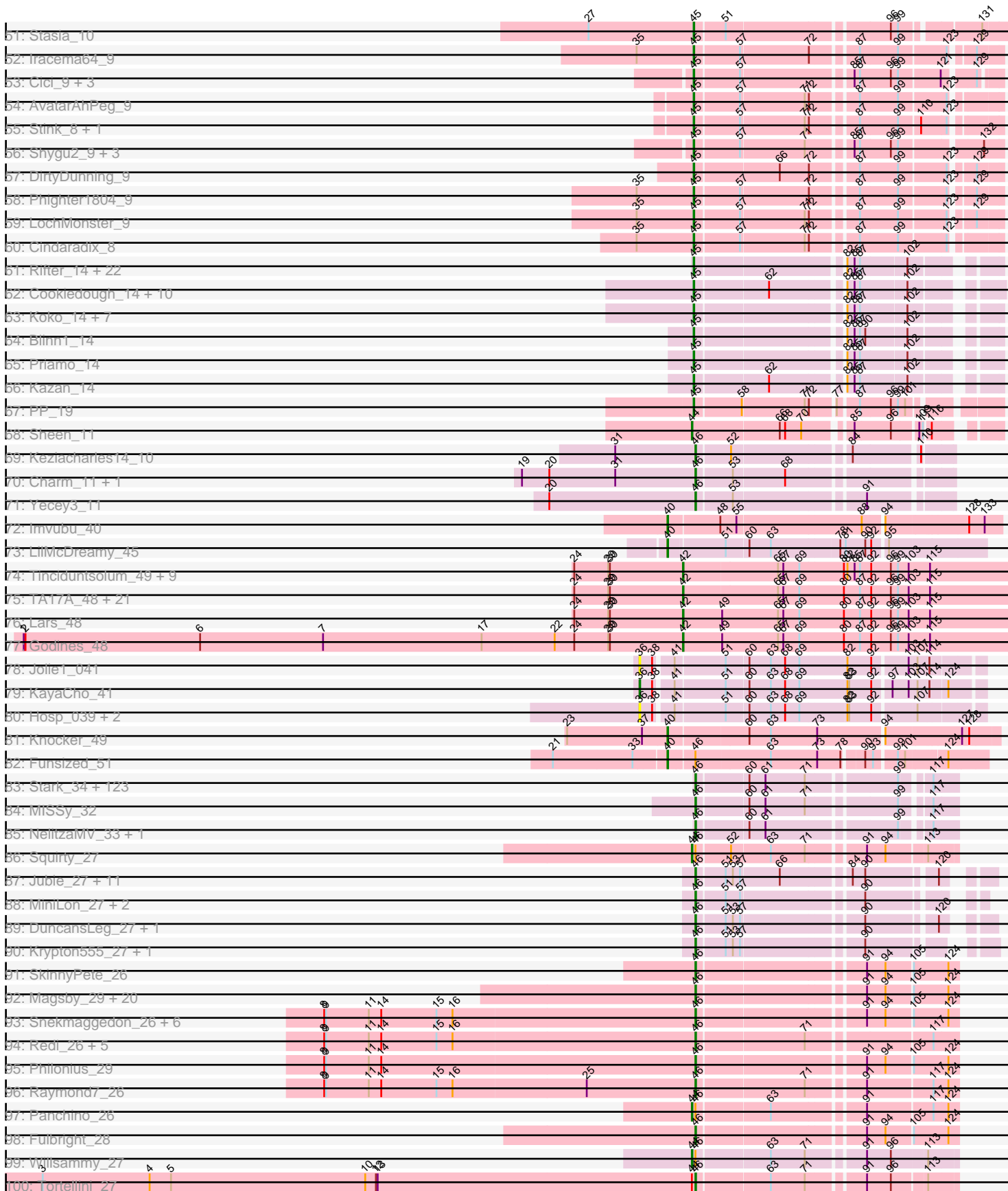


Pham 157469



Pham 157469



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 157469 Report

This analysis was run 04/13/24 on database version 558.

Pham number 157469 has 548 members, 46 are drafts.

Phages represented in each track:

- Track 1 : Chargerpower_11
- Track 2 : Munch_11, Salz_11, Lucivia_11, Et2Brutus_10, MaCh_11, Orange_11, Jabith_11, Flaverint_11, TinyTimmy_10, Petersenfast_10, Bowtie_11, Sham4_11, Bachome_11, Fibonacci_11, Ebony_11, Insomnia_10, Gilberta_11, Timothy_11, Joselito_11, Aneem_11, Mulciber_11, Bud_11, Mabel_11, Hutc2_11, Snape_11
- Track 3 : Phlei_7
- Track 4 : SororFago_10
- Track 5 : Luchador_10
- Track 6 : Gail_10
- Track 7 : Jeeves_10
- Track 8 : QueenBeesly_10, Georgie2_11, SweetiePie_10, Power_10, FiringLine_10, SemperFi_12
- Track 9 : Journey13_8
- Track 10 : Adzzy_12, Ph8s_12, Caraxes_10, Che12_12, Superchunk_10
- Track 11 : WideWale_12, Updawn_12, Equemioh13_12
- Track 12 : GaugeLDP_12
- Track 13 : Jerm_12, LilTurb_12, Turbido_12
- Track 14 : ChipMunk_12
- Track 15 : XianYue_10
- Track 16 : Malec_11, Larenn_11
- Track 17 : HarryHoudini_12, Baehexic_11, Drake55_12
- Track 18 : Dignity_12, AbbyPaige_12, Whabigail7_12, Bugsy_12, Smeagan_12, Leviathan_12, Agape74_12
- Track 19 : Tomathan_13, D32_13, Kerberos_13, D29_11, DBQu4n_13, StarStuff_13, Naji_13, Duplo_13, Pomar16_13
- Track 20 : C3_08, VC3_13, AN9_13, ANI8_13
- Track 21 : Miko_13, Rachaly_13, Lokk_13, BobSwaget_13
- Track 22 : NaSiaTalie_10, Flare16_10
- Track 23 : CRB1_10
- Track 24 : First_0010, 20ES_10
- Track 25 : Deloris_11
- Track 26 : Jsquared_9, Serenity_9
- Track 27 : SwirlSquare_13
- Track 28 : MissWhite_10
- Track 29 : AN3_10, VA6_10, Benvolio_10, Echild_10
- Track 30 : KingCyrus_12
- Track 31 : TarsusIV_10

- Track 32 : Leogania_12, BiancaTri92_12
- Track 33 : BengiVuitton_11
- Track 34 : MiculUcigas_10, Centaur_12
- Track 35 : L5_11, Koduck_10
- Track 36 : JoshKayV_12
- Track 37 : TipsytheTRex_9
- Track 38 : SnapTap_10, Crucio_10
- Track 39 : BabyBack_11
- Track 40 : Odin_10
- Track 41 : Piro94_11
- Track 42 : LadyBird_10
- Track 43 : Anthony_10
- Track 44 : Tinybot_8, Obama12_9, Ulysses_8, LHTSCC_9, Camperdownii_8, SheldonCooper_9, ChampagnePapi_9, Cerulean_9, BangNhom_8
- Track 45 : LittleGuy_9, Nyxis_9, Phontbonne_9
- Track 46 : HamSlice_8, Kampy_9, Jaykayelowell_9, Lorenzo_9, TroyPia_9, Ohfah_9, Funston_9, Sabertooth_9, CentreCat_9, Clarenza_9, Iceman_9, Ruin_9, Connomayer_9, Floean_9, Maxo_9, JoongJeon_9, Phacado_9, Albee_9, Eros_9, Bombshell_9, Maverick_9, LittleB_9, Anyyong_9, BellusTerra_9, Phelipe_9, Peaches_9, ICleared_9, Avle17_9, TiroTheta9_9, LeoAvram_9, Koreni_8, MeeZee_9, OKaNui_9, Millski_9, JetBlade_9, Commander_9, Eagle_8, Mazhar510_9, Relief_9, TygerBlood_9, Gadost_9, NorthStar_9, Baby16_9, Wilbur_9, Eapen_9, Kingmustik0402_9, Holli_9, Pipcraft_9, Polymorphads_9, Melvin_9, Palestino_9, Medusa_9, Eurydice_9, Taquarus_9, YoSam321_9, Citius_9, Sparxx_9, Caelakin_9, Arturo_8, TinaFeyge_9, Kyee_9, Cocoaberry_9, Bartimeaus_9, LappelDuVide_8, Spino_9, Roosevelt_9, Wizard007_9, KFPoly_9, Dhanush_9, Bruiser_9, Blackmoor_9, Scamp_9, Lunsford_9, PeterPeter_9, Houdini22_9, Nemo27_9, BubbleTrouble_9, Broseidon_9, Romney_9, Lemur_9, Noelle_9, Nebs_9, NotAPhaseMom_9, Skipitt_9, Shaka_9, Eris_9, Chaph_9, Alberto7_10, Flux_9, Druantia_9, Thanksgivukkah_9, Morrow_9, Happiness_9, Burger_8, Deano_9, Wander_9, Abdiel_9
- Track 47 : Kratak_9
- Track 48 : Cintron_9, Kremtemulon_8
- Track 49 : Pumbaa_9, Mundrea_9
- Track 50 : Wile_9, PetiteSangsue_9, Katalie136_9, Perplexer_9, Datway_9, Backyardigan_9
- Track 51 : Stasia_10
- Track 52 : Iracema64_9
- Track 53 : Cici_9, Badger_9, Xena_9, Achebe_9
- Track 54 : AvatarAhPeg_9
- Track 55 : Stink_8, Miramae_9
- Track 56 : Shygu2_9, Bumblebee11_9, Morpher26_9, AbbysRanger_9
- Track 57 : DirtyDunning_9
- Track 58 : Phighter1804_9
- Track 59 : LochMonster_9
- Track 60 : Cindaradix_8
- Track 61 : Rifter_14, Wiks_14, Dorothea_13, Hammer_14, CloudWang3_14, VohminGhazi_14, Chartreuse_14, SmellyB_14, Gladiator_14, Blue7_14, DaVinci_14, Yokurt_14, Gruunaga_14, ToneTone_13, WunderPhul_14, Zulu_14, Candra_14, McFly_14, Hoot_14, Jeffabunny_14, Kipper29_14, GreedyLawyer_14, Zaka_14
- Track 62 : Cookiedough_14, Isiphiwo_14, SuperCallie99_14, JewelBug_14, Pmask_14, Jordennis_14, Neeharika16_14, Newrala_14, EricB_14, BABullseye_14, SuperAwesome_14

- Track 63 : Koko_14, Tucker_14, Roksolana_14, Artemis2UCLA_14, Helmet_15, Indra_14, Hexamo_14, Garak_15
- Track 64 : Blinn1_14
- Track 65 : Priamo_14
- Track 66 : Kazan_14
- Track 67 : PP_19
- Track 68 : Sheen_11
- Track 69 : Keziacharles14_10
- Track 70 : Charm_11, DreamTeam1_11
- Track 71 : Yecey3_11
- Track 72 : Imvubu_40
- Track 73 : LilMcDreamy_45
- Track 74 : Tinciduntolum_49, Hedgerow_48, Eaglehorse_48, Ares_48, Qyrzula_45, Glass_48, Kaleb_48, Brownie5_48, Rosebush_47, Arbiter_47
- Track 75 : TA17A_48, Blocker23_48, Boyle_48, MasterPo_48, FrenchFry_48, Bananafish_48, Tres_48, Holeinone_48, Sabella_47, Allegro_48, Lephleur_48, ItsyBitsy1_48, Kheth_48, Phantasmagoria_48, LizLemon_48, Faze9_47, Calamitous_48, Coffee_48, West99_48, Rhinoforte_48, Opia_48, Laurie_47
- Track 76 : Lars_48
- Track 77 : Godines_48
- Track 78 : Jolie1_041
- Track 79 : KayaCho_41
- Track 80 : Hosp_039, 40BC_041, 39HC_041
- Track 81 : Knocker_49
- Track 82 : Funsized_51
- Track 83 : Stark_34, Gemini_36, Harella_32, Maxxinista_34, Elph10_34, Tarkin_35, Moldemort_34, Emmina_34, Gage_35, HuffyPuff_32, Petra64142_35, FireRed_33, StellaBean_33, Rimmer_32, Glexan_31, Kostya_34, Kanye_35, SirDuracell_32, TeardropMSU_32, GoldenSpark_35, Thresher_34, Sassay_32, BaboJay_32, BilboSwaggins_33, 244_35, Nala_33, ChotaBhai_33, Simpliphy_34, Cjw1_33, HanKaySha_34, Lilpickle_32, Argent26_35, Nimrod_33, Rakim_34, MadamMonkfish_33, Dumbo_33, Asriel_32, Manda_34, Myrale_33, Ukulele_33, SophKB_33, Cactus_34, Youngblood_33, Adnama_36, GooberAzure_35, Pat3_32, IHOP_33, Hopey_35, YassJohnny_34, Dusk_32, Miniwave_33, PhatBacter_33, JeTaimé_35, MPhalcon_32, Icee_32, BadStone_32, Saints25_34, Kimchi_35, Stank_36, ShereKhan_35, Bask21_33, Qualification_34, Easy2Say_35, StolenFromERC_35, Contagion_32, Tuco_34, Mindy_33, Hoonter_35, Traaww1_31, Flypotenuse_31, Mosby_32, Lilac_35, Barbarian_32, Sotrice96_33, Amao_33, Eureka_33, Czyszczone1_34, RiverMonster_33, BigBubba_34, AmericanBeauty_36, Terminus_33, Goldilocks_34, Bench_35, Murphy_34, Command613_34, Gator_31, CrystalP_33, Phrux_33, Elite2014_32, Misfit_33, Tomaszewski_32, Goku_33, ChosenOne_33, DoctorDiddles_33, Henry_34, Bruin_33, ABCat_32, Wiggin_36, Xandras_35, Willez_32, DrDrey_34, Paperbeatsrock_35, Holt_34, Phaja_33, Marshmallow_33, TBrady12_35, ShamWow_33, Cookies_33, Balomoji_32, Porky_33, Filch_34, Teaspoon_34, Pumpkin_35, Buck_32, Highbury_34, xkcd_34, NoSleep_34, Lilizi_35, Phaux_32, OrionPax_34, Toto_33, Murica_32, Pharsalus_34, Inca_32
- Track 84 : MISSy_32
- Track 85 : NelitzaMV_33, Daikon_32
- Track 86 : Squirty_27
- Track 87 : Jubie_27, Bellis_27, Lumos_27, Snenia_27, Finnry_27, Nicholas_27, Clautastrophe_27, Moostard_27, Samty_27, Kingsolomon_27, MsGreen_27, Jobypre_27

- Track 88 : MiniLon_27, MiniMac_27, Lolly9_27
- Track 89 : DuncansLeg_27, Ellson_27
- Track 90 : Krypton555_27, Whirlwind_28
- Track 91 : SkinnyPete_26
- Track 92 : Magsby_29, Schnauzer_29, Silvy_29, Xerxes_29, Duplicity_29, Charlie_29, Bosection6_29, Phloss_26, Tapioca_29, Melville_29, Gex_29, Journey_30, Carcharodon_29, Aggie_29, Chewbacca_29, Silvafighter_29, Parmesanjohn_29, Smurph_29, Pipsqueaks_29, Scitech_26, Xeno_28
- Track 93 : Snekmaggedon_26, Andies_26, MichelleMyBell_27, Shweta_26, SpongeBob_26, Rebel_26, Jamie19_26
- Track 94 : Redi_26, Nenae_26, PhancyPhin_26, ShrimpFriedEgg_26, BabeRuth_26, Purgamenstris_26
- Track 95 : Philonius_29
- Track 96 : Raymond7_26
- Track 97 : Panchino_26
- Track 98 : Fulbright_28
- Track 99 : Willsammy_27
- Track 100 : Tortellini_27
- Track 101 : Purky_27
- Track 102 : Mendokysei_27
- Track 103 : ZenTime222_28, RonRayGun_28, Ibrahim_28
- Track 104 : Nairb_28, Bernal13_28, Whitty_28
- Track 105 : Jeon_37, Cepens_37, GodPhather_38, Argie_38
- Track 106 : D12_36, Taptic_37, Megabear_37, PR_37

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

The start number called the most often in the published annotations is 45, it was called in 272 of the 502 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES_10, AN3_10, AN9_13, ANI8_13, AbbyPaige_12, AbbysRanger_9, Abdiel_9, Achebe_9, Agape74_12, Albee_9, Alberto7_10, Aneem_11, Annyong_9, Artemis2UCLA_14, Arturo_8, AvatarAhPeg_9, Avle17_9, BABullseye_14, Baby16_9, BabyBack_11, Bachome_11, Backyardigan_9, Badger_9, Baehexic_11, BangNhom_8, Bartimeaus_9, BellusTerra_9, BengiVuitton_11, Benvolio_10, Bernal13_28, BiancaTri92_12, Blackmoor_9, Blinn1_14, Blue7_14, BobSwaget_13, Bombshell_9, Bowtie_11, Broseidon_9, Bruiser_9, BubbleTrouble_9, Bud_11, Buggy_12, Bumblebee11_9, Burger_8, C3_08, CRB1_10, Caelakin_9, Camperdownii_8, Candra_14, Centaur_12, CentreCat_9, Cerulean_9, ChampagnePapi_9, Chaph_9, Chartreuse_14, ChipMunk_12, Cici_9, Cindaradix_8, Cintron_9, Citius_9, Clarenza_9, CloudWang3_14, Cocoaberry_9, Commander_9, Connomayer_9, Cookiedough_14, Crucio_10, D29_11, D32_13, DBQu4n_13, DaVinci_14, Datway_9, Deano_9, Deloris_11, Dhanush_9, Dignity_12, DirtyDunning_9, Dorothea_13, Drake55_12, Druantia_9, Duplo_13, Eagle_8, Eapen_9, Ebony_11, Echid_10, Equemioh13_12, EricB_14, Eris_9, Eros_9, Et2Brutus_10, Eurydice_9, Fibonacci_11, FiringLine_10, First_0010, Flare16_10, Flaverint_11, Florean_9, Flux_9, Funston_9, Gadost_9, Garak_15, GaugeLDP_12, Georgie2_11, Gilberta_11, Gladiator_14, GreedyLawyer_14, Gruunaga_14, HamSlice_8, Hammer_14, Happiness_9, HarryHoudini_12, Helmet_15, Hexamo_14,

Holli_9, Hoot_14, Houdini22_9, Hutc2_11, ICleared_9, Ibrahim_28, Iceman_9, Indra_14, Insomnia_10, Iracema64_9, Isiphiwo_14, Jabith_11, Jaykayelowell_9, Jeffabunny_14, Jerm_12, JetBlade_9, JewelBug_14, JoongJeon_9, Jordennis_14, Joselito_11, JoshKayV_12, Journey13_8, Jsquared_9, KFPoly_9, Kamy_9, Katalie136_9, Kazan_14, Kerberos_13, KingCyrus_12, Kingmustik0402_9, Kipper29_14, Koduck_10, Koko_14, Koreni_8, Kratak_9, Kremtemulon_8, Kyee_9, L5_11, LHTSCC_9, LadyBird_10, LappelDuVide_8, Larenn_11, Lemur_9, LeoAvram_9, Leogania_12, Leviathan_12, LilTurb_12, LittleB_9, LittleGuy_9, LochMonster_9, Lokk_13, Lorenzo_9, Lucivia_11, Lunsford_9, MaCh_11, Mabel_11, Malec_11, Maverick_9, Maxo_9, Mazhar510_9, McFly_14, Medusa_9, MeeZee_9, Melvin_9, Mendokysei_27, MiculUcigas_10, Miko_13, Millski_9, Miramae_9, MissWhite_10, Morpher26_9, Morrow_9, Mulciber_11, Munch_11, Mundrea_9, NaSiaTalie_10, Nairb_28, Naji_13, Nebs_9, Neeharika16_14, Nemo27_9, Newrala_14, Noelle_9, NorthStar_9, NotAPhaseMom_9, Nyxis_9, OKaNui_9, Obama12_9, Odin_10, Ohfah_9, Orange_11, PP_19, Palestino_9, Peaches_9, Perplexer_9, PeterPeter_9, Petersenfast_10, PetiteSangsue_9, Phacado_9, Phelipe_9, Phighter1804_9, Phontbonne_9, Pipcraft_9, Piro94_11, Pmask_14, Polymorphads_9, Pomar16_13, Power_10, Priamo_14, Pumbaa_9, QueenBeesly_10, Rachaly_13, Relief_9, Rifter_14, Roksolana_14, Romney_9, RonRayGun_28, Roosevelt_9, Ruin_9, Sabertooth_9, Salz_11, Scamp_9, SemperFi_12, Serenity_9, Shaka_9, Sham4_11, SheldonCooper_9, Shygu2_9, Skipitt_9, Smeagan_12, SmellyB_14, SnapTap_10, Snape_11, Sparxx_9, Spino_9, StarStuff_13, Stasia_10, Stink_8, SuperAwesome_14, SuperCallie99_14, SweetiePie_10, Taquarus_9, TarsusIV_10, Thanksgivukkah_9, Timothy_11, TinaFeyge_9, TinyTimmy_10, Tinybot_8, TipsytheTRex_9, TiroTheta9_9, Tomathan_13, ToneTone_13, TroyPia_9, Tucker_14, Turbido_12, TygerBlood_9, Ulysses_8, Updawg_12, VA6_10, VC3_13, VohminGhazi_14, Wander_9, Whabigail7_12, Whitty_28, WideWale_12, Wiks_14, Wilbur_9, Wile_9, Wizard007_9, WunderPhul_14, Xena_9, XianYue_10, YoSam321_9, Yokurt_14, Zaka_14, ZenTime222_28, Zulu_14,

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

-

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

- 244_35, 39HC_041, 40BC_041, ABCat_32, Adnama_36, Adzzy_12, Aggie_29, Allegro_48, Amao_33, AmericanBeauty_36, Andies_26, Anthony_10, Arbiter_47, Ares_48, Argent26_35, Argie_38, Asriel_32, BabeRuth_26, BaboJay_32, BadStone_32, Balomoji_32, Bananafish_48, Barbarian_32, Bask21_33, Bellis_27, Bench_35, BigBubba_34, BilboSwaggins_33, Blocker23_48, Bosection6_29, Boyle_48, Brownie5_48, Bruin_33, Buck_32, Cactus_34, Calamitous_48, Caraxes_10, Carcharodon_29, Cepens_37, Chargerpower_11, Charlie_29, Charm_11, Che12_12, Chewbacca_29, ChosenOne_33, ChotaBhai_33, Cjw1_33, Clautastrophe_27, Coffee_48, Command613_34, Contagion_32, Cookies_33, CrystalP_33, Czystzczon1_34, D12_36, Daikon_32, DoctorDiddles_33, DrDrey_34, DreamTeam1_11, Dumbo_33, DuncansLeg_27, Duplicity_29, Dusk_32, Eaglehorse_48, Easy2Say_35, Elite2014_32, Ellson_27, Elph10_34, Emmina_34, Eureka_33, Faze9_47, Filch_34, Finnry_27, FireRed_33, Flypotenuse_31, FrenchFry_48, Fulbright_28, Funsized_51, Gage_35, Gail_10, Gator_31, Gemini_36, Gex_29, Glass_48, Glexan_31, GodPhather_38, Godines_48, Goku_33, GoldenSpark_35, Goldilocks_34, GooberAzure_35, HanKaySha_34, Harella_32, Hedgerow_48, Henry_34, Highbury_34, Holeinone_48, Holt_34, Hoonter_35, Hopey_35, Hosp_039, HufflyPuff_32, IHOP_33, Icee_32, Imvubu_40, Inca_32,

ItsyBitsy1_48, Jamie19_26, JeTaime_35, Jeeves_10, Jeon_37, Jobypre_27, Jolie1_041, Journey_30, Jubie_27, Kaleb_48, Kanye_35, KayaCho_41, Keziacharles14_10, Kheth_48, Kimchi_35, Kingsolomon_27, Knocker_49, Kostya_34, Krypton555_27, Lars_48, Laurie_47, Lephleur_48, LilMcDreamy_45, Lilac_35, Lilizi_35, Lilpickle_32, LizLemon_48, Lolly9_27, Luchador_10, Lumos_27, MISSy_32, MPhalcon_32, MadamMonkfish_33, Magsby_29, Manda_34, Marshmallow_33, MasterPo_48, Maxxinista_34, Megabear_37, Melville_29, MichelleMyBell_27, Mindy_33, MiniLon_27, MiniMac_27, Miniwave_33, Misfit_33, Moldemort_34, Moostard_27, Mosby_32, MsGreen_27, Murica_32, Murphy_34, Myrale_33, Nala_33, NelitzaMV_33, Nenae_26, Nicholas_27, Nimrod_33, NoSleep_34, Opia_48, OrionPax_34, PR_37, Panchino_26, Paperbeatsrock_35, Parmesanjohn_29, Pat3_32, Petra64142_35, Ph8s_12, Phaja_33, PhancyPhin_26, Phantasmagoria_48, Pharsalus_34, PhatBacter_33, Phaux_32, Philonius_29, Phlei_7, Phloss_26, Phrux_33, Pipsqueaks_29, Porky_33, Pumpkin_35, Purgamenstris_26, Purky_27, Quallification_34, Qyrzula_45, Rakim_34, Raymond7_26, Rebel_26, Redi_26, Rhinoforte_48, Rimmer_32, RiverMonster_33, Rosebush_47, Sabella_47, Saints25_34, Samty_27, Sassay_32, Schnauzer_29, Scitech_26, ShamWow_33, Sheen_11, ShereKhan_35, ShrimpFriedEgg_26, Shweta_26, Silvafighter_29, Silvy_29, Simpliphy_34, SirDuracell_32, SkinnyPete_26, Smurph_29, Snekmaggedon_26, Snenia_27, SophKB_33, SororFago_10, Sotrice96_33, SpongeBob_26, Squirty_27, Stank_36, Stark_34, StellaBean_33, StolenFromERC_35, Superchunk_10, SwirlSquare_13, TA17A_48, TBrady12_35, Tapioca_29, Taptic_37, Tarkin_35, TeardropMSU_32, Teaspoon_34, Terminus_33, Thresher_34, Tinciduntolum_49, Tomaszewski_32, Tortellini_27, Toto_33, Traaww1_31, Tres_48, Tuco_34, Ukulele_33, West99_48, Whirlwind_28, Wiggin_36, Willez_32, Willsammy_27, Xandras_35, Xeno_28, Xerxes_29, YassJohnny_34, Yecey3_11, Youngblood_33, xkcd_34,

Summary by start number:

Start 36:

- Found in 5 of 548 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 502
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 39HC_041 (B6), 40BC_041 (B6), Hosp_039 (B6), Jolie1_041 (B6), KayaCho_41 (B6),

Start 39:

- Found in 8 of 548 (1.5%) of genes in pham
- Manual Annotations of this start: 8 of 502
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Argie_38 (W), Cepens_37 (W), D12_36 (W), GodPhather_38 (W), Jeon_37 (W), Megabear_37 (W), PR_37 (W), Taptic_37 (W),

Start 40:

- Found in 4 of 548 (0.7%) of genes in pham
- Manual Annotations of this start: 4 of 502
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Funsized_51 (B9), Imvubu_40 (B10), Knocker_49 (B9), LilMcDreamy_45 (B12),

Start 42:

- Found in 42 of 548 (7.7%) of genes in pham
- Manual Annotations of this start: 32 of 502
- Called 81.0% of time when present
- Phage (with cluster) where this start called: Allegro_48 (B2), Arbiter_47 (B2), Ares_48 (B2), Bananafish_48 (B2), Blocker23_48 (B2), Boyle_48 (B2), Brownie5_48 (B2), Calamitous_48 (B2), Coffee_48 (B2), Eaglehorse_48 (B2), Faze9_47 (B2), FrenchFry_48 (B2), Glass_48 (B2), Godines_48 (B2), Hedgerow_48 (B2), Holeinone_48 (B2), ItsyBitsy1_48 (B2), Kaleb_48 (B2), Kheth_48 (B2), Lars_48 (B2), Laurie_47 (B2), Lephleur_48 (B2), LizLemon_48 (B2), MasterPo_48 (B2), Opia_48 (B2), Phantasmagoria_48 (B2), Qyrzula_45 (B2), Rhinoforte_48 (B2), Rosebush_47 (B2), Sabella_47 (B2), TA17A_48 (B2), Tinciduntolum_49 (B2), Tres_48 (B2), West99_48 (B2),

Start 44:

- Found in 6 of 548 (1.1%) of genes in pham
- Manual Annotations of this start: 5 of 502
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Panchino_26 (N), Purky_27 (P6), Sheen_11 (A7), Squirty_27 (F3), Willsammy_27 (P1),

Start 45:

- Found in 290 of 548 (52.9%) of genes in pham
- Manual Annotations of this start: 272 of 502
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 20ES_10 (A2), AN3_10 (A2), AN9_13 (A2), AN18_13 (A2), AbbyPaige_12 (A2), AbbysRanger_9 (A4), Abdiel_9 (A4), Achebe_9 (A4), Agape74_12 (A2), Albee_9 (A4), Alberto7_10 (A4), Aneem_11 (A11), Annyong_9 (A4), Artemis2UCLA_14 (A6), Arturo_8 (A4), AvatarAhPeg_9 (A4), Avle17_9 (A4), BABullseye_14 (A6), Baby16_9 (A4), BabyBack_11 (A2), Bachome_11 (A11), Backyardigan_9 (A4), Badger_9 (A4), Baehexic_11 (A2), BangNhom_8 (A4), Bartimeaus_9 (A4), BellusTerra_9 (A4), BengiVuitton_11 (A2), Benvolio_10 (A2), Bernal13_28 (T), BiancaTri92_12 (A2), Blackmoor_9 (A4), Blinn1_14 (A6), Blue7_14 (A6), BobSwaget_13 (A2), Bombshell_9 (A4), Bowtie_11 (A11), Broseidon_9 (A4), Bruiser_9 (A4), BubbleTrouble_9 (A4), Bud_11 (A11), Buggy_12 (A2), Bumblebee11_9 (A4), Burger_8 (A4), C3_08 (A2), CRB1_10 (A2), Caelakin_9 (A4), Camperdownii_8 (A4), Candra_14 (A6), Centaur_12 (A2), CentreCat_9 (A4), Cerulean_9 (A4), ChampagnePapi_9 (A4), Chaph_9 (A4), Chartreuse_14 (A6), ChipMunk_12 (A2), Cici_9 (A4), Cindaradix_8 (A4), Cintron_9 (A4), Citius_9 (A4), Clarenza_9 (A4), CloudWang3_14 (A6), Cocoaberry_9 (A4), Commander_9 (A4), Connomayer_9 (A4), Cookiedough_14 (A6), Crucio_10 (A2), D29_11 (A2), D32_13 (A2), DBQu4n_13 (A2), DaVinci_14 (A6), Datway_9 (A4), Deano_9 (A4), Deloris_11 (A2), Dhanush_9 (A4), Dignity_12 (A2), DirtyDunning_9 (A4), Dorothea_13 (A6), Drake55_12 (A2), Druantia_9 (A4), Duplo_13 (A2), Eagle_8 (A4), Eapen_9 (A4), Ebony_11 (A11), Echild_10 (A2), Equemioh13_12 (A2), EricB_14 (A6), Eris_9 (A4), Eros_9 (A4), Et2Brutus_10 (A11), Eurydice_9 (A4), Fibonacci_11 (A11), FiringLine_10 (A2), First_0010 (A2), Flare16_10 (A2), Flaverint_11 (A11), Florean_9 (A4), Flux_9 (A4), Funston_9 (A4), Gadost_9 (A4), Garak_15 (A6), GaugeLDP_12 (A2), Georgie2_11 (A2), Gilberta_11 (A11), Gladiator_14 (A6), GreedyLawyer_14 (A6), Gruunaga_14 (A6), HamSlice_8 (A4), Hammer_14 (A6), Happiness_9 (A4), HarryHoudini_12 (A2), Helmet_15 (A6), Hexamo_14 (A6), Holli_9 (A4), Hoot_14 (A6), Houdini22_9 (A4), Hutc2_11 (A11), ICleared_9 (A4), Ibrahim_28 (T), Iceman_9 (A4), Indra_14 (A6), Insomnia_10 (A11), Iracema64_9 (A4), Isiphiwo_14 (A6), Jabith_11 (A11), Jaykayelowell_9 (A4),

Jeffabunny_14 (A6), Jerm_12 (A2), JetBlade_9 (A4), JewelBug_14 (A6),
 JoongJeon_9 (A4), Jordennis_14 (A6), Joselito_11 (A11), JoshKayV_12 (A2),
 Journey13_8 (A2), Jsquared_9 (A2), KFPoly_9 (A4), Kampy_9 (A4), Katalie136_9
 (A4), Kazan_14 (A6), Kerberos_13 (A2), KingCyrus_12 (A2), Kingmustik0402_9 (A4),
 Kipper29_14 (A6), Koduck_10 (A2), Koko_14 (A6), Koreni_8 (A4), Kratak_9 (A4),
 Kremtemulon_8 (A4), Kyee_9 (A4), L5_11 (A2), LHTSCC_9 (A4), LadyBird_10 (A2),
 LappelDuVide_8 (A4), Larenn_11 (A2), Lemur_9 (A4), LeoAvram_9 (A4),
 Leogania_12 (A2), Leviathan_12 (A2), LilTurb_12 (A2), LittleB_9 (A4), LittleGuy_9
 (A4), LochMonster_9 (A4), Lokk_13 (A2), Lorenzo_9 (A4), Lucivia_11 (A11),
 Lunsford_9 (A4), MaCh_11 (A11), Mabel_11 (A11), Malec_11 (A2), Maverick_9 (A4),
 Maxo_9 (A4), Mazhar510_9 (A4), McFly_14 (A6), Medusa_9 (A4), MeeZee_9 (A4),
 Melvin_9 (A4), Mendokysei_27 (T), MiculUcigas_10 (A2), Miko_13 (A2), Millski_9
 (A4), Miramae_9 (A4), MissWhite_10 (A2), Morpher26_9 (A4), Morrow_9 (A4),
 Mulciber_11 (A11), Munch_11 (A11), Mundrea_9 (A4), NaSiaTalie_10 (A2), Nairb_28
 (T), Naji_13 (A2), Nebs_9 (A4), Neeharika16_14 (A6), Nemo27_9 (A4), Newrala_14
 (A6), Noelle_9 (A4), NorthStar_9 (A4), NotAPhaseMom_9 (A4), Nyxis_9 (A4),
 OKaNui_9 (A4), Obama12_9 (A4), Odin_10 (A2), Ohfah_9 (A4), Orange_11 (A11),
 PP_19 (A7), Palestino_9 (A4), Peaches_9 (A4), Perplexer_9 (A4), PeterPeter_9 (A4),
 Petersenfast_10 (A11), PetiteSangsue_9 (A4), Phacado_9 (A4), Phelipe_9 (A4),
 Phighter1804_9 (A4), Phontbonne_9 (A4), Pipcraft_9 (A4), Piro94_11 (A2),
 Pmask_14 (A6), Polymorphads_9 (A4), Pomar16_13 (A2), Power_10 (A2),
 Priamo_14 (A6), Pumbaa_9 (A4), QueenBeesly_10 (A2), Rachaly_13 (A2), Relief_9
 (A4), Rifter_14 (A6), Roksolana_14 (A6), Romney_9 (A4), RonRayGun_28 (T),
 Roosevelt_9 (A4), Ruin_9 (A4), Sabertooth_9 (A4), Salz_11 (A11), Scamp_9 (A4),
 SemperFi_12 (A2), Serenity_9 (A2), Shaka_9 (A4), Sham4_11 (A11),
 SheldonCooper_9 (A4), Shygu2_9 (A4), Skipitt_9 (A4), Smeagan_12 (A2),
 SmellyB_14 (A6), SnapTap_10 (A2), Snape_11 (A11), Sparxx_9 (A4), Spino_9 (A4),
 StarStuff_13 (A2), Stasia_10 (A4), Stink_8 (A4), SuperAwesome_14 (A6),
 SuperCallie99_14 (A6), SweetiePie_10 (A2), Taquarus_9 (A4), TarsusIV_10 (A2),
 Thanksgiving_9 (A4), Timothy_11 (A11), TinaFeyge_9 (A4), TinyTimmy_10 (A11),
 Tinybot_8 (A4), TipsytheTRex_9 (A2), TiroTheta9_9 (A4), Tomathan_13 (A2),
 ToneTone_13 (A6), TroyPia_9 (A4), Tucker_14 (A6), Turbido_12 (A2), TygerBlood_9
 (A4), Ulysses_8 (A4), Updawg_12 (A2), VA6_10 (A2), VC3_13 (A2),
 VohminGhazi_14 (A6), Wander_9 (A4), Whabigail7_12 (A2), Whitty_28 (T),
 WideWale_12 (A2), Wiks_14 (A6), Wilbur_9 (A4), Wile_9 (A4), Wizard007_9 (A4),
 WunderPhul_14 (A6), Xena_9 (A4), XianYue_10 (A2), YoSam321_9 (A4), Yokurt_14
 (A6), Zaka_14 (A6), ZenTime222_28 (T), Zulu_14 (A6),

Start 46:

- Found in 208 of 548 (38.0%) of genes in pham
- Manual Annotations of this start: 180 of 502
- Called 97.1% of time when present
- Phage (with cluster) where this start called: 244_35 (E), ABCat_32 (E), Adnama_36 (E), Adzzy_12 (A2), Aggie_29 (N), Amao_33 (E), AmericanBeauty_36 (E), Andies_26 (N), Anthony_10 (A20), Argent26_35 (E), Asriel_32 (E), BabeRuth_26 (N), BaboJay_32 (E), BadStone_32 (E), Balomoji_32 (E), Barbarian_32 (E), Bask21_33 (E), Bellis_27 (L3), Bench_35 (E), BigBubba_34 (E), BilboSwaggins_33 (E), Bosection6_29 (N), Bruin_33 (E), Buck_32 (E), Cactus_34 (E), Caraxes_10 (A2), Carcharodon_29 (N), Chargerpower_11 (A), Charlie_29 (N), Charm_11 (A9), Che12_12 (A2), Chewbacca_29 (N), ChosenOne_33 (E), ChotaBhai_33 (E), Cjw1_33 (E), Clautastrophe_27 (L3), Command613_34 (E), Contagion_32 (E), Cookies_33 (E), CrystalP_33 (E), Czczszczon1_34 (E), Daikon_32 (E), DoctorDiddles_33 (E), DrDrey_34 (E), DreamTeam1_11 (A9), Dumbo_33 (E),

DuncansLeg_27 (L3), Duplicity_29 (N), Dusk_32 (E), Easy2Say_35 (E), Elite2014_32 (E), Ellson_27 (L3), Elph10_34 (E), Emmina_34 (E), Eureka_33 (E), Filch_34 (E), Finnry_27 (L3), FireRed_33 (E), Flypotenuse_31 (E), Fulbright_28 (N), Gage_35 (E), Gail_10 (A14), Gator_31 (E), Gemini_36 (E), Gex_29 (N), Glexan_31 (E), Goku_33 (E), GoldenSpark_35 (E), Goldilocks_34 (E), GooberAzure_35 (E), HankKaySha_34 (E), Harella_32 (E), Henry_34 (E), Highbury_34 (E), Holt_34 (E), Hoonter_35 (E), Hopey_35 (E), HufflyPuff_32 (E), IHOP_33 (E), Icee_32 (E), Inca_32 (E), Jamie19_26 (N), JeTaime_35 (E), Jeeves_10 (A14), Jobypre_27 (L3), Journey_30 (N), Jubie_27 (L3), Kanye_35 (E), Keziacharles14_10 (A9), Kimchi_35 (E), Kingsolomon_27 (L3), Kostya_34 (E), Krypton555_27 (L3), Lilac_35 (E), Lilizi_35 (E), Lilpickle_32 (E), Lolly9_27 (L3), Luchador_10 (A14), Lumos_27 (L3), MISSy_32 (E), MPhalcon_32 (E), MadamMonkfish_33 (E), Magsby_29 (N), Manda_34 (E), Marshmallow_33 (E), Maxxinista_34 (E), Melville_29 (N), MichelleMyBell_27 (N), Mindy_33 (E), MiniLon_27 (L3), MiniMac_27 (L3), Miniwave_33 (E), Misfit_33 (E), Moldemort_34 (E), Moostard_27 (L3), Mosby_32 (E), MsGreen_27 (L3), Murica_32 (E), Murphy_34 (E), Myrale_33 (E), Nala_33 (E), NelitzaMV_33 (E), Nenae_26 (N), Nicholas_27 (L3), Nimrod_33 (E), NoSleep_34 (E), OrionPax_34 (E), Paperbeatsrock_35 (E), Parmesanjohn_29 (N), Pat3_32 (E), Petra64142_35 (E), Ph8s_12 (A2), Phaja_33 (E), PhancyPhin_26 (N), Pharsalus_34 (E), PhatBacter_33 (E), Phaux_32 (E), Philonius_29 (N), Phlei_7 (A13), Phloss_26 (N), Phrux_33 (E), Pipsqueaks_29 (N), Porky_33 (E), Pumpkin_35 (E), Purgamenstris_26 (N), Quallification_34 (E), Rakim_34 (E), Raymond7_26 (N), Rebel_26 (N), Redi_26 (N), Rimmer_32 (E), RiverMonster_33 (E), Saints25_34 (E), Samty_27 (L3), Sassay_32 (E), Schnauzer_29 (N), Scitech_26 (N), ShamWow_33 (E), ShereKhan_35 (E), ShrimpFriedEgg_26 (N), Shweta_26 (N), Silvafighter_29 (N), Silvy_29 (N), Simpliphy_34 (E), SirDuracell_32 (E), SkinnyPete_26 (N), Smurph_29 (N), Snekmaggedon_26 (N), Snenia_27 (L3), SophKB_33 (E), SororFago_10 (A14), Sotrice96_33 (E), SpongeBob_26 (N), Stank_36 (E), Stark_34 (E), StellaBean_33 (E), StolenFromERC_35 (E), Superchunk_10 (A2), SwirlSquare_13 (A2), TBrady12_35 (E), Tapioca_29 (N), Tarkin_35 (E), TeardropMSU_32 (E), Teaspoon_34 (E), Terminus_33 (E), Thresher_34 (E), Tomaszewski_32 (E), Tortellini_27 (P2), Toto_33 (E), Traaww1_31 (E), Tuco_34 (E), Ukulele_33 (E), Whirlwind_28 (L3), Wiggin_36 (E), Willez_32 (E), Xandras_35 (E), Xeno_28 (N), Xerxes_29 (N), YassJohnny_34 (E), Yecey3_11 (A9), Youngblood_33 (E), xkcd_34 (E),

Summary by clusters:

There are 24 clusters represented in this pham: A, B12, B10, P6, A14, A11, A13, A2, A4, A7, A6, A9, P2, P1, E, N, L3, W, A20, F3, B6, B2, B9, T,

Info for manual annotations of cluster A:

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

Info for manual annotations of cluster A11:

- Start number 45 was manually annotated 22 times for cluster A11.

Info for manual annotations of cluster A14:

- Start number 46 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A2:

- Start number 45 was manually annotated 70 times for cluster A2.

- Start number 46 was manually annotated 4 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 46 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A4:

- Start number 45 was manually annotated 133 times for cluster A4.

Info for manual annotations of cluster A6:

- Start number 45 was manually annotated 39 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 44 was manually annotated 1 time for cluster A7.
- Start number 45 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster A9:

- Start number 46 was manually annotated 4 times for cluster A9.

Info for manual annotations of cluster B10:

- Start number 40 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B12:

- Start number 40 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B2:

- Start number 42 was manually annotated 32 times for cluster B2.

Info for manual annotations of cluster B6:

- Start number 36 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B9:

- Start number 40 was manually annotated 2 times for cluster B9.

Info for manual annotations of cluster E:

- Start number 46 was manually annotated 116 times for cluster E.

Info for manual annotations of cluster F3:

- Start number 44 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster L3:

- Start number 46 was manually annotated 16 times for cluster L3.

Info for manual annotations of cluster N:

- Start number 44 was manually annotated 1 time for cluster N.
- Start number 46 was manually annotated 33 times for cluster N.

Info for manual annotations of cluster P1:

- Start number 44 was manually annotated 1 time for cluster P1.

Info for manual annotations of cluster P2:

- Start number 46 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P6:

- Start number 44 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster T:

- Start number 45 was manually annotated 7 times for cluster T.

Info for manual annotations of cluster W:

- Start number 39 was manually annotated 8 times for cluster W.

Gene Information:

Gene: 20ES_10 Start: 5985, Stop: 6446, Start Num: 45

Candidate Starts for 20ES_10:

(26, 5817), (Start: 45 @5985 has 272 MA's), (57, 6054), (72, 6162), (84, 6213), (98, 6285), (99, 6288), (104, 6309),

Gene: 244_35 Start: 31427, Stop: 31810, Start Num: 46

Candidate Starts for 244_35:

(Start: 46 @31427 has 180 MA's), (60, 31505), (61, 31532), (71, 31595), (99, 31730), (117, 31769),

Gene: 39HC_041 Start: 39858, Stop: 40382, Start Num: 36

Candidate Starts for 39HC_041:

(Start: 36 @39858 has 1 MA's), (38, 39879), (41, 39906), (51, 39987), (60, 40023), (63, 40059), (68, 40083), (69, 40104), (82, 40179), (83, 40182), (92, 40218), (107, 40284),

Gene: 40BC_041 Start: 39858, Stop: 40382, Start Num: 36

Candidate Starts for 40BC_041:

(Start: 36 @39858 has 1 MA's), (38, 39879), (41, 39906), (51, 39987), (60, 40023), (63, 40059), (68, 40083), (69, 40104), (82, 40179), (83, 40182), (92, 40218), (107, 40284),

Gene: ABCat_32 Start: 31139, Stop: 31522, Start Num: 46

Candidate Starts for ABCat_32:

(Start: 46 @31139 has 180 MA's), (60, 31217), (61, 31244), (71, 31307), (99, 31442), (117, 31481),

Gene: AN3_10 Start: 5970, Stop: 6431, Start Num: 45

Candidate Starts for AN3_10:

(26, 5799), (Start: 45 @5970 has 272 MA's), (82, 6189), (94, 6252), (101, 6285),

Gene: AN9_13 Start: 6174, Stop: 6599, Start Num: 45

Candidate Starts for AN9_13:

(Start: 45 @6174 has 272 MA's), (82, 6393), (90, 6423),

Gene: ANI8_13 Start: 6174, Stop: 6599, Start Num: 45

Candidate Starts for ANI8_13:

(Start: 45 @6174 has 272 MA's), (82, 6393), (90, 6423),

Gene: AbbyPaige_12 Start: 6436, Stop: 6876, Start Num: 45

Candidate Starts for AbbyPaige_12:

(35, 6349), (Start: 45 @6436 has 272 MA's), (51, 6481), (104, 6760), (111, 6781),

Gene: AbbysRanger_9 Start: 5429, Stop: 5890, Start Num: 45

Candidate Starts for AbbysRanger_9:

(Start: 45 @5429 has 272 MA's), (57, 5498), (71, 5600), (85, 5663), (87, 5672), (96, 5723), (99, 5735), (132, 5858),

Gene: Abdiel_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Abdiel_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Achebe_9 Start: 5429, Stop: 5878, Start Num: 45

Candidate Starts for Achebe_9:

(Start: 45 @5429 has 272 MA's), (57, 5498), (85, 5663), (87, 5672), (96, 5723), (99, 5735), (121, 5801), (129, 5846),

Gene: Adnama_36 Start: 31654, Stop: 32037, Start Num: 46

Candidate Starts for Adnama_36:

(Start: 46 @31654 has 180 MA's), (60, 31732), (61, 31759), (71, 31822), (99, 31957), (117, 31996),

Gene: Adzzy_12 Start: 5846, Stop: 6244, Start Num: 46

Candidate Starts for Adzzy_12:

(Start: 46 @5846 has 180 MA's), (84, 6086), (89, 6104), (100, 6170), (110, 6188),

Gene: Agape74_12 Start: 6436, Stop: 6876, Start Num: 45

Candidate Starts for Agape74_12:

(35, 6349), (Start: 45 @6436 has 272 MA's), (51, 6481), (104, 6760), (111, 6781),

Gene: Aggie_29 Start: 24340, Stop: 24744, Start Num: 46

Candidate Starts for Aggie_29:

(Start: 46 @24340 has 180 MA's), (91, 24598), (94, 24628), (105, 24670), (124, 24727),

Gene: Albee_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Albee_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Alberto7_10 Start: 5725, Stop: 6186, Start Num: 45

Candidate Starts for Alberto7_10:

(Start: 45 @5725 has 272 MA's), (66, 5857), (72, 5902), (75, 5932), (82, 5947), (87, 5968), (98, 6028), (99, 6031),

Gene: Allegro_48 Start: 42310, Stop: 42843, Start Num: 42

Candidate Starts for Allegro_48:

(24, 42127), (29, 42184), (30, 42187), (Start: 42 @42310 has 32 MA's), (65, 42466), (67, 42475), (69, 42499), (80, 42568), (87, 42595), (92, 42613), (96, 42646), (99, 42658), (103, 42676), (115, 42709),

Gene: Amao_33 Start: 30351, Stop: 30734, Start Num: 46

Candidate Starts for Amao_33:

(Start: 46 @30351 has 180 MA's), (60, 30429), (61, 30456), (71, 30519), (99, 30654), (117, 30693),

Gene: AmericanBeauty_36 Start: 31134, Stop: 31517, Start Num: 46

Candidate Starts for AmericanBeauty_36:

(Start: 46 @31134 has 180 MA's), (60, 31212), (61, 31239), (71, 31302), (99, 31437), (117, 31476),

Gene: Andies_26 Start: 23507, Stop: 23911, Start Num: 46

Candidate Starts for Andies_26:

(8, 22886), (9, 22889), (11, 22961), (14, 22982), (15, 23075), (16, 23102), (Start: 46 @23507 has 180 MA's), (91, 23765), (94, 23795), (105, 23837), (124, 23894),

Gene: Aneem_11 Start: 7621, Stop: 8007, Start Num: 45

Candidate Starts for Aneem_11:

(Start: 45 @7621 has 272 MA's), (57, 7690), (90, 7870), (101, 7936),

Gene: Annyong_9 Start: 5421, Stop: 5882, Start Num: 45

Candidate Starts for Annyong_9:

(Start: 45 @5421 has 272 MA's), (66, 5553), (72, 5598), (75, 5628), (82, 5643), (87, 5664), (98, 5724), (99, 5727),

Gene: Anthony_10 Start: 5261, Stop: 5653, Start Num: 46

Candidate Starts for Anthony_10:

(Start: 46 @5261 has 180 MA's), (69, 5414), (84, 5492), (89, 5510), (100, 5576), (126, 5642),

Gene: Arbiter_47 Start: 42384, Stop: 42920, Start Num: 42

Candidate Starts for Arbiter_47:

(24, 42201), (29, 42258), (30, 42261), (Start: 42 @42384 has 32 MA's), (65, 42540), (67, 42549), (69, 42573), (80, 42645), (82, 42651), (85, 42663), (87, 42672), (92, 42690), (96, 42723), (99, 42735), (103, 42753), (115, 42786),

Gene: Ares_48 Start: 42368, Stop: 42904, Start Num: 42

Candidate Starts for Ares_48:

(24, 42185), (29, 42242), (30, 42245), (Start: 42 @42368 has 32 MA's), (65, 42524), (67, 42533), (69, 42557), (80, 42629), (82, 42635), (85, 42647), (87, 42656), (92, 42674), (96, 42707), (99, 42719), (103, 42737), (115, 42770),

Gene: Argent26_35 Start: 31137, Stop: 31520, Start Num: 46

Candidate Starts for Argent26_35:

(Start: 46 @31137 has 180 MA's), (60, 31215), (61, 31242), (71, 31305), (99, 31440), (117, 31479),

Gene: Argie_38 Start: 38017, Stop: 38526, Start Num: 39

Candidate Starts for Argie_38:

(37, 37987), (Start: 39 @38017 has 8 MA's), (54, 38134), (56, 38140), (59, 38149), (60, 38158), (64, 38197), (79, 38308), (82, 38317), (84, 38326), (86, 38335), (93, 38359), (94, 38371), (108, 38422), (115, 38440), (119, 38452),

Gene: Artemis2UCLA_14 Start: 6948, Stop: 7379, Start Num: 45

Candidate Starts for Artemis2UCLA_14:

(Start: 45 @6948 has 272 MA's), (82, 7167), (85, 7179), (87, 7188), (102, 7263),

Gene: Arturo_8 Start: 5531, Stop: 5992, Start Num: 45

Candidate Starts for Arturo_8:

(Start: 45 @5531 has 272 MA's), (66, 5663), (72, 5708), (75, 5738), (82, 5753), (87, 5774), (98, 5834), (99, 5837),

Gene: Asriel_32 Start: 30008, Stop: 30391, Start Num: 46

Candidate Starts for Asriel_32:

(Start: 46 @30008 has 180 MA's), (60, 30086), (61, 30113), (71, 30176), (99, 30311), (117, 30350),

Gene: AvatarAhPeg_9 Start: 5393, Stop: 5845, Start Num: 45

Candidate Starts for AvatarAhPeg_9:

(Start: 45 @5393 has 272 MA's), (57, 5462), (71, 5564), (72, 5570), (87, 5636), (99, 5699), (123, 5774),

Gene: Avle17_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Avle17_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: BABullseye_14 Start: 7065, Stop: 7499, Start Num: 45

Candidate Starts for BABullseye_14:

(Start: 45 @7065 has 272 MA's), (62, 7179), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: BabeRuth_26 Start: 23389, Stop: 23793, Start Num: 46

Candidate Starts for BabeRuth_26:

(8, 22768), (9, 22771), (11, 22843), (14, 22864), (15, 22957), (16, 22984), (Start: 46 @23389 has 180 MA's), (71, 23563), (117, 23752),

Gene: BaboJay_32 Start: 30697, Stop: 31080, Start Num: 46

Candidate Starts for BaboJay_32:

(Start: 46 @30697 has 180 MA's), (60, 30775), (61, 30802), (71, 30865), (99, 31000), (117, 31039),

Gene: Baby16_9 Start: 5429, Stop: 5890, Start Num: 45

Candidate Starts for Baby16_9:

(Start: 45 @5429 has 272 MA's), (66, 5561), (72, 5606), (75, 5636), (82, 5651), (87, 5672), (98, 5732), (99, 5735),

Gene: BabyBack_11 Start: 7641, Stop: 8111, Start Num: 45

Candidate Starts for BabyBack_11:

(26, 7464), (Start: 45 @7641 has 272 MA's), (82, 7860), (85, 7872), (104, 7965),

Gene: Bachome_11 Start: 7618, Stop: 8004, Start Num: 45

Candidate Starts for Bachome_11:

(Start: 45 @7618 has 272 MA's), (57, 7687), (90, 7867), (101, 7933),

Gene: Backyardigan_9 Start: 5429, Stop: 5890, Start Num: 45

Candidate Starts for Backyardigan_9:

(Start: 45 @5429 has 272 MA's), (57, 5498), (85, 5663), (87, 5672), (96, 5723), (99, 5735), (132, 5858),

Gene: BadStone_32 Start: 31139, Stop: 31522, Start Num: 46

Candidate Starts for BadStone_32:

(Start: 46 @31139 has 180 MA's), (60, 31217), (61, 31244), (71, 31307), (99, 31442), (117, 31481),

Gene: Badger_9 Start: 5430, Stop: 5879, Start Num: 45

Candidate Starts for Badger_9:

(Start: 45 @5430 has 272 MA's), (57, 5499), (85, 5664), (87, 5673), (96, 5724), (99, 5736), (121, 5802), (129, 5847),

Gene: Baehexic_11 Start: 6510, Stop: 6947, Start Num: 45

Candidate Starts for Baehexic_11:

(35, 6414), (Start: 45 @6510 has 272 MA's), (51, 6555), (98, 6810), (104, 6834),

Gene: Balomoji_32 Start: 30873, Stop: 31256, Start Num: 46
Candidate Starts for Balomoji_32:
(Start: 46 @30873 has 180 MA's), (60, 30951), (61, 30978), (71, 31041), (99, 31176), (117, 31215),

Gene: Bananafish_48 Start: 42304, Stop: 42837, Start Num: 42
Candidate Starts for Bananafish_48:
(24, 42121), (29, 42178), (30, 42181), (Start: 42 @42304 has 32 MA's), (65, 42460), (67, 42469), (69, 42493), (80, 42562), (87, 42589), (92, 42607), (96, 42640), (99, 42652), (103, 42670), (115, 42703),

Gene: BangNhom_8 Start: 5406, Stop: 5858, Start Num: 45
Candidate Starts for BangNhom_8:
(35, 5313), (Start: 45 @5406 has 272 MA's), (57, 5475), (71, 5577), (72, 5583), (87, 5649), (99, 5712), (123, 5787),

Gene: Barbarian_32 Start: 30008, Stop: 30391, Start Num: 46
Candidate Starts for Barbarian_32:
(Start: 46 @30008 has 180 MA's), (60, 30086), (61, 30113), (71, 30176), (99, 30311), (117, 30350),

Gene: Bartimeaus_9 Start: 5420, Stop: 5881, Start Num: 45
Candidate Starts for Bartimeaus_9:
(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Bask21_33 Start: 30325, Stop: 30708, Start Num: 46
Candidate Starts for Bask21_33:
(Start: 46 @30325 has 180 MA's), (60, 30403), (61, 30430), (71, 30493), (99, 30628), (117, 30667),

Gene: Bellis_27 Start: 26437, Stop: 26853, Start Num: 46
Candidate Starts for Bellis_27:
(Start: 46 @26437 has 180 MA's), (51, 26482), (53, 26494), (57, 26506), (66, 26569), (84, 26668), (90, 26689), (120, 26794),

Gene: BellusTerra_9 Start: 5420, Stop: 5881, Start Num: 45
Candidate Starts for BellusTerra_9:
(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Bench_35 Start: 31007, Stop: 31390, Start Num: 46
Candidate Starts for Bench_35:
(Start: 46 @31007 has 180 MA's), (60, 31085), (61, 31112), (71, 31175), (99, 31310), (117, 31349),

Gene: BengiVuitton_11 Start: 6419, Stop: 6868, Start Num: 45
Candidate Starts for BengiVuitton_11:
(26, 6257), (Start: 45 @6419 has 272 MA's), (82, 6638), (90, 6668), (101, 6734), (111, 6764),

Gene: Benvolio_10 Start: 6083, Stop: 6544, Start Num: 45
Candidate Starts for Benvolio_10:
(26, 5912), (Start: 45 @6083 has 272 MA's), (82, 6302), (94, 6365), (101, 6398),

Gene: Bernal13_28 Start: 25159, Stop: 25599, Start Num: 45
Candidate Starts for Bernal13_28:
(21, 24922), (35, 25063), (Start: 42 @25141 has 32 MA's), (Start: 45 @25159 has 272 MA's), (65, 25288), (72, 25336), (85, 25393), (96, 25453), (99, 25465), (106, 25489), (134, 25579), (135, 25594),

Gene: BiancaTri92_12 Start: 7749, Stop: 8213, Start Num: 45

Candidate Starts for BiancaTri92_12:

(35, 7656), (Start: 45 @7749 has 272 MA's), (57, 7818), (82, 7971), (84, 7980), (98, 8052), (104, 8076),

Gene: BigBubba_34 Start: 30910, Stop: 31293, Start Num: 46

Candidate Starts for BigBubba_34:

(Start: 46 @30910 has 180 MA's), (60, 30988), (61, 31015), (71, 31078), (99, 31213), (117, 31252),

Gene: BilboSwaggins_33 Start: 31147, Stop: 31530, Start Num: 46

Candidate Starts for BilboSwaggins_33:

(Start: 46 @31147 has 180 MA's), (60, 31225), (61, 31252), (71, 31315), (99, 31450), (117, 31489),

Gene: Blackmoor_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Blackmoor_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Blinn1_14 Start: 7098, Stop: 7529, Start Num: 45

Candidate Starts for Blinn1_14:

(Start: 45 @7098 has 272 MA's), (82, 7317), (85, 7329), (87, 7338), (90, 7347), (102, 7413),

Gene: Blocker23_48 Start: 42422, Stop: 42955, Start Num: 42

Candidate Starts for Blocker23_48:

(24, 42239), (29, 42296), (30, 42299), (Start: 42 @42422 has 32 MA's), (65, 42578), (67, 42587), (69, 42611), (80, 42680), (87, 42707), (92, 42725), (96, 42758), (99, 42770), (103, 42788), (115, 42821),

Gene: Blue7_14 Start: 7039, Stop: 7470, Start Num: 45

Candidate Starts for Blue7_14:

(Start: 45 @7039 has 272 MA's), (82, 7258), (85, 7270), (87, 7279), (102, 7354),

Gene: BobSwaget_13 Start: 7689, Stop: 8114, Start Num: 45

Candidate Starts for BobSwaget_13:

(35, 7596), (Start: 45 @7689 has 272 MA's), (51, 7734), (71, 7860), (82, 7908), (90, 7938),

Gene: Bombshell_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Bombshell_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Bosection6_29 Start: 24339, Stop: 24743, Start Num: 46

Candidate Starts for Bosection6_29:

(Start: 46 @24339 has 180 MA's), (91, 24597), (94, 24627), (105, 24669), (124, 24726),

Gene: Bowtie_11 Start: 7621, Stop: 8007, Start Num: 45

Candidate Starts for Bowtie_11:

(Start: 45 @7621 has 272 MA's), (57, 7690), (90, 7870), (101, 7936),

Gene: Boyle_48 Start: 42423, Stop: 42956, Start Num: 42

Candidate Starts for Boyle_48:

(24, 42240), (29, 42297), (30, 42300), (Start: 42 @42423 has 32 MA's), (65, 42579), (67, 42588), (69, 42612), (80, 42681), (87, 42708), (92, 42726), (96, 42759), (99, 42771), (103, 42789), (115, 42822),

Gene: Broseidon_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Broseidon_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Brownie5_48 Start: 42435, Stop: 42971, Start Num: 42

Candidate Starts for Brownie5_48:

(24, 42252), (29, 42309), (30, 42312), (Start: 42 @42435 has 32 MA's), (65, 42591), (67, 42600), (69, 42624), (80, 42696), (82, 42702), (85, 42714), (87, 42723), (92, 42741), (96, 42774), (99, 42786), (103, 42804), (115, 42837),

Gene: Bruin_33 Start: 31167, Stop: 31550, Start Num: 46

Candidate Starts for Bruin_33:

(Start: 46 @31167 has 180 MA's), (60, 31245), (61, 31272), (71, 31335), (99, 31470), (117, 31509),

Gene: Bruiser_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Bruiser_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: BubbleTrouble_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for BubbleTrouble_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Buck_32 Start: 31103, Stop: 31486, Start Num: 46

Candidate Starts for Buck_32:

(Start: 46 @31103 has 180 MA's), (60, 31181), (61, 31208), (71, 31271), (99, 31406), (117, 31445),

Gene: Bud_11 Start: 7627, Stop: 8013, Start Num: 45

Candidate Starts for Bud_11:

(Start: 45 @7627 has 272 MA's), (57, 7696), (90, 7876), (101, 7942),

Gene: Buggy_12 Start: 6435, Stop: 6875, Start Num: 45

Candidate Starts for Buggy_12:

(35, 6348), (Start: 45 @6435 has 272 MA's), (51, 6480), (104, 6759), (111, 6780),

Gene: Bumblebee11_9 Start: 5429, Stop: 5890, Start Num: 45

Candidate Starts for Bumblebee11_9:

(Start: 45 @5429 has 272 MA's), (57, 5498), (71, 5600), (85, 5663), (87, 5672), (96, 5723), (99, 5735), (132, 5858),

Gene: Burger_8 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Burger_8:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: C3_08 Start: 6174, Stop: 6599, Start Num: 45

Candidate Starts for C3_08:

(Start: 45 @6174 has 272 MA's), (82, 6393), (90, 6423),

Gene: CRB1_10 Start: 5971, Stop: 6411, Start Num: 45

Candidate Starts for CRB1_10:

(Start: 45 @5971 has 272 MA's), (51, 6016), (67, 6109), (72, 6148), (98, 6271), (104, 6295),

Gene: Cactus_34 Start: 30358, Stop: 30741, Start Num: 46

Candidate Starts for Cactus_34:

(Start: 46 @30358 has 180 MA's), (60, 30436), (61, 30463), (71, 30526), (99, 30661), (117, 30700),

Gene: Caelakin_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Caelakin_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Calamitous_48 Start: 42309, Stop: 42842, Start Num: 42

Candidate Starts for Calamitous_48:

(24, 42126), (29, 42183), (30, 42186), (Start: 42 @42309 has 32 MA's), (65, 42465), (67, 42474), (69, 42498), (80, 42567), (87, 42594), (92, 42612), (96, 42645), (99, 42657), (103, 42675), (115, 42708),

Gene: Camperdownii_8 Start: 5046, Stop: 5498, Start Num: 45

Candidate Starts for Camperdownii_8:

(35, 4953), (Start: 45 @5046 has 272 MA's), (57, 5115), (71, 5217), (72, 5223), (87, 5289), (99, 5352), (123, 5427),

Gene: Candra_14 Start: 7098, Stop: 7529, Start Num: 45

Candidate Starts for Candra_14:

(Start: 45 @7098 has 272 MA's), (82, 7317), (85, 7329), (87, 7338), (102, 7413),

Gene: Caraxes_10 Start: 5746, Stop: 6141, Start Num: 46

Candidate Starts for Caraxes_10:

(Start: 46 @5746 has 180 MA's), (84, 5986), (89, 6004), (100, 6070), (110, 6088),

Gene: Carcharodon_29 Start: 24339, Stop: 24743, Start Num: 46

Candidate Starts for Carcharodon_29:

(Start: 46 @24339 has 180 MA's), (91, 24597), (94, 24627), (105, 24669), (124, 24726),

Gene: Centaur_12 Start: 6489, Stop: 6926, Start Num: 45

Candidate Starts for Centaur_12:

(35, 6393), (Start: 45 @6489 has 272 MA's), (51, 6534), (98, 6789), (104, 6813),

Gene: CentreCat_9 Start: 5421, Stop: 5882, Start Num: 45

Candidate Starts for CentreCat_9:

(Start: 45 @5421 has 272 MA's), (66, 5553), (72, 5598), (75, 5628), (82, 5643), (87, 5664), (98, 5724), (99, 5727),

Gene: Cepens_37 Start: 37732, Stop: 38241, Start Num: 39

Candidate Starts for Cepens_37:

(37, 37702), (Start: 39 @37732 has 8 MA's), (54, 37849), (56, 37855), (59, 37864), (60, 37873), (64, 37912), (79, 38023), (82, 38032), (84, 38041), (86, 38050), (93, 38074), (94, 38086), (108, 38137), (115, 38155), (119, 38167),

Gene: Cerulean_9 Start: 5407, Stop: 5859, Start Num: 45

Candidate Starts for Cerulean_9:

(35, 5314), (Start: 45 @5407 has 272 MA's), (57, 5476), (71, 5578), (72, 5584), (87, 5650), (99, 5713), (123, 5788),

Gene: ChampagnePapi_9 Start: 5406, Stop: 5858, Start Num: 45
Candidate Starts for ChampagnePapi_9:
(35, 5313), (Start: 45 @5406 has 272 MA's), (57, 5475), (71, 5577), (72, 5583), (87, 5649), (99, 5712),
(123, 5787),

Gene: Chaph_9 Start: 5429, Stop: 5890, Start Num: 45
Candidate Starts for Chaph_9:
(Start: 45 @5429 has 272 MA's), (66, 5561), (72, 5606), (75, 5636), (82, 5651), (87, 5672), (98, 5732),
(99, 5735),

Gene: Chargerpower_11 Start: 6184, Stop: 6570, Start Num: 46
Candidate Starts for Chargerpower_11:
(19, 5893), (20, 5938), (31, 6049), (Start: 46 @6184 has 180 MA's), (71, 6352), (91, 6442), (100,
6502),

Gene: Charlie_29 Start: 24339, Stop: 24743, Start Num: 46
Candidate Starts for Charlie_29:
(Start: 46 @24339 has 180 MA's), (91, 24597), (94, 24627), (105, 24669), (124, 24726),

Gene: Charm_11 Start: 5913, Stop: 6296, Start Num: 46
Candidate Starts for Charm_11:
(19, 5622), (20, 5667), (31, 5778), (Start: 46 @5913 has 180 MA's), (53, 5970), (68, 6054),

Gene: Chartreuse_14 Start: 7012, Stop: 7443, Start Num: 45
Candidate Starts for Chartreuse_14:
(Start: 45 @7012 has 272 MA's), (82, 7231), (85, 7243), (87, 7252), (102, 7327),

Gene: Che12_12 Start: 5840, Stop: 6238, Start Num: 46
Candidate Starts for Che12_12:
(Start: 46 @5840 has 180 MA's), (84, 6080), (89, 6098), (100, 6164), (110, 6182),

Gene: Chewbacca_29 Start: 24339, Stop: 24743, Start Num: 46
Candidate Starts for Chewbacca_29:
(Start: 46 @24339 has 180 MA's), (91, 24597), (94, 24627), (105, 24669), (124, 24726),

Gene: ChipMunk_12 Start: 6373, Stop: 6813, Start Num: 45
Candidate Starts for ChipMunk_12:
(Start: 45 @6373 has 272 MA's), (51, 6418), (98, 6673), (104, 6697), (111, 6718),

Gene: ChosenOne_33 Start: 30355, Stop: 30738, Start Num: 46
Candidate Starts for ChosenOne_33:
(Start: 46 @30355 has 180 MA's), (60, 30433), (61, 30460), (71, 30523), (99, 30658), (117, 30697),

Gene: ChotaBhai_33 Start: 30393, Stop: 30776, Start Num: 46
Candidate Starts for ChotaBhai_33:
(Start: 46 @30393 has 180 MA's), (60, 30471), (61, 30498), (71, 30561), (99, 30696), (117, 30735),

Gene: Cici_9 Start: 5429, Stop: 5878, Start Num: 45
Candidate Starts for Cici_9:
(Start: 45 @5429 has 272 MA's), (57, 5498), (85, 5663), (87, 5672), (96, 5723), (99, 5735), (121,
5801), (129, 5846),

Gene: Cindaradix_8 Start: 5135, Stop: 5587, Start Num: 45

Candidate Starts for Cindaradix_8:

(35, 5042), (Start: 45 @5135 has 272 MA's), (57, 5204), (71, 5306), (72, 5312), (87, 5378), (99, 5441), (123, 5516),

Gene: Cintron_9 Start: 5501, Stop: 5926, Start Num: 45

Candidate Starts for Cintron_9:

(35, 5408), (43, 5486), (Start: 45 @5501 has 272 MA's), (72, 5678), (103, 5825), (112, 5837), (130, 5891),

Gene: Citius_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Citius_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Cjw1_33 Start: 31907, Stop: 32290, Start Num: 46

Candidate Starts for Cjw1_33:

(Start: 46 @31907 has 180 MA's), (60, 31985), (61, 32012), (71, 32075), (99, 32210), (117, 32249),

Gene: Clarenza_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Clarenza_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Clautastrophe_27 Start: 26434, Stop: 26850, Start Num: 46

Candidate Starts for Clautastrophe_27:

(Start: 46 @26434 has 180 MA's), (51, 26479), (53, 26491), (57, 26503), (66, 26566), (84, 26665), (90, 26686), (120, 26791),

Gene: CloudWang3_14 Start: 7043, Stop: 7474, Start Num: 45

Candidate Starts for CloudWang3_14:

(Start: 45 @7043 has 272 MA's), (82, 7262), (85, 7274), (87, 7283), (102, 7358),

Gene: Cocoaberry_9 Start: 5424, Stop: 5885, Start Num: 45

Candidate Starts for Cocoaberry_9:

(Start: 45 @5424 has 272 MA's), (66, 5556), (72, 5601), (75, 5631), (82, 5646), (87, 5667), (98, 5727), (99, 5730),

Gene: Coffee_48 Start: 42412, Stop: 42945, Start Num: 42

Candidate Starts for Coffee_48:

(24, 42229), (29, 42286), (30, 42289), (Start: 42 @42412 has 32 MA's), (65, 42568), (67, 42577), (69, 42601), (80, 42670), (87, 42697), (92, 42715), (96, 42748), (99, 42760), (103, 42778), (115, 42811),

Gene: Command613_34 Start: 31414, Stop: 31797, Start Num: 46

Candidate Starts for Command613_34:

(Start: 46 @31414 has 180 MA's), (60, 31492), (61, 31519), (71, 31582), (99, 31717), (117, 31756),

Gene: Commander_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Commander_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Connomayer_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Connomayer_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Contagion_32 Start: 30651, Stop: 31034, Start Num: 46

Candidate Starts for Contagion_32:

(Start: 46 @30651 has 180 MA's), (60, 30729), (61, 30756), (71, 30819), (99, 30954), (117, 30993),

Gene: Cookiedough_14 Start: 7065, Stop: 7499, Start Num: 45

Candidate Starts for Cookiedough_14:

(Start: 45 @7065 has 272 MA's), (62, 7179), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: Cookies_33 Start: 31016, Stop: 31399, Start Num: 46

Candidate Starts for Cookies_33:

(Start: 46 @31016 has 180 MA's), (60, 31094), (61, 31121), (71, 31184), (99, 31319), (117, 31358),

Gene: Crucio_10 Start: 5938, Stop: 6375, Start Num: 45

Candidate Starts for Crucio_10:

(35, 5842), (Start: 45 @5938 has 272 MA's), (52, 5992), (72, 6115), (82, 6157), (87, 6178), (99, 6241), (117, 6283), (123, 6304),

Gene: CrystalP_33 Start: 31147, Stop: 31530, Start Num: 46

Candidate Starts for CrystalP_33:

(Start: 46 @31147 has 180 MA's), (60, 31225), (61, 31252), (71, 31315), (99, 31450), (117, 31489),

Gene: Czyszczone1_34 Start: 30892, Stop: 31275, Start Num: 46

Candidate Starts for Czyszczone1_34:

(Start: 46 @30892 has 180 MA's), (60, 30970), (61, 30997), (71, 31060), (99, 31195), (117, 31234),

Gene: D12_36 Start: 38280, Stop: 38789, Start Num: 39

Candidate Starts for D12_36:

(32, 38253), (34, 38262), (Start: 39 @38280 has 8 MA's), (54, 38397), (56, 38403), (59, 38412), (60, 38421), (64, 38460), (79, 38571), (82, 38580), (84, 38589), (86, 38598), (93, 38622), (94, 38634), (108, 38685), (115, 38703), (119, 38715),

Gene: D29_11 Start: 6175, Stop: 6600, Start Num: 45

Candidate Starts for D29_11:

(Start: 45 @6175 has 272 MA's), (82, 6394), (90, 6424),

Gene: D32_13 Start: 6175, Stop: 6600, Start Num: 45

Candidate Starts for D32_13:

(Start: 45 @6175 has 272 MA's), (82, 6394), (90, 6424),

Gene: DBQu4n_13 Start: 6175, Stop: 6600, Start Num: 45

Candidate Starts for DBQu4n_13:

(Start: 45 @6175 has 272 MA's), (82, 6394), (90, 6424),

Gene: DaVinci_14 Start: 7066, Stop: 7497, Start Num: 45

Candidate Starts for DaVinci_14:

(Start: 45 @7066 has 272 MA's), (82, 7285), (85, 7297), (87, 7306), (102, 7381),

Gene: Daikon_32 Start: 30885, Stop: 31268, Start Num: 46

Candidate Starts for Daikon_32:

(Start: 46 @30885 has 180 MA's), (60, 30963), (61, 30990), (99, 31188), (117, 31227),

Gene: Datway_9 Start: 5429, Stop: 5890, Start Num: 45

Candidate Starts for Datway_9:

(Start: 45 @5429 has 272 MA's), (57, 5498), (85, 5663), (87, 5672), (96, 5723), (99, 5735), (132, 5858),

Gene: Deano_9 Start: 5426, Stop: 5887, Start Num: 45

Candidate Starts for Deano_9:

(Start: 45 @5426 has 272 MA's), (66, 5558), (72, 5603), (75, 5633), (82, 5648), (87, 5669), (98, 5729), (99, 5732),

Gene: Deloris_11 Start: 6419, Stop: 6868, Start Num: 45

Candidate Starts for Deloris_11:

(Start: 45 @6419 has 272 MA's), (82, 6638), (90, 6668), (101, 6734), (111, 6764),

Gene: Dhanush_9 Start: 5423, Stop: 5884, Start Num: 45

Candidate Starts for Dhanush_9:

(Start: 45 @5423 has 272 MA's), (66, 5555), (72, 5600), (75, 5630), (82, 5645), (87, 5666), (98, 5726), (99, 5729),

Gene: Dignity_12 Start: 6380, Stop: 6820, Start Num: 45

Candidate Starts for Dignity_12:

(35, 6293), (Start: 45 @6380 has 272 MA's), (51, 6425), (104, 6704), (111, 6725),

Gene: DirtyDunning_9 Start: 5425, Stop: 5877, Start Num: 45

Candidate Starts for DirtyDunning_9:

(Start: 45 @5425 has 272 MA's), (66, 5557), (72, 5602), (87, 5668), (99, 5731), (123, 5806), (129, 5836),

Gene: DoctorDiddles_33 Start: 30309, Stop: 30692, Start Num: 46

Candidate Starts for DoctorDiddles_33:

(Start: 46 @30309 has 180 MA's), (60, 30387), (61, 30414), (71, 30477), (99, 30612), (117, 30651),

Gene: Dorothea_13 Start: 7065, Stop: 7496, Start Num: 45

Candidate Starts for Dorothea_13:

(Start: 45 @7065 has 272 MA's), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: DrDrey_34 Start: 31639, Stop: 32022, Start Num: 46

Candidate Starts for DrDrey_34:

(Start: 46 @31639 has 180 MA's), (60, 31717), (61, 31744), (71, 31807), (99, 31942), (117, 31981),

Gene: Drake55_12 Start: 6506, Stop: 6943, Start Num: 45

Candidate Starts for Drake55_12:

(35, 6410), (Start: 45 @6506 has 272 MA's), (51, 6551), (98, 6806), (104, 6830),

Gene: DreamTeam1_11 Start: 5913, Stop: 6296, Start Num: 46

Candidate Starts for DreamTeam1_11:

(19, 5622), (20, 5667), (31, 5778), (Start: 46 @5913 has 180 MA's), (53, 5970), (68, 6054),

Gene: Druantia_9 Start: 5421, Stop: 5882, Start Num: 45

Candidate Starts for Druantia_9:

(Start: 45 @5421 has 272 MA's), (66, 5553), (72, 5598), (75, 5628), (82, 5643), (87, 5664), (98, 5724), (99, 5727),

Gene: Dumbo_33 Start: 30614, Stop: 30997, Start Num: 46

Candidate Starts for Dumbo_33:

(Start: 46 @30614 has 180 MA's), (60, 30692), (61, 30719), (71, 30782), (99, 30917), (117, 30956),

Gene: DuncansLeg_27 Start: 26417, Stop: 26833, Start Num: 46

Candidate Starts for DuncansLeg_27:

(Start: 46 @26417 has 180 MA's), (51, 26462), (53, 26474), (57, 26486), (90, 26669), (120, 26774),

Gene: Duplicity_29 Start: 24339, Stop: 24743, Start Num: 46

Candidate Starts for Duplicity_29:

(Start: 46 @24339 has 180 MA's), (91, 24597), (94, 24627), (105, 24669), (124, 24726),

Gene: Duplo_13 Start: 6216, Stop: 6641, Start Num: 45

Candidate Starts for Duplo_13:

(Start: 45 @6216 has 272 MA's), (82, 6435), (90, 6465),

Gene: Dusk_32 Start: 30799, Stop: 31182, Start Num: 46

Candidate Starts for Dusk_32:

(Start: 46 @30799 has 180 MA's), (60, 30877), (61, 30904), (71, 30967), (99, 31102), (117, 31141),

Gene: Eagle_8 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Eagle_8:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Eaglehorse_48 Start: 42336, Stop: 42872, Start Num: 42

Candidate Starts for Eaglehorse_48:

(24, 42153), (29, 42210), (30, 42213), (Start: 42 @42336 has 32 MA's), (65, 42492), (67, 42501), (69, 42525), (80, 42597), (82, 42603), (85, 42615), (87, 42624), (92, 42642), (96, 42675), (99, 42687), (103, 42705), (115, 42738),

Gene: Eapen_9 Start: 5422, Stop: 5883, Start Num: 45

Candidate Starts for Eapen_9:

(Start: 45 @5422 has 272 MA's), (66, 5554), (72, 5599), (75, 5629), (82, 5644), (87, 5665), (98, 5725), (99, 5728),

Gene: Easy2Say_35 Start: 32397, Stop: 32780, Start Num: 46

Candidate Starts for Easy2Say_35:

(Start: 46 @32397 has 180 MA's), (60, 32475), (61, 32502), (71, 32565), (99, 32700), (117, 32739),

Gene: Ebony_11 Start: 7679, Stop: 8065, Start Num: 45

Candidate Starts for Ebony_11:

(Start: 45 @7679 has 272 MA's), (57, 7748), (90, 7928), (101, 7994),

Gene: Echild_10 Start: 6083, Stop: 6544, Start Num: 45

Candidate Starts for Echild_10:

(26, 5912), (Start: 45 @6083 has 272 MA's), (82, 6302), (94, 6365), (101, 6398),

Gene: Elite2014_32 Start: 30354, Stop: 30737, Start Num: 46

Candidate Starts for Elite2014_32:

(Start: 46 @30354 has 180 MA's), (60, 30432), (61, 30459), (71, 30522), (99, 30657), (117, 30696),

Gene: Ellson_27 Start: 26404, Stop: 26820, Start Num: 46

Candidate Starts for Ellson_27:

(Start: 46 @26404 has 180 MA's), (51, 26449), (53, 26461), (57, 26473), (90, 26656), (120, 26761),

Gene: Elph10_34 Start: 30617, Stop: 31000, Start Num: 46

Candidate Starts for Elph10_34:

(Start: 46 @30617 has 180 MA's), (60, 30695), (61, 30722), (71, 30785), (99, 30920), (117, 30959),

Gene: Emmina_34 Start: 30975, Stop: 31358, Start Num: 46

Candidate Starts for Emmina_34:

(Start: 46 @30975 has 180 MA's), (60, 31053), (61, 31080), (71, 31143), (99, 31278), (117, 31317),

Gene: Equemioh13_12 Start: 6492, Stop: 6929, Start Num: 45

Candidate Starts for Equemioh13_12:

(35, 6396), (Start: 45 @6492 has 272 MA's), (51, 6537), (98, 6792), (104, 6816),

Gene: EricB_14 Start: 7066, Stop: 7500, Start Num: 45

Candidate Starts for EricB_14:

(Start: 45 @7066 has 272 MA's), (62, 7180), (82, 7285), (85, 7297), (87, 7306), (102, 7381),

Gene: Eris_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Eris_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Eros_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Eros_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Et2Brutus_10 Start: 7624, Stop: 8010, Start Num: 45

Candidate Starts for Et2Brutus_10:

(Start: 45 @7624 has 272 MA's), (57, 7693), (90, 7873), (101, 7939),

Gene: Eureka_33 Start: 31130, Stop: 31513, Start Num: 46

Candidate Starts for Eureka_33:

(Start: 46 @31130 has 180 MA's), (60, 31208), (61, 31235), (71, 31298), (99, 31433), (117, 31472),

Gene: Eurydice_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Eurydice_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Faze9_47 Start: 42432, Stop: 42965, Start Num: 42

Candidate Starts for Faze9_47:

(24, 42249), (29, 42306), (30, 42309), (Start: 42 @42432 has 32 MA's), (65, 42588), (67, 42597), (69, 42621), (80, 42690), (87, 42717), (92, 42735), (96, 42768), (99, 42780), (103, 42798), (115, 42831),

Gene: Fibonacci_11 Start: 7624, Stop: 8010, Start Num: 45

Candidate Starts for Fibonacci_11:

(Start: 45 @7624 has 272 MA's), (57, 7693), (90, 7873), (101, 7939),

Gene: Filch_34 Start: 30905, Stop: 31288, Start Num: 46

Candidate Starts for Filch_34:

(Start: 46 @30905 has 180 MA's), (60, 30983), (61, 31010), (71, 31073), (99, 31208), (117, 31247),

Gene: Finnry_27 Start: 26438, Stop: 26854, Start Num: 46

Candidate Starts for Finnry_27:

(Start: 46 @26438 has 180 MA's), (51, 26483), (53, 26495), (57, 26507), (66, 26570), (84, 26669), (90, 26690), (120, 26795),

Gene: FireRed_33 Start: 31175, Stop: 31558, Start Num: 46

Candidate Starts for FireRed_33:

(Start: 46 @31175 has 180 MA's), (60, 31253), (61, 31280), (71, 31343), (99, 31478), (117, 31517),

Gene: FiringLine_10 Start: 5938, Stop: 6375, Start Num: 45

Candidate Starts for FiringLine_10:

(35, 5842), (Start: 45 @5938 has 272 MA's), (52, 5992), (72, 6115), (82, 6157), (87, 6178), (99, 6241), (117, 6283), (123, 6304),

Gene: First_0010 Start: 5985, Stop: 6446, Start Num: 45

Candidate Starts for First_0010:

(26, 5817), (Start: 45 @5985 has 272 MA's), (57, 6054), (72, 6162), (84, 6213), (98, 6285), (99, 6288), (104, 6309),

Gene: Flare16_10 Start: 6050, Stop: 6487, Start Num: 45

Candidate Starts for Flare16_10:

(35, 5954), (Start: 45 @6050 has 272 MA's), (51, 6095), (72, 6227), (98, 6350), (104, 6374),

Gene: Flaverint_11 Start: 7621, Stop: 8007, Start Num: 45

Candidate Starts for Flaverint_11:

(Start: 45 @7621 has 272 MA's), (57, 7690), (90, 7870), (101, 7936),

Gene: Florean_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Florean_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Flux_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Flux_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Flypotenuse_31 Start: 30743, Stop: 31126, Start Num: 46

Candidate Starts for Flypotenuse_31:

(Start: 46 @30743 has 180 MA's), (60, 30821), (61, 30848), (71, 30911), (99, 31046), (117, 31085),

Gene: FrenchFry_48 Start: 42426, Stop: 42959, Start Num: 42

Candidate Starts for FrenchFry_48:

(24, 42243), (29, 42300), (30, 42303), (Start: 42 @42426 has 32 MA's), (65, 42582), (67, 42591), (69, 42615), (80, 42684), (87, 42711), (92, 42729), (96, 42762), (99, 42774), (103, 42792), (115, 42825),

Gene: Fulbright_28 Start: 24162, Stop: 24566, Start Num: 46

Candidate Starts for Fulbright_28:

(Start: 46 @24162 has 180 MA's), (91, 24420), (94, 24450), (105, 24492), (124, 24549),

Gene: Funsized_51 Start: 44809, Stop: 45291, Start Num: 40

Candidate Starts for Funsized_51:

(21, 44626), (33, 44758), (Start: 40 @44809 has 4 MA's), (Start: 46 @44848 has 180 MA's), (63, 44971), (73, 45043), (78, 45082), (90, 45112), (93, 45124), (99, 45157), (101, 45169), (124, 45229),

Gene: Funston_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Funston_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Gadost_9 Start: 5424, Stop: 5885, Start Num: 45

Candidate Starts for Gadost_9:

(Start: 45 @5424 has 272 MA's), (66, 5556), (72, 5601), (75, 5631), (82, 5646), (87, 5667), (98, 5727), (99, 5730),

Gene: Gage_35 Start: 31137, Stop: 31520, Start Num: 46

Candidate Starts for Gage_35:

(Start: 46 @31137 has 180 MA's), (60, 31215), (61, 31242), (71, 31305), (99, 31440), (117, 31479),

Gene: Gail_10 Start: 6144, Stop: 6530, Start Num: 46

Candidate Starts for Gail_10:

(19, 5856), (28, 5970), (Start: 46 @6144 has 180 MA's), (71, 6312), (82, 6369), (89, 6396), (91, 6402), (100, 6462),

Gene: Garak_15 Start: 7065, Stop: 7496, Start Num: 45

Candidate Starts for Garak_15:

(Start: 45 @7065 has 272 MA's), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: Gator_31 Start: 30755, Stop: 31138, Start Num: 46

Candidate Starts for Gator_31:

(Start: 46 @30755 has 180 MA's), (60, 30833), (61, 30860), (71, 30923), (99, 31058), (117, 31097),

Gene: GaugeLDP_12 Start: 7318, Stop: 7788, Start Num: 45

Candidate Starts for GaugeLDP_12:

(35, 7225), (Start: 42 @7303 has 32 MA's), (Start: 45 @7318 has 272 MA's), (47, 7330), (71, 7489), (72, 7495), (82, 7537), (85, 7549), (104, 7642),

Gene: Gemini_36 Start: 31654, Stop: 32037, Start Num: 46

Candidate Starts for Gemini_36:

(Start: 46 @31654 has 180 MA's), (60, 31732), (61, 31759), (71, 31822), (99, 31957), (117, 31996),

Gene: Georgie2_11 Start: 5939, Stop: 6376, Start Num: 45

Candidate Starts for Georgie2_11:

(35, 5843), (Start: 45 @5939 has 272 MA's), (52, 5993), (72, 6116), (82, 6158), (87, 6179), (99, 6242), (117, 6284), (123, 6305),

Gene: Gex_29 Start: 24335, Stop: 24739, Start Num: 46

Candidate Starts for Gex_29:

(Start: 46 @24335 has 180 MA's), (91, 24593), (94, 24623), (105, 24665), (124, 24722),

Gene: Gilberta_11 Start: 7618, Stop: 8004, Start Num: 45

Candidate Starts for Gilberta_11:

(Start: 45 @7618 has 272 MA's), (57, 7687), (90, 7867), (101, 7933),

Gene: Gladiator_14 Start: 7039, Stop: 7470, Start Num: 45

Candidate Starts for Gladiator_14:

(Start: 45 @7039 has 272 MA's), (82, 7258), (85, 7270), (87, 7279), (102, 7354),

Gene: Glass_48 Start: 42426, Stop: 42962, Start Num: 42

Candidate Starts for Glass_48:

(24, 42243), (29, 42300), (30, 42303), (Start: 42 @42426 has 32 MA's), (65, 42582), (67, 42591), (69, 42615), (80, 42687), (82, 42693), (85, 42705), (87, 42714), (92, 42732), (96, 42765), (99, 42777), (103, 42795), (115, 42828),

Gene: Glexan_31 Start: 30743, Stop: 31126, Start Num: 46

Candidate Starts for Glexan_31:

(Start: 46 @30743 has 180 MA's), (60, 30821), (61, 30848), (71, 30911), (99, 31046), (117, 31085),

Gene: GodPhather_38 Start: 38496, Stop: 39005, Start Num: 39

Candidate Starts for GodPhather_38:

(37, 38466), (Start: 39 @38496 has 8 MA's), (54, 38613), (56, 38619), (59, 38628), (60, 38637), (64, 38676), (79, 38787), (82, 38796), (84, 38805), (86, 38814), (93, 38838), (94, 38850), (108, 38901), (115, 38919), (119, 38931),

Gene: Godines_48 Start: 42368, Stop: 42901, Start Num: 42

Candidate Starts for Godines_48:

(1, 41258), (2, 41261), (6, 41555), (7, 41762), (17, 42029), (22, 42152), (24, 42185), (29, 42242), (30, 42245), (Start: 42 @42368 has 32 MA's), (49, 42431), (65, 42524), (67, 42533), (69, 42557), (80, 42626), (87, 42653), (92, 42671), (96, 42704), (99, 42716), (103, 42734), (115, 42767),

Gene: Goku_33 Start: 30859, Stop: 31242, Start Num: 46

Candidate Starts for Goku_33:

(Start: 46 @30859 has 180 MA's), (60, 30937), (61, 30964), (71, 31027), (99, 31162), (117, 31201),

Gene: GoldenSpark_35 Start: 31137, Stop: 31520, Start Num: 46

Candidate Starts for GoldenSpark_35:

(Start: 46 @31137 has 180 MA's), (60, 31215), (61, 31242), (71, 31305), (99, 31440), (117, 31479),

Gene: Goldilocks_34 Start: 30557, Stop: 30940, Start Num: 46

Candidate Starts for Goldilocks_34:

(Start: 46 @30557 has 180 MA's), (60, 30635), (61, 30662), (71, 30725), (99, 30860), (117, 30899),

Gene: GooberAzure_35 Start: 31137, Stop: 31520, Start Num: 46

Candidate Starts for GooberAzure_35:

(Start: 46 @31137 has 180 MA's), (60, 31215), (61, 31242), (71, 31305), (99, 31440), (117, 31479),

Gene: GreedyLawyer_14 Start: 7065, Stop: 7496, Start Num: 45

Candidate Starts for GreedyLawyer_14:

(Start: 45 @7065 has 272 MA's), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: Gruunaga_14 Start: 7039, Stop: 7470, Start Num: 45

Candidate Starts for Gruunaga_14:

(Start: 45 @7039 has 272 MA's), (82, 7258), (85, 7270), (87, 7279), (102, 7354),

Gene: HamSlice_8 Start: 5421, Stop: 5882, Start Num: 45
Candidate Starts for HamSlice_8:
(Start: 45 @5421 has 272 MA's), (66, 5553), (72, 5598), (75, 5628), (82, 5643), (87, 5664), (98, 5724),
(99, 5727),

Gene: Hammer_14 Start: 7039, Stop: 7470, Start Num: 45
Candidate Starts for Hammer_14:
(Start: 45 @7039 has 272 MA's), (82, 7258), (85, 7270), (87, 7279), (102, 7354),

Gene: HanKaySha_34 Start: 30889, Stop: 31272, Start Num: 46
Candidate Starts for HanKaySha_34:
(Start: 46 @30889 has 180 MA's), (60, 30967), (61, 30994), (71, 31057), (99, 31192), (117, 31231),

Gene: Happiness_9 Start: 5425, Stop: 5886, Start Num: 45
Candidate Starts for Happiness_9:
(Start: 45 @5425 has 272 MA's), (66, 5557), (72, 5602), (75, 5632), (82, 5647), (87, 5668), (98, 5728),
(99, 5731),

Gene: Harella_32 Start: 31259, Stop: 31642, Start Num: 46
Candidate Starts for Harella_32:
(Start: 46 @31259 has 180 MA's), (60, 31337), (61, 31364), (71, 31427), (99, 31562), (117, 31601),

Gene: HarryHoudini_12 Start: 6506, Stop: 6943, Start Num: 45
Candidate Starts for HarryHoudini_12:
(35, 6410), (Start: 45 @6506 has 272 MA's), (51, 6551), (98, 6806), (104, 6830),

Gene: Hedgerow_48 Start: 42408, Stop: 42944, Start Num: 42
Candidate Starts for Hedgerow_48:
(24, 42225), (29, 42282), (30, 42285), (Start: 42 @42408 has 32 MA's), (65, 42564), (67, 42573), (69,
42597), (80, 42669), (82, 42675), (85, 42687), (87, 42696), (92, 42714), (96, 42747), (99, 42759),
(103, 42777), (115, 42810),

Gene: Helmet_15 Start: 7065, Stop: 7496, Start Num: 45
Candidate Starts for Helmet_15:
(Start: 45 @7065 has 272 MA's), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: Henry_34 Start: 31147, Stop: 31530, Start Num: 46
Candidate Starts for Henry_34:
(Start: 46 @31147 has 180 MA's), (60, 31225), (61, 31252), (71, 31315), (99, 31450), (117, 31489),

Gene: Hexamo_14 Start: 7020, Stop: 7451, Start Num: 45
Candidate Starts for Hexamo_14:
(Start: 45 @7020 has 272 MA's), (82, 7239), (85, 7251), (87, 7260), (102, 7335),

Gene: Highbury_34 Start: 30805, Stop: 31188, Start Num: 46
Candidate Starts for Highbury_34:
(Start: 46 @30805 has 180 MA's), (60, 30883), (61, 30910), (71, 30973), (99, 31108), (117, 31147),

Gene: Holeinone_48 Start: 42288, Stop: 42821, Start Num: 42
Candidate Starts for Holeinone_48:
(24, 42105), (29, 42162), (30, 42165), (Start: 42 @42288 has 32 MA's), (65, 42444), (67, 42453), (69,
42477), (80, 42546), (87, 42573), (92, 42591), (96, 42624), (99, 42636), (103, 42654), (115, 42687),

Gene: Holli_9 Start: 5213, Stop: 5674, Start Num: 45

Candidate Starts for Holli_9:

(Start: 45 @5213 has 272 MA's), (66, 5345), (72, 5390), (75, 5420), (82, 5435), (87, 5456), (98, 5516), (99, 5519),

Gene: Holt_34 Start: 30424, Stop: 30807, Start Num: 46

Candidate Starts for Holt_34:

(Start: 46 @30424 has 180 MA's), (60, 30502), (61, 30529), (71, 30592), (99, 30727), (117, 30766),

Gene: Hoonter_35 Start: 31137, Stop: 31520, Start Num: 46

Candidate Starts for Hoonter_35:

(Start: 46 @31137 has 180 MA's), (60, 31215), (61, 31242), (71, 31305), (99, 31440), (117, 31479),

Gene: Hoot_14 Start: 7044, Stop: 7475, Start Num: 45

Candidate Starts for Hoot_14:

(Start: 45 @7044 has 272 MA's), (82, 7263), (85, 7275), (87, 7284), (102, 7359),

Gene: Hokey_35 Start: 31424, Stop: 31807, Start Num: 46

Candidate Starts for Hokey_35:

(Start: 46 @31424 has 180 MA's), (60, 31502), (61, 31529), (71, 31592), (99, 31727), (117, 31766),

Gene: Hosp_039 Start: 38050, Stop: 38574, Start Num: 36

Candidate Starts for Hosp_039:

(Start: 36 @38050 has 1 MA's), (38, 38071), (41, 38098), (51, 38179), (60, 38215), (63, 38251), (68, 38275), (69, 38296), (82, 38371), (83, 38374), (92, 38410), (107, 38476),

Gene: Houdini22_9 Start: 5424, Stop: 5885, Start Num: 45

Candidate Starts for Houdini22_9:

(Start: 45 @5424 has 272 MA's), (66, 5556), (72, 5601), (75, 5631), (82, 5646), (87, 5667), (98, 5727), (99, 5730),

Gene: HuffyPuff_32 Start: 31131, Stop: 31514, Start Num: 46

Candidate Starts for HuffyPuff_32:

(Start: 46 @31131 has 180 MA's), (60, 31209), (61, 31236), (71, 31299), (99, 31434), (117, 31473),

Gene: Hutc2_11 Start: 7624, Stop: 8010, Start Num: 45

Candidate Starts for Hutc2_11:

(Start: 45 @7624 has 272 MA's), (57, 7693), (90, 7873), (101, 7939),

Gene: ICleared_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for ICleared_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: IHOP_33 Start: 31324, Stop: 31707, Start Num: 46

Candidate Starts for IHOP_33:

(Start: 46 @31324 has 180 MA's), (60, 31402), (61, 31429), (71, 31492), (99, 31627), (117, 31666),

Gene: Ibrahim_28 Start: 25159, Stop: 25599, Start Num: 45

Candidate Starts for Ibrahim_28:

(21, 24922), (35, 25063), (Start: 42 @25141 has 32 MA's), (Start: 45 @25159 has 272 MA's), (65, 25288), (72, 25336), (85, 25393), (96, 25453), (99, 25465), (106, 25489), (134, 25579), (135, 25594),

Gene: Icee_32 Start: 30805, Stop: 31188, Start Num: 46

Candidate Starts for Icee_32:

(Start: 46 @30805 has 180 MA's), (60, 30883), (61, 30910), (71, 30973), (99, 31108), (117, 31147),

Gene: Iceman_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Iceman_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Imvubu_40 Start: 38839, Stop: 39363, Start Num: 40

Candidate Starts for Imvubu_40:

(Start: 40 @38839 has 4 MA's), (48, 38923), (55, 38950), (88, 39151), (94, 39181), (128, 39310), (133, 39334),

Gene: Inca_32 Start: 29826, Stop: 30209, Start Num: 46

Candidate Starts for Inca_32:

(Start: 46 @29826 has 180 MA's), (60, 29904), (61, 29931), (71, 29994), (99, 30129), (117, 30168),

Gene: Indra_14 Start: 7065, Stop: 7496, Start Num: 45

Candidate Starts for Indra_14:

(Start: 45 @7065 has 272 MA's), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: Insomnia_10 Start: 7673, Stop: 8059, Start Num: 45

Candidate Starts for Insomnia_10:

(Start: 45 @7673 has 272 MA's), (57, 7742), (90, 7922), (101, 7988),

Gene: Iracema64_9 Start: 5406, Stop: 5858, Start Num: 45

Candidate Starts for Iracema64_9:

(35, 5313), (Start: 45 @5406 has 272 MA's), (57, 5475), (72, 5583), (87, 5649), (99, 5712), (123, 5787), (129, 5817),

Gene: Isiphiwo_14 Start: 7065, Stop: 7499, Start Num: 45

Candidate Starts for Isiphiwo_14:

(Start: 45 @7065 has 272 MA's), (62, 7179), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: ItsyBitsy1_48 Start: 42290, Stop: 42823, Start Num: 42

Candidate Starts for ItsyBitsy1_48:

(24, 42107), (29, 42164), (30, 42167), (Start: 42 @42290 has 32 MA's), (65, 42446), (67, 42455), (69, 42479), (80, 42548), (87, 42575), (92, 42593), (96, 42626), (99, 42638), (103, 42656), (115, 42689),

Gene: Jabith_11 Start: 7673, Stop: 8059, Start Num: 45

Candidate Starts for Jabith_11:

(Start: 45 @7673 has 272 MA's), (57, 7742), (90, 7922), (101, 7988),

Gene: Jamie19_26 Start: 23389, Stop: 23793, Start Num: 46

Candidate Starts for Jamie19_26:

(8, 22768), (9, 22771), (11, 22843), (14, 22864), (15, 22957), (16, 22984), (Start: 46 @23389 has 180 MA's), (91, 23647), (94, 23677), (105, 23719), (124, 23776),

Gene: Jaykayelowell_9 Start: 5419, Stop: 5880, Start Num: 45

Candidate Starts for Jaykayelowell_9:

(Start: 45 @5419 has 272 MA's), (66, 5551), (72, 5596), (75, 5626), (82, 5641), (87, 5662), (98, 5722), (99, 5725),

Gene: JeTaime_35 Start: 31948, Stop: 32331, Start Num: 46
Candidate Starts for JeTaime_35:
(Start: 46 @31948 has 180 MA's), (60, 32026), (61, 32053), (71, 32116), (99, 32251), (117, 32290),

Gene: Jeeves_10 Start: 6157, Stop: 6543, Start Num: 46
Candidate Starts for Jeeves_10:
(28, 5983), (31, 6025), (Start: 46 @6157 has 180 MA's), (71, 6325), (91, 6415), (100, 6475), (101, 6478),

Gene: Jeffabunny_14 Start: 7068, Stop: 7499, Start Num: 45
Candidate Starts for Jeffabunny_14:
(Start: 45 @7068 has 272 MA's), (82, 7287), (85, 7299), (87, 7308), (102, 7383),

Gene: Jeon_37 Start: 38238, Stop: 38747, Start Num: 39
Candidate Starts for Jeon_37:
(37, 38208), (Start: 39 @38238 has 8 MA's), (54, 38355), (56, 38361), (59, 38370), (60, 38379), (64, 38418), (79, 38529), (82, 38538), (84, 38547), (86, 38556), (93, 38580), (94, 38592), (108, 38643), (115, 38661), (119, 38673),

Gene: Jerm_12 Start: 6372, Stop: 6836, Start Num: 45
Candidate Starts for Jerm_12:
(Start: 45 @6372 has 272 MA's), (57, 6441), (72, 6549), (82, 6591), (84, 6600), (98, 6672), (104, 6696),

Gene: JetBlade_9 Start: 5420, Stop: 5881, Start Num: 45
Candidate Starts for JetBlade_9:
(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: JewelBug_14 Start: 7066, Stop: 7497, Start Num: 45
Candidate Starts for JewelBug_14:
(Start: 45 @7066 has 272 MA's), (62, 7180), (82, 7285), (85, 7297), (87, 7306), (102, 7381),

Gene: Jobypre_27 Start: 26434, Stop: 26850, Start Num: 46
Candidate Starts for Jobypre_27:
(Start: 46 @26434 has 180 MA's), (51, 26479), (53, 26491), (57, 26503), (66, 26566), (84, 26665), (90, 26686), (120, 26791),

Gene: Jolie1_041 Start: 39828, Stop: 40349, Start Num: 36
Candidate Starts for Jolie1_041:
(Start: 36 @39828 has 1 MA's), (38, 39849), (41, 39876), (51, 39957), (60, 39993), (63, 40029), (68, 40053), (69, 40074), (82, 40149), (92, 40188), (103, 40242), (107, 40254), (114, 40272),

Gene: JoongJeon_9 Start: 5420, Stop: 5881, Start Num: 45
Candidate Starts for JoongJeon_9:
(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Jordennis_14 Start: 7065, Stop: 7499, Start Num: 45
Candidate Starts for Jordennis_14:
(Start: 45 @7065 has 272 MA's), (62, 7179), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: Joselito_11 Start: 7621, Stop: 8007, Start Num: 45
Candidate Starts for Joselito_11:
(Start: 45 @7621 has 272 MA's), (57, 7690), (90, 7870), (101, 7936),

Gene: JoshKayV_12 Start: 6385, Stop: 6825, Start Num: 45
Candidate Starts for JoshKayV_12:
(35, 6295), (Start: 45 @6385 has 272 MA's), (50, 6427), (51, 6430), (104, 6709), (111, 6730), (131, 6790),

Gene: Journey13_8 Start: 5230, Stop: 5628, Start Num: 45
Candidate Starts for Journey13_8:
(Start: 45 @5230 has 272 MA's), (72, 5407), (82, 5449),

Gene: Journey_30 Start: 24339, Stop: 24743, Start Num: 46
Candidate Starts for Journey_30:
(Start: 46 @24339 has 180 MA's), (91, 24597), (94, 24627), (105, 24669), (124, 24726),

Gene: Jsquared_9 Start: 5161, Stop: 5556, Start Num: 45
Candidate Starts for Jsquared_9:
(Start: 45 @5161 has 272 MA's), (66, 5293), (82, 5380), (90, 5410), (122, 5527),

Gene: Jubie_27 Start: 26435, Stop: 26851, Start Num: 46
Candidate Starts for Jubie_27:
(Start: 46 @26435 has 180 MA's), (51, 26480), (53, 26492), (57, 26504), (66, 26567), (84, 26666), (90, 26687), (120, 26792),

Gene: KFPoly_9 Start: 5420, Stop: 5881, Start Num: 45
Candidate Starts for KFPoly_9:
(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Kaleb_48 Start: 42423, Stop: 42959, Start Num: 42
Candidate Starts for Kaleb_48:
(24, 42240), (29, 42297), (30, 42300), (Start: 42 @42423 has 32 MA's), (65, 42579), (67, 42588), (69, 42612), (80, 42684), (82, 42690), (85, 42702), (87, 42711), (92, 42729), (96, 42762), (99, 42774), (103, 42792), (115, 42825),

Gene: Kamy_9 Start: 5421, Stop: 5882, Start Num: 45
Candidate Starts for Kamy_9:
(Start: 45 @5421 has 272 MA's), (66, 5553), (72, 5598), (75, 5628), (82, 5643), (87, 5664), (98, 5724), (99, 5727),

Gene: Kanye_35 Start: 32133, Stop: 32516, Start Num: 46
Candidate Starts for Kanye_35:
(Start: 46 @32133 has 180 MA's), (60, 32211), (61, 32238), (71, 32301), (99, 32436), (117, 32475),

Gene: Katalie136_9 Start: 5429, Stop: 5890, Start Num: 45
Candidate Starts for Katalie136_9:
(Start: 45 @5429 has 272 MA's), (57, 5498), (85, 5663), (87, 5672), (96, 5723), (99, 5735), (132, 5858),

Gene: KayaCho_41 Start: 39832, Stop: 40353, Start Num: 36
Candidate Starts for KayaCho_41:

(Start: 36 @39832 has 1 MA's), (38, 39853), (41, 39880), (51, 39961), (60, 39997), (63, 40033), (68, 40057), (69, 40078), (82, 40153), (83, 40156), (92, 40192), (97, 40219), (103, 40246), (107, 40258), (114, 40276), (124, 40303),

Gene: Kazan_14 Start: 7071, Stop: 7502, Start Num: 45

Candidate Starts for Kazan_14:

(Start: 45 @7071 has 272 MA's), (62, 7185), (82, 7290), (85, 7302), (87, 7311), (102, 7386),

Gene: Kerberos_13 Start: 6175, Stop: 6600, Start Num: 45

Candidate Starts for Kerberos_13:

(Start: 45 @6175 has 272 MA's), (82, 6394), (90, 6424),

Gene: Keziacharles14_10 Start: 5897, Stop: 6280, Start Num: 46

Candidate Starts for Keziacharles14_10:

(31, 5762), (Start: 46 @5897 has 180 MA's), (52, 5951), (84, 6128), (110, 6230),

Gene: Kheth_48 Start: 42341, Stop: 42874, Start Num: 42

Candidate Starts for Kheth_48:

(24, 42158), (29, 42215), (30, 42218), (Start: 42 @42341 has 32 MA's), (65, 42497), (67, 42506), (69, 42530), (80, 42599), (87, 42626), (92, 42644), (96, 42677), (99, 42689), (103, 42707), (115, 42740),

Gene: Kimchi_35 Start: 31140, Stop: 31523, Start Num: 46

Candidate Starts for Kimchi_35:

(Start: 46 @31140 has 180 MA's), (60, 31218), (61, 31245), (71, 31308), (99, 31443), (117, 31482),

Gene: KingCyrus_12 Start: 6373, Stop: 6813, Start Num: 45

Candidate Starts for KingCyrus_12:

(Start: 45 @6373 has 272 MA's), (51, 6418), (98, 6673), (104, 6697), (111, 6718),

Gene: Kingmustik0402_9 Start: 5412, Stop: 5873, Start Num: 45

Candidate Starts for Kingmustik0402_9:

(Start: 45 @5412 has 272 MA's), (66, 5544), (72, 5589), (75, 5619), (82, 5634), (87, 5655), (98, 5715), (99, 5718),

Gene: Kingsolomon_27 Start: 26434, Stop: 26850, Start Num: 46

Candidate Starts for Kingsolomon_27:

(Start: 46 @26434 has 180 MA's), (51, 26479), (53, 26491), (57, 26503), (66, 26566), (84, 26665), (90, 26686), (120, 26791),

Gene: Kipper29_14 Start: 7065, Stop: 7496, Start Num: 45

Candidate Starts for Kipper29_14:

(Start: 45 @7065 has 272 MA's), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: Knocker_49 Start: 43770, Stop: 44288, Start Num: 40

Candidate Starts for Knocker_49:

(23, 43602), (37, 43728), (Start: 40 @43770 has 4 MA's), (60, 43899), (63, 43935), (73, 44007), (94, 44112), (127, 44229), (128, 44241),

Gene: Koduck_10 Start: 5448, Stop: 5843, Start Num: 45

Candidate Starts for Koduck_10:

(Start: 45 @5448 has 272 MA's), (66, 5580), (74, 5652), (82, 5667), (90, 5697), (122, 5814),

Gene: Koko_14 Start: 7065, Stop: 7496, Start Num: 45

Candidate Starts for Koko_14:

(Start: 45 @7065 has 272 MA's), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: Koreni_8 Start: 5069, Stop: 5530, Start Num: 45

Candidate Starts for Koreni_8:

(Start: 45 @5069 has 272 MA's), (66, 5201), (72, 5246), (75, 5276), (82, 5291), (87, 5312), (98, 5372), (99, 5375),

Gene: Kostya_34 Start: 31148, Stop: 31531, Start Num: 46

Candidate Starts for Kostya_34:

(Start: 46 @31148 has 180 MA's), (60, 31226), (61, 31253), (71, 31316), (99, 31451), (117, 31490),

Gene: Kratak_9 Start: 5424, Stop: 5876, Start Num: 45

Candidate Starts for Kratak_9:

(Start: 45 @5424 has 272 MA's), (66, 5556), (72, 5601), (87, 5667), (99, 5730), (123, 5805),

Gene: Kremtemulon_8 Start: 5501, Stop: 5926, Start Num: 45

Candidate Starts for Kremtemulon_8:

(35, 5408), (43, 5486), (Start: 45 @5501 has 272 MA's), (72, 5678), (103, 5825), (112, 5837), (130, 5891),

Gene: Krypton555_27 Start: 26338, Stop: 26751, Start Num: 46

Candidate Starts for Krypton555_27:

(Start: 46 @26338 has 180 MA's), (51, 26383), (53, 26395), (57, 26407), (90, 26590),

Gene: Kyee_9 Start: 5421, Stop: 5882, Start Num: 45

Candidate Starts for Kyee_9:

(Start: 45 @5421 has 272 MA's), (66, 5553), (72, 5598), (75, 5628), (82, 5643), (87, 5664), (98, 5724), (99, 5727),

Gene: L5_11 Start: 5456, Stop: 5851, Start Num: 45

Candidate Starts for L5_11:

(Start: 45 @5456 has 272 MA's), (66, 5588), (74, 5660), (82, 5675), (90, 5705), (122, 5822),

Gene: LHTSCC_9 Start: 5406, Stop: 5858, Start Num: 45

Candidate Starts for LHTSCC_9:

(35, 5313), (Start: 45 @5406 has 272 MA's), (57, 5475), (71, 5577), (72, 5583), (87, 5649), (99, 5712), (123, 5787),

Gene: LadyBird_10 Start: 5973, Stop: 6413, Start Num: 45

Candidate Starts for LadyBird_10:

(Start: 45 @5973 has 272 MA's), (98, 6273), (104, 6297),

Gene: LappelDuVide_8 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for LappelDuVide_8:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Larenn_11 Start: 6290, Stop: 6727, Start Num: 45

Candidate Starts for Larenn_11:

(35, 6197), (Start: 45 @6290 has 272 MA's), (51, 6335), (98, 6590), (104, 6614), (111, 6635),

Gene: Lars_48 Start: 42413, Stop: 42946, Start Num: 42

Candidate Starts for Lars_48:

(24, 42230), (29, 42287), (30, 42290), (Start: 42 @42413 has 32 MA's), (49, 42476), (65, 42569), (67, 42578), (69, 42602), (80, 42671), (87, 42698), (92, 42716), (96, 42749), (99, 42761), (103, 42779), (115, 42812),

Gene: Laurie_47 Start: 41812, Stop: 42345, Start Num: 42

Candidate Starts for Laurie_47:

(24, 41629), (29, 41686), (30, 41689), (Start: 42 @41812 has 32 MA's), (65, 41968), (67, 41977), (69, 42001), (80, 42070), (87, 42097), (92, 42115), (96, 42148), (99, 42160), (103, 42178), (115, 42211),

Gene: Lemur_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Lemur_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: LeoAvram_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for LeoAvram_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Leogania_12 Start: 8106, Stop: 8570, Start Num: 45

Candidate Starts for Leogania_12:

(35, 8013), (Start: 45 @8106 has 272 MA's), (57, 8175), (82, 8328), (84, 8337), (98, 8409), (104, 8433),

Gene: Lephleur_48 Start: 42306, Stop: 42839, Start Num: 42

Candidate Starts for Lephleur_48:

(24, 42123), (29, 42180), (30, 42183), (Start: 42 @42306 has 32 MA's), (65, 42462), (67, 42471), (69, 42495), (80, 42564), (87, 42591), (92, 42609), (96, 42642), (99, 42654), (103, 42672), (115, 42705),

Gene: Leviathan_12 Start: 6428, Stop: 6868, Start Num: 45

Candidate Starts for Leviathan_12:

(35, 6341), (Start: 45 @6428 has 272 MA's), (51, 6473), (104, 6752), (111, 6773),

Gene: LilMcDreamy_45 Start: 41638, Stop: 42135, Start Num: 40

Candidate Starts for LilMcDreamy_45:

(Start: 40 @41638 has 4 MA's), (51, 41728), (60, 41764), (63, 41800), (78, 41908), (81, 41914), (90, 41947), (92, 41956), (95, 41977),

Gene: LilTurb_12 Start: 6431, Stop: 6895, Start Num: 45

Candidate Starts for LilTurb_12:

(Start: 45 @6431 has 272 MA's), (57, 6500), (72, 6608), (82, 6650), (84, 6659), (98, 6731), (104, 6755),

Gene: Lilac_35 Start: 30644, Stop: 31027, Start Num: 46

Candidate Starts for Lilac_35:

(Start: 46 @30644 has 180 MA's), (60, 30722), (61, 30749), (71, 30812), (99, 30947), (117, 30986),

Gene: Lilizi_35 Start: 30852, Stop: 31235, Start Num: 46

Candidate Starts for Lilizi_35:

(Start: 46 @30852 has 180 MA's), (60, 30930), (61, 30957), (71, 31020), (99, 31155), (117, 31194),

Gene: Lilpickle_32 Start: 30354, Stop: 30737, Start Num: 46

Candidate Starts for Lilpickle_32:

(Start: 46 @30354 has 180 MA's), (60, 30432), (61, 30459), (71, 30522), (99, 30657), (117, 30696),

Gene: LittleB_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for LittleB_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: LittleGuy_9 Start: 5399, Stop: 5824, Start Num: 45

Candidate Starts for LittleGuy_9:

(Start: 45 @5399 has 272 MA's), (72, 5576), (75, 5606), (96, 5693), (98, 5702), (99, 5705), (104, 5726), (112, 5735), (130, 5789),

Gene: LizLemon_48 Start: 42422, Stop: 42955, Start Num: 42

Candidate Starts for LizLemon_48:

(24, 42239), (29, 42296), (30, 42299), (Start: 42 @42422 has 32 MA's), (65, 42578), (67, 42587), (69, 42611), (80, 42680), (87, 42707), (92, 42725), (96, 42758), (99, 42770), (103, 42788), (115, 42821),

Gene: LochMonster_9 Start: 5404, Stop: 5856, Start Num: 45

Candidate Starts for LochMonster_9:

(35, 5311), (Start: 45 @5404 has 272 MA's), (57, 5473), (71, 5575), (72, 5581), (87, 5647), (99, 5710), (123, 5785), (129, 5815),

Gene: Lokk_13 Start: 7712, Stop: 8134, Start Num: 45

Candidate Starts for Lokk_13:

(35, 7619), (Start: 45 @7712 has 272 MA's), (51, 7757), (71, 7883), (82, 7931), (90, 7961),

Gene: Lolly9_27 Start: 26216, Stop: 26617, Start Num: 46

Candidate Starts for Lolly9_27:

(Start: 46 @26216 has 180 MA's), (51, 26261), (57, 26285), (90, 26468),

Gene: Lorenzo_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Lorenzo_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Luchador_10 Start: 6145, Stop: 6531, Start Num: 46

Candidate Starts for Luchador_10:

(19, 5857), (28, 5971), (31, 6013), (Start: 46 @6145 has 180 MA's), (71, 6313), (89, 6397), (91, 6403), (100, 6463),

Gene: Lucivia_11 Start: 7670, Stop: 8056, Start Num: 45

Candidate Starts for Lucivia_11:

(Start: 45 @7670 has 272 MA's), (57, 7739), (90, 7919), (101, 7985),

Gene: Lumos_27 Start: 26431, Stop: 26847, Start Num: 46

Candidate Starts for Lumos_27:

(Start: 46 @26431 has 180 MA's), (51, 26476), (53, 26488), (57, 26500), (66, 26563), (84, 26662), (90, 26683), (120, 26788),

Gene: Lunsford_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Lunsford_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: MISSy_32 Start: 30660, Stop: 31043, Start Num: 46

Candidate Starts for MISSy_32:

(Start: 46 @30660 has 180 MA's), (60, 30738), (61, 30765), (71, 30828), (99, 30963), (117, 31002),

Gene: MPhalcon_32 Start: 30653, Stop: 31036, Start Num: 46

Candidate Starts for MPhalcon_32:

(Start: 46 @30653 has 180 MA's), (60, 30731), (61, 30758), (71, 30821), (99, 30956), (117, 30995),

Gene: MaCh_11 Start: 7618, Stop: 8004, Start Num: 45

Candidate Starts for MaCh_11:

(Start: 45 @7618 has 272 MA's), (57, 7687), (90, 7867), (101, 7933),

Gene: Mabel_11 Start: 7685, Stop: 8071, Start Num: 45

Candidate Starts for Mabel_11:

(Start: 45 @7685 has 272 MA's), (57, 7754), (90, 7934), (101, 8000),

Gene: MadamMonkfish_33 Start: 30565, Stop: 30948, Start Num: 46

Candidate Starts for MadamMonkfish_33:

(Start: 46 @30565 has 180 MA's), (60, 30643), (61, 30670), (71, 30733), (99, 30868), (117, 30907),

Gene: Magsby_29 Start: 24336, Stop: 24740, Start Num: 46

Candidate Starts for Magsby_29:

(Start: 46 @24336 has 180 MA's), (91, 24594), (94, 24624), (105, 24666), (124, 24723),

Gene: Malec_11 Start: 6295, Stop: 6732, Start Num: 45

Candidate Starts for Malec_11:

(35, 6202), (Start: 45 @6295 has 272 MA's), (51, 6340), (98, 6595), (104, 6619), (111, 6640),

Gene: Manda_34 Start: 31632, Stop: 32015, Start Num: 46

Candidate Starts for Manda_34:

(Start: 46 @31632 has 180 MA's), (60, 31710), (61, 31737), (71, 31800), (99, 31935), (117, 31974),

Gene: Marshmallow_33 Start: 31145, Stop: 31528, Start Num: 46

Candidate Starts for Marshmallow_33:

(Start: 46 @31145 has 180 MA's), (60, 31223), (61, 31250), (71, 31313), (99, 31448), (117, 31487),

Gene: MasterPo_48 Start: 42309, Stop: 42845, Start Num: 42

Candidate Starts for MasterPo_48:

(24, 42126), (29, 42183), (30, 42186), (Start: 42 @42309 has 32 MA's), (65, 42465), (67, 42474), (69, 42498), (80, 42570), (87, 42597), (92, 42615), (96, 42648), (99, 42660), (103, 42678), (115, 42711),

Gene: Maverick_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Maverick_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Maxo_9 Start: 5421, Stop: 5882, Start Num: 45

Candidate Starts for Maxo_9:

(Start: 45 @5421 has 272 MA's), (66, 5553), (72, 5598), (75, 5628), (82, 5643), (87, 5664), (98, 5724), (99, 5727),

Gene: Maxxinista_34 Start: 30614, Stop: 30997, Start Num: 46
Candidate Starts for Maxxinista_34:
(Start: 46 @30614 has 180 MA's), (60, 30692), (61, 30719), (71, 30782), (99, 30917), (117, 30956),

Gene: Mazhar510_9 Start: 5421, Stop: 5882, Start Num: 45
Candidate Starts for Mazhar510_9:
(Start: 45 @5421 has 272 MA's), (66, 5553), (72, 5598), (75, 5628), (82, 5643), (87, 5664), (98, 5724), (99, 5727),

Gene: McFly_14 Start: 7065, Stop: 7496, Start Num: 45
Candidate Starts for McFly_14:
(Start: 45 @7065 has 272 MA's), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: Medusa_9 Start: 5420, Stop: 5881, Start Num: 45
Candidate Starts for Medusa_9:
(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: MeeZee_9 Start: 5420, Stop: 5881, Start Num: 45
Candidate Starts for MeeZee_9:
(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Megabear_37 Start: 37653, Stop: 38162, Start Num: 39
Candidate Starts for Megabear_37:
(32, 37626), (34, 37635), (Start: 39 @37653 has 8 MA's), (54, 37770), (56, 37776), (59, 37785), (60, 37794), (64, 37833), (79, 37944), (82, 37953), (84, 37962), (86, 37971), (93, 37995), (94, 38007), (108, 38058), (115, 38076), (119, 38088),

Gene: Melville_29 Start: 24339, Stop: 24743, Start Num: 46
Candidate Starts for Melville_29:
(Start: 46 @24339 has 180 MA's), (91, 24597), (94, 24627), (105, 24669), (124, 24726),

Gene: Melvin_9 Start: 5420, Stop: 5881, Start Num: 45
Candidate Starts for Melvin_9:
(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Mendokysei_27 Start: 24965, Stop: 25378, Start Num: 45
Candidate Starts for Mendokysei_27:
(Start: 42 @24947 has 32 MA's), (Start: 45 @24965 has 272 MA's), (53, 25022), (71, 25136), (72, 25142), (96, 25259), (99, 25271), (118, 25313),

Gene: MichelleMyBell_27 Start: 23327, Stop: 23731, Start Num: 46
Candidate Starts for MichelleMyBell_27:
(8, 22706), (9, 22709), (11, 22781), (14, 22802), (15, 22895), (16, 22922), (Start: 46 @23327 has 180 MA's), (91, 23585), (94, 23615), (105, 23657), (124, 23714),

Gene: MiculUcigas_10 Start: 6050, Stop: 6487, Start Num: 45
Candidate Starts for MiculUcigas_10:
(35, 5954), (Start: 45 @6050 has 272 MA's), (51, 6095), (98, 6350), (104, 6374),

Gene: Miko_13 Start: 7681, Stop: 8103, Start Num: 45
Candidate Starts for Miko_13:
(35, 7588), (Start: 45 @7681 has 272 MA's), (51, 7726), (71, 7852), (82, 7900), (90, 7930),

Gene: Millski_9 Start: 5420, Stop: 5881, Start Num: 45
Candidate Starts for Millski_9:
(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723),
(99, 5726),

Gene: Mindy_33 Start: 30925, Stop: 31308, Start Num: 46
Candidate Starts for Mindy_33:
(Start: 46 @30925 has 180 MA's), (60, 31003), (61, 31030), (71, 31093), (99, 31228), (117, 31267),

Gene: MiniLon_27 Start: 26216, Stop: 26617, Start Num: 46
Candidate Starts for MiniLon_27:
(Start: 46 @26216 has 180 MA's), (51, 26261), (57, 26285), (90, 26468),

Gene: MiniMac_27 Start: 26217, Stop: 26618, Start Num: 46
Candidate Starts for MiniMac_27:
(Start: 46 @26217 has 180 MA's), (51, 26262), (57, 26286), (90, 26469),

Gene: Miniwave_33 Start: 31344, Stop: 31727, Start Num: 46
Candidate Starts for Miniwave_33:
(Start: 46 @31344 has 180 MA's), (60, 31422), (61, 31449), (71, 31512), (99, 31647), (117, 31686),

Gene: Miramae_9 Start: 5393, Stop: 5845, Start Num: 45
Candidate Starts for Miramae_9:
(Start: 45 @5393 has 272 MA's), (57, 5462), (71, 5564), (72, 5570), (87, 5636), (99, 5699), (110,
5732), (123, 5774),

Gene: Misfit_33 Start: 31234, Stop: 31617, Start Num: 46
Candidate Starts for Misfit_33:
(Start: 46 @31234 has 180 MA's), (60, 31312), (61, 31339), (71, 31402), (99, 31537), (117, 31576),

Gene: MissWhite_10 Start: 5274, Stop: 5672, Start Num: 45
Candidate Starts for MissWhite_10:
(Start: 45 @5274 has 272 MA's), (72, 5451), (82, 5493),

Gene: Moldemort_34 Start: 30889, Stop: 31272, Start Num: 46
Candidate Starts for Moldemort_34:
(Start: 46 @30889 has 180 MA's), (60, 30967), (61, 30994), (71, 31057), (99, 31192), (117, 31231),

Gene: Moostard_27 Start: 26437, Stop: 26853, Start Num: 46
Candidate Starts for Moostard_27:
(Start: 46 @26437 has 180 MA's), (51, 26482), (53, 26494), (57, 26506), (66, 26569), (84, 26668), (90,
26689), (120, 26794),

Gene: Morpher26_9 Start: 5429, Stop: 5890, Start Num: 45
Candidate Starts for Morpher26_9:
(Start: 45 @5429 has 272 MA's), (57, 5498), (71, 5600), (85, 5663), (87, 5672), (96, 5723), (99, 5735),
(132, 5858),

Gene: Morrow_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Morrow_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Mosby_32 Start: 30651, Stop: 31034, Start Num: 46

Candidate Starts for Mosby_32:

(Start: 46 @30651 has 180 MA's), (60, 30729), (61, 30756), (71, 30819), (99, 30954), (117, 30993),

Gene: MsGreen_27 Start: 26434, Stop: 26850, Start Num: 46

Candidate Starts for MsGreen_27:

(Start: 46 @26434 has 180 MA's), (51, 26479), (53, 26491), (57, 26503), (66, 26566), (84, 26665), (90, 26686), (120, 26791),

Gene: Mulciber_11 Start: 7624, Stop: 8007, Start Num: 45

Candidate Starts for Mulciber_11:

(Start: 45 @7624 has 272 MA's), (57, 7693), (90, 7873), (101, 7939),

Gene: Munch_11 Start: 7621, Stop: 8007, Start Num: 45

Candidate Starts for Munch_11:

(Start: 45 @7621 has 272 MA's), (57, 7690), (90, 7870), (101, 7936),

Gene: Mundrea_9 Start: 5391, Stop: 5843, Start Num: 45

Candidate Starts for Mundrea_9:

(35, 5298), (Start: 45 @5391 has 272 MA's), (57, 5460), (71, 5562), (72, 5568), (87, 5634), (99, 5697), (123, 5772),

Gene: Murica_32 Start: 31131, Stop: 31514, Start Num: 46

Candidate Starts for Murica_32:

(Start: 46 @31131 has 180 MA's), (60, 31209), (61, 31236), (71, 31299), (99, 31434), (117, 31473),

Gene: Murphy_34 Start: 31126, Stop: 31509, Start Num: 46

Candidate Starts for Murphy_34:

(Start: 46 @31126 has 180 MA's), (60, 31204), (61, 31231), (71, 31294), (99, 31429), (117, 31468),

Gene: Myrale_33 Start: 31010, Stop: 31393, Start Num: 46

Candidate Starts for Myrale_33:

(Start: 46 @31010 has 180 MA's), (60, 31088), (61, 31115), (71, 31178), (99, 31313), (117, 31352),

Gene: NaSiaTalie_10 Start: 6047, Stop: 6484, Start Num: 45

Candidate Starts for NaSiaTalie_10:

(35, 5951), (Start: 45 @6047 has 272 MA's), (51, 6092), (72, 6224), (98, 6347), (104, 6371),

Gene: Nairb_28 Start: 25159, Stop: 25599, Start Num: 45

Candidate Starts for Nairb_28:

(21, 24922), (35, 25063), (Start: 42 @25141 has 32 MA's), (Start: 45 @25159 has 272 MA's), (65, 25288), (72, 25336), (85, 25393), (96, 25453), (99, 25465), (106, 25489), (134, 25579), (135, 25594),

Gene: Naji_13 Start: 6175, Stop: 6600, Start Num: 45

Candidate Starts for Naji_13:

(Start: 45 @6175 has 272 MA's), (82, 6394), (90, 6424),

Gene: Nala_33 Start: 31165, Stop: 31548, Start Num: 46

Candidate Starts for Nala_33:

(Start: 46 @31165 has 180 MA's), (60, 31243), (61, 31270), (71, 31333), (99, 31468), (117, 31507),

Gene: Nebs_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Nebs_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Neeharika16_14 Start: 7065, Stop: 7499, Start Num: 45

Candidate Starts for Neeharika16_14:

(Start: 45 @7065 has 272 MA's), (62, 7179), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: NelitzaMV_33 Start: 31215, Stop: 31598, Start Num: 46

Candidate Starts for NelitzaMV_33:

(Start: 46 @31215 has 180 MA's), (60, 31293), (61, 31320), (99, 31518), (117, 31557),

Gene: Nemo27_9 Start: 5419, Stop: 5880, Start Num: 45

Candidate Starts for Nemo27_9:

(Start: 45 @5419 has 272 MA's), (66, 5551), (72, 5596), (75, 5626), (82, 5641), (87, 5662), (98, 5722), (99, 5725),

Gene: Nенаe_26 Start: 23389, Stop: 23793, Start Num: 46

Candidate Starts for Nенаe_26:

(8, 22768), (9, 22771), (11, 22843), (14, 22864), (15, 22957), (16, 22984), (Start: 46 @23389 has 180 MA's), (71, 23563), (117, 23752),

Gene: Newrala_14 Start: 7065, Stop: 7499, Start Num: 45

Candidate Starts for Newrala_14:

(Start: 45 @7065 has 272 MA's), (62, 7179), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: Nicholas_27 Start: 26434, Stop: 26850, Start Num: 46

Candidate Starts for Nicholas_27:

(Start: 46 @26434 has 180 MA's), (51, 26479), (53, 26491), (57, 26503), (66, 26566), (84, 26665), (90, 26686), (120, 26791),

Gene: Nimrod_33 Start: 31389, Stop: 31772, Start Num: 46

Candidate Starts for Nimrod_33:

(Start: 46 @31389 has 180 MA's), (60, 31467), (61, 31494), (71, 31557), (99, 31692), (117, 31731),

Gene: NoSleep_34 Start: 30886, Stop: 31269, Start Num: 46

Candidate Starts for NoSleep_34:

(Start: 46 @30886 has 180 MA's), (60, 30964), (61, 30991), (71, 31054), (99, 31189), (117, 31228),

Gene: Noelle_9 Start: 5486, Stop: 5947, Start Num: 45

Candidate Starts for Noelle_9:

(Start: 45 @5486 has 272 MA's), (66, 5618), (72, 5663), (75, 5693), (82, 5708), (87, 5729), (98, 5789), (99, 5792),

Gene: NorthStar_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for NorthStar_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: NotAPhaseMom_9 Start: 5424, Stop: 5885, Start Num: 45

Candidate Starts for NotAPhaseMom_9:

(Start: 45 @5424 has 272 MA's), (66, 5556), (72, 5601), (75, 5631), (82, 5646), (87, 5667), (98, 5727), (99, 5730),

Gene: Nyxis_9 Start: 5402, Stop: 5827, Start Num: 45

Candidate Starts for Nyxis_9:

(Start: 45 @5402 has 272 MA's), (72, 5579), (75, 5609), (96, 5696), (98, 5705), (99, 5708), (104, 5729), (112, 5738), (130, 5792),

Gene: OKaNui_9 Start: 5185, Stop: 5646, Start Num: 45

Candidate Starts for OKaNui_9:

(Start: 45 @5185 has 272 MA's), (66, 5317), (72, 5362), (75, 5392), (82, 5407), (87, 5428), (98, 5488), (99, 5491),

Gene: Obama12_9 Start: 5408, Stop: 5860, Start Num: 45

Candidate Starts for Obama12_9:

(35, 5315), (Start: 45 @5408 has 272 MA's), (57, 5477), (71, 5579), (72, 5585), (87, 5651), (99, 5714), (123, 5789),

Gene: Odin_10 Start: 5885, Stop: 6283, Start Num: 45

Candidate Starts for Odin_10:

(Start: 45 @5885 has 272 MA's), (Start: 46 @5888 has 180 MA's), (84, 6128), (89, 6146), (100, 6212), (110, 6230),

Gene: Ohfah_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Ohfah_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Opia_48 Start: 42295, Stop: 42828, Start Num: 42

Candidate Starts for Opia_48:

(24, 42112), (29, 42169), (30, 42172), (Start: 42 @42295 has 32 MA's), (65, 42451), (67, 42460), (69, 42484), (80, 42553), (87, 42580), (92, 42598), (96, 42631), (99, 42643), (103, 42661), (115, 42694),

Gene: Orange_11 Start: 7621, Stop: 8007, Start Num: 45

Candidate Starts for Orange_11:

(Start: 45 @7621 has 272 MA's), (57, 7690), (90, 7870), (101, 7936),

Gene: OrionPax_34 Start: 30892, Stop: 31275, Start Num: 46

Candidate Starts for OrionPax_34:

(Start: 46 @30892 has 180 MA's), (60, 30970), (61, 30997), (71, 31060), (99, 31195), (117, 31234),

Gene: PP_19 Start: 11239, Stop: 11685, Start Num: 45

Candidate Starts for PP_19:

(Start: 45 @11239 has 272 MA's), (58, 11311), (71, 11410), (72, 11416), (77, 11452), (87, 11482), (96, 11533), (99, 11545), (101, 11557),

Gene: PR_37 Start: 38257, Stop: 38766, Start Num: 39

Candidate Starts for PR_37:

(32, 38230), (34, 38239), (Start: 39 @38257 has 8 MA's), (54, 38374), (56, 38380), (59, 38389), (60, 38398), (64, 38437), (79, 38548), (82, 38557), (84, 38566), (86, 38575), (93, 38599), (94, 38611), (108, 38662), (115, 38680), (119, 38692),

Gene: Palestino_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Palestino_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Panchino_26 Start: 23349, Stop: 23753, Start Num: 44

Candidate Starts for Panchino_26:

(Start: 44 @23349 has 5 MA's), (Start: 46 @23355 has 180 MA's), (63, 23469), (91, 23607), (117, 23712), (124, 23736),

Gene: Paperbeatsrock_35 Start: 32127, Stop: 32510, Start Num: 46

Candidate Starts for Paperbeatsrock_35:

(Start: 46 @32127 has 180 MA's), (60, 32205), (61, 32232), (71, 32295), (99, 32430), (117, 32469),

Gene: Parmesanjohn_29 Start: 24339, Stop: 24743, Start Num: 46

Candidate Starts for Parmesanjohn_29:

(Start: 46 @24339 has 180 MA's), (91, 24597), (94, 24627), (105, 24669), (124, 24726),

Gene: Pat3_32 Start: 29873, Stop: 30256, Start Num: 46

Candidate Starts for Pat3_32:

(Start: 46 @29873 has 180 MA's), (60, 29951), (61, 29978), (71, 30041), (99, 30176), (117, 30215),

Gene: Peaches_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Peaches_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Perplexer_9 Start: 5423, Stop: 5884, Start Num: 45

Candidate Starts for Perplexer_9:

(Start: 45 @5423 has 272 MA's), (57, 5492), (85, 5657), (87, 5666), (96, 5717), (99, 5729), (132, 5852),

Gene: PeterPeter_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for PeterPeter_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Petersenfast_10 Start: 7624, Stop: 8010, Start Num: 45

Candidate Starts for Petersenfast_10:

(Start: 45 @7624 has 272 MA's), (57, 7693), (90, 7873), (101, 7939),

Gene: PetiteSangsue_9 Start: 5429, Stop: 5890, Start Num: 45

Candidate Starts for PetiteSangsue_9:

(Start: 45 @5429 has 272 MA's), (57, 5498), (85, 5663), (87, 5672), (96, 5723), (99, 5735), (132, 5858),

Gene: Petra64142_35 Start: 31607, Stop: 31990, Start Num: 46

Candidate Starts for Petra64142_35:

(Start: 46 @31607 has 180 MA's), (60, 31685), (61, 31712), (71, 31775), (99, 31910), (117, 31949),

Gene: Ph8s_12 Start: 5847, Stop: 6245, Start Num: 46

Candidate Starts for Ph8s_12:

(Start: 46 @5847 has 180 MA's), (84, 6087), (89, 6105), (100, 6171), (110, 6189),

Gene: Phacado_9 Start: 5419, Stop: 5880, Start Num: 45

Candidate Starts for Phacado_9:

(Start: 45 @5419 has 272 MA's), (66, 5551), (72, 5596), (75, 5626), (82, 5641), (87, 5662), (98, 5722), (99, 5725),

Gene: Phaja_33 Start: 31323, Stop: 31706, Start Num: 46

Candidate Starts for Phaja_33:

(Start: 46 @31323 has 180 MA's), (60, 31401), (61, 31428), (71, 31491), (99, 31626), (117, 31665),

Gene: PhancyPhin_26 Start: 23386, Stop: 23790, Start Num: 46

Candidate Starts for PhancyPhin_26:

(8, 22765), (9, 22768), (11, 22840), (14, 22861), (15, 22954), (16, 22981), (Start: 46 @23386 has 180 MA's), (71, 23560), (117, 23749),

Gene: Phantasmagoria_48 Start: 42307, Stop: 42840, Start Num: 42

Candidate Starts for Phantasmagoria_48:

(24, 42124), (29, 42181), (30, 42184), (Start: 42 @42307 has 32 MA's), (65, 42463), (67, 42472), (69, 42496), (80, 42565), (87, 42592), (92, 42610), (96, 42643), (99, 42655), (103, 42673), (115, 42706),

Gene: Pharsalus_34 Start: 31927, Stop: 32310, Start Num: 46

Candidate Starts for Pharsalus_34:

(Start: 46 @31927 has 180 MA's), (60, 32005), (61, 32032), (71, 32095), (99, 32230), (117, 32269),

Gene: PhatBacter_33 Start: 31175, Stop: 31558, Start Num: 46

Candidate Starts for PhatBacter_33:

(Start: 46 @31175 has 180 MA's), (60, 31253), (61, 31280), (71, 31343), (99, 31478), (117, 31517),

Gene: Phaux_32 Start: 31173, Stop: 31556, Start Num: 46

Candidate Starts for Phaux_32:

(Start: 46 @31173 has 180 MA's), (60, 31251), (61, 31278), (71, 31341), (99, 31476), (117, 31515),

Gene: Phelipe_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Phelipe_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Phighter1804_9 Start: 5405, Stop: 5857, Start Num: 45

Candidate Starts for Phighter1804_9:

(35, 5312), (Start: 45 @5405 has 272 MA's), (57, 5474), (72, 5582), (87, 5648), (99, 5711), (123, 5786), (129, 5816),

Gene: Philonius_29 Start: 24330, Stop: 24734, Start Num: 46

Candidate Starts for Philonius_29:

(8, 23709), (9, 23712), (11, 23784), (14, 23805), (Start: 46 @24330 has 180 MA's), (91, 24588), (94, 24618), (105, 24660), (124, 24717),

Gene: Phlei_7 Start: 7530, Stop: 7898, Start Num: 46

Candidate Starts for Phlei_7:

(18, 7212), (Start: 46 @7530 has 180 MA's), (84, 7752), (85, 7755), (91, 7776),

Gene: Phloss_26 Start: 23766, Stop: 24170, Start Num: 46

Candidate Starts for Phloss_26:

(Start: 46 @23766 has 180 MA's), (91, 24024), (94, 24054), (105, 24096), (124, 24153),

Gene: Phontbonne_9 Start: 5400, Stop: 5825, Start Num: 45

Candidate Starts for Phontbonne_9:

(Start: 45 @5400 has 272 MA's), (72, 5577), (75, 5607), (96, 5694), (98, 5703), (99, 5706), (104, 5727), (112, 5736), (130, 5790),

Gene: Phrux_33 Start: 30888, Stop: 31271, Start Num: 46

Candidate Starts for Phrux_33:

(Start: 46 @30888 has 180 MA's), (60, 30966), (61, 30993), (71, 31056), (99, 31191), (117, 31230),

Gene: Pipcraft_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Pipcraft_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Pipsqueaks_29 Start: 24339, Stop: 24743, Start Num: 46

Candidate Starts for Pipsqueaks_29:

(Start: 46 @24339 has 180 MA's), (91, 24597), (94, 24627), (105, 24669), (124, 24726),

Gene: Piro94_11 Start: 6507, Stop: 6944, Start Num: 45

Candidate Starts for Piro94_11:

(35, 6411), (Start: 45 @6507 has 272 MA's), (51, 6552), (98, 6807),

Gene: Pmask_14 Start: 7065, Stop: 7499, Start Num: 45

Candidate Starts for Pmask_14:

(Start: 45 @7065 has 272 MA's), (62, 7179), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: Polymorphads_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Polymorphads_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Pomar16_13 Start: 6216, Stop: 6641, Start Num: 45

Candidate Starts for Pomar16_13:

(Start: 45 @6216 has 272 MA's), (82, 6435), (90, 6465),

Gene: Porky_33 Start: 30984, Stop: 31367, Start Num: 46

Candidate Starts for Porky_33:

(Start: 46 @30984 has 180 MA's), (60, 31062), (61, 31089), (71, 31152), (99, 31287), (117, 31326),

Gene: Power_10 Start: 5938, Stop: 6375, Start Num: 45

Candidate Starts for Power_10:

(35, 5842), (Start: 45 @5938 has 272 MA's), (52, 5992), (72, 6115), (82, 6157), (87, 6178), (99, 6241), (117, 6283), (123, 6304),

Gene: Priamo_14 Start: 7083, Stop: 7514, Start Num: 45

Candidate Starts for Priamo_14:

(Start: 45 @7083 has 272 MA's), (82, 7302), (85, 7314), (87, 7323), (102, 7398),

Gene: Pumbaa_9 Start: 5404, Stop: 5856, Start Num: 45

Candidate Starts for Pumbaa_9:

(35, 5311), (Start: 45 @5404 has 272 MA's), (57, 5473), (71, 5575), (72, 5581), (87, 5647), (99, 5710), (123, 5785),

Gene: Pumpkin_35 Start: 31224, Stop: 31607, Start Num: 46

Candidate Starts for Pumpkin_35:

(Start: 46 @31224 has 180 MA's), (60, 31302), (61, 31329), (71, 31392), (99, 31527), (117, 31566),

Gene: Purgamenstris_26 Start: 23389, Stop: 23793, Start Num: 46

Candidate Starts for Purgamenstris_26:

(8, 22768), (9, 22771), (11, 22843), (14, 22864), (15, 22957), (16, 22984), (Start: 46 @23389 has 180 MA's), (71, 23563), (117, 23752),

Gene: Purky_27 Start: 24726, Stop: 25124, Start Num: 44

Candidate Starts for Purky_27:

(Start: 44 @24726 has 5 MA's), (Start: 46 @24732 has 180 MA's), (63, 24846), (71, 24900), (91, 24984), (96, 25023),

Gene: Quallification_34 Start: 31353, Stop: 31736, Start Num: 46

Candidate Starts for Quallification_34:

(Start: 46 @31353 has 180 MA's), (60, 31431), (61, 31458), (71, 31521), (99, 31656), (117, 31695),

Gene: QueenBeesly_10 Start: 5938, Stop: 6375, Start Num: 45

Candidate Starts for QueenBeesly_10:

(35, 5842), (Start: 45 @5938 has 272 MA's), (52, 5992), (72, 6115), (82, 6157), (87, 6178), (99, 6241), (117, 6283), (123, 6304),

Gene: Qyrzula_45 Start: 42454, Stop: 42987, Start Num: 42

Candidate Starts for Qyrzula_45:

(24, 42271), (29, 42328), (30, 42331), (Start: 42 @42454 has 32 MA's), (65, 42610), (67, 42619), (69, 42643), (80, 42712), (82, 42718), (85, 42730), (87, 42739), (92, 42757), (96, 42790), (99, 42802), (103, 42820), (115, 42853),

Gene: Rachaly_13 Start: 7710, Stop: 8132, Start Num: 45

Candidate Starts for Rachaly_13:

(35, 7617), (Start: 45 @7710 has 272 MA's), (51, 7755), (71, 7881), (82, 7929), (90, 7959),

Gene: Rakim_34 Start: 31253, Stop: 31636, Start Num: 46

Candidate Starts for Rakim_34:

(Start: 46 @31253 has 180 MA's), (60, 31331), (61, 31358), (71, 31421), (99, 31556), (117, 31595),

Gene: Raymond7_26 Start: 23716, Stop: 24120, Start Num: 46

Candidate Starts for Raymond7_26:

(8, 23095), (9, 23098), (11, 23170), (14, 23191), (15, 23284), (16, 23311), (25, 23533), (Start: 46 @23716 has 180 MA's), (71, 23890), (91, 23974), (117, 24079), (124, 24103),

Gene: Rebel_26 Start: 23178, Stop: 23582, Start Num: 46

Candidate Starts for Rebel_26:

(8, 22557), (9, 22560), (11, 22632), (14, 22653), (15, 22746), (16, 22773), (Start: 46 @23178 has 180 MA's), (91, 23436), (94, 23466), (105, 23508), (124, 23565),

Gene: Redi_26 Start: 23389, Stop: 23793, Start Num: 46

Candidate Starts for Redi_26:

(8, 22768), (9, 22771), (11, 22843), (14, 22864), (15, 22957), (16, 22984), (Start: 46 @23389 has 180 MA's), (71, 23563), (117, 23752),

Gene: Relief_9 Start: 5421, Stop: 5882, Start Num: 45

Candidate Starts for Relief_9:

(Start: 45 @5421 has 272 MA's), (66, 5553), (72, 5598), (75, 5628), (82, 5643), (87, 5664), (98, 5724), (99, 5727),

Gene: Rhinoforte_48 Start: 42428, Stop: 42961, Start Num: 42

Candidate Starts for Rhinoforte_48:

(24, 42245), (29, 42302), (30, 42305), (Start: 42 @42428 has 32 MA's), (65, 42584), (67, 42593), (69, 42617), (80, 42686), (87, 42713), (92, 42731), (96, 42764), (99, 42776), (103, 42794), (115, 42827),

Gene: Rifter_14 Start: 7038, Stop: 7469, Start Num: 45

Candidate Starts for Rifter_14:

(Start: 45 @7038 has 272 MA's), (82, 7257), (85, 7269), (87, 7278), (102, 7353),

Gene: Rimmer_32 Start: 30713, Stop: 31096, Start Num: 46

Candidate Starts for Rimmer_32:

(Start: 46 @30713 has 180 MA's), (60, 30791), (61, 30818), (71, 30881), (99, 31016), (117, 31055),

Gene: RiverMonster_33 Start: 30902, Stop: 31285, Start Num: 46

Candidate Starts for RiverMonster_33:

(Start: 46 @30902 has 180 MA's), (60, 30980), (61, 31007), (71, 31070), (99, 31205), (117, 31244),

Gene: Roksolana_14 Start: 7065, Stop: 7496, Start Num: 45

Candidate Starts for Roksolana_14:

(Start: 45 @7065 has 272 MA's), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: Romney_9 Start: 5419, Stop: 5880, Start Num: 45

Candidate Starts for Romney_9:

(Start: 45 @5419 has 272 MA's), (66, 5551), (72, 5596), (75, 5626), (82, 5641), (87, 5662), (98, 5722), (99, 5725),

Gene: RonRayGun_28 Start: 25159, Stop: 25599, Start Num: 45

Candidate Starts for RonRayGun_28:

(21, 24922), (35, 25063), (Start: 42 @25141 has 32 MA's), (Start: 45 @25159 has 272 MA's), (65, 25288), (72, 25336), (85, 25393), (96, 25453), (99, 25465), (106, 25489), (134, 25579), (135, 25594),

Gene: Roosevelt_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Roosevelt_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Rosebush_47 Start: 42423, Stop: 42959, Start Num: 42

Candidate Starts for Rosebush_47:

(24, 42240), (29, 42297), (30, 42300), (Start: 42 @42423 has 32 MA's), (65, 42579), (67, 42588), (69, 42612), (80, 42684), (82, 42690), (85, 42702), (87, 42711), (92, 42729), (96, 42762), (99, 42774), (103, 42792), (115, 42825),

Gene: Ruin_9 Start: 5419, Stop: 5880, Start Num: 45

Candidate Starts for Ruin_9:

(Start: 45 @5419 has 272 MA's), (66, 5551), (72, 5596), (75, 5626), (82, 5641), (87, 5662), (98, 5722), (99, 5725),

Gene: Sabella_47 Start: 42300, Stop: 42833, Start Num: 42

Candidate Starts for Sabella_47:

(24, 42117), (29, 42174), (30, 42177), (Start: 42 @42300 has 32 MA's), (65, 42456), (67, 42465), (69, 42489), (80, 42558), (87, 42585), (92, 42603), (96, 42636), (99, 42648), (103, 42666), (115, 42699),

Gene: Sabertooth_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Sabertooth_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Saints25_34 Start: 30805, Stop: 31188, Start Num: 46

Candidate Starts for Saints25_34:

(Start: 46 @30805 has 180 MA's), (60, 30883), (61, 30910), (71, 30973), (99, 31108), (117, 31147),

Gene: Salz_11 Start: 7621, Stop: 8004, Start Num: 45

Candidate Starts for Salz_11:

(Start: 45 @7621 has 272 MA's), (57, 7690), (90, 7870), (101, 7936),

Gene: Samty_27 Start: 26437, Stop: 26853, Start Num: 46

Candidate Starts for Samty_27:

(Start: 46 @26437 has 180 MA's), (51, 26482), (53, 26494), (57, 26506), (66, 26569), (84, 26668), (90, 26689), (120, 26794),

Gene: Sassay_32 Start: 30651, Stop: 31034, Start Num: 46

Candidate Starts for Sassay_32:

(Start: 46 @30651 has 180 MA's), (60, 30729), (61, 30756), (71, 30819), (99, 30954), (117, 30993),

Gene: Scamp_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Scamp_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Schnauzer_29 Start: 24339, Stop: 24743, Start Num: 46

Candidate Starts for Schnauzer_29:

(Start: 46 @24339 has 180 MA's), (91, 24597), (94, 24627), (105, 24669), (124, 24726),

Gene: Scitech_26 Start: 23516, Stop: 23920, Start Num: 46

Candidate Starts for Scitech_26:

(Start: 46 @23516 has 180 MA's), (91, 23774), (94, 23804), (105, 23846), (124, 23903),

Gene: SemperFi_12 Start: 6366, Stop: 6803, Start Num: 45

Candidate Starts for SemperFi_12:

(35, 6270), (Start: 45 @6366 has 272 MA's), (52, 6420), (72, 6543), (82, 6585), (87, 6606), (99, 6669), (117, 6711), (123, 6732),

Gene: Serenity_9 Start: 5207, Stop: 5602, Start Num: 45

Candidate Starts for Serenity_9:

(Start: 45 @5207 has 272 MA's), (66, 5339), (82, 5426), (90, 5456), (122, 5573),

Gene: Shaka_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Shaka_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Sham4_11 Start: 7624, Stop: 8010, Start Num: 45

Candidate Starts for Sham4_11:

(Start: 45 @7624 has 272 MA's), (57, 7693), (90, 7873), (101, 7939),

Gene: ShamWow_33 Start: 31147, Stop: 31530, Start Num: 46

Candidate Starts for ShamWow_33:

(Start: 46 @31147 has 180 MA's), (60, 31225), (61, 31252), (71, 31315), (99, 31450), (117, 31489),

Gene: Sheen_11 Start: 7152, Stop: 7595, Start Num: 44

Candidate Starts for Sheen_11:

(Start: 44 @7152 has 5 MA's), (66, 7296), (68, 7305), (70, 7329), (85, 7395), (96, 7455), (109, 7494), (111, 7500), (116, 7509),

Gene: SheldonCooper_9 Start: 5407, Stop: 5859, Start Num: 45

Candidate Starts for SheldonCooper_9:

(35, 5314), (Start: 45 @5407 has 272 MA's), (57, 5476), (71, 5578), (72, 5584), (87, 5650), (99, 5713), (123, 5788),

Gene: ShereKhan_35 Start: 32130, Stop: 32513, Start Num: 46

Candidate Starts for ShereKhan_35:

(Start: 46 @32130 has 180 MA's), (60, 32208), (61, 32235), (71, 32298), (99, 32433), (117, 32472),

Gene: ShrimpFriedEgg_26 Start: 23389, Stop: 23793, Start Num: 46

Candidate Starts for ShrimpFriedEgg_26:

(8, 22768), (9, 22771), (11, 22843), (14, 22864), (15, 22957), (16, 22984), (Start: 46 @23389 has 180 MA's), (71, 23563), (117, 23752),

Gene: Shweta_26 Start: 23517, Stop: 23921, Start Num: 46

Candidate Starts for Shweta_26:

(8, 22896), (9, 22899), (11, 22971), (14, 22992), (15, 23085), (16, 23112), (Start: 46 @23517 has 180 MA's), (91, 23775), (94, 23805), (105, 23847), (124, 23904),

Gene: Shygu2_9 Start: 5423, Stop: 5884, Start Num: 45

Candidate Starts for Shygu2_9:

(Start: 45 @5423 has 272 MA's), (57, 5492), (71, 5594), (85, 5657), (87, 5666), (96, 5717), (99, 5729), (132, 5852),

Gene: Silvafighter_29 Start: 24339, Stop: 24743, Start Num: 46

Candidate Starts for Silvafighter_29:

(Start: 46 @24339 has 180 MA's), (91, 24597), (94, 24627), (105, 24669), (124, 24726),

Gene: Silvy_29 Start: 24340, Stop: 24744, Start Num: 46

Candidate Starts for Silvy_29:

(Start: 46 @24340 has 180 MA's), (91, 24598), (94, 24628), (105, 24670), (124, 24727),

Gene: Simpliphy_34 Start: 30892, Stop: 31275, Start Num: 46

Candidate Starts for Simpliphy_34:

(Start: 46 @30892 has 180 MA's), (60, 30970), (61, 30997), (71, 31060), (99, 31195), (117, 31234),

Gene: SirDuracell_32 Start: 29812, Stop: 30195, Start Num: 46
Candidate Starts for SirDuracell_32:
(Start: 46 @29812 has 180 MA's), (60, 29890), (61, 29917), (71, 29980), (99, 30115), (117, 30154),

Gene: SkinnyPete_26 Start: 23379, Stop: 23783, Start Num: 46
Candidate Starts for SkinnyPete_26:
(Start: 46 @23379 has 180 MA's), (91, 23637), (94, 23667), (105, 23709), (124, 23766),

Gene: Skipitt_9 Start: 5420, Stop: 5881, Start Num: 45
Candidate Starts for Skipitt_9:
(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723),
(99, 5726),

Gene: Smeagan_12 Start: 6431, Stop: 6871, Start Num: 45
Candidate Starts for Smeagan_12:
(35, 6344), (Start: 45 @6431 has 272 MA's), (51, 6476), (104, 6755), (111, 6776),

Gene: SmellyB_14 Start: 7065, Stop: 7496, Start Num: 45
Candidate Starts for SmellyB_14:
(Start: 45 @7065 has 272 MA's), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: Smurph_29 Start: 24339, Stop: 24743, Start Num: 46
Candidate Starts for Smurph_29:
(Start: 46 @24339 has 180 MA's), (91, 24597), (94, 24627), (105, 24669), (124, 24726),

Gene: SnapTap_10 Start: 5938, Stop: 6375, Start Num: 45
Candidate Starts for SnapTap_10:
(35, 5842), (Start: 45 @5938 has 272 MA's), (52, 5992), (72, 6115), (82, 6157), (87, 6178), (99, 6241),
(117, 6283), (123, 6304),

Gene: Snape_11 Start: 7627, Stop: 8010, Start Num: 45
Candidate Starts for Snape_11:
(Start: 45 @7627 has 272 MA's), (57, 7696), (90, 7876), (101, 7942),

Gene: Snekmaggedon_26 Start: 23389, Stop: 23793, Start Num: 46
Candidate Starts for Snekmaggedon_26:
(8, 22768), (9, 22771), (11, 22843), (14, 22864), (15, 22957), (16, 22984), (Start: 46 @23389 has 180
MA's), (91, 23647), (94, 23677), (105, 23719), (124, 23776),

Gene: Snenia_27 Start: 26435, Stop: 26851, Start Num: 46
Candidate Starts for Snenia_27:
(Start: 46 @26435 has 180 MA's), (51, 26480), (53, 26492), (57, 26504), (66, 26567), (84, 26666), (90,
26687), (120, 26792),

Gene: SophKB_33 Start: 31146, Stop: 31529, Start Num: 46
Candidate Starts for SophKB_33:
(Start: 46 @31146 has 180 MA's), (60, 31224), (61, 31251), (71, 31314), (99, 31449), (117, 31488),

Gene: SororFago_10 Start: 6135, Stop: 6521, Start Num: 46
Candidate Starts for SororFago_10:
(28, 5961), (31, 6003), (Start: 46 @6135 has 180 MA's), (71, 6303), (76, 6348), (84, 6369), (89, 6387),
(91, 6393), (100, 6453), (101, 6456),

Gene: Sotrice96_33 Start: 31101, Stop: 31484, Start Num: 46

Candidate Starts for Sotrice96_33:

(Start: 46 @31101 has 180 MA's), (60, 31179), (61, 31206), (71, 31269), (99, 31404), (117, 31443),

Gene: Sparxx_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Sparxx_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Spino_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Spino_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: SpongeBob_26 Start: 23389, Stop: 23793, Start Num: 46

Candidate Starts for SpongeBob_26:

(8, 22768), (9, 22771), (11, 22843), (14, 22864), (15, 22957), (16, 22984), (Start: 46 @23389 has 180 MA's), (91, 23647), (94, 23677), (105, 23719), (124, 23776),

Gene: Squirty_27 Start: 23877, Stop: 24275, Start Num: 44

Candidate Starts for Squirty_27:

(Start: 44 @23877 has 5 MA's), (Start: 46 @23883 has 180 MA's), (52, 23934), (63, 23997), (71, 24051), (91, 24135), (94, 24165), (113, 24228),

Gene: Stank_36 Start: 31653, Stop: 32036, Start Num: 46

Candidate Starts for Stank_36:

(Start: 46 @31653 has 180 MA's), (60, 31731), (61, 31758), (71, 31821), (99, 31956), (117, 31995),

Gene: StarStuff_13 Start: 6175, Stop: 6600, Start Num: 45

Candidate Starts for StarStuff_13:

(Start: 45 @6175 has 272 MA's), (82, 6394), (90, 6424),

Gene: Stark_34 Start: 30905, Stop: 31288, Start Num: 46

Candidate Starts for Stark_34:

(Start: 46 @30905 has 180 MA's), (60, 30983), (61, 31010), (71, 31073), (99, 31208), (117, 31247),

Gene: Stasia_10 Start: 5853, Stop: 6326, Start Num: 45

Candidate Starts for Stasia_10:

(27, 5676), (Start: 45 @5853 has 272 MA's), (51, 5898), (96, 6147), (99, 6159), (131, 6276),

Gene: StellaBean_33 Start: 31146, Stop: 31529, Start Num: 46

Candidate Starts for StellaBean_33:

(Start: 46 @31146 has 180 MA's), (60, 31224), (61, 31251), (71, 31314), (99, 31449), (117, 31488),

Gene: Stink_8 Start: 5394, Stop: 5846, Start Num: 45

Candidate Starts for Stink_8:

(Start: 45 @5394 has 272 MA's), (57, 5463), (71, 5565), (72, 5571), (87, 5637), (99, 5700), (110, 5733), (123, 5775),

Gene: StolenFromERC_35 Start: 31137, Stop: 31520, Start Num: 46

Candidate Starts for StolenFromERC_35:

(Start: 46 @31137 has 180 MA's), (60, 31215), (61, 31242), (71, 31305), (99, 31440), (117, 31479),

Gene: SuperAwesome_14 Start: 7065, Stop: 7499, Start Num: 45
Candidate Starts for SuperAwesome_14:
(Start: 45 @7065 has 272 MA's), (62, 7179), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: SuperCallie99_14 Start: 7066, Stop: 7500, Start Num: 45
Candidate Starts for SuperCallie99_14:
(Start: 45 @7066 has 272 MA's), (62, 7180), (82, 7285), (85, 7297), (87, 7306), (102, 7381),

Gene: Superchunk_10 Start: 5746, Stop: 6141, Start Num: 46
Candidate Starts for Superchunk_10:
(Start: 46 @5746 has 180 MA's), (84, 5986), (89, 6004), (100, 6070), (110, 6088),

Gene: SweetiePie_10 Start: 5938, Stop: 6375, Start Num: 45
Candidate Starts for SweetiePie_10:
(35, 5842), (Start: 45 @5938 has 272 MA's), (52, 5992), (72, 6115), (82, 6157), (87, 6178), (99, 6241),
(117, 6283), (123, 6304),

Gene: SwirlSquare_13 Start: 5878, Stop: 6273, Start Num: 46
Candidate Starts for SwirlSquare_13:
(Start: 46 @5878 has 180 MA's), (52, 5932), (57, 5947), (77, 6100), (84, 6118), (89, 6136), (100,
6202), (110, 6220),

Gene: TA17A_48 Start: 42290, Stop: 42823, Start Num: 42
Candidate Starts for TA17A_48:
(24, 42107), (29, 42164), (30, 42167), (Start: 42 @42290 has 32 MA's), (65, 42446), (67, 42455), (69,
42479), (80, 42548), (87, 42575), (92, 42593), (96, 42626), (99, 42638), (103, 42656), (115, 42689),

Gene: TBrady12_35 Start: 31137, Stop: 31520, Start Num: 46
Candidate Starts for TBrady12_35:
(Start: 46 @31137 has 180 MA's), (60, 31215), (61, 31242), (71, 31305), (99, 31440), (117, 31479),

Gene: Tapioca_29 Start: 24339, Stop: 24743, Start Num: 46
Candidate Starts for Tapioca_29:
(Start: 46 @24339 has 180 MA's), (91, 24597), (94, 24627), (105, 24669), (124, 24726),

Gene: Taptic_37 Start: 37653, Stop: 38162, Start Num: 39
Candidate Starts for Taptic_37:
(32, 37626), (34, 37635), (Start: 39 @37653 has 8 MA's), (54, 37770), (56, 37776), (59, 37785), (60,
37794), (64, 37833), (79, 37944), (82, 37953), (84, 37962), (86, 37971), (93, 37995), (94, 38007),
(108, 38058), (115, 38076), (119, 38088),

Gene: Taquarus_9 Start: 5423, Stop: 5884, Start Num: 45
Candidate Starts for Taquarus_9:
(Start: 45 @5423 has 272 MA's), (66, 5555), (72, 5600), (75, 5630), (82, 5645), (87, 5666), (98, 5726),
(99, 5729),

Gene: Tarkin_35 Start: 32136, Stop: 32519, Start Num: 46
Candidate Starts for Tarkin_35:
(Start: 46 @32136 has 180 MA's), (60, 32214), (61, 32241), (71, 32304), (99, 32439), (117, 32478),

Gene: TarsusIV_10 Start: 5976, Stop: 6443, Start Num: 45
Candidate Starts for TarsusIV_10:

(35, 5883), (Start: 45 @5976 has 272 MA's), (51, 6021), (90, 6225), (99, 6279), (111, 6321), (125, 6369),

Gene: TeardropMSU_32 Start: 31047, Stop: 31430, Start Num: 46

Candidate Starts for TeardropMSU_32:

(Start: 46 @31047 has 180 MA's), (60, 31125), (61, 31152), (71, 31215), (99, 31350), (117, 31389),

Gene: Teaspoon_34 Start: 31100, Stop: 31483, Start Num: 46

Candidate Starts for Teaspoon_34:

(Start: 46 @31100 has 180 MA's), (60, 31178), (61, 31205), (71, 31268), (99, 31403), (117, 31442),

Gene: Terminus_33 Start: 31234, Stop: 31617, Start Num: 46

Candidate Starts for Terminus_33:

(Start: 46 @31234 has 180 MA's), (60, 31312), (61, 31339), (71, 31402), (99, 31537), (117, 31576),

Gene: Thanksgiving_9 Start: 5425, Stop: 5886, Start Num: 45

Candidate Starts for Thanksgiving_9:

(Start: 45 @5425 has 272 MA's), (66, 5557), (72, 5602), (75, 5632), (82, 5647), (87, 5668), (98, 5728), (99, 5731),

Gene: Thresher_34 Start: 31901, Stop: 32284, Start Num: 46

Candidate Starts for Thresher_34:

(Start: 46 @31901 has 180 MA's), (60, 31979), (61, 32006), (71, 32069), (99, 32204), (117, 32243),

Gene: Timothy_11 Start: 7621, Stop: 8007, Start Num: 45

Candidate Starts for Timothy_11:

(Start: 45 @7621 has 272 MA's), (57, 7690), (90, 7870), (101, 7936),

Gene: TinaFeyge_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for TinaFeyge_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Tinciduntolum_49 Start: 42434, Stop: 42970, Start Num: 42

Candidate Starts for Tinciduntolum_49:

(24, 42251), (29, 42308), (30, 42311), (Start: 42 @42434 has 32 MA's), (65, 42590), (67, 42599), (69, 42623), (80, 42695), (82, 42701), (85, 42713), (87, 42722), (92, 42740), (96, 42773), (99, 42785), (103, 42803), (115, 42836),

Gene: TinyTimmy_10 Start: 7673, Stop: 8059, Start Num: 45

Candidate Starts for TinyTimmy_10:

(Start: 45 @7673 has 272 MA's), (57, 7742), (90, 7922), (101, 7988),

Gene: Tinybot_8 Start: 5409, Stop: 5861, Start Num: 45

Candidate Starts for Tinybot_8:

(35, 5316), (Start: 45 @5409 has 272 MA's), (57, 5478), (71, 5580), (72, 5586), (87, 5652), (99, 5715), (123, 5790),

Gene: TipsytheTRex_9 Start: 5160, Stop: 5561, Start Num: 45

Candidate Starts for TipsytheTRex_9:

(Start: 45 @5160 has 272 MA's), (63, 5277), (66, 5292), (82, 5379), (90, 5409),

Gene: TiroTheta9_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for TiroTheta9_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Tomaszewski_32 Start: 30744, Stop: 31127, Start Num: 46

Candidate Starts for Tomaszewski_32:

(Start: 46 @30744 has 180 MA's), (60, 30822), (61, 30849), (71, 30912), (99, 31047), (117, 31086),

Gene: Tomathan_13 Start: 6175, Stop: 6600, Start Num: 45

Candidate Starts for Tomathan_13:

(Start: 45 @6175 has 272 MA's), (82, 6394), (90, 6424),

Gene: ToneTone_13 Start: 6978, Stop: 7409, Start Num: 45

Candidate Starts for ToneTone_13:

(Start: 45 @6978 has 272 MA's), (82, 7197), (85, 7209), (87, 7218), (102, 7293),

Gene: Tortellini_27 Start: 25084, Stop: 25476, Start Num: 46

Candidate Starts for Tortellini_27:

(3, 23986), (4, 24166), (5, 24202), (10, 24529), (12, 24547), (13, 24550), (Start: 44 @25078 has 5 MA's), (Start: 46 @25084 has 180 MA's), (63, 25198), (71, 25252), (91, 25336), (96, 25375), (113, 25429),

Gene: Toto_33 Start: 31147, Stop: 31530, Start Num: 46

Candidate Starts for Toto_33:

(Start: 46 @31147 has 180 MA's), (60, 31225), (61, 31252), (71, 31315), (99, 31450), (117, 31489),

Gene: Traaww1_31 Start: 30785, Stop: 31168, Start Num: 46

Candidate Starts for Traaww1_31:

(Start: 46 @30785 has 180 MA's), (60, 30863), (61, 30890), (71, 30953), (99, 31088), (117, 31127),

Gene: Tres_48 Start: 42303, Stop: 42836, Start Num: 42

Candidate Starts for Tres_48:

(24, 42120), (29, 42177), (30, 42180), (Start: 42 @42303 has 32 MA's), (65, 42459), (67, 42468), (69, 42492), (80, 42561), (87, 42588), (92, 42606), (96, 42639), (99, 42651), (103, 42669), (115, 42702),

Gene: TroyPia_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for TroyPia_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: Tucker_14 Start: 7065, Stop: 7496, Start Num: 45

Candidate Starts for Tucker_14:

(Start: 45 @7065 has 272 MA's), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: Tuco_34 Start: 31655, Stop: 32038, Start Num: 46

Candidate Starts for Tuco_34:

(Start: 46 @31655 has 180 MA's), (60, 31733), (61, 31760), (71, 31823), (99, 31958), (117, 31997),

Gene: Turbido_12 Start: 6434, Stop: 6898, Start Num: 45

Candidate Starts for Turbido_12:

(Start: 45 @6434 has 272 MA's), (57, 6503), (72, 6611), (82, 6653), (84, 6662), (98, 6734), (104, 6758),

Gene: TygerBlood_9 Start: 5422, Stop: 5883, Start Num: 45

Candidate Starts for TygerBlood_9:

(Start: 45 @5422 has 272 MA's), (66, 5554), (72, 5599), (75, 5629), (82, 5644), (87, 5665), (98, 5725), (99, 5728),

Gene: Ukulele_33 Start: 30905, Stop: 31288, Start Num: 46

Candidate Starts for Ukulele_33:

(Start: 46 @30905 has 180 MA's), (60, 30983), (61, 31010), (71, 31073), (99, 31208), (117, 31247),

Gene: Ulysses_8 Start: 5148, Stop: 5600, Start Num: 45

Candidate Starts for Ulysses_8:

(35, 5055), (Start: 45 @5148 has 272 MA's), (57, 5217), (71, 5319), (72, 5325), (87, 5391), (99, 5454), (123, 5529),

Gene: Updawg_12 Start: 6492, Stop: 6929, Start Num: 45

Candidate Starts for Updawg_12:

(35, 6396), (Start: 45 @6492 has 272 MA's), (51, 6537), (98, 6792), (104, 6816),

Gene: VA6_10 Start: 5970, Stop: 6431, Start Num: 45

Candidate Starts for VA6_10:

(26, 5799), (Start: 45 @5970 has 272 MA's), (82, 6189), (94, 6252), (101, 6285),

Gene: VC3_13 Start: 6174, Stop: 6599, Start Num: 45

Candidate Starts for VC3_13:

(Start: 45 @6174 has 272 MA's), (82, 6393), (90, 6423),

Gene: VohminGhazi_14 Start: 7065, Stop: 7496, Start Num: 45

Candidate Starts for VohminGhazi_14:

(Start: 45 @7065 has 272 MA's), (82, 7284), (85, 7296), (87, 7305), (102, 7380),

Gene: Wander_9 Start: 5420, Stop: 5881, Start Num: 45

Candidate Starts for Wander_9:

(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723), (99, 5726),

Gene: West99_48 Start: 42423, Stop: 42956, Start Num: 42

Candidate Starts for West99_48:

(24, 42240), (29, 42297), (30, 42300), (Start: 42 @42423 has 32 MA's), (65, 42579), (67, 42588), (69, 42612), (80, 42681), (87, 42708), (92, 42726), (96, 42759), (99, 42771), (103, 42789), (115, 42822),

Gene: Whabigail7_12 Start: 6446, Stop: 6886, Start Num: 45

Candidate Starts for Whabigail7_12:

(35, 6359), (Start: 45 @6446 has 272 MA's), (51, 6491), (104, 6770), (111, 6791),

Gene: Whirlwind_28 Start: 26172, Stop: 26585, Start Num: 46

Candidate Starts for Whirlwind_28:

(Start: 46 @26172 has 180 MA's), (51, 26217), (53, 26229), (57, 26241), (90, 26424),

Gene: Whitty_28 Start: 25159, Stop: 25599, Start Num: 45

Candidate Starts for Whitty_28:

(21, 24922), (35, 25063), (Start: 42 @25141 has 32 MA's), (Start: 45 @25159 has 272 MA's), (65, 25288), (72, 25336), (85, 25393), (96, 25453), (99, 25465), (106, 25489), (134, 25579), (135, 25594),

Gene: WideWale_12 Start: 6492, Stop: 6929, Start Num: 45

Candidate Starts for WideWale_12:

(35, 6396), (Start: 45 @6492 has 272 MA's), (51, 6537), (98, 6792), (104, 6816),

Gene: Wiggin_36 Start: 31651, Stop: 32034, Start Num: 46

Candidate Starts for Wiggin_36:

(Start: 46 @31651 has 180 MA's), (60, 31729), (61, 31756), (71, 31819), (99, 31954), (117, 31993),

Gene: Wiks_14 Start: 7046, Stop: 7477, Start Num: 45

Candidate Starts for Wiks_14:

(Start: 45 @7046 has 272 MA's), (82, 7265), (85, 7277), (87, 7286), (102, 7361),

Gene: Wilbur_9 Start: 5419, Stop: 5880, Start Num: 45

Candidate Starts for Wilbur_9:

(Start: 45 @5419 has 272 MA's), (66, 5551), (72, 5596), (75, 5626), (82, 5641), (87, 5662), (98, 5722), (99, 5725),

Gene: Wile_9 Start: 5430, Stop: 5891, Start Num: 45

Candidate Starts for Wile_9:

(Start: 45 @5430 has 272 MA's), (57, 5499), (85, 5664), (87, 5673), (96, 5724), (99, 5736), (132, 5859),

Gene: Willez_32 Start: 30651, Stop: 31034, Start Num: 46

Candidate Starts for Willez_32:

(Start: 46 @30651 has 180 MA's), (60, 30729), (61, 30756), (71, 30819), (99, 30954), (117, 30993),

Gene: Willsammy_27 Start: 24742, Stop: 25143, Start Num: 44

Candidate Starts for Willsammy_27:

(Start: 44 @24742 has 5 MA's), (Start: 46 @24748 has 180 MA's), (63, 24862), (71, 24916), (91, 25000), (96, 25039), (113, 25096),

Gene: Wizard007_9 Start: 5422, Stop: 5883, Start Num: 45

Candidate Starts for Wizard007_9:

(Start: 45 @5422 has 272 MA's), (66, 5554), (72, 5599), (75, 5629), (82, 5644), (87, 5665), (98, 5725), (99, 5728),

Gene: WunderPhul_14 Start: 7046, Stop: 7477, Start Num: 45

Candidate Starts for WunderPhul_14:

(Start: 45 @7046 has 272 MA's), (82, 7265), (85, 7277), (87, 7286), (102, 7361),

Gene: Xandras_35 Start: 31137, Stop: 31520, Start Num: 46

Candidate Starts for Xandras_35:

(Start: 46 @31137 has 180 MA's), (60, 31215), (61, 31242), (71, 31305), (99, 31440), (117, 31479),

Gene: Xena_9 Start: 5429, Stop: 5878, Start Num: 45

Candidate Starts for Xena_9:

(Start: 45 @5429 has 272 MA's), (57, 5498), (85, 5663), (87, 5672), (96, 5723), (99, 5735), (121, 5801), (129, 5846),

Gene: Xeno_28 Start: 24105, Stop: 24509, Start Num: 46

Candidate Starts for Xeno_28:

(Start: 46 @24105 has 180 MA's), (91, 24363), (94, 24393), (105, 24435), (124, 24492),

Gene: Xerxes_29 Start: 24336, Stop: 24740, Start Num: 46
Candidate Starts for Xerxes_29:
(Start: 46 @24336 has 180 MA's), (91, 24594), (94, 24624), (105, 24666), (124, 24723),

Gene: XianYue_10 Start: 5913, Stop: 6362, Start Num: 45
Candidate Starts for XianYue_10:
(Start: 45 @5913 has 272 MA's), (50, 5955), (51, 5958), (82, 6132), (111, 6258),

Gene: YassJohnny_34 Start: 31662, Stop: 32045, Start Num: 46
Candidate Starts for YassJohnny_34:
(Start: 46 @31662 has 180 MA's), (60, 31740), (61, 31767), (71, 31830), (99, 31965), (117, 32004),

Gene: Yecey3_11 Start: 5912, Stop: 6295, Start Num: 46
Candidate Starts for Yecey3_11:
(20, 5666), (Start: 46 @5912 has 180 MA's), (53, 5969), (91, 6167),

Gene: YoSam321_9 Start: 5420, Stop: 5881, Start Num: 45
Candidate Starts for YoSam321_9:
(Start: 45 @5420 has 272 MA's), (66, 5552), (72, 5597), (75, 5627), (82, 5642), (87, 5663), (98, 5723),
(99, 5726),

Gene: Yokurt_14 Start: 7046, Stop: 7477, Start Num: 45
Candidate Starts for Yokurt_14:
(Start: 45 @7046 has 272 MA's), (82, 7265), (85, 7277), (87, 7286), (102, 7361),

Gene: Youngblood_33 Start: 31307, Stop: 31690, Start Num: 46
Candidate Starts for Youngblood_33:
(Start: 46 @31307 has 180 MA's), (60, 31385), (61, 31412), (71, 31475), (99, 31610), (117, 31649),

Gene: Zaka_14 Start: 7046, Stop: 7477, Start Num: 45
Candidate Starts for Zaka_14:
(Start: 45 @7046 has 272 MA's), (82, 7265), (85, 7277), (87, 7286), (102, 7361),

Gene: ZenTime222_28 Start: 25159, Stop: 25599, Start Num: 45
Candidate Starts for ZenTime222_28:
(21, 24922), (35, 25063), (Start: 42 @25141 has 32 MA's), (Start: 45 @25159 has 272 MA's), (65, 25288), (72, 25336), (85, 25393), (96, 25453), (99, 25465), (106, 25489), (134, 25579), (135, 25594),

Gene: Zulu_14 Start: 7045, Stop: 7476, Start Num: 45
Candidate Starts for Zulu_14:
(Start: 45 @7045 has 272 MA's), (82, 7264), (85, 7276), (87, 7285), (102, 7360),

Gene: xkcd_34 Start: 31316, Stop: 31699, Start Num: 46
Candidate Starts for xkcd_34:
(Start: 46 @31316 has 180 MA's), (60, 31394), (61, 31421), (71, 31484), (99, 31619), (117, 31658),