoMundo_62 (C1), OrediggerDelux_55 (C1), ParkTD_56 (C1), Patter_56 (C1), PharkleMinkus_62 (C1), Phlegm_58 (C1), Phox_55 (C1), Phusco_56 (C1), Pier_59 (C1), Pinkcreek_49 (C1), Pio_61 (C1), Pivoine_55 (C1), Pleione_59 (C1), Primadonna_53 (C1), Pupusa_62 (C1), PurduePete_56 (C1), QBert_51 (C1), Quasimodo_56 (C1), Rabinovish_56 (C1), Rahel_57 (C1), Rizal_55 (C1), RoMag_51 (C1), Rocha_55 (C1), Ronan_51 (C1), Roots515_56 (C1), SVoro_56 (C1), Salacia_59 (C1), Sauce_58 (C1), ScottMcG_55 (C1), Sebata_59 (C1), Shaqnato_51 (C1), Shelob_59 (C1), ShiaLabeouf_56 (C1), Shifa_50 (C1), Shnickers_56 (C1),

Shrimp_57 (C1), SilverDipper_57 (C1), SmallFry_56 (C1), Spec_54 (C1), Specks_62 (C1), Sprinklers_53 (C1), Spud_57 (C1), SrishMeg2525_56 (C1), StephanieG_57 (C1), StubbySaigey_56 (C1), Stubby_52 (C1), Substance289_53 (C1), Tainan_62 (C1), Teardrop_56 (C1), TinyTim_57 (C1), Tonenili_66 (C1), Tortoise16_54 (C1), Trinitium_52 (C1), Turret_51 (C1), Tyke_58 (C1), ValleyTerrace_56 (C1), Vortrix_69 (C1), Wally_55 (C1), Willis_57 (C1), Yassified_54 (C1), YemiJoy2021_57 (C1), YoungMoneyMata_56 (C1), Yucca_57 (C1), Zalkecks_58 (C1), Zeenon_59 (C1), ZygoTaiga_57 (C1),

Start 54:
• Found in 3 of 441 (0.7%) of genes in pham
• Manual Annotations of this start: 2 of 383
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Jaan_78 (A2), Tristan_76 (A2), WorldCup_81 (A9),

Summary by clusters:

There are 19 clusters represented in this pham: A15, AA, KA, A16, DX, B7, DE5, singleton, B4, B6, A2, M1, A4, A7, A6, A9, C2, C1, B9,

Info for manual annotations of cluster A15:
•Start number 44 was manually annotated 6 times for cluster A15.

Info for manual annotations of cluster A16:
•Start number 43 was manually annotated 2 times for cluster A16.

Info for manual annotations of cluster A2:
•Start number 53 was manually annotated 2 times for cluster A2.
•Start number 54 was manually annotated 2 times for cluster A2.

Info for manual annotations of cluster A4:
•Start number 44 was manually annotated 117 times for cluster A4.

Info for manual annotations of cluster A6:
•Start number 43 was manually annotated 45 times for cluster A6.

Info for manual annotations of cluster A7:
•Start number 44 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster AA:
•Start number 39 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster B4:
•Start number 40 was manually annotated 3 times for cluster B4.

Info for manual annotations of cluster B6:
•Start number 40 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B7:
•Start number 40 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B9:
•Start number 40 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster C1:
•Start number 53 was manually annotated 180 times for cluster C1.

Info for manual annotations of cluster C2:
•Start number 52 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster DE5:
•Start number 44 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster DX:
•Start number 46 was manually annotated 1 time for cluster DX.
•Start number 47 was manually annotated 1 time for cluster DX.

Info for manual annotations of cluster KA:
•Start number 43 was manually annotated 1 time for cluster KA.

Info for manual annotations of cluster M1:
•Start number 47 was manually annotated 14 times for cluster M1.

Gene Information:
Gene: 39HC_090 Start: 66017, Stop: 65820, Start Num: 40
Candidate Starts for 39HC_090:
(38, 66029), (Start: 40 @66017 has 6 MA's), (57, 65969), (81, 65876), (87, 65837),

Gene: 40BC_090 Start: 66017, Stop: 65820, Start Num: 40
Candidate Starts for 40BC_090:
(38, 66029), (Start: 40 @66017 has 6 MA's), (57, 65969), (81, 65876), (87, 65837),

Gene: Abdiel_79 Start: 47438, Stop: 47268, Start Num: 44
Candidate Starts for Abdiel_79:
(7, 47819), (10, 47777), (25, 47642), (28, 47600), (31, 47564), (36, 47498), (Start: 44 @47438 has 125 MA's), (56, 47399), (74, 47345), (77, 47333),

Gene: Ablatia_53 Start: 17047, Stop: 17187, Start Num: 53
Candidate Starts for Ablatia_53:
(Start: 53 @17047 has 182 MA's),

Gene: Ading_56 Start: 17144, Stop: 17284, Start Num: 53
Candidate Starts for Ading_56:
(Start: 53 @17144 has 182 MA's), (62, 17171), (79, 17240), (82, 17273),

Gene: Adlitam_56 Start: 17161, Stop: 17301, Start Num: 53
Candidate Starts for Adlitam_56:
(Start: 53 @17161 has 182 MA's), (82, 17290),

Gene: Albee_80 Start: 47426, Stop: 47256, Start Num: 44
Candidate Starts for Albee_80:

(7, 47807), (10, 47765), (25, 47630), (28, 47588), (31, 47552), (36, 47486), (Start: 44 @47426 has 125 MA's), (56, 47387), (74, 47333), (77, 47321),

Gene: Alberto7_81 Start: 47763, Stop: 47593, Start Num: 44
Candidate Starts for Alberto7_81:
(10, 48102), (25, 47967), (28, 47925), (31, 47889), (36, 47823), (Start: 44 @47763 has 125 MA's), (56, 47724), (74, 47670), (77, 47658),

Gene: Alice_51 Start: 17217, Stop: 17357, Start Num: 53
Candidate Starts for Alice_51:
(Start: 53 @17217 has 182 MA's),

Gene: Amataga_56 Start: 17165, Stop: 17305, Start Num: 53
Candidate Starts for Amataga_56:
(Start: 53 @17165 has 182 MA's), (62, 17192), (79, 17261), (82, 17294),

Gene: Annyong_79 Start: 47471, Stop: 47301, Start Num: 44
Candidate Starts for Annyong_79:
(7, 47852), (10, 47810), (25, 47675), (28, 47633), (31, 47597), (36, 47531), (Start: 44 @47471 has 125 MA's), (56, 47432), (74, 47378), (77, 47366),

Gene: ArcherS7_56 Start: 17528, Stop: 17668, Start Num: 53
Candidate Starts for ArcherS7_56:
(Start: 53 @17528 has 182 MA's), (82, 17657),

Gene: Artemis2UCLA_87 Start: 46325, Stop: 46167, Start Num: 43
Candidate Starts for Artemis2UCLA_87:
(33, 46418), (Start: 43 @46325 has 49 MA's), (70, 46250), (75, 46235),

Gene: Arturo_77 Start: 47554, Stop: 47384, Start Num: 44
Candidate Starts for Arturo_77:
(10, 47893), (28, 47716), (31, 47680), (36, 47614), (Start: 44 @47554 has 125 MA's), (56, 47515), (74, 47461), (77, 47449),

Gene: Asterius_57 Start: 17623, Stop: 17763, Start Num: 53
Candidate Starts for Asterius_57:
(Start: 53 @17623 has 182 MA's), (82, 17752),

Gene: Astraea_58 Start: 18620, Stop: 18760, Start Num: 53
Candidate Starts for Astraea_58:
(Start: 53 @18620 has 182 MA's),

Gene: Atlantean_55 Start: 17165, Stop: 17305, Start Num: 53
Candidate Starts for Atlantean_55:
(Start: 53 @17165 has 182 MA's), (62, 17192), (79, 17261), (82, 17294),

Gene: Audrick_58 Start: 17144, Stop: 17284, Start Num: 53
Candidate Starts for Audrick_58:
(Start: 53 @17144 has 182 MA's), (62, 17171), (79, 17240), (82, 17273),

Gene: Auspice_148 Start: 74560, Stop: 74396, Start Num: 47
Candidate Starts for Auspice_148:
(Start: 47 @74560 has 15 MA's), (61, 74521),

Gene: Ava3_58 Start: 18222, Stop: 18362, Start Num: 53
Candidate Starts for Ava3_58:
(Start: 53 @18222 has 182 MA's),

Gene: Avle17_80 Start: 47420, Stop: 47250, Start Num: 44
Candidate Starts for Avle17_80:
(10, 47759), (28, 47582), (31, 47546), (36, 47480), (Start: 44 @47420 has 125 MA's), (56, 47381), (74, 47327), (77, 47315),

Gene: BABullseye_79 Start: 44645, Stop: 44487, Start Num: 43
Candidate Starts for BABullseye_79:
(26, 44846), (33, 44738), (Start: 43 @44645 has 49 MA's), (70, 44570), (75, 44555),

Gene: Baby16_80 Start: 47437, Stop: 47267, Start Num: 44
Candidate Starts for Baby16_80:
(7, 47818), (10, 47776), (25, 47641), (28, 47599), (31, 47563), (36, 47497), (Start: 44 @47437 has 125 MA's), (56, 47398), (74, 47344), (77, 47332),

Gene: Babyland_55 Start: 16603, Stop: 16743, Start Num: 53
Candidate Starts for Babyland_55:
(Start: 53 @16603 has 182 MA's), (62, 16630), (79, 16699), (82, 16732),

Gene: BackyardAgain_54 Start: 17096, Stop: 17236, Start Num: 53
Candidate Starts for BackyardAgain_54:
(Start: 53 @17096 has 182 MA's), (82, 17225),

Gene: Bactobuster_72 Start: 46044, Stop: 45904, Start Num: 53
Candidate Starts for Bactobuster_72:
(6, 46479), (9, 46434), (12, 46416), (15, 46392), (21, 46338), (30, 46221), (34, 46164), (37, 46113), (Start: 53 @46044 has 182 MA's), (72, 45987),

Gene: BadAgartude_56 Start: 19083, Stop: 19223, Start Num: 53
Candidate Starts for BadAgartude_56:
(Start: 53 @19083 has 182 MA's), (62, 19110), (82, 19212),

Gene: BananaFence_58 Start: 18106, Stop: 18246, Start Num: 53
Candidate Starts for BananaFence_58:
(Start: 53 @18106 has 182 MA's),

Gene: BangNhom_77 Start: 47863, Stop: 47693, Start Num: 44
Candidate Starts for BangNhom_77:
(10, 48202), (28, 48025), (31, 47989), (36, 47923), (Start: 44 @47863 has 125 MA's), (56, 47824), (74, 47770), (77, 47758),

Gene: Bangla1971_57 Start: 17658, Stop: 17798, Start Num: 53
Candidate Starts for Bangla1971_57:
(Start: 53 @17658 has 182 MA's), (82, 17787),

Gene: Bartimeaus_80 Start: 47428, Stop: 47258, Start Num: 44
Candidate Starts for Bartimeaus_80:
(7, 47809), (10, 47767), (25, 47632), (28, 47590), (31, 47554), (36, 47488), (Start: 44 @47428 has 125 MA's), (56, 47389), (74, 47335), (77, 47323),

Gene: Basquiat_52 Start: 16592, Stop: 16732, Start Num: 53
Candidate Starts for Basquiat_52:
(Start: 53 @16592 has 182 MA's),

Gene: BeanWater_50 Start: 17632, Stop: 17772, Start Num: 53
Candidate Starts for BeanWater_50:
(Start: 53 @17632 has 182 MA's), (62, 17659), (82, 17761),

Gene: Belieber_51 Start: 16517, Stop: 16657, Start Num: 53
Candidate Starts for Belieber_51:
(Start: 53 @16517 has 182 MA's), (62, 16544), (79, 16613), (82, 16646),

Gene: BennyP_87 Start: 46490, Stop: 46332, Start Num: 43
Candidate Starts for BennyP_87:
(26, 46691), (33, 46583), (Start: 43 @46490 has 49 MA's), (70, 46415), (75, 46400),

Gene: Bezza_49 Start: 17513, Stop: 17653, Start Num: 53
Candidate Starts for Bezza_49:
(Start: 53 @17513 has 182 MA's), (62, 17540), (82, 17642),

Gene: BigCity_62 Start: 19426, Stop: 19566, Start Num: 53
Candidate Starts for BigCity_62:
(Start: 53 @19426 has 182 MA's), (62, 19453), (82, 19555),

Gene: Bigswole_63 Start: 20460, Stop: 20600, Start Num: 53
Candidate Starts for Bigswole_63:
(Start: 53 @20460 has 182 MA's), (82, 20589),

Gene: Bipolarisk_56 Start: 17933, Stop: 18073, Start Num: 53
Candidate Starts for Bipolarisk_56:
(Start: 53 @17933 has 182 MA's),

Gene: Blackbrain_51 Start: 16409, Stop: 16549, Start Num: 53
Candidate Starts for Blackbrain_51:
(Start: 53 @16409 has 182 MA's),

Gene: Blackdragon_53 Start: 17551, Stop: 17691, Start Num: 53
Candidate Starts for Blackdragon_53:
(Start: 53 @17551 has 182 MA's), (82, 17680),

Gene: Blackmoor_79 Start: 47428, Stop: 47258, Start Num: 44
Candidate Starts for Blackmoor_79:
(7, 47809), (10, 47767), (25, 47632), (28, 47590), (31, 47554), (36, 47488), (Start: 44 @47428 has 125 MA's), (56, 47389), (74, 47335), (77, 47323),

Gene: BlessJoy_88 Start: 46846, Stop: 46688, Start Num: 43
Candidate Starts for BlessJoy_88:
(33, 46939), (Start: 43 @46846 has 49 MA's), (48, 46828), (55, 46813), (70, 46771), (75, 46756), (79, 46726),

Gene: Blubba_47 Start: 15453, Stop: 15593, Start Num: 53
Candidate Starts for Blubba_47:

(Start: 53 @15453 has 182 MA's),

Gene: Blue7_89 Start: 46544, Stop: 46386, Start Num: 43
Candidate Starts for Blue7_89:
(26, 46745), (33, 46637), (Start: 43 @46544 has 49 MA's), (70, 46469), (75, 46454),

Gene: BobaPhatt_53 Start: 17135, Stop: 17275, Start Num: 53
Candidate Starts for BobaPhatt_53:
(Start: 53 @17135 has 182 MA's), (82, 17264),

Gene: Bombshell_80 Start: 47423, Stop: 47253, Start Num: 44
Candidate Starts for Bombshell_80:
(10, 47762), (28, 47585), (31, 47549), (36, 47483), (Start: 44 @47423 has 125 MA's), (56, 47384), (74, 47330), (77, 47318),

Gene: Bongo_142 Start: 73417, Stop: 73256, Start Num: 47
Candidate Starts for Bongo_142:
(Start: 47 @73417 has 15 MA's), (59, 73381), (69, 73351), (75, 73333), (76, 73327), (84, 73267),

Gene: Bonray_57 Start: 18210, Stop: 18350, Start Num: 53
Candidate Starts for Bonray_57:
(Start: 53 @18210 has 182 MA's),

Gene: Bowman_56 Start: 18222, Stop: 18362, Start Num: 53
Candidate Starts for Bowman_56:
(Start: 53 @18222 has 182 MA's),

Gene: Bread_57 Start: 17903, Stop: 18043, Start Num: 53
Candidate Starts for Bread_57:
(Start: 53 @17903 has 182 MA's),

Gene: Breeniome_58 Start: 17407, Stop: 17547, Start Num: 53
Candidate Starts for Breeniome_58:
(Start: 53 @17407 has 182 MA's), (82, 17536),

Gene: Bricole_150 Start: 74323, Stop: 74159, Start Num: 47
Candidate Starts for Bricole_150:
(Start: 47 @74323 has 15 MA's), (61, 74284),

Gene: Broseidon_80 Start: 47429, Stop: 47259, Start Num: 44
Candidate Starts for Broseidon_80:
(7, 47810), (10, 47768), (25, 47633), (28, 47591), (31, 47555), (36, 47489), (Start: 44 @47429 has 125 MA's), (56, 47390), (74, 47336), (77, 47324),

Gene: Bruiser_79 Start: 47426, Stop: 47256, Start Num: 44
Candidate Starts for Bruiser_79:
(10, 47765), (28, 47588), (31, 47552), (36, 47486), (Start: 44 @47426 has 125 MA's), (56, 47387), (74, 47333), (77, 47321),

Gene: BubbleTrouble_79 Start: 47453, Stop: 47283, Start Num: 44
Candidate Starts for BubbleTrouble_79:
(7, 47834), (10, 47792), (25, 47657), (28, 47615), (31, 47579), (36, 47513), (Start: 44 @47453 has 125 MA's), (56, 47414), (74, 47360), (77, 47348),

Gene: Burger_78 Start: 47426, Stop: 47256, Start Num: 44
Candidate Starts for Burger_78:
(10, 47765), (28, 47588), (31, 47552), (36, 47486), (Start: 44 @47426 has 125 MA's), (56, 47387), (74, 47333), (77, 47321),

Gene: Burrough_57 Start: 17933, Stop: 18073, Start Num: 53
Candidate Starts for Burrough_57:
(Start: 53 @17933 has 182 MA's), (82, 18062),

Gene: Bxz1_57 Start: 18984, Stop: 19124, Start Num: 53
Candidate Starts for Bxz1_57:
(Start: 53 @18984 has 182 MA's), (82, 19113),

Gene: Cactojaque_51 Start: 16516, Stop: 16656, Start Num: 53
Candidate Starts for Cactojaque_51:
(Start: 53 @16516 has 182 MA's),

Gene: Caelakin_78 Start: 47426, Stop: 47256, Start Num: 44
Candidate Starts for Caelakin_78:
(10, 47765), (28, 47588), (31, 47552), (36, 47486), (Start: 44 @47426 has 125 MA's), (56, 47387), (74, 47333), (77, 47321),

Gene: Cali_54 Start: 18869, Stop: 19009, Start Num: 53
Candidate Starts for Cali_54:
(Start: 53 @18869 has 182 MA's), (62, 18896), (82, 18998),

Gene: Candra_84 Start: 46350, Stop: 46192, Start Num: 43
Candidate Starts for Candra_84:
(Start: 43 @46350 has 49 MA's), (55, 46317), (70, 46275), (75, 46260),

Gene: Cane17_46 Start: 15171, Stop: 15311, Start Num: 53
Candidate Starts for Cane17_46:
(Start: 53 @15171 has 182 MA's),

Gene: Capablanca_58 Start: 18290, Stop: 18430, Start Num: 53
Candidate Starts for Capablanca_58:
(Start: 53 @18290 has 182 MA's), (62, 18317), (79, 18386), (82, 18419),

Gene: Caravan_53 Start: 17274, Stop: 17414, Start Num: 53
Candidate Starts for Caravan_53:
(Start: 53 @17274 has 182 MA's), (82, 17403),

Gene: Catera_55 Start: 17100, Stop: 17240, Start Num: 53
Candidate Starts for Catera_55:
(Start: 53 @17100 has 182 MA's), (62, 17127), (82, 17229),

Gene: CentreCat_80 Start: 47466, Stop: 47296, Start Num: 44
Candidate Starts for CentreCat_80:
(10, 47805), (28, 47628), (31, 47592), (36, 47526), (Start: 44 @47466 has 125 MA's), (56, 47427), (74, 47373), (77, 47361),

Gene: Cerulean_82 Start: 47864, Stop: 47694, Start Num: 44

Candidate Starts for Cerulean_82:
(10, 48203), (28, 48026), (31, 47990), (36, 47924), (Start: 44 @47864 has 125 MA's), (56, 47825), (74, 47771), (77, 47759),

Gene: ChampagnePapi_83 Start: 47866, Stop: 47696, Start Num: 44
Candidate Starts for ChampagnePapi_83:
(10, 48205), (28, 48028), (31, 47992), (36, 47926), (Start: 44 @47866 has 125 MA's), (56, 47827), (74, 47773), (77, 47761),

Gene: Chaph_80 Start: 47437, Stop: 47267, Start Num: 44
Candidate Starts for Chaph_80:
(10, 47776), (28, 47599), (31, 47563), (36, 47497), (Start: 44 @47437 has 125 MA's), (56, 47398), (74, 47344), (77, 47332),

Gene: Chargie21_52 Start: 16592, Stop: 16732, Start Num: 53
Candidate Starts for Chargie21_52:
(Start: 53 @16592 has 182 MA's),

Gene: CharlieB_54 Start: 16867, Stop: 17007, Start Num: 53
Candidate Starts for CharlieB_54:
(Start: 53 @16867 has 182 MA's), (62, 16894), (82, 16996),

Gene: Chartreuse_85 Start: 45651, Stop: 45493, Start Num: 43
Candidate Starts for Chartreuse_85:
(Start: 43 @45651 has 49 MA's), (70, 45576), (75, 45561),

Gene: ChaylaJr_52 Start: 16679, Stop: 16819, Start Num: 53
Candidate Starts for ChaylaJr_52:
(Start: 53 @16679 has 182 MA's), (62, 16706), (82, 16808),

Gene: ChickenPhender_52 Start: 16638, Stop: 16778, Start Num: 53
Candidate Starts for ChickenPhender_52:
(Start: 53 @16638 has 182 MA's), (62, 16665), (82, 16767),

Gene: Chomp_55 Start: 17165, Stop: 17305, Start Num: 53
Candidate Starts for Chomp_55:
(Start: 53 @17165 has 182 MA's), (82, 17294),

Gene: ChrisnMich_89 Start: 65230, Stop: 65066, Start Num: 40
Candidate Starts for ChrisnMich_89:
(4, 65677), (11, 65536), (13, 65527), (14, 65506), (16, 65497), (19, 65467), (37, 65248), (Start: 40 @65230 has 6 MA's), (68, 65158), (76, 65140),

Gene: CindyLou_57 Start: 17690, Stop: 17830, Start Num: 53
Candidate Starts for CindyLou_57:
(Start: 53 @17690 has 182 MA's), (62, 17717), (79, 17786), (82, 17819),

Gene: Cintron_80 Start: 47542, Stop: 47372, Start Num: 44
Candidate Starts for Cintron_80:
(10, 47881), (28, 47704), (31, 47668), (36, 47602), (Start: 44 @47542 has 125 MA's), (56, 47503), (74, 47449), (77, 47437),

Gene: Citius_80 Start: 47447, Stop: 47277, Start Num: 44

Candidate Starts for Citius_80:
(7, 47828), (10, 47786), (25, 47651), (28, 47609), (31, 47573), (36, 47507), (Start: 44 @47447 has 125 MA's), (56, 47408), (74, 47354), (77, 47342),

Gene: Clarenza_79 Start: 47423, Stop: 47253, Start Num: 44
Candidate Starts for Clarenza_79:
(10, 47762), (28, 47585), (31, 47549), (36, 47483), (Start: 44 @47423 has 125 MA's), (56, 47384), (74, 47330), (77, 47318),

Gene: Cleatunium_53 Start: 17318, Stop: 17458, Start Num: 53
Candidate Starts for Cleatunium_53:
(Start: 53 @17318 has 182 MA's),

Gene: CloudWang3_88 Start: 46854, Stop: 46696, Start Num: 43
Candidate Starts for CloudWang3_88:
(33, 46947), (Start: 43 @46854 has 49 MA's), (70, 46779), (75, 46764),

Gene: Cocoaberry_80 Start: 47427, Stop: 47257, Start Num: 44
Candidate Starts for Cocoaberry_80:
(10, 47766), (28, 47589), (31, 47553), (36, 47487), (Start: 44 @47427 has 125 MA's), (56, 47388), (74, 47334), (77, 47322),

Gene: Colossa_158 Start: 79537, Stop: 79376, Start Num: 43
Candidate Starts for Colossa_158:
(18, 79825), (24, 79753), (Start: 43 @79537 has 49 MA's), (65, 79468), (78, 79435), (79, 79417),

Gene: Colt_48 Start: 16038, Stop: 16178, Start Num: 53
Candidate Starts for Colt_48:
(Start: 53 @16038 has 182 MA's),

Gene: Commander_78 Start: 47424, Stop: 47254, Start Num: 44
Candidate Starts for Commander_78:
(10, 47763), (28, 47586), (31, 47550), (36, 47484), (Start: 44 @47424 has 125 MA's), (56, 47385), (74, 47331), (77, 47319),

Gene: Concombre_62 Start: 20107, Stop: 20247, Start Num: 53
Candidate Starts for Concombre_62:
(Start: 53 @20107 has 182 MA's), (82, 20236),

Gene: Connomayer_80 Start: 47426, Stop: 47256, Start Num: 44
Candidate Starts for Connomayer_80:
(7, 47807), (10, 47765), (25, 47630), (28, 47588), (31, 47552), (36, 47486), (Start: 44 @47426 has 125 MA's), (56, 47387), (74, 47333), (77, 47321),

Gene: Cookiedough_86 Start: 46958, Stop: 46800, Start Num: 43
Candidate Starts for Cookiedough_86:
(26, 47159), (33, 47051), (Start: 43 @46958 has 49 MA's), (70, 46883), (75, 46868),

Gene: Cooper_89 Start: 65767, Stop: 65579, Start Num: 40
Candidate Starts for Cooper_89:
(4, 66214), (11, 66073), (13, 66064), (14, 66043), (16, 66034), (19, 66004), (20, 65998), (37, 65785), (Start: 40 @65767 has 6 MA's), (Start: 52 @65719 has 1 MA's), (78, 65647),

Gene: DTDevon_57 Start: 18329, Stop: 18469, Start Num: 53
Candidate Starts for DTDevon_57:
(Start: 53 @18329 has 182 MA's), (82, 18458),

Gene: DaVinci_84 Start: 45705, Stop: 45547, Start Num: 43
Candidate Starts for DaVinci_84:
(Start: 43 @45705 has 49 MA's), (70, 45630), (75, 45615),

Gene: Daffodil_59 Start: 18222, Stop: 18362, Start Num: 53
Candidate Starts for Daffodil_59:
(Start: 53 @18222 has 182 MA's),

Gene: Dandelion_62 Start: 20004, Stop: 20144, Start Num: 53
Candidate Starts for Dandelion_62:
(Start: 53 @20004 has 182 MA's), (82, 20133),

Gene: Darko_56 Start: 18075, Stop: 18215, Start Num: 53
Candidate Starts for Darko_56:
(Start: 53 @18075 has 182 MA's),

Gene: Datway_77 Start: 47237, Stop: 47067, Start Num: 44
Candidate Starts for Datway_77:
(10, 47576), (28, 47399), (31, 47363), (36, 47297), (Start: 44 @47237 has 125 MA's), (56, 47198), (74, 47144), (76, 47135), (77, 47132),

Gene: Deano_77 Start: 47434, Stop: 47264, Start Num: 44
Candidate Starts for Deano_77:
(7, 47815), (10, 47773), (25, 47638), (28, 47596), (31, 47560), (36, 47494), (Start: 44 @47434 has 125 MA's), (56, 47395), (74, 47341), (77, 47329),

Gene: DeejaClivia_49 Start: 15662, Stop: 15802, Start Num: 53
Candidate Starts for DeejaClivia_49:
(Start: 53 @15662 has 182 MA's), (82, 15791),

Gene: Delilah_57 Start: 18222, Stop: 18362, Start Num: 53
Candidate Starts for Delilah_57:
(Start: 53 @18222 has 182 MA's),

Gene: DelvinSonDorr_81 Start: 45914, Stop: 45756, Start Num: 43
Candidate Starts for DelvinSonDorr_81:
(Start: 43 @45914 has 49 MA's), (55, 45881), (70, 45839), (75, 45824),

Gene: Delylah_57 Start: 18000, Stop: 18140, Start Num: 53
Candidate Starts for Delylah_57:
(Start: 53 @18000 has 182 MA's),

Gene: Demodog_61 Start: 20107, Stop: 20247, Start Num: 53
Candidate Starts for Demodog_61:
(Start: 53 @20107 has 182 MA's), (82, 20236),

Gene: Derek_57 Start: 17496, Stop: 17636, Start Num: 53
Candidate Starts for Derek_57:
(Start: 53 @17496 has 182 MA's), (62, 17523), (79, 17592), (82, 17625),

Gene: Dessert_54 Start: 17165, Stop: 17305, Start Num: 53
Candidate Starts for Dessert_54:
(Start: 53 @17165 has 182 MA's), (62, 17192), (79, 17261), (82, 17294),

Gene: Dhanush_80 Start: 47429, Stop: 47259, Start Num: 44
Candidate Starts for Dhanush_80:
(10, 47768), (28, 47591), (31, 47555), (36, 47489), (Start: 44 @47429 has 125 MA's), (56, 47390), (74, 47336), (77, 47324),

Gene: Dietrick_50 Start: 16338, Stop: 16478, Start Num: 53
Candidate Starts for Dietrick_50:
(Start: 53 @16338 has 182 MA's), (62, 16365), (82, 16467),

Gene: Diminimus_145 Start: 73233, Stop: 73072, Start Num: 47
Candidate Starts for Diminimus_145:
(Start: 47 @73233 has 15 MA's), (59, 73197), (69, 73167), (75, 73149), (76, 73143), (84, 73083),

Gene: DirtMonster_53 Start: 18135, Stop: 18275, Start Num: 53
Candidate Starts for DirtMonster_53:
(Start: 53 @18135 has 182 MA's), (82, 18264),

Gene: DirtyDunning_79 Start: 47438, Stop: 47268, Start Num: 44
Candidate Starts for DirtyDunning_79:
(10, 47777), (25, 47642), (28, 47600), (31, 47564), (36, 47498), (Start: 44 @47438 has 125 MA's), (56, 47399), (74, 47345), (77, 47333),

Gene: Domi_51 Start: 17103, Stop: 17243, Start Num: 53
Candidate Starts for Domi_51:
(Start: 53 @17103 has 182 MA's), (82, 17232),

Gene: Dorothea_86 Start: 46951, Stop: 46793, Start Num: 43
Candidate Starts for Dorothea_86:
(Start: 43 @46951 has 49 MA's), (70, 46876), (75, 46861),

Gene: DrPhinkDaddy_56 Start: 18271, Stop: 18411, Start Num: 53
Candidate Starts for DrPhinkDaddy_56:
(29, 18082), (Start: 53 @18271 has 182 MA's), (62, 18298), (82, 18400),

Gene: Drazdys_56 Start: 18002, Stop: 18142, Start Num: 53
Candidate Starts for Drazdys_56:
(Start: 53 @18002 has 182 MA's), (82, 18131),

Gene: Duckfeet_50 Start: 16834, Stop: 16974, Start Num: 53
Candidate Starts for Duckfeet_50:
(Start: 53 @16834 has 182 MA's), (82, 16963),

Gene: Dulcita_145 Start: 73234, Stop: 73073, Start Num: 47
Candidate Starts for Dulcita_145:
(Start: 47 @73234 has 15 MA's), (59, 73198), (69, 73168), (75, 73150), (76, 73144), (84, 73084),

Gene: ET08_48 Start: 16735, Stop: 16875, Start Num: 53
Candidate Starts for ET08_48:

(Start: 53 @16735 has 182 MA's), (62, 16762), (82, 16864),

Gene: Eagle_79 Start: 47488, Stop: 47318, Start Num: 44
Candidate Starts for Eagle_79:
(10, 47827), (28, 47650), (31, 47614), (36, 47548), (Start: 44 @47488 has 125 MA's), (56, 47449), (74, 47395), (77, 47383),

Gene: EagleEye_85 Start: 47807, Stop: 47646, Start Num: 43
Candidate Starts for EagleEye_85:
(Start: 43 @47807 has 49 MA's), (70, 47732), (75, 47717), (81, 47669),

Gene: Eapen_80 Start: 47421, Stop: 47251, Start Num: 44
Candidate Starts for Eapen_80:
(10, 47760), (28, 47583), (31, 47547), (36, 47481), (Start: 44 @47421 has 125 MA's), (56, 47382), (74, 47328), (77, 47316),

Gene: EasyJones_59 Start: 18298, Stop: 18438, Start Num: 53
Candidate Starts for EasyJones_59:
(Start: 53 @18298 has 182 MA's), (82, 18427),

Gene: EggyFarm_62 Start: 19426, Stop: 19566, Start Num: 53
Candidate Starts for EggyFarm_62:
(Start: 53 @19426 has 182 MA's), (62, 19453), (82, 19555),

Gene: EmToTheThree_60 Start: 19636, Stop: 19776, Start Num: 53
Candidate Starts for EmToTheThree_60:
(Start: 53 @19636 has 182 MA's),

Gene: EmmaElysia_55 Start: 16735, Stop: 16875, Start Num: 53
Candidate Starts for EmmaElysia_55:
(Start: 53 @16735 has 182 MA's), (82, 16864),

Gene: Epsocamisio_84 Start: 46230, Stop: 46054, Start Num: 44
Candidate Starts for Epsocamisio_84:
(Start: 44 @46230 has 125 MA's), (74, 46143),

Gene: Erdmann_58 Start: 18222, Stop: 18362, Start Num: 53
Candidate Starts for Erdmann_58:
(Start: 53 @18222 has 182 MA's),

Gene: EricB_84 Start: 45848, Stop: 45690, Start Num: 43
Candidate Starts for EricB_84:
(Start: 43 @45848 has 49 MA's), (55, 45815), (70, 45773), (75, 45758),

Gene: Eris_79 Start: 47438, Stop: 47268, Start Num: 44
Candidate Starts for Eris_79:
(10, 47777), (28, 47600), (31, 47564), (36, 47498), (Start: 44 @47438 has 125 MA's), (56, 47399), (74, 47345), (77, 47333),

Gene: ErnieJ_56 Start: 17511, Stop: 17651, Start Num: 53
Candidate Starts for ErnieJ_56:
(Start: 53 @17511 has 182 MA's),

Gene: Eros_80 Start: 47428, Stop: 47258, Start Num: 44
Candidate Starts for Eros_80:
(10, 47767), (28, 47590), (31, 47554), (36, 47488), (Start: 44 @47428 has 125 MA's), (56, 47389), (74, 47335), (77, 47323),

Gene: Essence_55 Start: 17019, Stop: 17159, Start Num: 53
Candidate Starts for Essence_55:
(Start: 53 @17019 has 182 MA's), (82, 17148),

Gene: Eurydice_81 Start: 47463, Stop: 47293, Start Num: 44
Candidate Starts for Eurydice_81:
(10, 47802), (28, 47625), (31, 47589), (36, 47523), (Start: 44 @47463 has 125 MA's), (56, 47424), (74, 47370), (77, 47358),

Gene: Ewok_57 Start: 18225, Stop: 18365, Start Num: 53
Candidate Starts for Ewok_57:
(Start: 53 @18225 has 182 MA's),

Gene: Finch_206 Start: 120593, Stop: 120769, Start Num: 43
Candidate Starts for Finch_206:
(8, 120215), (35, 120515), (42, 120590), (Start: 43 @120593 has 49 MA's), (50, 120620), (56, 120632), (59, 120641), (67, 120668), (74, 120689), (79, 120722),

Gene: Fixie_52 Start: 16364, Stop: 16504, Start Num: 53
Candidate Starts for Fixie_52:
(Start: 53 @16364 has 182 MA's), (62, 16391), (79, 16460), (82, 16493),

Gene: Flabslab_53 Start: 17244, Stop: 17384, Start Num: 53
Candidate Starts for Flabslab_53:
(Start: 53 @17244 has 182 MA's),

Gene: Florean_80 Start: 47425, Stop: 47255, Start Num: 44
Candidate Starts for Florean_80:
(7, 47806), (10, 47764), (25, 47629), (28, 47587), (31, 47551), (36, 47485), (Start: 44 @47425 has 125 MA's), (56, 47386), (74, 47332), (77, 47320),

Gene: Fludd_56 Start: 17097, Stop: 17237, Start Num: 53
Candidate Starts for Fludd_56:
(Start: 53 @17097 has 182 MA's),

Gene: Flux_81 Start: 47424, Stop: 47254, Start Num: 44
Candidate Starts for Flux_81:
(10, 47763), (28, 47586), (31, 47550), (36, 47484), (Start: 44 @47424 has 125 MA's), (56, 47385), (74, 47331), (77, 47319),

Gene: FlyCatcher_82 Start: 50617, Stop: 50435, Start Num: 44
Candidate Starts for FlyCatcher_82:
(Start: 44 @50617 has 125 MA's), (71, 50521),

Gene: Fongie_56 Start: 18438, Stop: 18578, Start Num: 53
Candidate Starts for Fongie_56:
(Start: 53 @18438 has 182 MA's), (62, 18465), (79, 18534), (82, 18567),

Gene: FoxtrotP1_57 Start: 18550, Stop: 18690, Start Num: 53
Candidate Starts for FoxtrotP1_57:
(Start: 53 @18550 has 182 MA's),

Gene: FrayBell_63 Start: 19736, Stop: 19876, Start Num: 53
Candidate Starts for FrayBell_63:
(Start: 53 @19736 has 182 MA's),

Gene: FreakyGoo_147 Start: 74475, Stop: 74311, Start Num: 47
Candidate Starts for FreakyGoo_147:
(Start: 47 @74475 has 15 MA's), (61, 74436),

Gene: FudgeTart_58 Start: 18086, Stop: 18226, Start Num: 53
Candidate Starts for FudgeTart_58:
(Start: 53 @18086 has 182 MA's),

Gene: Funston_79 Start: 47423, Stop: 47253, Start Num: 44
Candidate Starts for Funston_79:
(10, 47762), (28, 47585), (31, 47549), (36, 47483), (Start: 44 @47423 has 125 MA's), (56, 47384), (74, 47330), (77, 47318),

Gene: Gabriel_58 Start: 17398, Stop: 17538, Start Num: 53
Candidate Starts for Gabriel_58:
(Start: 53 @17398 has 182 MA's), (82, 17527),

Gene: Gadost_80 Start: 47427, Stop: 47257, Start Num: 44
Candidate Starts for Gadost_80:
(10, 47766), (28, 47589), (31, 47553), (36, 47487), (Start: 44 @47427 has 125 MA's), (56, 47388), (74, 47334), (77, 47322),

Gene: Gamgam_56 Start: 17165, Stop: 17305, Start Num: 53
Candidate Starts for Gamgam_56:
(Start: 53 @17165 has 182 MA's), (62, 17192), (79, 17261), (82, 17294),

Gene: Garak_89 Start: 46787, Stop: 46629, Start Num: 43
Candidate Starts for Garak_89:
(26, 46988), (33, 46880), (Start: 43 @46787 has 49 MA's), (70, 46712), (75, 46697),

Gene: Ghost_56 Start: 17165, Stop: 17305, Start Num: 53
Candidate Starts for Ghost_56:
(Start: 53 @17165 has 182 MA's), (62, 17192), (79, 17261), (82, 17294),

Gene: Gizmo_58 Start: 17905, Stop: 18045, Start Num: 53
Candidate Starts for Gizmo_58:
(Start: 53 @17905 has 182 MA's),

Gene: Gladiator_84 Start: 46510, Stop: 46352, Start Num: 43
Candidate Starts for Gladiator_84:
(33, 46603), (Start: 43 @46510 has 49 MA's), (55, 46477), (70, 46435), (75, 46420),

Gene: Glaske16_147 Start: 74352, Stop: 74191, Start Num: 47
Candidate Starts for Glaske16_147:
(Start: 47 @74352 has 15 MA's), (59, 74316), (69, 74286), (75, 74268), (76, 74262), (84, 74202),

Gene: GlutenPhree_57 Start: 17165, Stop: 17305, Start Num: 53
Candidate Starts for GlutenPhree_57:
(Start: 53 @17165 has 182 MA's), (62, 17192), (79, 17261), (82, 17294),

Gene: Grasshills_62 Start: 19426, Stop: 19566, Start Num: 53
Candidate Starts for Grasshills_62:
(Start: 53 @19426 has 182 MA's), (62, 19453), (82, 19555),

Gene: GreedyLawyer_79 Start: 46280, Stop: 46122, Start Num: 43
Candidate Starts for GreedyLawyer_79:
(26, 46481), (33, 46373), (Start: 43 @46280 has 49 MA's), (70, 46205), (75, 46190),

Gene: Grungle_48 Start: 15817, Stop: 15957, Start Num: 53
Candidate Starts for Grungle_48:
(Start: 53 @15817 has 182 MA's), (62, 15844), (82, 15946),

Gene: Gruunaga_87 Start: 46465, Stop: 46307, Start Num: 43
Candidate Starts for Gruunaga_87:
(33, 46558), (Start: 43 @46465 has 49 MA's), (55, 46432), (70, 46390), (75, 46375),

Gene: Guwapp_55 Start: 17260, Stop: 17400, Start Num: 53
Candidate Starts for Guwapp_55:
(Start: 53 @17260 has 182 MA's), (82, 17389),

Gene: Halldule_51 Start: 16269, Stop: 16409, Start Num: 53
Candidate Starts for Halldule_51:
(Start: 53 @16269 has 182 MA's), (82, 16398),

Gene: HamSlice_76 Start: 47425, Stop: 47255, Start Num: 44
Candidate Starts for HamSlice_76:
(7, 47806), (10, 47764), (25, 47629), (28, 47587), (31, 47551), (36, 47485), (Start: 44 @47425 has 125 MA's), (56, 47386), (74, 47332), (77, 47320),

Gene: Hammer_88 Start: 46172, Stop: 46014, Start Num: 43
Candidate Starts for Hammer_88:
(33, 46265), (Start: 43 @46172 has 49 MA's), (55, 46139), (70, 46097), (75, 46082),

Gene: Happiness_79 Start: 47449, Stop: 47279, Start Num: 44
Candidate Starts for Happiness_79:
(28, 47611), (31, 47575), (36, 47509), (Start: 44 @47449 has 125 MA's), (56, 47410), (74, 47356), (77, 47344),

Gene: Helmet_90 Start: 46787, Stop: 46629, Start Num: 43
Candidate Starts for Helmet_90:
(26, 46988), (33, 46880), (Start: 43 @46787 has 49 MA's), (70, 46712), (75, 46697),

Gene: Hexamo_87 Start: 46340, Stop: 46182, Start Num: 43
Candidate Starts for Hexamo_87:
(33, 46433), (Start: 43 @46340 has 49 MA's), (70, 46265), (75, 46250),

Gene: Holli_79 Start: 47216, Stop: 47046, Start Num: 44
Candidate Starts for Holli_79:

(7, 47597), (10, 47555), (25, 47420), (28, 47378), (31, 47342), (36, 47276), (Start: 44 @47216 has 125 MA's), (56, 47177), (74, 47123), (77, 47111),

Gene: Hoot_81 Start: 44165, Stop: 44007, Start Num: 43
Candidate Starts for Hoot_81:
(Start: 43 @44165 has 49 MA's), (55, 44132), (70, 44090), (75, 44075),

Gene: Hosp_085 Start: 63309, Stop: 63112, Start Num: 40
Candidate Starts for Hosp_085:
(38, 63321), (Start: 40 @63309 has 6 MA's), (57, 63261), (81, 63168), (87, 63129),

Gene: Houdini22_79 Start: 47427, Stop: 47257, Start Num: 44
Candidate Starts for Houdini22_79:
(10, 47766), (28, 47589), (31, 47553), (36, 47487), (Start: 44 @47427 has 125 MA's), (56, 47388), (74, 47334), (77, 47322),

Gene: Huxley_69 Start: 45319, Stop: 45149, Start Num: 44
Candidate Starts for Huxley_69:
(10, 45658), (28, 45481), (31, 45445), (36, 45379), (Start: 44 @45319 has 125 MA's), (56, 45280), (74, 45226), (77, 45214),

Gene: HyRo_52 Start: 17627, Stop: 17767, Start Num: 53
Candidate Starts for HyRo_52:
(Start: 53 @17627 has 182 MA's), (82, 17756),

Gene: I3_59 Start: 17958, Stop: 18098, Start Num: 53
Candidate Starts for I3_59:
(Start: 53 @17958 has 182 MA's), (79, 18054), (82, 18087),

Gene: ICleared_79 Start: 47494, Stop: 47324, Start Num: 44
Candidate Starts for ICleared_79:
(10, 47833), (28, 47656), (31, 47620), (36, 47554), (Start: 44 @47494 has 125 MA's), (56, 47455), (74, 47401), (77, 47389),

Gene: IPhane7_145 Start: 74176, Stop: 74012, Start Num: 47
Candidate Starts for IPhane7_145:
(Start: 47 @74176 has 15 MA's), (61, 74137),

Gene: Iceman_78 Start: 47716, Stop: 47546, Start Num: 44
Candidate Starts for Iceman_78:
(10, 48055), (28, 47878), (31, 47842), (36, 47776), (Start: 44 @47716 has 125 MA's), (56, 47677), (74, 47623), (77, 47611),

Gene: IkeLoa_51 Start: 17025, Stop: 17165, Start Num: 53
Candidate Starts for IkeLoa_51:
(Start: 53 @17025 has 182 MA's), (62, 17052), (82, 17154),

Gene: Indra_91 Start: 46788, Stop: 46630, Start Num: 43
Candidate Starts for Indra_91:
(26, 46989), (33, 46881), (Start: 43 @46788 has 49 MA's), (70, 46713), (75, 46698),

Gene: InigoMontoya_57 Start: 17126, Stop: 17266, Start Num: 53
Candidate Starts for InigoMontoya_57:

(Start: 53 @17126 has 182 MA's), (62, 17153), (79, 17222), (82, 17255),

Gene: InterFolia_65 Start: 20791, Stop: 20931, Start Num: 53
Candidate Starts for InterFolia_65:
(Start: 53 @20791 has 182 MA's), (82, 20920),

Gene: Iota_51 Start: 17323, Stop: 17463, Start Num: 53
Candidate Starts for Iota_51:
(Start: 53 @17323 has 182 MA's), (62, 17350), (82, 17452),

Gene: Iracema64_80 Start: 47690, Stop: 47520, Start Num: 44
Candidate Starts for Iracema64_80:
(10, 48029), (28, 47852), (31, 47816), (36, 47750), (Start: 44 @47690 has 125 MA's), (56, 47651), (74, 47597), (77, 47585),

Gene: Isiphiwo_82 Start: 45876, Stop: 45718, Start Num: 43
Candidate Starts for Isiphiwo_82:
(Start: 43 @45876 has 49 MA's), (55, 45843), (70, 45801), (75, 45786),

Gene: Issimir_57 Start: 18165, Stop: 18305, Start Num: 53
Candidate Starts for Issimir_57:
(Start: 53 @18165 has 182 MA's),

Gene: Izajani_58 Start: 18235, Stop: 18375, Start Num: 53
Candidate Starts for Izajani_58:
(Start: 53 @18235 has 182 MA's), (62, 18262), (82, 18364),

Gene: Izel_144 Start: 73233, Stop: 73072, Start Num: 47
Candidate Starts for Izel_144:
(Start: 47 @73233 has 15 MA's), (59, 73197), (69, 73167), (75, 73149), (76, 73143), (84, 73083),

Gene: JPickles_54 Start: 16359, Stop: 16499, Start Num: 53
Candidate Starts for JPickles_54:
(Start: 53 @16359 has 182 MA's), (62, 16386), (79, 16455), (82, 16488),

Gene: Jaan_78 Start: 47674, Stop: 47534, Start Num: 54
Candidate Starts for Jaan_78:
(45, 47704), (Start: 54 @47674 has 2 MA's), (72, 47617),

Gene: Janiyra_58 Start: 17925, Stop: 18065, Start Num: 53
Candidate Starts for Janiyra_58:
(Start: 53 @17925 has 182 MA's), (62, 17952), (82, 18054),

Gene: JayJay_62 Start: 18713, Stop: 18853, Start Num: 53
Candidate Starts for JayJay_62:
(Start: 53 @18713 has 182 MA's), (82, 18842),

Gene: Jaygup_56 Start: 17161, Stop: 17301, Start Num: 53
Candidate Starts for Jaygup_56:
(Start: 53 @17161 has 182 MA's), (82, 17290),

Gene: Jaykayelowell_77 Start: 47419, Stop: 47249, Start Num: 44
Candidate Starts for Jaykayelowell_77:

(7, 47800), (10, 47758), (25, 47623), (28, 47581), (31, 47545), (36, 47479), (Start: 44 @47419 has 125 MA's), (56, 47380), (74, 47326), (77, 47314),

Gene: Jedediah_57 Start: 17662, Stop: 17802, Start Num: 53
Candidate Starts for Jedediah_57:
(Start: 53 @17662 has 182 MA's), (82, 17791),

Gene: Jemmno_56 Start: 17165, Stop: 17305, Start Num: 53
Candidate Starts for Jemmno_56:
(Start: 53 @17165 has 182 MA's), (62, 17192), (79, 17261), (82, 17294),

Gene: Jessibeth14_55 Start: 17623, Stop: 17763, Start Num: 53
Candidate Starts for Jessibeth14_55:
(Start: 53 @17623 has 182 MA's), (62, 17650), (82, 17752),

Gene: JetBlade_81 Start: 47454, Stop: 47284, Start Num: 44
Candidate Starts for JetBlade_81:
(7, 47835), (10, 47793), (25, 47658), (28, 47616), (31, 47580), (36, 47514), (Start: 44 @47454 has 125 MA's), (56, 47415), (74, 47361), (77, 47349),

Gene: JewelBug_78 Start: 44643, Stop: 44485, Start Num: 43
Candidate Starts for JewelBug_78:
(26, 44844), (33, 44736), (Start: 43 @44643 has 49 MA's), (70, 44568), (75, 44553),

Gene: Jezreel_55 Start: 17478, Stop: 17618, Start Num: 53
Candidate Starts for Jezreel_55:
(29, 17289), (Start: 53 @17478 has 182 MA's), (62, 17505), (82, 17607),

Gene: JigglyPuff_61 Start: 19500, Stop: 19640, Start Num: 53
Candidate Starts for JigglyPuff_61:
(Start: 53 @19500 has 182 MA's), (82, 19629),

Gene: Jolie1_087 Start: 65336, Stop: 65139, Start Num: 40
Candidate Starts for Jolie1_087:
(38, 65348), (Start: 40 @65336 has 6 MA's), (57, 65288), (81, 65195),

Gene: JoongJeon_79 Start: 47420, Stop: 47250, Start Num: 44
Candidate Starts for JoongJeon_79:
(10, 47759), (28, 47582), (31, 47546), (36, 47480), (Start: 44 @47420 has 125 MA's), (56, 47381), (74, 47327), (77, 47315),

Gene: Jordennis_84 Start: 46547, Stop: 46389, Start Num: 43
Candidate Starts for Jordennis_84:
(26, 46748), (33, 46640), (Start: 43 @46547 has 49 MA's), (70, 46472), (75, 46457),

Gene: JulietS_52 Start: 16120, Stop: 16260, Start Num: 53
Candidate Starts for JulietS_52:
(Start: 53 @16120 has 182 MA's), (62, 16147), (82, 16249),

Gene: JustHall_52 Start: 17484, Stop: 17624, Start Num: 53
Candidate Starts for JustHall_52:
(Start: 53 @17484 has 182 MA's), (62, 17511), (79, 17580), (82, 17613),

Gene: KFPoly_79 Start: 47420, Stop: 47250, Start Num: 44
Candidate Starts for KFPoly_79:
(10, 47759), (28, 47582), (31, 47546), (36, 47480), (Start: 44 @47420 has 125 MA's), (56, 47381), (74, 47327), (77, 47315),

Gene: Kampy_79 Start: 47429, Stop: 47259, Start Num: 44
Candidate Starts for Kampy_79:
(10, 47768), (28, 47591), (31, 47555), (36, 47489), (Start: 44 @47429 has 125 MA's), (56, 47390), (74, 47336), (77, 47324),

Gene: Kamryn_56 Start: 17838, Stop: 17978, Start Num: 53
Candidate Starts for Kamryn_56:
(29, 17649), (Start: 53 @17838 has 182 MA's), (62, 17865), (82, 17967),

Gene: KayaCho_85 Start: 65227, Stop: 65030, Start Num: 40
Candidate Starts for KayaCho_85:
(Start: 40 @65227 has 6 MA's), (57, 65179), (81, 65086), (86, 65050),

Gene: Kazan_87 Start: 46320, Stop: 46162, Start Num: 43
Candidate Starts for Kazan_87:
(Start: 43 @46320 has 49 MA's), (55, 46287), (70, 46245), (75, 46230),

Gene: Kboogie_57 Start: 17151, Stop: 17291, Start Num: 53
Candidate Starts for Kboogie_57:
(Start: 53 @17151 has 182 MA's),

Gene: KekoraPapaka_77 Start: 47426, Stop: 47256, Start Num: 44
Candidate Starts for KekoraPapaka_77:
(10, 47765), (28, 47588), (31, 47552), (36, 47486), (Start: 44 @47426 has 125 MA's), (56, 47387), (74, 47333), (77, 47321),

Gene: Khaleesi_56 Start: 17969, Stop: 18109, Start Num: 53
Candidate Starts for Khaleesi_56:
(Start: 53 @17969 has 182 MA's),

Gene: Kingmustik0402_80 Start: 47415, Stop: 47245, Start Num: 44
Candidate Starts for Kingmustik0402_80:
(10, 47754), (28, 47577), (31, 47541), (36, 47475), (Start: 44 @47415 has 125 MA's), (56, 47376), (74, 47322), (77, 47310),

Gene: Kipper29_86 Start: 46323, Stop: 46165, Start Num: 43
Candidate Starts for Kipper29_86:
(Start: 43 @46323 has 49 MA's), (70, 46248), (75, 46233),

Gene: KleverKiS_150 Start: 75233, Stop: 75069, Start Num: 47
Candidate Starts for KleverKiS_150:
(Start: 47 @75233 has 15 MA's), (61, 75194),

Gene: Knocker_86 Start: 66737, Stop: 66540, Start Num: 40
Candidate Starts for Knocker_86:
(23, 66950), (Start: 40 @66737 has 6 MA's), (49, 66701), (57, 66689), (76, 66638), (80, 66599), (81, 66596), (85, 66566),

Gene: Koan_77 Start: 47426, Stop: 47256, Start Num: 44
Candidate Starts for Koan_77:
(10, 47765), (28, 47588), (31, 47552), (36, 47486), (Start: 44 @47426 has 125 MA's), (56, 47387), (74, 47333), (77, 47321),

Gene: Koguma_53 Start: 16463, Stop: 16603, Start Num: 53
Candidate Starts for Koguma_53:
(Start: 53 @16463 has 182 MA's), (62, 16490), (82, 16592),

Gene: Koko_89 Start: 47177, Stop: 47019, Start Num: 43
Candidate Starts for Koko_89:
(26, 47378), (33, 47270), (Start: 43 @47177 has 49 MA's), (70, 47102), (75, 47087),

Gene: Koreni_79 Start: 47107, Stop: 46937, Start Num: 44
Candidate Starts for Koreni_79:
(10, 47446), (28, 47269), (31, 47233), (36, 47167), (Start: 44 @47107 has 125 MA's), (56, 47068), (74, 47014), (77, 47002),

Gene: Kratark_79 Start: 47460, Stop: 47290, Start Num: 44
Candidate Starts for Kratark_79:
(10, 47799), (28, 47622), (31, 47586), (36, 47520), (Start: 44 @47460 has 125 MA's), (56, 47421), (74, 47367), (77, 47355),

Gene: Kremtemulon_77 Start: 47306, Stop: 47136, Start Num: 44
Candidate Starts for Kremtemulon_77:
(10, 47645), (28, 47468), (31, 47432), (36, 47366), (Start: 44 @47306 has 125 MA's), (56, 47267), (74, 47213), (77, 47201),

Gene: Kyee_80 Start: 47421, Stop: 47251, Start Num: 44
Candidate Starts for Kyee_80:
(10, 47760), (28, 47583), (31, 47547), (36, 47481), (Start: 44 @47421 has 125 MA's), (56, 47382), (74, 47328), (77, 47316),

Gene: LHTSCC_82 Start: 47866, Stop: 47696, Start Num: 44
Candidate Starts for LHTSCC_82:
(5, 48277), (10, 48205), (28, 48028), (31, 47992), (36, 47926), (Start: 44 @47866 has 125 MA's), (56, 47827), (74, 47773), (77, 47761),

Gene: LRRHood_53 Start: 18386, Stop: 18526, Start Num: 53
Candidate Starts for LRRHood_53:
(Start: 53 @18386 has 182 MA's), (62, 18413), (82, 18515),

Gene: Labradorite_57 Start: 17282, Stop: 17422, Start Num: 53
Candidate Starts for Labradorite_57:
(Start: 53 @17282 has 182 MA's), (82, 17411),

Gene: Landor_78 Start: 47601, Stop: 47461, Start Num: 53
Candidate Starts for Landor_78:
(6, 48036), (9, 47991), (12, 47973), (15, 47949), (21, 47895), (30, 47778), (34, 47721), (37, 47670), (Start: 53 @47601 has 182 MA's), (72, 47544),

Gene: LappelDuVide_80 Start: 47426, Stop: 47256, Start Num: 44
Candidate Starts for LappelDuVide_80:

(7, 47807), (10, 47765), (25, 47630), (28, 47588), (31, 47552), (36, 47486), (Start: 44 @47426 has 125 MA's), (56, 47387), (74, 47333), (77, 47321),

Gene: Latch_56 Start: 17165, Stop: 17305, Start Num: 53
Candidate Starts for Latch_56:
(Start: 53 @17165 has 182 MA's), (62, 17192), (79, 17261), (82, 17294),

Gene: Lee7_55 Start: 17900, Stop: 18040, Start Num: 53
Candidate Starts for Lee7_55:
(Start: 53 @17900 has 182 MA's),

Gene: Lemur_80 Start: 47423, Stop: 47253, Start Num: 44
Candidate Starts for Lemur_80:
(10, 47762), (28, 47585), (31, 47549), (36, 47483), (Start: 44 @47423 has 125 MA's), (56, 47384), (74, 47330), (77, 47318),

Gene: Lethe_56 Start: 18280, Stop: 18420, Start Num: 53
Candidate Starts for Lethe_56:
(Start: 53 @18280 has 182 MA's), (62, 18307), (82, 18409),

Gene: LifeSavor_56 Start: 16884, Stop: 17024, Start Num: 53
Candidate Starts for LifeSavor_56:
(Start: 53 @16884 has 182 MA's), (82, 17013),

Gene: Lilbeanie_10 Start: 4272, Stop: 4433, Start Num: 44
Candidate Starts for Lilbeanie_10:
(Start: 44 @4272 has 125 MA's),

Gene: Lilbunny_87 Start: 46419, Stop: 46261, Start Num: 43
Candidate Starts for Lilbunny_87:
(33, 46512), (Start: 43 @46419 has 49 MA's), (48, 46401), (55, 46386), (70, 46344), (75, 46329), (79, 46299),

Gene: LilhomieP_144 Start: 74263, Stop: 74102, Start Num: 47
Candidate Starts for LilhomieP_144:
(Start: 47 @74263 has 15 MA's), (59, 74227), (69, 74197), (75, 74179), (76, 74173), (84, 74113),

Gene: LinStu_58 Start: 18972, Stop: 19112, Start Num: 53
Candidate Starts for LinStu_58:
(Start: 53 @18972 has 182 MA's), (62, 18999), (82, 19101),

Gene: LittleB_80 Start: 47427, Stop: 47257, Start Num: 44
Candidate Starts for LittleB_80:
(10, 47766), (28, 47589), (31, 47553), (36, 47487), (Start: 44 @47427 has 125 MA's), (56, 47388), (64, 47364), (74, 47334), (77, 47322),

Gene: LittleGuy_80 Start: 47311, Stop: 47141, Start Num: 44
Candidate Starts for LittleGuy_80:
(10, 47650), (28, 47473), (31, 47437), (36, 47371), (Start: 44 @47311 has 125 MA's), (56, 47272), (74, 47218), (77, 47206),

Gene: Littleton_56 Start: 17165, Stop: 17305, Start Num: 53
Candidate Starts for Littleton_56:

(Start: 53 @17165 has 182 MA's), (62, 17192), (79, 17261), (82, 17294),

Gene: Loanshark_57 Start: 18222, Stop: 18362, Start Num: 53
Candidate Starts for Loanshark_57:
(Start: 53 @18222 has 182 MA's),

Gene: LochMonster_81 Start: 47663, Stop: 47493, Start Num: 44
Candidate Starts for LochMonster_81:
(10, 48002), (28, 47825), (31, 47789), (36, 47723), (Start: 44 @47663 has 125 MA's), (56, 47624), (74, 47570), (77, 47558),

Gene: LolaVinca_60 Start: 19380, Stop: 19520, Start Num: 53
Candidate Starts for LolaVinca_60:
(Start: 53 @19380 has 182 MA's), (82, 19509),

Gene: LookingGlass_59 Start: 18658, Stop: 18798, Start Num: 53
Candidate Starts for LookingGlass_59:
(Start: 53 @18658 has 182 MA's), (82, 18787),

Gene: LordLeafolot_63 Start: 19735, Stop: 19875, Start Num: 53
Candidate Starts for LordLeafolot_63:
(Start: 53 @19735 has 182 MA's),

Gene: Lorenzo_80 Start: 47424, Stop: 47254, Start Num: 44
Candidate Starts for Lorenzo_80:
(10, 47763), (28, 47586), (31, 47550), (36, 47484), (Start: 44 @47424 has 125 MA's), (56, 47385), (74, 47331), (77, 47319),

Gene: Lucyedi_84 Start: 48006, Stop: 47845, Start Num: 43
Candidate Starts for Lucyedi_84:
(Start: 43 @48006 has 49 MA's), (70, 47931), (75, 47916), (81, 47868),

Gene: Lukilu_50 Start: 17588, Stop: 17728, Start Num: 53
Candidate Starts for Lukilu_50:
(Start: 53 @17588 has 182 MA's), (62, 17615), (82, 17717),

Gene: Lunareta_54 Start: 18112, Stop: 18252, Start Num: 53
Candidate Starts for Lunareta_54:
(Start: 53 @18112 has 182 MA's),

Gene: Lunsford_80 Start: 47419, Stop: 47249, Start Num: 44
Candidate Starts for Lunsford_80:
(7, 47800), (10, 47758), (25, 47623), (28, 47581), (31, 47545), (36, 47479), (Start: 44 @47419 has 125 MA's), (56, 47380), (74, 47326), (77, 47314),

Gene: Maby2021_57 Start: 17903, Stop: 18043, Start Num: 53
Candidate Starts for Maby2021_57:
(Start: 53 @17903 has 182 MA's),

Gene: Mangeria_60 Start: 19250, Stop: 19390, Start Num: 53
Candidate Starts for Mangeria_60:
(Start: 53 @19250 has 182 MA's), (79, 19346), (82, 19379),

Gene: Matsumoto_55 Start: 17126, Stop: 17266, Start Num: 53
Candidate Starts for Matsumoto_55:
(Start: 53 @17126 has 182 MA's), (82, 17255),

Gene: Maturis_55 Start: 18097, Stop: 18237, Start Num: 53
Candidate Starts for Maturis_55:
(Start: 53 @18097 has 182 MA's),

Gene: Maverick_79 Start: 47423, Stop: 47253, Start Num: 44
Candidate Starts for Maverick_79:
(10, 47762), (28, 47585), (31, 47549), (36, 47483), (Start: 44 @47423 has 125 MA's), (56, 47384), (74, 47330), (77, 47318),

Gene: Maxo_82 Start: 47429, Stop: 47259, Start Num: 44
Candidate Starts for Maxo_82:
(10, 47768), (28, 47591), (31, 47555), (36, 47489), (Start: 44 @47429 has 125 MA's), (56, 47390), (74, 47336), (77, 47324),

Gene: Mazhar510_80 Start: 47424, Stop: 47254, Start Num: 44
Candidate Starts for Mazhar510_80:
(10, 47763), (28, 47586), (31, 47550), (36, 47484), (Start: 44 @47424 has 125 MA's), (56, 47385), (74, 47331), (77, 47319),

Gene: McFly_86 Start: 46659, Stop: 46501, Start Num: 43
Candidate Starts for McFly_86:
(Start: 43 @46659 has 49 MA's), (70, 46584), (75, 46569),

Gene: McGee_55 Start: 16349, Stop: 16489, Start Num: 53
Candidate Starts for McGee_55:
(Start: 53 @16349 has 182 MA's), (62, 16376), (79, 16445), (82, 16478),

Gene: McWolfish_55 Start: 17650, Stop: 17790, Start Num: 53
Candidate Starts for McWolfish_55:
(Start: 53 @17650 has 182 MA's),

Gene: Medusa_79 Start: 47439, Stop: 47269, Start Num: 44
Candidate Starts for Medusa_79:
(10, 47778), (28, 47601), (31, 47565), (36, 47499), (Start: 44 @47439 has 125 MA's), (56, 47400), (74, 47346), (77, 47334),

Gene: MeeZee_79 Start: 47420, Stop: 47250, Start Num: 44
Candidate Starts for MeeZee_79:
(10, 47759), (28, 47582), (31, 47546), (36, 47480), (Start: 44 @47420 has 125 MA's), (56, 47381), (74, 47327), (77, 47315),

Gene: Megamind_56 Start: 17888, Stop: 18028, Start Num: 53
Candidate Starts for Megamind_56:
(Start: 53 @17888 has 182 MA's),

Gene: Melpomini_52 Start: 16576, Stop: 16716, Start Num: 53
Candidate Starts for Melpomini_52:
(Start: 53 @16576 has 182 MA's), (82, 16705),

Gene: Melvin_82 Start: 47421, Stop: 47251, Start Num: 44
Candidate Starts for Melvin_82:
(10, 47760), (28, 47583), (31, 47547), (36, 47481), (Start: 44 @47421 has 125 MA's), (56, 47382), (74, 47328), (77, 47316),

Gene: MikeLiesIn_57 Start: 18235, Stop: 18375, Start Num: 53
Candidate Starts for MikeLiesIn_57:
(Start: 53 @18235 has 182 MA's),

Gene: Mikro_55 Start: 18709, Stop: 18849, Start Num: 53
Candidate Starts for Mikro_55:
(Start: 53 @18709 has 182 MA's),

Gene: Millski_79 Start: 47427, Stop: 47257, Start Num: 44
Candidate Starts for Millski_79:
(10, 47766), (28, 47589), (31, 47553), (36, 47487), (Start: 44 @47427 has 125 MA's), (56, 47388), (74, 47334), (77, 47322),

Gene: MoMoMixon_57 Start: 18317, Stop: 18457, Start Num: 53
Candidate Starts for MoMoMixon_57:
(Start: 53 @18317 has 182 MA's), (62, 18344), (82, 18446),

Gene: Moby_50 Start: 15067, Stop: 15207, Start Num: 53
Candidate Starts for Moby_50:
(1, 14401), (2, 14491), (3, 14512), (Start: 53 @15067 has 182 MA's),

Gene: Moiqah_50 Start: 15067, Stop: 15207, Start Num: 53
Candidate Starts for Moiqah_50:
(1, 14401), (2, 14491), (3, 14512), (Start: 53 @15067 has 182 MA's),

Gene: Momo_55 Start: 17165, Stop: 17305, Start Num: 53
Candidate Starts for Momo_55:
(Start: 53 @17165 has 182 MA's), (62, 17192), (79, 17261), (82, 17294),

Gene: Montpel_54 Start: 18112, Stop: 18252, Start Num: 53
Candidate Starts for Montpel_54:
(Start: 53 @18112 has 182 MA's),

Gene: Morizzled23_59 Start: 18311, Stop: 18451, Start Num: 53
Candidate Starts for Morizzled23_59:
(Start: 53 @18311 has 182 MA's), (82, 18440),

Gene: Morrow_82 Start: 47466, Stop: 47296, Start Num: 44
Candidate Starts for Morrow_82:
(7, 47847), (10, 47805), (25, 47670), (28, 47628), (31, 47592), (36, 47526), (Start: 44 @47466 has 125 MA's), (56, 47427), (74, 47373), (77, 47361),

Gene: Naija_55 Start: 17165, Stop: 17305, Start Num: 53
Candidate Starts for Naija_55:
(Start: 53 @17165 has 182 MA's), (62, 17192), (79, 17261), (82, 17294),

Gene: Napoleon13_54 Start: 16561, Stop: 16701, Start Num: 53
Candidate Starts for Napoleon13_54:

(Start: 53 @16561 has 182 MA's),

Gene: Nappy_59 Start: 18520, Stop: 18660, Start Num: 53
Candidate Starts for Nappy_59:
(Start: 53 @18520 has 182 MA's), (82, 18649),

Gene: Naval22_63 Start: 19245, Stop: 19385, Start Num: 53
Candidate Starts for Naval22_63:
(Start: 53 @19245 has 182 MA's),

Gene: Nebs_81 Start: 47466, Stop: 47296, Start Num: 44
Candidate Starts for Nebs_81:
(10, 47805), (28, 47628), (31, 47592), (36, 47526), (Start: 44 @47466 has 125 MA's), (56, 47427), (74, 47373), (77, 47361),

Gene: NedWong_58 Start: 18222, Stop: 18362, Start Num: 53
Candidate Starts for NedWong_58:
(Start: 53 @18222 has 182 MA's),

Gene: Nedarya_83 Start: 46655, Stop: 46488, Start Num: 44
Candidate Starts for Nedarya_83:
(Start: 44 @46655 has 125 MA's),

Gene: Neeharika16_85 Start: 46409, Stop: 46251, Start Num: 43
Candidate Starts for Neeharika16_85:
(26, 46610), (33, 46502), (Start: 43 @46409 has 49 MA's), (70, 46334), (75, 46319),

Gene: Nemo27_79 Start: 47422, Stop: 47252, Start Num: 44
Candidate Starts for Nemo27_79:
(10, 47761), (28, 47584), (31, 47548), (36, 47482), (Start: 44 @47422 has 125 MA's), (56, 47383), (74, 47329), (77, 47317),

Gene: Newrala_85 Start: 46755, Stop: 46597, Start Num: 43
Candidate Starts for Newrala_85:
(26, 46956), (33, 46848), (Start: 43 @46755 has 49 MA's), (70, 46680), (75, 46665),

Gene: Ngannou_51 Start: 16147, Stop: 16287, Start Num: 53
Candidate Starts for Ngannou_51:
(Start: 53 @16147 has 182 MA's), (62, 16174), (79, 16243), (82, 16276),

Gene: Nidhogg_57 Start: 18073, Stop: 18213, Start Num: 53
Candidate Starts for Nidhogg_57:
(Start: 53 @18073 has 182 MA's), (62, 18100), (82, 18202),

Gene: NoodleTree_57 Start: 18143, Stop: 18283, Start Num: 53
Candidate Starts for NoodleTree_57:
(Start: 53 @18143 has 182 MA's), (62, 18170), (82, 18272),

Gene: Norm_57 Start: 18223, Stop: 18363, Start Num: 53
Candidate Starts for Norm_57:
(Start: 53 @18223 has 182 MA's),

Gene: NorthStar_77 Start: 47426, Stop: 47256, Start Num: 44

Candidate Starts for NorthStar_77:
(10, 47765), (28, 47588), (31, 47552), (36, 47486), (Start: 44 @47426 has 125 MA's), (56, 47387), (74, 47333), (77, 47321),

Gene: NotAPhaseMom_79 Start: 47427, Stop: 47257, Start Num: 44
Candidate Starts for NotAPhaseMom_79:
(10, 47766), (28, 47589), (31, 47553), (36, 47487), (Start: 44 @47427 has 125 MA's), (56, 47388), (74, 47334), (77, 47322),

Gene: NuevoMundo_62 Start: 19221, Stop: 19361, Start Num: 53
Candidate Starts for NuevoMundo_62:
(Start: 53 @19221 has 182 MA's), (82, 19350),

Gene: Nyxis_79 Start: 47305, Stop: 47135, Start Num: 44
Candidate Starts for Nyxis_79:
(10, 47644), (28, 47467), (31, 47431), (36, 47365), (Start: 44 @47305 has 125 MA's), (56, 47266), (74, 47212), (77, 47200),

Gene: OKaNui_79 Start: 47477, Stop: 47307, Start Num: 44
Candidate Starts for OKaNui_79:
(10, 47816), (28, 47639), (31, 47603), (36, 47537), (Start: 44 @47477 has 125 MA's), (56, 47438), (74, 47384), (77, 47372),

Gene: Obama12_81 Start: 47850, Stop: 47680, Start Num: 44
Candidate Starts for Obama12_81:
(5, 48261), (10, 48189), (28, 48012), (31, 47976), (36, 47910), (Start: 44 @47850 has 125 MA's), (56, 47811), (74, 47757), (77, 47745),

Gene: Ohfah_81 Start: 47466, Stop: 47296, Start Num: 44
Candidate Starts for Ohfah_81:
(10, 47805), (28, 47628), (31, 47592), (36, 47526), (Start: 44 @47466 has 125 MA's), (56, 47427), (74, 47373), (77, 47361),

Gene: OrediggerDelux_55 Start: 17904, Stop: 18044, Start Num: 53
Candidate Starts for OrediggerDelux_55:
(Start: 53 @17904 has 182 MA's),

Gene: Palestino_79 Start: 47423, Stop: 47253, Start Num: 44
Candidate Starts for Palestino_79:
(10, 47762), (28, 47585), (31, 47549), (36, 47483), (Start: 44 @47423 has 125 MA's), (56, 47384), (74, 47330), (77, 47318),

Gene: ParkTD_56 Start: 18222, Stop: 18362, Start Num: 53
Candidate Starts for ParkTD_56:
(Start: 53 @18222 has 182 MA's),

Gene: Patter_56 Start: 17182, Stop: 17322, Start Num: 53
Candidate Starts for Patter_56:
(Start: 53 @17182 has 182 MA's), (62, 17209), (79, 17278), (82, 17311),

Gene: Peaches_78 Start: 47425, Stop: 47255, Start Num: 44
Candidate Starts for Peaches_78:

(10, 47764), (28, 47587), (31, 47551), (36, 47485), (Start: 44 @47425 has 125 MA's), (56, 47386), (74, 47332), (77, 47320),

Gene: PegLeg_148 Start: 74147, Stop: 73986, Start Num: 47
Candidate Starts for PegLeg_148:
(Start: 47 @74147 has 15 MA's), (59, 74111), (69, 74081), (75, 74063), (76, 74057), (84, 73997),

Gene: PeterPeter_80 Start: 47420, Stop: 47250, Start Num: 44
Candidate Starts for PeterPeter_80:
(10, 47759), (28, 47582), (31, 47546), (36, 47480), (Start: 44 @47420 has 125 MA's), (56, 47381), (74, 47327), (77, 47315),

Gene: Phabba_14 Start: 5257, Stop: 5442, Start Num: 52
Candidate Starts for Phabba_14:
(Start: 52 @5257 has 1 MA's),

Gene: Phacado_80 Start: 47422, Stop: 47252, Start Num: 44
Candidate Starts for Phacado_80:
(10, 47761), (28, 47584), (31, 47548), (36, 47482), (Start: 44 @47422 has 125 MA's), (56, 47383), (74, 47329), (77, 47317),

Gene: PharkleMinkus_62 Start: 19736, Stop: 19876, Start Num: 53
Candidate Starts for PharkleMinkus_62:
(Start: 53 @19736 has 182 MA's),

Gene: Phighter1804_80 Start: 47487, Stop: 47317, Start Num: 44
Candidate Starts for Phighter1804_80:
(10, 47826), (28, 47649), (31, 47613), (36, 47547), (Start: 44 @47487 has 125 MA's), (56, 47448), (74, 47394), (77, 47382),

Gene: Phlegm_58 Start: 17165, Stop: 17305, Start Num: 53
Candidate Starts for Phlegm_58:
(Start: 53 @17165 has 182 MA's), (62, 17192), (79, 17261), (82, 17294),

Gene: Phontbonne_80 Start: 47321, Stop: 47151, Start Num: 44
Candidate Starts for Phontbonne_80:
(10, 47660), (28, 47483), (31, 47447), (36, 47381), (Start: 44 @47321 has 125 MA's), (56, 47282), (74, 47228), (77, 47216),

Gene: Phox_55 Start: 19068, Stop: 19208, Start Num: 53
Candidate Starts for Phox_55:
(Start: 53 @19068 has 182 MA's), (62, 19095), (82, 19197),

Gene: Phrappuccino_91 Start: 70787, Stop: 70966, Start Num: 39
Candidate Starts for Phrappuccino_91:
(Start: 39 @70787 has 2 MA's), (41, 70799), (58, 70844), (60, 70847), (79, 70922), (81, 70940),

Gene: Phusco_56 Start: 17975, Stop: 18115, Start Num: 53
Candidate Starts for Phusco_56:
(Start: 53 @17975 has 182 MA's), (82, 18104),

Gene: Pier_59 Start: 18039, Stop: 18179, Start Num: 53
Candidate Starts for Pier_59:

(Start: 53 @18039 has 182 MA's), (82, 18168),

Gene: Pinkcreek_49 Start: 16524, Stop: 16664, Start Num: 53
Candidate Starts for Pinkcreek_49:
(Start: 53 @16524 has 182 MA's),

Gene: Pio_61 Start: 19373, Stop: 19513, Start Num: 53
Candidate Starts for Pio_61:
(Start: 53 @19373 has 182 MA's), (82, 19502),

Gene: Pipcraft_76 Start: 47427, Stop: 47257, Start Num: 44
Candidate Starts for Pipcraft_76:
(10, 47766), (28, 47589), (31, 47553), (36, 47487), (Start: 44 @47427 has 125 MA's), (56, 47388), (74, 47334), (77, 47322),

Gene: Pivoine_55 Start: 17165, Stop: 17305, Start Num: 53
Candidate Starts for Pivoine_55:
(Start: 53 @17165 has 182 MA's), (62, 17192), (79, 17261), (82, 17294),

Gene: Pleione_59 Start: 18221, Stop: 18361, Start Num: 53
Candidate Starts for Pleione_59:
(Start: 53 @18221 has 182 MA's),

Gene: Pmask_85 Start: 46956, Stop: 46798, Start Num: 43
Candidate Starts for Pmask_85:
(26, 47157), (33, 47049), (Start: 43 @46956 has 49 MA's), (70, 46881), (75, 46866),

Gene: Polymorphads_81 Start: 47447, Stop: 47277, Start Num: 44
Candidate Starts for Polymorphads_81:
(7, 47828), (10, 47786), (25, 47651), (28, 47609), (31, 47573), (36, 47507), (Start: 44 @47447 has 125 MA's), (56, 47408), (74, 47354), (77, 47342),

Gene: Polyphemus_79 Start: 44728, Stop: 44570, Start Num: 43
Candidate Starts for Polyphemus_79:
(Start: 43 @44728 has 49 MA's), (55, 44695), (70, 44653), (75, 44638),

Gene: Priamo_87 Start: 46200, Stop: 46042, Start Num: 43
Candidate Starts for Priamo_87:
(Start: 43 @46200 has 49 MA's), (55, 46167), (70, 46125), (75, 46110),

Gene: Primadonna_53 Start: 17564, Stop: 17704, Start Num: 53
Candidate Starts for Primadonna_53:
(Start: 53 @17564 has 182 MA's), (82, 17693),

Gene: Pumbaa_80 Start: 47371, Stop: 47201, Start Num: 44
Candidate Starts for Pumbaa_80:
(7, 47752), (10, 47710), (25, 47575), (28, 47533), (31, 47497), (36, 47431), (Start: 44 @47371 has 125 MA's), (56, 47332), (74, 47278), (77, 47266),

Gene: Pupusa_62 Start: 20221, Stop: 20361, Start Num: 53
Candidate Starts for Pupusa_62:
(Start: 53 @20221 has 182 MA's), (62, 20248), (82, 20350),

Gene: PurduePete_56 Start: 17946, Stop: 18086, Start Num: 53
Candidate Starts for PurduePete_56:
(Start: 53 @17946 has 182 MA's),

Gene: QBert_51 Start: 17952, Stop: 18092, Start Num: 53
Candidate Starts for QBert_51:
(Start: 53 @17952 has 182 MA's), (62, 17979), (82, 18081),

Gene: Quasimodo_56 Start: 18183, Stop: 18323, Start Num: 53
Candidate Starts for Quasimodo_56:
(Start: 53 @18183 has 182 MA's), (62, 18210), (79, 18279), (82, 18312),

Gene: Rabinovish_56 Start: 19242, Stop: 19382, Start Num: 53
Candidate Starts for Rabinovish_56:
(Start: 53 @19242 has 182 MA's),

Gene: Rahel_57 Start: 17534, Stop: 17674, Start Num: 53
Candidate Starts for Rahel_57:
(Start: 53 @17534 has 182 MA's), (62, 17561), (82, 17663),

Gene: Ravana_89 Start: 48018, Stop: 47842, Start Num: 44
Candidate Starts for Ravana_89:
(Start: 44 @48018 has 125 MA's), (74, 47931),

Gene: RedWattleHog_148 Start: 102235, Stop: 102399, Start Num: 47
Candidate Starts for RedWattleHog_148:
(32, 102112), (Start: 46 @102229 has 1 MA's), (Start: 47 @102235 has 15 MA's), (51, 102250),

Gene: Relief_79 Start: 47423, Stop: 47253, Start Num: 44
Candidate Starts for Relief_79:
(10, 47762), (28, 47585), (31, 47549), (36, 47483), (Start: 44 @47423 has 125 MA's), (56, 47384), (74, 47330), (77, 47318),

Gene: Remus_87 Start: 46685, Stop: 46509, Start Num: 44
Candidate Starts for Remus_87:
(Start: 44 @46685 has 125 MA's), (74, 46598),

Gene: Rifter_88 Start: 45967, Stop: 45809, Start Num: 43
Candidate Starts for Rifter_88:
(33, 46060), (Start: 43 @45967 has 49 MA's), (70, 45892), (75, 45877),

Gene: Rizal_55 Start: 17139, Stop: 17279, Start Num: 53
Candidate Starts for Rizal_55:
(Start: 53 @17139 has 182 MA's),

Gene: RoMag_51 Start: 17134, Stop: 17274, Start Num: 53
Candidate Starts for RoMag_51:
(Start: 53 @17134 has 182 MA's), (82, 17263),

Gene: Rocha_55 Start: 17167, Stop: 17307, Start Num: 53
Candidate Starts for Rocha_55:
(Start: 53 @17167 has 182 MA's), (82, 17296),

Gene: RockieBear_77 Start: 47425, Stop: 47255, Start Num: 44
Candidate Starts for RockieBear_77:
(10, 47764), (28, 47587), (31, 47551), (36, 47485), (Start: 44 @47425 has 125 MA's), (56, 47386), (64, 47362), (74, 47332), (77, 47320),

Gene: Roksolana_88 Start: 46683, Stop: 46525, Start Num: 43
Candidate Starts for Roksolana_88:
(33, 46776), (Start: 43 @46683 has 49 MA's), (70, 46608), (75, 46593),

Gene: Romney_79 Start: 47423, Stop: 47253, Start Num: 44
Candidate Starts for Romney_79:
(10, 47762), (28, 47585), (31, 47549), (36, 47483), (Start: 44 @47423 has 125 MA's), (56, 47384), (74, 47330), (77, 47318),

Gene: Ronan_51 Start: 15885, Stop: 16025, Start Num: 53
Candidate Starts for Ronan_51:
(Start: 53 @15885 has 182 MA's), (62, 15912), (82, 16014),

Gene: Roosevelt_78 Start: 47428, Stop: 47258, Start Num: 44
Candidate Starts for Roosevelt_78:
(7, 47809), (10, 47767), (25, 47632), (28, 47590), (31, 47554), (36, 47488), (Start: 44 @47428 has 125 MA's), (56, 47389), (74, 47335), (77, 47323),

Gene: Roots515_56 Start: 18020, Stop: 18160, Start Num: 53
Candidate Starts for Roots515_56:
(Start: 53 @18020 has 182 MA's), (82, 18149),

Gene: Rosa24_76 Start: 47454, Stop: 47284, Start Num: 44
Candidate Starts for Rosa24_76:
(10, 47793), (28, 47616), (31, 47580), (36, 47514), (Start: 44 @47454 has 125 MA's), (56, 47415), (74, 47361), (77, 47349),

Gene: Rosalind_85 Start: 46579, Stop: 46403, Start Num: 44
Candidate Starts for Rosalind_85:
(Start: 44 @46579 has 125 MA's), (74, 46492),

Gene: RoseMarie_152 Start: 76872, Stop: 76708, Start Num: 47
Candidate Starts for RoseMarie_152:
(Start: 47 @76872 has 15 MA's), (61, 76833),

Gene: Ruin_80 Start: 47419, Stop: 47249, Start Num: 44
Candidate Starts for Ruin_80:
(10, 47758), (28, 47581), (31, 47545), (36, 47479), (Start: 44 @47419 has 125 MA's), (56, 47380), (74, 47326), (77, 47314),

Gene: SVoro_56 Start: 18216, Stop: 18356, Start Num: 53
Candidate Starts for SVoro_56:
(Start: 53 @18216 has 182 MA's),

Gene: Sabertooth_80 Start: 47431, Stop: 47261, Start Num: 44
Candidate Starts for Sabertooth_80:
(7, 47812), (10, 47770), (28, 47593), (31, 47557), (36, 47491), (Start: 44 @47431 has 125 MA's), (56, 47392), (74, 47338), (77, 47326),

Gene: Saguaro_80 Start: 63591, Stop: 63397, Start Num: 40
Candidate Starts for Saguaro_80:
(Start: 40 @63591 has 6 MA's), (Start: 52 @63552 has 1 MA's), (63, 63525), (73, 63501), (81, 63450), (83, 63432),

Gene: Salacia_59 Start: 18222, Stop: 18362, Start Num: 53
Candidate Starts for Salacia_59:
(Start: 53 @18222 has 182 MA's),

Gene: Sauce_58 Start: 18161, Stop: 18301, Start Num: 53
Candidate Starts for Sauce_58:
(Start: 53 @18161 has 182 MA's), (82, 18290),

Gene: Scamp_80 Start: 47428, Stop: 47258, Start Num: 44
Candidate Starts for Scamp_80:
(10, 47767), (28, 47590), (31, 47554), (36, 47488), (Start: 44 @47428 has 125 MA's), (56, 47389), (74, 47335), (77, 47323),

Gene: ScottMcG_55 Start: 17998, Stop: 18138, Start Num: 53
Candidate Starts for ScottMcG_55:
(Start: 53 @17998 has 182 MA's), (62, 18025), (82, 18127),

Gene: Sebata_59 Start: 19091, Stop: 19231, Start Num: 53
Candidate Starts for Sebata_59:
(Start: 53 @19091 has 182 MA's), (62, 19118), (82, 19220),

Gene: SenorClean_81 Start: 47426, Stop: 47256, Start Num: 44
Candidate Starts for SenorClean_81:
(10, 47765), (28, 47588), (31, 47552), (36, 47486), (Start: 44 @47426 has 125 MA's), (56, 47387), (74, 47333), (77, 47321),

Gene: Settecandela_91 Start: 70787, Stop: 70966, Start Num: 39
Candidate Starts for Settecandela_91:
(Start: 39 @70787 has 2 MA's), (41, 70799), (58, 70844), (60, 70847), (79, 70922), (81, 70940),

Gene: Shaka_78 Start: 47424, Stop: 47254, Start Num: 44
Candidate Starts for Shaka_78:
(7, 47805), (10, 47763), (25, 47628), (28, 47586), (31, 47550), (36, 47484), (Start: 44 @47424 has 125 MA's), (56, 47385), (74, 47331), (77, 47319),

Gene: Shaqnato_51 Start: 16808, Stop: 16948, Start Num: 53
Candidate Starts for Shaqnato_51:
(Start: 53 @16808 has 182 MA's), (62, 16835), (82, 16937),

Gene: Sheen_79 Start: 49954, Stop: 49772, Start Num: 44
Candidate Starts for Sheen_79:
(Start: 44 @49954 has 125 MA's), (71, 49858),

Gene: SheldonCooper_80 Start: 47864, Stop: 47694, Start Num: 44
Candidate Starts for SheldonCooper_80:
(10, 48203), (28, 48026), (31, 47990), (36, 47924), (Start: 44 @47864 has 125 MA's), (56, 47825), (74, 47771), (77, 47759),

Gene: Shelob_59 Start: 19331, Stop: 19471, Start Num: 53
Candidate Starts for Shelob_59:
(Start: 53 @19331 has 182 MA's), (62, 19358), (82, 19460),

Gene: ShiaLabeouf_56 Start: 17602, Stop: 17742, Start Num: 53
Candidate Starts for ShiaLabeouf_56:
(Start: 53 @17602 has 182 MA's), (82, 17731),

Gene: Shifa_50 Start: 17073, Stop: 17213, Start Num: 53
Candidate Starts for Shifa_50:
(Start: 53 @17073 has 182 MA's), (82, 17202),

Gene: Shnickers_56 Start: 17161, Stop: 17301, Start Num: 53
Candidate Starts for Shnickers_56:
(Start: 53 @17161 has 182 MA's), (82, 17290),

Gene: Shrimp_57 Start: 18226, Stop: 18366, Start Num: 53
Candidate Starts for Shrimp_57:
(Start: 53 @18226 has 182 MA's),

Gene: Shygu2_78 Start: 47370, Stop: 47200, Start Num: 44
Candidate Starts for Shygu2_78:
(10, 47709), (28, 47532), (31, 47496), (36, 47430), (Start: 44 @47370 has 125 MA's), (56, 47331), (74, 47277), (77, 47265),

Gene: SilverDipper_57 Start: 17165, Stop: 17305, Start Num: 53
Candidate Starts for SilverDipper_57:
(Start: 53 @17165 has 182 MA's), (62, 17192), (79, 17261), (82, 17294),

Gene: Skinny_151 Start: 75264, Stop: 75103, Start Num: 47
Candidate Starts for Skinny_151:
(Start: 47 @75264 has 15 MA's), (59, 75228), (69, 75198), (75, 75180), (76, 75174), (84, 75114),

Gene: Skipitt_79 Start: 47420, Stop: 47250, Start Num: 44
Candidate Starts for Skipitt_79:
(10, 47759), (28, 47582), (31, 47546), (36, 47480), (Start: 44 @47420 has 125 MA's), (56, 47381), (74, 47327), (77, 47315),

Gene: SlimJimmy_145 Start: 74734, Stop: 74570, Start Num: 47
Candidate Starts for SlimJimmy_145:
(Start: 47 @74734 has 15 MA's), (61, 74695),

Gene: SmallFry_56 Start: 17161, Stop: 17301, Start Num: 53
Candidate Starts for SmallFry_56:
(Start: 53 @17161 has 182 MA's), (62, 17188), (79, 17257), (82, 17290),

Gene: SmellyB_86 Start: 46314, Stop: 46156, Start Num: 43
Candidate Starts for SmellyB_86:
(Start: 43 @46314 has 49 MA's), (55, 46281), (70, 46239), (75, 46224),

Gene: Soups_86 Start: 46474, Stop: 46298, Start Num: 44
Candidate Starts for Soups_86:

(Start: 44 @46474 has 125 MA's), (74, 46387),

Gene: Sparxx_81 Start: 47422, Stop: 47252, Start Num: 44
Candidate Starts for Sparxx_81:
(7, 47803), (10, 47761), (25, 47626), (28, 47584), (31, 47548), (36, 47482), (Start: 44 @47422 has 125 MA's), (56, 47383), (74, 47329), (77, 47317),

Gene: Spec_54 Start: 17305, Stop: 17445, Start Num: 53
Candidate Starts for Spec_54:
(Start: 53 @17305 has 182 MA's), (82, 17434),

Gene: Specks_62 Start: 19814, Stop: 19954, Start Num: 53
Candidate Starts for Specks_62:
(Start: 53 @19814 has 182 MA's), (82, 19943),

Gene: Spino_79 Start: 47426, Stop: 47256, Start Num: 44
Candidate Starts for Spino_79:
(10, 47765), (28, 47588), (31, 47552), (36, 47486), (Start: 44 @47426 has 125 MA's), (56, 47387), (74, 47333), (77, 47321),

Gene: Sprinklers_53 Start: 17133, Stop: 17273, Start Num: 53
Candidate Starts for Sprinklers_53:
(Start: 53 @17133 has 182 MA's), (82, 17262),

Gene: Spud_57 Start: 18537, Stop: 18677, Start Num: 53
Candidate Starts for Spud_57:
(Start: 53 @18537 has 182 MA's),

Gene: SrishMeg2525_56 Start: 17933, Stop: 18073, Start Num: 53
Candidate Starts for SrishMeg2525_56:
(Start: 53 @17933 has 182 MA's),

Gene: Stasia_77 Start: 47383, Stop: 47213, Start Num: 44
Candidate Starts for Stasia_77:
(18, 47662), (27, 47557), (Start: 44 @47383 has 125 MA's), (56, 47344), (66, 47314), (74, 47290), (77, 47278), (79, 47257),

Gene: SteMason_76 Start: 47423, Stop: 47253, Start Num: 44
Candidate Starts for SteMason_76:
(10, 47762), (28, 47585), (31, 47549), (36, 47483), (Start: 44 @47423 has 125 MA's), (56, 47384), (74, 47330), (77, 47318),

Gene: StephanieG_57 Start: 18533, Stop: 18673, Start Num: 53
Candidate Starts for StephanieG_57:
(Start: 53 @18533 has 182 MA's), (82, 18662),

Gene: Stinger_85 Start: 64772, Stop: 64608, Start Num: 40
Candidate Starts for Stinger_85:
(17, 65030), (19, 65009), (22, 64991), (37, 64790), (Start: 40 @64772 has 6 MA's), (68, 64700), (76, 64682),

Gene: Stormageddon_149 Start: 103193, Stop: 103363, Start Num: 46
Candidate Starts for Stormageddon_149:

(32, 103076), (Start: 46 @103193 has 1 MA's), (Start: 47 @103199 has 15 MA's), (51, 103214),

Gene: Strosahl_87 Start: 46685, Stop: 46509, Start Num: 44
Candidate Starts for Strosahl_87:
(Start: 44 @46685 has 125 MA's), (74, 46598),

Gene: Stubby_52 Start: 17855, Stop: 17995, Start Num: 53
Candidate Starts for Stubby_52:
(Start: 53 @17855 has 182 MA's),

Gene: StubbySaigey_56 Start: 16862, Stop: 17002, Start Num: 53
Candidate Starts for StubbySaigey_56:
(Start: 53 @16862 has 182 MA's),

Gene: Substance289_53 Start: 16635, Stop: 16775, Start Num: 53
Candidate Starts for Substance289_53:
(Start: 53 @16635 has 182 MA's), (62, 16662), (79, 16731), (82, 16764),

Gene: Sultana_80 Start: 47423, Stop: 47253, Start Num: 44
Candidate Starts for Sultana_80:
(10, 47762), (28, 47585), (31, 47549), (36, 47483), (Start: 44 @47423 has 125 MA's), (56, 47384), (74, 47330), (77, 47318),

Gene: SuperAwesome_86 Start: 46995, Stop: 46837, Start Num: 43
Candidate Starts for SuperAwesome_86:
(26, 47196), (33, 47088), (Start: 43 @46995 has 49 MA's), (70, 46920), (75, 46905),

Gene: SuperCallie99_82 Start: 46377, Stop: 46219, Start Num: 43
Candidate Starts for SuperCallie99_82:
(Start: 43 @46377 has 49 MA's), (55, 46344), (70, 46302), (75, 46287),

Gene: Tainan_62 Start: 19735, Stop: 19875, Start Num: 53
Candidate Starts for Tainan_62:
(Start: 53 @19735 has 182 MA's),

Gene: Taquarus_79 Start: 47429, Stop: 47259, Start Num: 44
Candidate Starts for Taquarus_79:
(10, 47768), (28, 47591), (31, 47555), (36, 47489), (Start: 44 @47429 has 125 MA's), (56, 47390), (74, 47336), (77, 47324),

Gene: Teardrop_56 Start: 17138, Stop: 17278, Start Num: 53
Candidate Starts for Teardrop_56:
(Start: 53 @17138 has 182 MA's), (82, 17267),

Gene: Temprado_89 Start: 46787, Stop: 46629, Start Num: 43
Candidate Starts for Temprado_89:
(26, 46988), (33, 46880), (Start: 43 @46787 has 49 MA's), (70, 46712), (75, 46697),

Gene: Thanksgivukkah_79 Start: 47424, Stop: 47254, Start Num: 44
Candidate Starts for Thanksgivukkah_79:
(10, 47763), (28, 47586), (31, 47550), (36, 47484), (Start: 44 @47424 has 125 MA's), (56, 47385), (74, 47331), (77, 47319),

Gene: TinaFeyge_78 Start: 47421, Stop: 47251, Start Num: 44
Candidate Starts for TinaFeyge_78:
(7, 47802), (10, 47760), (25, 47625), (28, 47583), (31, 47547), (36, 47481), (Start: 44 @47421 has 125 MA's), (56, 47382), (74, 47328), (77, 47316),

Gene: TinyTim_57 Start: 18222, Stop: 18362, Start Num: 53
Candidate Starts for TinyTim_57:
(Start: 53 @18222 has 182 MA's),

Gene: Tinybot_79 Start: 47453, Stop: 47283, Start Num: 44
Candidate Starts for Tinybot_79:
(5, 47864), (10, 47792), (28, 47615), (31, 47579), (36, 47513), (Start: 44 @47453 has 125 MA's), (56, 47414), (74, 47360), (77, 47348),

Gene: TiroTheta9_79 Start: 47420, Stop: 47250, Start Num: 44
Candidate Starts for TiroTheta9_79:
(7, 47801), (10, 47759), (25, 47624), (28, 47582), (31, 47546), (36, 47480), (Start: 44 @47420 has 125 MA's), (56, 47381), (74, 47327), (77, 47315),

Gene: ToneTone_85 Start: 46347, Stop: 46189, Start Num: 43
Candidate Starts for ToneTone_85:
(33, 46440), (Start: 43 @46347 has 49 MA's), (48, 46329), (55, 46314), (70, 46272), (75, 46257), (79, 46227),

Gene: Tonenili_66 Start: 20565, Stop: 20705, Start Num: 53
Candidate Starts for Tonenili_66:
(Start: 53 @20565 has 182 MA's),

Gene: Toro_80 Start: 50617, Stop: 50435, Start Num: 44
Candidate Starts for Toro_80:
(Start: 44 @50617 has 125 MA's), (71, 50521),

Gene: Tortoise16_54 Start: 17669, Stop: 17809, Start Num: 53
Candidate Starts for Tortoise16_54:
(Start: 53 @17669 has 182 MA's), (82, 17798),

Gene: TpudiCK_148 Start: 73994, Stop: 73830, Start Num: 47
Candidate Starts for TpudiCK_148:
(Start: 47 @73994 has 15 MA's), (61, 73955),

Gene: Trinitium_52 Start: 16623, Stop: 16763, Start Num: 53
Candidate Starts for Trinitium_52:
(Start: 53 @16623 has 182 MA's), (62, 16650), (82, 16752),

Gene: Tristan_76 Start: 47411, Stop: 47271, Start Num: 54
Candidate Starts for Tristan_76:
(45, 47441), (Start: 54 @47411 has 2 MA's), (72, 47354),

Gene: TroyPia_81 Start: 47461, Stop: 47291, Start Num: 44
Candidate Starts for TroyPia_81:
(10, 47800), (28, 47623), (31, 47587), (36, 47521), (Start: 44 @47461 has 125 MA's), (56, 47422), (74, 47368), (77, 47356),

Gene: Tucker_88 Start: 46550, Stop: 46392, Start Num: 43
Candidate Starts for Tucker_88:
(33, 46643), (Start: 43 @46550 has 49 MA's), (48, 46532), (55, 46517), (70, 46475), (75, 46460), (79, 46430),

Gene: Turret_51 Start: 16347, Stop: 16487, Start Num: 53
Candidate Starts for Turret_51:
(Start: 53 @16347 has 182 MA's), (62, 16374), (82, 16476),

Gene: TyDawg_141 Start: 74179, Stop: 74015, Start Num: 47
Candidate Starts for TyDawg_141:
(Start: 47 @74179 has 15 MA's), (61, 74140),

Gene: TygerBlood_80 Start: 47426, Stop: 47256, Start Num: 44
Candidate Starts for TygerBlood_80:
(10, 47765), (28, 47588), (31, 47552), (36, 47486), (Start: 44 @47426 has 125 MA's), (56, 47387), (74, 47333), (77, 47321),

Gene: Tyke_58 Start: 18573, Stop: 18713, Start Num: 53
Candidate Starts for Tyke_58:
(Start: 53 @18573 has 182 MA's), (62, 18600), (79, 18669), (82, 18702),

Gene: Ulysses_79 Start: 47109, Stop: 46939, Start Num: 44
Candidate Starts for Ulysses_79:
(10, 47448), (28, 47271), (31, 47235), (36, 47169), (Start: 44 @47109 has 125 MA's), (56, 47070), (74, 47016), (77, 47004),

Gene: ValleyTerrace_56 Start: 17165, Stop: 17305, Start Num: 53
Candidate Starts for ValleyTerrace_56:
(Start: 53 @17165 has 182 MA's), (62, 17192), (79, 17261), (82, 17294),

Gene: VanLee_156 Start: 79104, Stop: 78949, Start Num: 43
Candidate Starts for VanLee_156:
(Start: 43 @79104 has 49 MA's), (74, 79023),

Gene: VohminGhazi_86 Start: 46315, Stop: 46157, Start Num: 43
Candidate Starts for VohminGhazi_86:
(Start: 43 @46315 has 49 MA's), (55, 46282), (70, 46240), (75, 46225),

Gene: Vortrix_69 Start: 21490, Stop: 21630, Start Num: 53
Candidate Starts for Vortrix_69:
(Start: 53 @21490 has 182 MA's),

Gene: Wally_55 Start: 16778, Stop: 16918, Start Num: 53
Candidate Starts for Wally_55:
(Start: 53 @16778 has 182 MA's),

Gene: Wander_80 Start: 47420, Stop: 47250, Start Num: 44
Candidate Starts for Wander_80:
(10, 47759), (28, 47582), (31, 47546), (36, 47480), (Start: 44 @47420 has 125 MA's), (56, 47381), (74, 47327), (77, 47315),

Gene: Wiks_87 Start: 46418, Stop: 46260, Start Num: 43

Candidate Starts for Wiks_87:
(26, 46619), (33, 46511), (Start: 43 @46418 has 49 MA's), (70, 46343), (75, 46328),

Gene: Wilbur_80 Start: 47423, Stop: 47253, Start Num: 44
Candidate Starts for Wilbur_80:
(10, 47762), (28, 47585), (31, 47549), (36, 47483), (Start: 44 @47423 has 125 MA's), (56, 47384), (74, 47330), (77, 47318),

Gene: Willis_57 Start: 18117, Stop: 18257, Start Num: 53
Candidate Starts for Willis_57:
(Start: 53 @18117 has 182 MA's),

Gene: WorldCup_81 Start: 45926, Stop: 45786, Start Num: 54
Candidate Starts for WorldCup_81:
(Start: 52 @45929 has 1 MA's), (Start: 54 @45926 has 2 MA's),

Gene: WunderPhul_88 Start: 46416, Stop: 46258, Start Num: 43
Candidate Starts for WunderPhul_88:
(33, 46509), (Start: 43 @46416 has 49 MA's), (70, 46341), (75, 46326),

Gene: Xena_76 Start: 47245, Stop: 47075, Start Num: 44
Candidate Starts for Xena_76:
(10, 47584), (28, 47407), (31, 47371), (36, 47305), (Start: 44 @47245 has 125 MA's), (56, 47206), (74, 47152), (76, 47143), (77, 47140),

Gene: Yassified_54 Start: 17645, Stop: 17785, Start Num: 53
Candidate Starts for Yassified_54:
(Start: 53 @17645 has 182 MA's), (62, 17672), (82, 17774),

Gene: YemiJoy2021_57 Start: 17903, Stop: 18043, Start Num: 53
Candidate Starts for YemiJoy2021_57:
(Start: 53 @17903 has 182 MA's),

Gene: YoSam321_80 Start: 47421, Stop: 47251, Start Num: 44
Candidate Starts for YoSam321_80:
(10, 47760), (28, 47583), (31, 47547), (36, 47481), (Start: 44 @47421 has 125 MA's), (56, 47382), (74, 47328), (77, 47316),

Gene: Yokurt_87 Start: 46418, Stop: 46260, Start Num: 43
Candidate Starts for Yokurt_87:
(26, 46619), (33, 46511), (Start: 43 @46418 has 49 MA's), (70, 46343), (75, 46328),

Gene: YoungMoneyMata_56 Start: 16916, Stop: 17056, Start Num: 53
Candidate Starts for YoungMoneyMata_56:
(Start: 53 @16916 has 182 MA's), (62, 16943), (79, 17012), (82, 17045),

Gene: Yucca_57 Start: 18144, Stop: 18284, Start Num: 53
Candidate Starts for Yucca_57:
(Start: 53 @18144 has 182 MA's),

Gene: Zaka_88 Start: 46418, Stop: 46260, Start Num: 43
Candidate Starts for Zaka_88:
(26, 46619), (33, 46511), (Start: 43 @46418 has 49 MA's), (70, 46343), (75, 46328),

Gene: Zalkecks_58 Start: 17907, Stop: 18047, Start Num: 53
Candidate Starts for Zalkecks_58:
(Start: 53 @17907 has 182 MA's),

Gene: Zeenon_59 Start: 18209, Stop: 18349, Start Num: 53
Candidate Starts for Zeenon_59:
(Start: 53 @18209 has 182 MA's),

Gene: Zulu_89 Start: 46796, Stop: 46638, Start Num: 43
Candidate Starts for Zulu_89:
(Start: 43 @46796 has 49 MA's), (55, 46763), (70, 46721), (75, 46706),

Gene: ZygoTaiga_57 Start: 18223, Stop: 18363, Start Num: 53
Candidate Starts for ZygoTaiga_57:
(Start: 53 @18223 has 182 MA's),