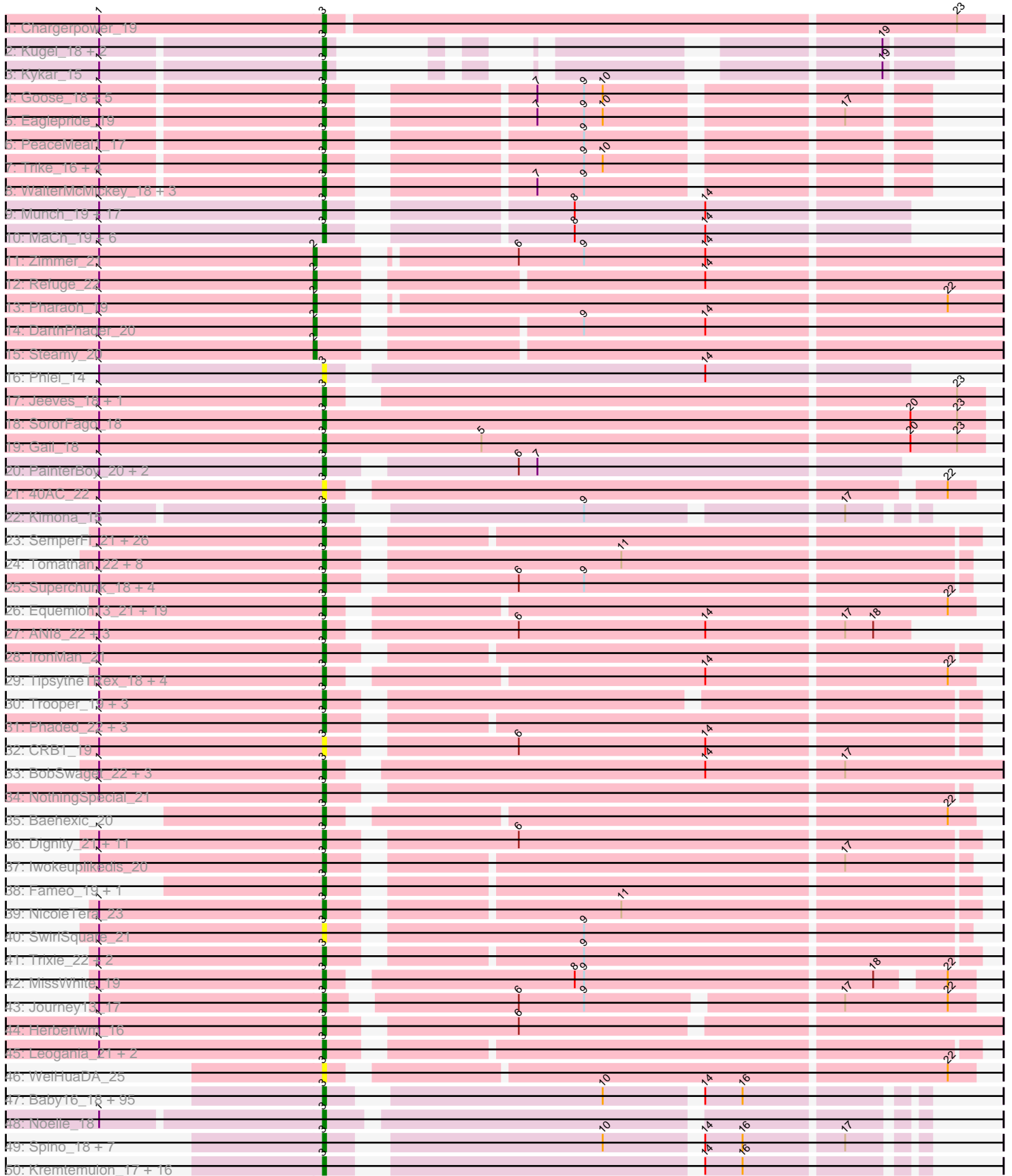


Pham 171113



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 171113 Report

This analysis was run 07/09/24 on database version 566.

Pham number 171113 has 442 members, 24 are drafts.

Phages represented in each track:

- Track 1 : Chargerpower_19
- Track 2 : Kugel_18, Target_19, BillKnuckles_18
- Track 3 : Kykar_15
- Track 4 : Goose_18, RhynO_19, Rebeuca_19, OKCentral2016_18, Chupacabra_18, Kristoff_19
- Track 5 : Eaglepride_19
- Track 6 : PeaceMeal1_17
- Track 7 : Trike_16, Severus_17, Drake94_17, KittenMittens_17, Poompha_17
- Track 8 : WalterMcMickey_18, Twister_18, Topanga_18, Edison31_18
- Track 9 : Munch_19, Salz_19, Lucivia_19, Orange_19, Insomnia_19, Jabith_19, Et2Brutus_18, Flaverint_19, Bowtie_19, Sham4_19, Petersenfast_18, Timothy_19, Joselito_19, Aneem_19, Mulciber_19, Bud_19, Hutc2_19, Snape_19
- Track 10 : MaCh_19, Bachome_19, Ebony_19, Fibonacci_19, Gilberta_19, TinyTimmy_18, Mabel_19
- Track 11 : Zimmer_21
- Track 12 : Refuge_22
- Track 13 : Pharaoh_19
- Track 14 : DARTHPhader_20
- Track 15 : Steamy_20
- Track 16 : Phlei_14
- Track 17 : Jeeves_18, Luchador_20
- Track 18 : SororFago_18
- Track 19 : Gail_18
- Track 20 : PainterBoy_20, Lucyedi_20, EagleEye_21
- Track 21 : 40AC_22
- Track 22 : Kimona_15
- Track 23 : SemperFi_21, QueenBeesly_19, Anselm_19, AN3_19, Colin_23, Georgie2_20, SweetiePie_19, Power_19, VA6_19, Pukovnik_21, KingCyrus_21, Deloris_20, Dalmatian_19, 20ES_19, BengiVuitton_20, SnapTap_19, First_0019, LadyBird_19, Benvolio_19, EvilGenius_21, DudeLittle_19, Echild_19, Crucio_19, Heffalump_21, FiringLine_19, ChipMunk_21, ArcherNM_21
- Track 24 : Tomathan_22, D29_19.1, StarStuff_22, Duplo_22, Kerberos_22, DBQu4n_22, Pomar16_22, Naji_22, D32_22
- Track 25 : Superchunk_18, Che12_21, Odin_18, Ph8s_20, Adzzy_20
- Track 26 : Equemioh13_21, Malec_20, NaSiaTalie_19, AnnaL29_22, Loser_22, Flare16_19, EZMoney23_23, HarryHoudini_21, Updawg_21, Drake55_21, RedRock_22, BabyBack_21, GaugeLDP_21, Kalpine_22, Centaur_21,

Changeling_22, Larenn_20, WideWale_21, MiculUcigas_19, Piro94_20

- Track 27 : ANI8_22, AN9_22, VC3_22, C3_17
- Track 28 : IronMan_21
- Track 29 : TipsytheTRex_18, L5_19.1, Koduck_19, Serenity_18, Jsquared_18
- Track 30 : Trooper_19, Retro23_19, Maminiaina_20, BogosyJay_20
- Track 31 : Phaded_22, Landor_20, Bactobuster_20, Jaan_22
- Track 32 : CRB1_19
- Track 33 : BobSwaget_22, Miko_22, Rachaly_22, Lökk_22
- Track 34 : NothingSpecial_21
- Track 35 : Baehexic_20
- Track 36 : Dignity_21, Jerm_21, Whabigail7_21, Agape74_21, AbbyPaige_21, Buggy_21, TarsusIV_19, Leviathan_21, LilTurb_21, Smeagan_21, Turbido_21, SheaKeira_19
- Track 37 : Iwokeuplikedis_20
- Track 38 : Fameo_19, QueenB2_19
- Track 39 : NicoleTera_23
- Track 40 : SwirlSquare_21
- Track 41 : Trixie_22, JoshKayV_21, XianYue_19
- Track 42 : MissWhite_19
- Track 43 : Journey13_17
- Track 44 : Herbertwm_16
- Track 45 : Leogania_21, Toaka_18, BiancaTri92_21
- Track 46 : WeiHuaDA_25
- Track 47 : Baby16_18, BubbleTrouble_18, Eurydice_18, Backyardigan_18, Roosevelt_18, Scamp_18, Clarenza_18, Taquarus_18, Pipcraft_18, NorthStar_18, JetBlade_18, Cocoaberry_18, Maverick_18, ChampagnePapi_19, Commander_18, BellusTerra_18, Chaph_18, Connomayer_18, LHTSCC_19, BangNhom_18, Iceman_19, Phacado_18, Peaches_18, Nyxis_18, Citius_18, Wizard007_18, Badger_18, LittleGuy_18, Deano_18, Ohfah_18, Annyong_18, LeoAvram_18, Florean_18, ICleared_18, Jaykayelowell_18, Polymorphads_18, Cerulean_19, Obama12_19, Dhanush_18, Gadost_18, Lunsford_19, NotAPhaseMom_18, Nebs_18, Xena_18, Medusa_18, Datway_18, HamSlice_17, Bartimeaus_18, Morrow_18, Blackmoor_18, Bruiser_18, Arturo_17, Eros_18, Burger_17, Wile_18, Albee_18, Iracema64_19, Houdini22_18, Flux_18, Palestino_18, Phontbonne_18, TiroTheta9_18, Sparxx_18, OKaNui_19, JoongJeon_18, Melvin_18, TygerBlood_18, PeterPeter_18, Bombshell_18, Avle17_18, Mazhar510_18, Phelipe_18, Sabertooth_18, Eagle_17, Tinybot_17, Alberto7_19, Camperdownii_17, Abdiel_18, Maxo_18, TroyPia_18, Ruin_18, Achebe_18, Broseidon_18, Druantia_18, Lorenzo_18, Holli_18, SheldonCooper_19, Kingmustik0402_18, Relief_18, Kamy_18, CentreCat_18, Nemo27_18, Lemur_18, LittleB_18, Wander_18, Caelakin_18
- Track 48 : Noelle_18
- Track 49 : Spino_18, Romney_18, MeeZee_18, YoSam321_18, Wilbur_18, Eapen_18, TinaFeyge_18, Skipitt_18
- Track 50 : Kremtemulon_17, Ulysses_17, Millski_18, Funston_18, Happiness_18, Pumbaa_18, Shaka_18, LochMonster_18, Koreni_17, LappelDuVide_17, Kyee_18, Thanksgivukkah_18, Cintron_18, Eris_18, Kratark_18, Phighter1804_18, DirtyDunning_18
- Track 51 : Perplexer_18, Bumblebee11_18, PetiteSangsue_18, Katalie136_18, Morpher26_18
- Track 52 : Shygu2_18, Cici_18, Mundrea_18, AbbysRanger_18
- Track 53 : Miramae_18, AvatarAhPeg_19
- Track 54 : KFPoly_18

- Track 55 : Stasia_19
- Track 56 : Cindaradix_17, Stink_19
- Track 57 : Chadwick_16, PetterN_16, Jabiru_15, Scorpio_16, Naca_15, Airmid_15
- Track 58 : Archetta_15, SydNat_15, Jovo_15, Phlorence_15, Milcery_15, Cuco_15, Midas2_15, Dublin_14, Tarynearal_14, HuhtaEnerson15_15, MarysWell_14, PickleBack_15, Lev2_15, Swirley_15, Coog_15, Bluefalcon_14, George_14, LittleCherry_15, Ghouboy_15, AgentM_15, Bonamassa_15, Zolita_14, Micasa_14, Aragog_15
- Track 59 : Tiger_15, ForGetIt_15, Discoknowium_15, Conspiracy_15
- Track 60 : UnionJack_15, Benedict_15, EITiger69_15
- Track 61 : Garak_23, Cookiedough_22, Isiphiwo_22, Wiks_22, SuperCallie99_22, JewelBug_22, VohminGhazi_22, Pmask_22, Helmet_23, Jordennis_22, SmellyB_22, Neeharika16_22, Newrala_22, Dorothea_21, Chartreuse_22, DaVinci_22, Yokurt_22, Candra_22, ToneTone_20, Priamo_22, WunderPhul_22, EricB_22, Kazan_22, Zulu_22, Lilbunny_21, Hoot_22, McFly_22, BABullseye_22, SuperAwesome_22, GreedyLawyer_22, Zaka_22, Kipper29_22
- Track 62 : Rifter_22, Koko_22, Tucker_22, Hammer_22, CloudWang3_22, Gladiator_22, Blue7_22, Roksolana_22, Artemis2UCLA_22, Indra_22, Hexamo_22, Gruunaga_22, Jeffabunny_22
- Track 63 : Blinn1_22
- Track 64 : DroogsArmy_19, Timshel_19
- Track 65 : HINdeR_18
- Track 66 : Sheen_20
- Track 67 : Dixon_15, Smeadley_15, Danforth_14, Expelliarmus_14, NearlyHeadless_15, Saintus_15, Groundhog_14, Roary_15, Astro_15, Stephig9_15
- Track 68 : Phillis_15
- Track 69 : Qobbit_20, Tubs_20, Phaeder_20, DreamTeam1_19, Scherzo_20, Priya_20, ExplosioNervosa_20, Ugenie5_17, Aliter_20, Fayely_20, Phonnegut_20, Pioneer_20, EmyBug_20, Eidsmoe_20, Myxus_20, HortumSL17_20, Alma_20, Conquerage_20, Catalina_20, Spouty_19, Beemo_20, PackMan_20, Charm_19
- Track 70 : Keziacharles14_18
- Track 71 : Darrell_21
- Track 72 : Arissanae_18
- Track 73 : Vanisoa_18
- Track 74 : Rahalelujah_18
- Track 75 : LoneWolf_20, Acolyte_19
- Track 76 : Yecey3_19
- Track 77 : Elephantoon_20

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

The start number called the most often in the published annotations is 3, it was called in 413 of the 418 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES_19, 40AC_22, AN3_19, AN9_22, ANI8_22, AbbyPaige_21, AbbysRanger_18, Abdiel_18, Achebe_18, Acolyte_19, Adzzy_20, Agape74_21, AgentM_15, Airmid_15, Albee_18, Alberto7_19, Aliter_20, Alma_20, Aneem_19, AnnaL29_22, Annyong_18, Anselm_19, Aragog_15, ArcherNM_21, Archetta_15, Arissanae_18, Artemis2UCLA_22, Arturo_17, Astro_15, AvatarAhPeg_19, Avle17_18,

BABullseye_22, Baby16_18, BabyBack_21, Bachome_19, Backyardigan_18, Bactobuster_20, Badger_18, Baehexic_20, BangNhom_18, Bartimeaus_18, Beemo_20, BellusTerra_18, Benedict_15, BengiVuitton_20, Benvolio_19, BiancaTri92_21, BillKnuckles_18, Blackmoor_18, Blinn1_22, Blue7_22, Bluefalcon_14, BobSwaget_22, BogosyJay_20, Bombshell_18, Bonamassa_15, Bowtie_19, Broseidon_18, Bruiser_18, BubbleTrouble_18, Bud_19, Buggy_21, Bumblebee11_18, Burger_17, C3_17, CRB1_19, Caelakin_18, Camperdownii_17, Candra_22, Catalina_20, Centaur_21, CentreCat_18, Cerulean_19, Chadwick_16, ChampagnePapi_19, Changeling_22, Chaph_18, Chargerpower_19, Charm_19, Chartreuse_22, Che12_21, ChipMunk_21, Chupacabra_18, Cici_18, Cindaradix_17, Cintron_18, Citius_18, Clarenza_18, CloudWang3_22, Cocoaberry_18, Colin_23, Commander_18, Connomayer_18, Conquerage_20, Conspiracy_15, Coog_15, Cookiedough_22, Crucio_19, Cuco_15, D29_19.1, D32_22, DBQu4n_22, DaVinci_22, Dalmatian_19, Danforth_14, Darrell_21, Datway_18, Deano_18, Deloris_20, Dhanush_18, Dignity_21, DirtyDunning_18, Discoknowium_15, Dixon_15, Dorothea_21, Drake55_21, Drake94_17, DreamTeam1_19, DroogsArmy_19, Druantia_18, Dublin_14, DudeLittle_19, Duplo_22, EZMoney23_23, EagleEye_21, Eagle_17, Eaglepride_19, Eapen_18, Ebony_19, Echild_19, Edison31_18, Eidsmoe_20, ElTiger69_15, Elephantoon_20, EmyBug_20, Equemioh13_21, EricB_22, Eris_18, Eros_18, Et2Brutus_18, Eurydice_18, EvilGenius_21, Expelliarmus_14, ExplosioNervosa_20, Fameo_19, Fayely_20, Fibonacci_19, FiringLine_19, First_0019, Flare16_19, Flaverint_19, Florean_18, Flux_18, ForGetIt_15, Funston_18, Gadost_18, Gail_18, Garak_23, GaugeLDP_21, George_14, Georgie2_20, Ghoulboy_15, Gilberta_19, Gladiator_22, Goose_18, GreedyLawyer_22, Groundhog_14, Gruunaga_22, HINdeR_18, HamSlice_17, Hammer_22, Happiness_18, HarryHoudini_21, Heffalump_21, Helmet_23, Herbertwm_16, Hexamo_22, Holli_18, Hoot_22, HortumSL17_20, Houdini22_18, HuhtaEnerson15_15, Hutc2_19, ICleared_18, Iceman_19, Indra_22, Insomnia_19, Iracema64_19, IronMan_21, Isiphiwo_22, Iwokeuplikedis_20, Jaan_22, Jabiru_15, Jabith_19, Jaykayelowell_18, Jeeves_18, Jeffabunny_22, Jerm_21, JetBlade_18, JewelBug_22, JoongJeon_18, Jordennis_22, Joselito_19, JoshKayV_21, Journey13_17, Jovo_15, Jsquared_18, KFPoly_18, Kalpine_22, Kampy_18, Katalie136_18, Kazan_22, Kerberos_22, Keziacharles14_18, Kimona_15, KingCyrus_21, Kingmustik0402_18, Kipper29_22, KittenMittens_17, Koduck_19, Koko_22, Koreni_17, Kratark_18, Kremtemulon_17, Kristoff_19, Kugel_18, Kyee_18, Kykar_15, L5_19.1, LHTSCC_19, LadyBird_19, Landor_20, LappelDuVide_17, Larenn_20, Lemur_18, LeoAvram_18, Leogania_21, Lev2_15, Leviathan_21, LilTurb_21, Lilbunny_21, LittleB_18, LittleCherry_15, LittleGuy_18, LochMonster_18, Lokk_22, LoneWolf_20, Lorenzo_18, Loser_22, Luchador_20, Lucivia_19, Lucyedi_20, Lunsford_19, MaCh_19, Mabel_19, Malec_20, Maminiaina_20, MarysWell_14, Maverick_18, Maxo_18, Mazhar510_18, McFly_22, Medusa_18, MeeZee_18, Melvin_18, Micasa_14, MiculUcigas_19, Midas2_15, Miko_22, Milcery_15, Millski_18, Miramae_18, MissWhite_19, Morpher26_18, Morrow_18, Mulciber_19, Munch_19, Mundrea_18, Myxus_20, NaSiaTalie_19, Naca_15, Naji_22, NearlyHeadless_15, Nebs_18, Neeharika16_22, Nemo27_18, Newrala_22, NicoleTera_23, Noelle_18, NorthStar_18, NotAPhaseMom_18, NothingSpecial_21, Nyxis_18, OKCentral2016_18, OKaNui_19, Obama12_19, Odin_18, Ohfah_18, Orange_19, PackMan_20, PainterBoy_20, Palestino_18, PeaceMeal1_17, Peaches_18, Perplexer_18, PeterPeter_18, Petersenfast_18, PetiteSangsue_18, PetterN_16, Ph8s_20, Phacado_18, Phaded_22, Phaeder_20, Phelipe_18, Phighter1804_18, Phillis_15, Phlei_14, Phlorence_15, Phonnegut_20, Phontbonne_18, PickleBack_15, Pioneer_20, Pipcraft_18, Piro94_20, Pmask_22, Polymorphads_18, Pomar16_22, Poompha_17, Power_19, Priamo_22, Priya_20,

Pukovnik_21, Pumbaa_18, Qobbit_20, QueenB2_19, QueenBeesly_19, Rachaly_22, Rahalelujah_18, Rebeuca_19, RedRock_22, Relief_18, Retro23_19, RhynO_19, Rifter_22, Roary_15, Roksolana_22, Romney_18, Roosevelt_18, Ruin_18, Sabertooth_18, Saintus_15, Salz_19, Scamp_18, Scherzo_20, Scorpia_16, SemperFi_21, Serenity_18, Severus_17, Shaka_18, Sham4_19, SheaKeira_19, Sheen_20, SheldonCooper_19, Shygu2_18, Skipitt_18, Smeadley_15, Smeagan_21, SmellyB_22, SnapTap_19, Snape_19, SororFago_18, Sparxx_18, Spino_18, Spouty_19, StarStuff_22, Stasia_19, Stephig9_15, Stink_19, SuperAwesome_22, SuperCallie99_22, Superchunk_18, SweetiePie_19, SwirlSquare_21, Swirley_15, SydNat_15, Taquarus_18, Target_19, TarsusIV_19, Tarynearal_14, Thanksgivukkah_18, Tiger_15, Timothy_19, Timshel_19, TinaFeyge_18, TinyTimmy_18, Tinybot_17, TopsytheTRex_18, TiroTheta9_18, Toaka_18, Tomathan_22, ToneTone_20, Topanga_18, Trike_16, Trixie_22, Trooper_19, TroyPia_18, Tubs_20, Tucker_22, Turbido_21, Twister_18, TygerBlood_18, Ugenie5_17, Ulysses_17, UnionJack_15, Updawg_21, VA6_19, VC3_22, Vanisoa_18, VohminGhazi_22, WalterMcMickey_18, Wander_18, WeiHuaDA_25, Whabigail7_21, WideWale_21, Wiks_22, Wilbur_18, Wile_18, Wizard007_18, WunderPhul_22, Xena_18, XianYue_19, Yecey3_19, YoSam321_18, Yokurt_22, Zaka_22, Zolita_14, Zulu_22,

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

-

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

- DarthPhader_20, Pharaoh_19, Refuge_22, Steamy_20, Zimmer_21,

Summary by start number:

Start 2:

- Found in 5 of 442 (1.1%) of genes in pham
- Manual Annotations of this start: 5 of 418
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DarthPhader_20 (A12), Pharaoh_19 (A12), Refuge_22 (A12), Steamy_20 (A12), Zimmer_21 (A12),

Start 3:

- Found in 437 of 442 (98.9%) of genes in pham
- Manual Annotations of this start: 413 of 418
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 20ES_19 (A2), 40AC_22 (A17), AN3_19 (A2), AN9_22 (A2), ANI8_22 (A2), AbbyPaige_21 (A2), AbbysRanger_18 (A4), Abdiel_18 (A4), Achebe_18 (A4), Acolyte_19 (A2), Adzzy_20 (A2), Agape74_21 (A2), AgentM_15 (A5), Airmid_15 (A5), Albee_18 (A4), Alberto7_19 (A4), Aliter_20 (A9), Alma_20 (A9), Aneem_19 (A11), AnnaL29_22 (A2), Annyong_18 (A4), Anselm_19 (A2), Aragog_15 (A5), ArcherNM_21 (A2), Archetta_15 (A5), Arissanae_18 (A9), Artemis2UCLA_22 (A6), Arturo_17 (A4), Astro_15 (A8), AvatarAhPeg_19 (A4), Avle17_18 (A4), BABullseye_22 (A6), Baby16_18 (A4), BabyBack_21 (A2), Bachome_19 (A11), Backyardigan_18 (A4), Bactobuster_20 (A2), Badger_18 (A4), Baehexic_20 (A2), BangNhom_18 (A4), Bartimeaus_18 (A4), Beemo_20 (A9), BellusTerra_18 (A4), Benedict_15 (A5), BengiVuitton_20 (A2), Benvolio_19 (A2), BiancaTri92_21 (A2), BillKnuckles_18 (A1), Blackmoor_18 (A4), Blinn1_22 (A6), Blue7_22 (A6), Bluefalcon_14 (A5), BobSwaget_22 (A2), BogosyJay_20 (A9), Bombshell_18 (A4), Bonamassa_15 (A5), Bowtie_19 (A11), Broseidon_18 (A4),

Bruiser_18 (A4), BubbleTrouble_18 (A4), Bud_19 (A11), Buggy_21 (A2), Bumblebee11_18 (A4), Burger_17 (A4), C3_17 (A2), CRB1_19 (A2), Caelakin_18 (A4), Camperdownii_17 (A4), Candra_22 (A6), Catalina_20 (A9), Centaur_21 (A2), CentreCat_18 (A4), Cerulean_19 (A4), Chadwick_16 (A5), ChampagnePapi_19 (A4), Changeling_22 (A2), Chaph_18 (A4), Chargerpower_19 (A), Charm_19 (A9), Chartreuse_22 (A6), Che12_21 (A2), ChipMunk_21 (A2), Chupacabra_18 (A10), Cici_18 (A4), Cindaradix_17 (A4), Cintron_18 (A4), Citius_18 (A4), Clarenza_18 (A4), CloudWang3_22 (A6), Cocoaberry_18 (A4), Colin_23 (A2), Commander_18 (A4), Connomayer_18 (A4), Conquerage_20 (A9), Conspiracy_15 (A5), Coog_15 (A5), Cookiedough_22 (A6), Crucio_19 (A2), Cuco_15 (A5), D29_19.1 (A2), D32_22 (A2), DBQu4n_22 (A2), DaVinci_22 (A6), Dalmatian_19 (A2), Danforth_14 (A8), Darrell_21 (A9), Datway_18 (A4), Deano_18 (A4), Deloris_20 (A2), Dhanush_18 (A4), Dignity_21 (A2), DirtyDunning_18 (A4), Discoknowium_15 (A5), Dixon_15 (A8), Dorothea_21 (A6), Drake55_21 (A2), Drake94_17 (A10), DreamTeam1_19 (A9), DroogsArmy_19 (A7), Druantia_18 (A4), Dublin_14 (A5), DudeLittle_19 (A2), Duplo_22 (A2), EZMoney23_23 (A2), EagleEye_21 (A16), Eagle_17 (A4), Eaglepride_19 (A10), Eapen_18 (A4), Ebony_19 (A11), Echild_19 (A2), Edison31_18 (A10), Eidsmoe_20 (A9), EITiger69_15 (A5), Elephantoon_20 (A9), EmyBug_20 (A9), Equemioh13_21 (A2), EricB_22 (A6), Eris_18 (A4), Eros_18 (A4), Et2Brutus_18 (A11), Eurydice_18 (A4), EvilGenius_21 (A2), Expelliarmus_14 (A8), ExplosioNervosa_20 (A9), Fameo_19 (A2), Fayely_20 (A9), Fibonacci_19 (A11), FiringLine_19 (A2), First_0019 (A2), Flare16_19 (A2), Flaverint_19 (A11), Florean_18 (A4), Flux_18 (A4), ForGetIt_15 (A5), Funston_18 (A4), Gadost_18 (A4), Gail_18 (A14), Garak_23 (A6), GaugeLDP_21 (A2), George_14 (A5), Georgie2_20 (A2), Ghoulyboy_15 (A5), Gilberta_19 (A11), Gladiator_22 (A6), Goose_18 (A10), GreedyLawyer_22 (A6), Groundhog_14 (A8), Gruunaga_22 (A6), HINdeR_18 (A7), HamSlice_17 (A4), Hammer_22 (A6), Happiness_18 (A4), HarryHoudini_21 (A2), Heffalump_21 (A2), Helmet_23 (A6), Herbertwm_16 (A2), Hexamo_22 (A6), Holli_18 (A4), Hoot_22 (A6), HortumSL17_20 (A9), Houdini22_18 (A4), HuhtaEnerson15_15 (A5), Hutc2_19 (A11), ICleared_18 (A4), Iceman_19 (A4), Indra_22 (A6), Insomnia_19 (A11), Iracema64_19 (A4), IronMan_21 (A2), Isiphiwo_22 (A6), Iwokeuplikedis_20 (A2), Jaan_22 (A2), Jabiru_15 (A5), Jabith_19 (A11), Jaykayelowell_18 (A4), Jeeves_18 (A14), Jeffabunny_22 (A6), Jerm_21 (A2), JetBlade_18 (A4), JewelBug_22 (A6), JoongJeon_18 (A4), Jordennis_22 (A6), Joselito_19 (A11), JoshKayV_21 (A2), Journey13_17 (A2), Jovo_15 (A5), Jsquared_18 (A2), KFPoly_18 (A4), Kalpine_22 (A2), Kamy_18 (A4), Katalie136_18 (A4), Kazan_22 (A6), Kerberos_22 (A2), Keziacharles14_18 (A9), Kimona_15 (A19), KingCyrus_21 (A2), Kingmustik0402_18 (A4), Kipper29_22 (A6), KittenMittens_17 (A10), Koduck_19 (A2), Koko_22 (A6), Koreni_17 (A4), Kratark_18 (A4), Kremtemulon_17 (A4), Kristoff_19 (A10), Kugel_18 (A1), Kyee_18 (A4), Kykar_15 (A1), L5_19.1 (A2), LHTSCC_19 (A4), LadyBird_19 (A2), Landor_20 (A2), LappelDuVide_17 (A4), Larenn_20 (A2), Lemur_18 (A4), LeoAvram_18 (A4), Leogania_21 (A2), Lev2_15 (A5), Leviathan_21 (A2), LilTurb_21 (A2), Lilbunny_21 (A6), LittleB_18 (A4), LittleCherry_15 (A5), LittleGuy_18 (A4), LochMonster_18 (A4), Lokk_22 (A2), LoneWolf_20 (A9), Lorenzo_18 (A4), Loser_22 (A2), Luchador_20 (A14), Lucivia_19 (A11), Lucyedi_20 (A16), Lunsford_19 (A4), MaCh_19 (A11), Mabel_19 (A11), Malec_20 (A2), Maminiaina_20 (A9), MarysWell_14 (A5), Maverick_18 (A4), Maxo_18 (A4), Mazhar510_18 (A4), McFly_22 (A6), Medusa_18 (A4), MeeZee_18 (A4), Melvin_18 (A4), Micasa_14 (A5), MiculUcigas_19 (A2), Midas2_15 (A5), Miko_22 (A2), Milcery_15 (A5), Millski_18 (A4), Miramae_18 (A4), MissWhite_19 (A2), Morpher26_18 (A4), Morrow_18 (A4), Mulciber_19 (A11), Munch_19 (A11), Mundrea_18 (A4), Myxus_20 (A9), NaSiaTalie_19 (A2), Naca_15 (A5), Naji_22 (A2), NearlyHeadless_15 (A8), Nebs_18 (A4), Neeharika16_22 (A6),

Nemo27_18 (A4), Newrala_22 (A6), NicoleTera_23 (A2), Noelle_18 (A4), NorthStar_18 (A4), NotAPhaseMom_18 (A4), NothingSpecial_21 (A2), Nyxis_18 (A4), OKCentral2016_18 (A10), OKaNui_19 (A4), Obama12_19 (A4), Odin_18 (A2), Ohfah_18 (A4), Orange_19 (A11), PackMan_20 (A9), PainterBoy_20 (A16), Palestino_18 (A4), PeaceMeal1_17 (A10), Peaches_18 (A4), Perplexer_18 (A4), PeterPeter_18 (A4), Petersenfast_18 (A11), PetiteSangsue_18 (A4), PetterN_16 (A5), Ph8s_20 (A2), Phacado_18 (A4), Phaded_22 (A2), Phaeder_20 (A9), Phelipe_18 (A4), Phighter1804_18 (A4), Phillis_15 (A8), Phlei_14 (A13), Phlorence_15 (A5), Phonnegut_20 (A9), Phontbonne_18 (A4), PickleBack_15 (A5), Pioneer_20 (A9), Pipcraft_18 (A4), Piro94_20 (A2), Pmask_22 (A6), Polymorphads_18 (A4), Pomar16_22 (A2), Poompha_17 (A10), Power_19 (A2), Priamo_22 (A6), Priya_20 (A9), Pukovnik_21 (A2), Pumbaa_18 (A4), Qobbit_20 (A9), QueenB2_19 (A2), QueenBeesly_19 (A2), Rachaly_22 (A2), Rahalelujah_18 (A9), Rebeuca_19 (A10), RedRock_22 (A2), Relief_18 (A4), Retro23_19 (A2), RhynO_19 (A10), Rifter_22 (A6), Roary_15 (A8), Roksolana_22 (A6), Romney_18 (A4), Roosevelt_18 (A4), Ruin_18 (A4), Sabertooth_18 (A4), Saintus_15 (A8), Salz_19 (A11), Scamp_18 (A4), Scherzo_20 (A9), Scorpia_16 (A5), SemperFi_21 (A2), Serenity_18 (A2), Severus_17 (A10), Shaka_18 (A4), Sham4_19 (A11), SheaKeira_19 (A9), Sheen_20 (A7), SheldonCooper_19 (A4), Shygu2_18 (A4), Skipitt_18 (A4), Smeadley_15 (A8), Smeagan_21 (A2), SmellyB_22 (A6), SnapTap_19 (A2), Snape_19 (A11), SororFago_18 (A14), Sparxx_18 (A4), Spino_18 (A4), Spouty_19 (A9), StarStuff_22 (A2), Stasia_19 (A4), Stephig9_15 (A8), Stink_19 (A4), SuperAwesome_22 (A6), SuperCallie99_22 (A6), Superchunk_18 (A2), SweetiePie_19 (A2), SwirlSquare_21 (A2), Swirley_15 (A5), SydNat_15 (A5), Taquarus_18 (A4), Target_19 (A1), TarsusIV_19 (A2), Tarynearal_14 (A5), Thanksgivukkah_18 (A4), Tiger_15 (A5), Timothy_19 (A11), Timshel_19 (A7), TinaFeyge_18 (A4), TinyTimmy_18 (A11), Tinybot_17 (A4), TopsytheTRex_18 (A2), TiroTheta9_18 (A4), Toaka_18 (A9), Tomathan_22 (A2), ToneTone_20 (A6), Topanga_18 (A10), Trike_16 (A10), Trixie_22 (A2), Trooper_19 (A2), TroyPia_18 (A4), Tubs_20 (A9), Tucker_22 (A6), Turbido_21 (A2), Twister_18 (A10), TygerBlood_18 (A4), Ugenie5_17 (A9), Ulysses_17 (A4), UnionJack_15 (A5), Updawg_21 (A2), VA6_19 (A2), VC3_22 (A2), Vanisoa_18 (A9), VohminGhazi_22 (A6), WalterMcMickey_18 (A10), Wander_18 (A4), WeiHuaDA_25 (A2), Whabigail7_21 (A2), WideWale_21 (A2), Wiks_22 (A6), Wilbur_18 (A4), Wile_18 (A4), Wizard007_18 (A4), WunderPhul_22 (A6), Xena_18 (A4), XianYue_19 (A2), Yecey3_19 (A9), YoSam321_18 (A4), Yokurt_22 (A6), Zaka_22 (A6), Zolita_14 (A5), Zulu_22 (A6),

Summary by clusters:

There are 17 clusters represented in this pham: A, A14, A17, A16, A11, A10, A13, A12, A19, A1, A2, A5, A4, A7, A6, A9, A8,

Info for manual annotations of cluster A:

- Start number 3 was manually annotated 1 time for cluster A.

Info for manual annotations of cluster A1:

- Start number 3 was manually annotated 4 times for cluster A1.

Info for manual annotations of cluster A10:

- Start number 3 was manually annotated 17 times for cluster A10.

Info for manual annotations of cluster A11:

- Start number 3 was manually annotated 23 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 2 was manually annotated 5 times for cluster A12.

Info for manual annotations of cluster A14:

- Start number 3 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A16:

- Start number 3 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A19:

- Start number 3 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 3 was manually annotated 101 times for cluster A2.

Info for manual annotations of cluster A4:

- Start number 3 was manually annotated 135 times for cluster A4.

Info for manual annotations of cluster A5:

- Start number 3 was manually annotated 36 times for cluster A5.

Info for manual annotations of cluster A6:

- Start number 3 was manually annotated 40 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 3 was manually annotated 4 times for cluster A7.

Info for manual annotations of cluster A8:

- Start number 3 was manually annotated 11 times for cluster A8.

Info for manual annotations of cluster A9:

- Start number 3 was manually annotated 33 times for cluster A9.

Gene Information:

Gene: 20ES_19 Start: 13760, Stop: 13954, Start Num: 3

Candidate Starts for 20ES_19:

(1, 13691), (Start: 3 @13760 has 413 MA's),

Gene: 40AC_22 Start: 15786, Stop: 15977, Start Num: 3

Candidate Starts for 40AC_22:

(1, 15717), (Start: 3 @15786 has 413 MA's), (22, 15969),

Gene: AN3_19 Start: 13750, Stop: 13944, Start Num: 3

Candidate Starts for AN3_19:

(1, 13681), (Start: 3 @13750 has 413 MA's),

Gene: AN9_22 Start: 13755, Stop: 13931, Start Num: 3
Candidate Starts for AN9_22:
(1, 13686), (Start: 3 @13755 has 413 MA's), (6, 13809), (14, 13869), (17, 13911), (18, 13920),

Gene: ANI8_22 Start: 13755, Stop: 13931, Start Num: 3
Candidate Starts for ANI8_22:
(1, 13686), (Start: 3 @13755 has 413 MA's), (6, 13809), (14, 13869), (17, 13911), (18, 13920),

Gene: AbbyPaige_21 Start: 14210, Stop: 14407, Start Num: 3
Candidate Starts for AbbyPaige_21:
(1, 14141), (Start: 3 @14210 has 413 MA's), (6, 14264),

Gene: AbbysRanger_18 Start: 13061, Stop: 13234, Start Num: 3
Candidate Starts for AbbysRanger_18:
(1, 12995), (Start: 3 @13061 has 413 MA's), (10, 13145), (14, 13172),

Gene: Abdiel_18 Start: 13038, Stop: 13205, Start Num: 3
Candidate Starts for Abdiel_18:
(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155),

Gene: Achebe_18 Start: 13040, Stop: 13213, Start Num: 3
Candidate Starts for Achebe_18:
(Start: 3 @13040 has 413 MA's), (10, 13124), (14, 13151), (16, 13163),

Gene: Acolyte_19 Start: 13878, Stop: 14072, Start Num: 3
Candidate Starts for Acolyte_19:
(1, 13809), (Start: 3 @13878 has 413 MA's),

Gene: Adzzy_20 Start: 12493, Stop: 12687, Start Num: 3
Candidate Starts for Adzzy_20:
(1, 12424), (Start: 3 @12493 has 413 MA's), (6, 12547), (9, 12568),

Gene: Agape74_21 Start: 14210, Stop: 14407, Start Num: 3
Candidate Starts for Agape74_21:
(1, 14141), (Start: 3 @14210 has 413 MA's), (6, 14264),

Gene: AgentM_15 Start: 12249, Stop: 12389, Start Num: 3
Candidate Starts for AgentM_15:
(1, 12183), (Start: 3 @12249 has 413 MA's), (14, 12315), (17, 12357),

Gene: Airmid_15 Start: 12009, Stop: 12152, Start Num: 3
Candidate Starts for Airmid_15:
(1, 11943), (Start: 3 @12009 has 413 MA's), (17, 12117),

Gene: Albee_18 Start: 13041, Stop: 13208, Start Num: 3
Candidate Starts for Albee_18:
(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Alberto7_19 Start: 13343, Stop: 13510, Start Num: 3
Candidate Starts for Alberto7_19:
(Start: 3 @13343 has 413 MA's), (10, 13421), (14, 13448), (16, 13460),

Gene: Aliter_20 Start: 14442, Stop: 14639, Start Num: 3

Candidate Starts for Aliter_20:

(1, 14373), (Start: 3 @14442 has 413 MA's), (6, 14496), (15, 14562),

Gene: Alma_20 Start: 14521, Stop: 14718, Start Num: 3

Candidate Starts for Alma_20:

(1, 14452), (Start: 3 @14521 has 413 MA's), (6, 14575), (15, 14641),

Gene: Aneem_19 Start: 14302, Stop: 14472, Start Num: 3

Candidate Starts for Aneem_19:

(1, 14233), (Start: 3 @14302 has 413 MA's), (8, 14368), (14, 14410),

Gene: AnnaL29_22 Start: 15599, Stop: 15799, Start Num: 3

Candidate Starts for AnnaL29_22:

(1, 15530), (Start: 3 @15599 has 413 MA's), (22, 15791),

Gene: Annyong_18 Start: 13042, Stop: 13209, Start Num: 3

Candidate Starts for Annyong_18:

(Start: 3 @13042 has 413 MA's), (10, 13120), (14, 13147), (16, 13159),

Gene: Anselm_19 Start: 13857, Stop: 14051, Start Num: 3

Candidate Starts for Anselm_19:

(1, 13788), (Start: 3 @13857 has 413 MA's),

Gene: Aragog_15 Start: 12279, Stop: 12419, Start Num: 3

Candidate Starts for Aragog_15:

(1, 12213), (Start: 3 @12279 has 413 MA's), (14, 12345), (17, 12387),

Gene: ArcherNM_21 Start: 15551, Stop: 15745, Start Num: 3

Candidate Starts for ArcherNM_21:

(1, 15482), (Start: 3 @15551 has 413 MA's),

Gene: Archetta_15 Start: 11992, Stop: 12132, Start Num: 3

Candidate Starts for Archetta_15:

(1, 11926), (Start: 3 @11992 has 413 MA's), (14, 12058), (17, 12100),

Gene: Arissanae_18 Start: 12614, Stop: 12811, Start Num: 3

Candidate Starts for Arissanae_18:

(1, 12545), (Start: 3 @12614 has 413 MA's), (4, 12629),

Gene: Artemis2UCLA_22 Start: 13736, Stop: 13927, Start Num: 3

Candidate Starts for Artemis2UCLA_22:

(1, 13667), (Start: 3 @13736 has 413 MA's), (9, 13811), (18, 13901), (22, 13919),

Gene: Arturo_17 Start: 13152, Stop: 13319, Start Num: 3

Candidate Starts for Arturo_17:

(Start: 3 @13152 has 413 MA's), (10, 13230), (14, 13257), (16, 13269),

Gene: Astro_15 Start: 11769, Stop: 11897, Start Num: 3

Candidate Starts for Astro_15:

(1, 11703), (Start: 3 @11769 has 413 MA's),

Gene: AvatarAhPeg_19 Start: 13325, Stop: 13498, Start Num: 3

Candidate Starts for AvatarAhPeg_19:

(1, 13259), (Start: 3 @13325 has 413 MA's), (14, 13436), (16, 13448),

Gene: Avle17_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Avle17_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: BABullseye_22 Start: 13849, Stop: 14040, Start Num: 3

Candidate Starts for BABullseye_22:

(1, 13780), (Start: 3 @13849 has 413 MA's), (9, 13924), (17, 14005), (22, 14032),

Gene: Baby16_18 Start: 13050, Stop: 13217, Start Num: 3

Candidate Starts for Baby16_18:

(Start: 3 @13050 has 413 MA's), (10, 13128), (14, 13155), (16, 13167),

Gene: BabyBack_21 Start: 15390, Stop: 15581, Start Num: 3

Candidate Starts for BabyBack_21:

(1, 15321), (Start: 3 @15390 has 413 MA's), (22, 15573),

Gene: Bachome_19 Start: 14299, Stop: 14469, Start Num: 3

Candidate Starts for Bachome_19:

(1, 14230), (Start: 3 @14299 has 413 MA's), (8, 14365), (14, 14407),

Gene: Backyardigan_18 Start: 13052, Stop: 13225, Start Num: 3

Candidate Starts for Backyardigan_18:

(Start: 3 @13052 has 413 MA's), (10, 13136), (14, 13163), (16, 13175),

Gene: Bactobuster_20 Start: 15482, Stop: 15676, Start Num: 3

Candidate Starts for Bactobuster_20:

(1, 15413), (Start: 3 @15482 has 413 MA's),

Gene: Badger_18 Start: 13041, Stop: 13214, Start Num: 3

Candidate Starts for Badger_18:

(Start: 3 @13041 has 413 MA's), (10, 13125), (14, 13152), (16, 13164),

Gene: Baehexic_20 Start: 14257, Stop: 14451, Start Num: 3

Candidate Starts for Baehexic_20:

(Start: 3 @14257 has 413 MA's), (22, 14443),

Gene: BangNhom_18 Start: 13353, Stop: 13520, Start Num: 3

Candidate Starts for BangNhom_18:

(Start: 3 @13353 has 413 MA's), (10, 13431), (14, 13458), (16, 13470),

Gene: Bartimeaus_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Bartimeaus_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Beemo_20 Start: 14548, Stop: 14745, Start Num: 3

Candidate Starts for Beemo_20:

(1, 14479), (Start: 3 @14548 has 413 MA's), (6, 14602), (15, 14668),

Gene: BellusTerra_18 Start: 13038, Stop: 13205, Start Num: 3

Candidate Starts for BellusTerra_18:

(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155),

Gene: Benedict_15 Start: 12011, Stop: 12154, Start Num: 3

Candidate Starts for Benedict_15:

(1, 11945), (Start: 3 @12011 has 413 MA's), (17, 12119),

Gene: BengiVuitton_20 Start: 14173, Stop: 14367, Start Num: 3

Candidate Starts for BengiVuitton_20:

(1, 14104), (Start: 3 @14173 has 413 MA's),

Gene: Benvolio_19 Start: 13847, Stop: 14041, Start Num: 3

Candidate Starts for Benvolio_19:

(1, 13778), (Start: 3 @13847 has 413 MA's),

Gene: BiancaTri92_21 Start: 15535, Stop: 15729, Start Num: 3

Candidate Starts for BiancaTri92_21:

(1, 15466), (Start: 3 @15535 has 413 MA's),

Gene: BillKnuckles_18 Start: 13921, Stop: 14049, Start Num: 3

Candidate Starts for BillKnuckles_18:

(1, 13855), (Start: 3 @13921 has 413 MA's), (19, 14029),

Gene: Blackmoor_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Blackmoor_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Blinn1_22 Start: 13891, Stop: 14082, Start Num: 3

Candidate Starts for Blinn1_22:

(1, 13822), (Start: 3 @13891 has 413 MA's), (9, 13966), (12, 13984), (17, 14047), (22, 14074),

Gene: Blue7_22 Start: 13826, Stop: 14017, Start Num: 3

Candidate Starts for Blue7_22:

(1, 13757), (Start: 3 @13826 has 413 MA's), (9, 13901), (18, 13991), (22, 14009),

Gene: Bluefalcon_14 Start: 12249, Stop: 12389, Start Num: 3

Candidate Starts for Bluefalcon_14:

(1, 12183), (Start: 3 @12249 has 413 MA's), (14, 12315), (17, 12357),

Gene: BobSwaget_22 Start: 15401, Stop: 15604, Start Num: 3

Candidate Starts for BobSwaget_22:

(1, 15332), (Start: 3 @15401 has 413 MA's), (14, 15512), (17, 15554),

Gene: BogosyJay_20 Start: 14268, Stop: 14465, Start Num: 3

Candidate Starts for BogosyJay_20:

(1, 14199), (Start: 3 @14268 has 413 MA's),

Gene: Bombshell_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Bombshell_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Bonamassa_15 Start: 12171, Stop: 12314, Start Num: 3

Candidate Starts for Bonamassa_15:

(1, 12105), (Start: 3 @12171 has 413 MA's), (14, 12237), (17, 12279),

Gene: Bowtie_19 Start: 14302, Stop: 14472, Start Num: 3
Candidate Starts for Bowtie_19:
(1, 14233), (Start: 3 @14302 has 413 MA's), (8, 14368), (14, 14410),

Gene: Broseidon_18 Start: 13041, Stop: 13208, Start Num: 3
Candidate Starts for Broseidon_18:
(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Bruiser_18 Start: 13041, Stop: 13208, Start Num: 3
Candidate Starts for Bruiser_18:
(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: BubbleTrouble_18 Start: 13041, Stop: 13208, Start Num: 3
Candidate Starts for BubbleTrouble_18:
(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Bud_19 Start: 14308, Stop: 14478, Start Num: 3
Candidate Starts for Bud_19:
(1, 14239), (Start: 3 @14308 has 413 MA's), (8, 14374), (14, 14416),

Gene: Buggy_21 Start: 14209, Stop: 14406, Start Num: 3
Candidate Starts for Buggy_21:
(1, 14140), (Start: 3 @14209 has 413 MA's), (6, 14263),

Gene: Bumblebee11_18 Start: 13043, Stop: 13216, Start Num: 3
Candidate Starts for Bumblebee11_18:
(1, 12977), (Start: 3 @13043 has 413 MA's), (10, 13127), (14, 13154), (17, 13196),

Gene: Burger_17 Start: 13041, Stop: 13208, Start Num: 3
Candidate Starts for Burger_17:
(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: C3_17 Start: 13755, Stop: 13931, Start Num: 3
Candidate Starts for C3_17:
(1, 13686), (Start: 3 @13755 has 413 MA's), (6, 13809), (14, 13869), (17, 13911), (18, 13920),

Gene: CRB1_19 Start: 13729, Stop: 13926, Start Num: 3
Candidate Starts for CRB1_19:
(1, 13660), (Start: 3 @13729 has 413 MA's), (6, 13783), (14, 13843),

Gene: Caelakin_18 Start: 13041, Stop: 13208, Start Num: 3
Candidate Starts for Caelakin_18:
(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Camperdownii_17 Start: 12660, Stop: 12827, Start Num: 3
Candidate Starts for Camperdownii_17:
(Start: 3 @12660 has 413 MA's), (10, 12738), (14, 12765), (16, 12777),

Gene: Candra_22 Start: 13892, Stop: 14083, Start Num: 3
Candidate Starts for Candra_22:
(1, 13823), (Start: 3 @13892 has 413 MA's), (9, 13967), (17, 14048), (22, 14075),

Gene: Catalina_20 Start: 14515, Stop: 14712, Start Num: 3

Candidate Starts for Catalina_20:

(1, 14446), (Start: 3 @14515 has 413 MA's), (6, 14569), (15, 14635),

Gene: Centaur_21 Start: 14235, Stop: 14429, Start Num: 3

Candidate Starts for Centaur_21:

(1, 14166), (Start: 3 @14235 has 413 MA's), (22, 14421),

Gene: CentreCat_18 Start: 13042, Stop: 13209, Start Num: 3

Candidate Starts for CentreCat_18:

(Start: 3 @13042 has 413 MA's), (10, 13120), (14, 13147), (16, 13159),

Gene: Cerulean_19 Start: 13354, Stop: 13521, Start Num: 3

Candidate Starts for Cerulean_19:

(Start: 3 @13354 has 413 MA's), (10, 13432), (14, 13459), (16, 13471),

Gene: Chadwick_16 Start: 11979, Stop: 12122, Start Num: 3

Candidate Starts for Chadwick_16:

(1, 11913), (Start: 3 @11979 has 413 MA's), (17, 12087),

Gene: ChampagnePapi_19 Start: 13353, Stop: 13520, Start Num: 3

Candidate Starts for ChampagnePapi_19:

(Start: 3 @13353 has 413 MA's), (10, 13431), (14, 13458), (16, 13470),

Gene: Changeling_22 Start: 15600, Stop: 15794, Start Num: 3

Candidate Starts for Changeling_22:

(1, 15531), (Start: 3 @15600 has 413 MA's), (22, 15786),

Gene: Chaph_18 Start: 13050, Stop: 13217, Start Num: 3

Candidate Starts for Chaph_18:

(Start: 3 @13050 has 413 MA's), (10, 13128), (14, 13155), (16, 13167),

Gene: Chargerpower_19 Start: 12965, Stop: 13171, Start Num: 3

Candidate Starts for Chargerpower_19:

(1, 12896), (Start: 3 @12965 has 413 MA's), (23, 13163),

Gene: Charm_19 Start: 12696, Stop: 12893, Start Num: 3

Candidate Starts for Charm_19:

(1, 12627), (Start: 3 @12696 has 413 MA's), (6, 12750), (15, 12816),

Gene: Chartreuse_22 Start: 13805, Stop: 13996, Start Num: 3

Candidate Starts for Chartreuse_22:

(1, 13736), (Start: 3 @13805 has 413 MA's), (9, 13880), (17, 13961), (22, 13988),

Gene: Che12_21 Start: 12659, Stop: 12853, Start Num: 3

Candidate Starts for Che12_21:

(1, 12590), (Start: 3 @12659 has 413 MA's), (6, 12713), (9, 12734),

Gene: ChipMunk_21 Start: 14145, Stop: 14339, Start Num: 3

Candidate Starts for ChipMunk_21:

(1, 14076), (Start: 3 @14145 has 413 MA's),

Gene: Chupacabra_18 Start: 12820, Stop: 12987, Start Num: 3

Candidate Starts for Chupacabra_18:

(1, 12754), (Start: 3 @12820 has 413 MA's), (7, 12874), (9, 12889), (10, 12895),

Gene: Cici_18 Start: 13034, Stop: 13207, Start Num: 3

Candidate Starts for Cici_18:

(1, 12968), (Start: 3 @13034 has 413 MA's), (10, 13118), (14, 13145),

Gene: Cindaradix_17 Start: 12768, Stop: 12941, Start Num: 3

Candidate Starts for Cindaradix_17:

(1, 12702), (Start: 3 @12768 has 413 MA's), (16, 12891),

Gene: Cintron_18 Start: 13089, Stop: 13256, Start Num: 3

Candidate Starts for Cintron_18:

(Start: 3 @13089 has 413 MA's), (14, 13194), (16, 13206),

Gene: Citius_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Citius_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Clarenza_18 Start: 13038, Stop: 13205, Start Num: 3

Candidate Starts for Clarenza_18:

(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155),

Gene: CloudWang3_22 Start: 13836, Stop: 14027, Start Num: 3

Candidate Starts for CloudWang3_22:

(1, 13767), (Start: 3 @13836 has 413 MA's), (9, 13911), (18, 14001), (22, 14019),

Gene: Cocoaberry_18 Start: 13045, Stop: 13212, Start Num: 3

Candidate Starts for Cocoaberry_18:

(Start: 3 @13045 has 413 MA's), (10, 13123), (14, 13150), (16, 13162),

Gene: Colin_23 Start: 15439, Stop: 15633, Start Num: 3

Candidate Starts for Colin_23:

(1, 15370), (Start: 3 @15439 has 413 MA's),

Gene: Commander_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Commander_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Connomayer_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Connomayer_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Conquerage_20 Start: 14544, Stop: 14741, Start Num: 3

Candidate Starts for Conquerage_20:

(1, 14475), (Start: 3 @14544 has 413 MA's), (6, 14598), (15, 14664),

Gene: Conspiracy_15 Start: 11995, Stop: 12138, Start Num: 3

Candidate Starts for Conspiracy_15:

(1, 11929), (Start: 3 @11995 has 413 MA's), (14, 12061), (17, 12103),

Gene: Coog_15 Start: 12139, Stop: 12282, Start Num: 3

Candidate Starts for Coog_15:

(1, 12073), (Start: 3 @12139 has 413 MA's), (14, 12205), (17, 12247),

Gene: Cookiedough_22 Start: 13849, Stop: 14040, Start Num: 3
Candidate Starts for Cookiedough_22:
(1, 13780), (Start: 3 @13849 has 413 MA's), (9, 13924), (17, 14005), (22, 14032),

Gene: Crucio_19 Start: 13692, Stop: 13886, Start Num: 3
Candidate Starts for Crucio_19:
(1, 13623), (Start: 3 @13692 has 413 MA's),

Gene: Cuco_15 Start: 12170, Stop: 12313, Start Num: 3
Candidate Starts for Cuco_15:
(1, 12104), (Start: 3 @12170 has 413 MA's), (14, 12236), (17, 12278),

Gene: D29_19.1 Start: 13643, Stop: 13837, Start Num: 3
Candidate Starts for D29_19.1:
(1, 13574), (Start: 3 @13643 has 413 MA's), (11, 13730),

Gene: D32_22 Start: 13643, Stop: 13837, Start Num: 3
Candidate Starts for D32_22:
(1, 13574), (Start: 3 @13643 has 413 MA's), (11, 13730),

Gene: DBQu4n_22 Start: 13643, Stop: 13837, Start Num: 3
Candidate Starts for DBQu4n_22:
(1, 13574), (Start: 3 @13643 has 413 MA's), (11, 13730),

Gene: DaVinci_22 Start: 13859, Stop: 14050, Start Num: 3
Candidate Starts for DaVinci_22:
(1, 13790), (Start: 3 @13859 has 413 MA's), (9, 13934), (17, 14015), (22, 14042),

Gene: Dalmatian_19 Start: 13842, Stop: 14036, Start Num: 3
Candidate Starts for Dalmatian_19:
(1, 13773), (Start: 3 @13842 has 413 MA's),

Gene: Danforth_14 Start: 11748, Stop: 11876, Start Num: 3
Candidate Starts for Danforth_14:
(1, 11682), (Start: 3 @11748 has 413 MA's),

Gene: Darrell_21 Start: 14706, Stop: 14903, Start Num: 3
Candidate Starts for Darrell_21:
(1, 14637), (Start: 3 @14706 has 413 MA's), (6, 14760), (15, 14826), (17, 14862),

Gene: DarthPhader_20 Start: 14681, Stop: 14887, Start Num: 2
Candidate Starts for DarthPhader_20:
(1, 14612), (Start: 2 @14681 has 5 MA's), (9, 14756), (14, 14795),

Gene: Datway_18 Start: 13052, Stop: 13225, Start Num: 3
Candidate Starts for Datway_18:
(Start: 3 @13052 has 413 MA's), (10, 13136), (14, 13163), (16, 13175),

Gene: Deano_18 Start: 13049, Stop: 13216, Start Num: 3
Candidate Starts for Deano_18:
(Start: 3 @13049 has 413 MA's), (10, 13127), (14, 13154), (16, 13166),

Gene: Deloris_20 Start: 14173, Stop: 14367, Start Num: 3

Candidate Starts for Deloris_20:

(1, 14104), (Start: 3 @14173 has 413 MA's),

Gene: Dhanush_18 Start: 13044, Stop: 13211, Start Num: 3

Candidate Starts for Dhanush_18:

(Start: 3 @13044 has 413 MA's), (10, 13122), (14, 13149), (16, 13161),

Gene: Dignity_21 Start: 14154, Stop: 14351, Start Num: 3

Candidate Starts for Dignity_21:

(1, 14085), (Start: 3 @14154 has 413 MA's), (6, 14208),

Gene: DirtyDunning_18 Start: 13037, Stop: 13204, Start Num: 3

Candidate Starts for DirtyDunning_18:

(Start: 3 @13037 has 413 MA's), (14, 13142), (16, 13154),

Gene: Discoknowium_15 Start: 12285, Stop: 12428, Start Num: 3

Candidate Starts for Discoknowium_15:

(1, 12219), (Start: 3 @12285 has 413 MA's), (14, 12351), (17, 12393),

Gene: Dixon_15 Start: 11767, Stop: 11895, Start Num: 3

Candidate Starts for Dixon_15:

(1, 11701), (Start: 3 @11767 has 413 MA's),

Gene: Dorothea_21 Start: 13860, Stop: 14051, Start Num: 3

Candidate Starts for Dorothea_21:

(1, 13791), (Start: 3 @13860 has 413 MA's), (9, 13935), (17, 14016), (22, 14043),

Gene: Drake55_21 Start: 14253, Stop: 14447, Start Num: 3

Candidate Starts for Drake55_21:

(1, 14184), (Start: 3 @14253 has 413 MA's), (22, 14439),

Gene: Drake94_17 Start: 10911, Stop: 11078, Start Num: 3

Candidate Starts for Drake94_17:

(1, 10845), (Start: 3 @10911 has 413 MA's), (9, 10980), (10, 10986),

Gene: DreamTeam1_19 Start: 12696, Stop: 12893, Start Num: 3

Candidate Starts for DreamTeam1_19:

(1, 12627), (Start: 3 @12696 has 413 MA's), (6, 12750), (15, 12816),

Gene: DroogsArmy_19 Start: 14408, Stop: 14575, Start Num: 3

Candidate Starts for DroogsArmy_19:

(Start: 3 @14408 has 413 MA's), (13, 14507), (16, 14525),

Gene: Druantia_18 Start: 13042, Stop: 13209, Start Num: 3

Candidate Starts for Druantia_18:

(Start: 3 @13042 has 413 MA's), (10, 13120), (14, 13147), (16, 13159),

Gene: Dublin_14 Start: 12138, Stop: 12281, Start Num: 3

Candidate Starts for Dublin_14:

(1, 12072), (Start: 3 @12138 has 413 MA's), (14, 12204), (17, 12246),

Gene: DudeLittle_19 Start: 13844, Stop: 14038, Start Num: 3

Candidate Starts for DudeLittle_19:
(1, 13775), (Start: 3 @13844 has 413 MA's),

Gene: Duplo_22 Start: 13684, Stop: 13878, Start Num: 3
Candidate Starts for Duplo_22:
(1, 13615), (Start: 3 @13684 has 413 MA's), (11, 13771),

Gene: EZMoney23_23 Start: 15728, Stop: 15922, Start Num: 3
Candidate Starts for EZMoney23_23:
(1, 15659), (Start: 3 @15728 has 413 MA's), (22, 15914),

Gene: Eagle_17 Start: 13041, Stop: 13208, Start Num: 3
Candidate Starts for Eagle_17:
(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: EagleEye_21 Start: 13990, Stop: 14163, Start Num: 3
Candidate Starts for EagleEye_21:
(1, 13921), (Start: 3 @13990 has 413 MA's), (6, 14044), (7, 14050),

Gene: Eaglepride_19 Start: 12830, Stop: 12997, Start Num: 3
Candidate Starts for Eaglepride_19:
(1, 12764), (Start: 3 @12830 has 413 MA's), (7, 12884), (9, 12899), (10, 12905), (17, 12974),

Gene: Eapen_18 Start: 13040, Stop: 13207, Start Num: 3
Candidate Starts for Eapen_18:
(Start: 3 @13040 has 413 MA's), (10, 13118), (14, 13145), (16, 13157), (17, 13187),

Gene: Ebony_19 Start: 14351, Stop: 14521, Start Num: 3
Candidate Starts for Ebony_19:
(1, 14282), (Start: 3 @14351 has 413 MA's), (8, 14417), (14, 14459),

Gene: Echild_19 Start: 13847, Stop: 14041, Start Num: 3
Candidate Starts for Echild_19:
(1, 13778), (Start: 3 @13847 has 413 MA's),

Gene: Edison31_18 Start: 12854, Stop: 13021, Start Num: 3
Candidate Starts for Edison31_18:
(1, 12788), (Start: 3 @12854 has 413 MA's), (7, 12908), (9, 12923),

Gene: Eidsmoe_20 Start: 14544, Stop: 14741, Start Num: 3
Candidate Starts for Eidsmoe_20:
(1, 14475), (Start: 3 @14544 has 413 MA's), (6, 14598), (15, 14664),

Gene: EITiger69_15 Start: 12009, Stop: 12152, Start Num: 3
Candidate Starts for EITiger69_15:
(1, 11943), (Start: 3 @12009 has 413 MA's), (17, 12117),

Gene: Elephantoon_20 Start: 14135, Stop: 14332, Start Num: 3
Candidate Starts for Elephantoon_20:
(1, 14066), (Start: 3 @14135 has 413 MA's), (6, 14189), (8, 14207), (9, 14210),

Gene: EmyBug_20 Start: 14544, Stop: 14741, Start Num: 3
Candidate Starts for EmyBug_20:

(1, 14475), (Start: 3 @14544 has 413 MA's), (6, 14598), (15, 14664),

Gene: Equemioh13_21 Start: 14238, Stop: 14432, Start Num: 3

Candidate Starts for Equemioh13_21:

(1, 14169), (Start: 3 @14238 has 413 MA's), (22, 14424),

Gene: EricB_22 Start: 13849, Stop: 14040, Start Num: 3

Candidate Starts for EricB_22:

(1, 13780), (Start: 3 @13849 has 413 MA's), (9, 13924), (17, 14005), (22, 14032),

Gene: Eris_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Eris_18:

(Start: 3 @13041 has 413 MA's), (14, 13146), (16, 13158),

Gene: Eros_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Eros_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Et2Brutus_18 Start: 14305, Stop: 14475, Start Num: 3

Candidate Starts for Et2Brutus_18:

(1, 14236), (Start: 3 @14305 has 413 MA's), (8, 14371), (14, 14413),

Gene: Eurydice_18 Start: 13038, Stop: 13205, Start Num: 3

Candidate Starts for Eurydice_18:

(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155),

Gene: EvilGenius_21 Start: 14155, Stop: 14349, Start Num: 3

Candidate Starts for EvilGenius_21:

(1, 14086), (Start: 3 @14155 has 413 MA's),

Gene: Expelliarmus_14 Start: 11734, Stop: 11862, Start Num: 3

Candidate Starts for Expelliarmus_14:

(1, 11668), (Start: 3 @11734 has 413 MA's),

Gene: ExplosioNervosa_20 Start: 14547, Stop: 14744, Start Num: 3

Candidate Starts for ExplosioNervosa_20:

(1, 14478), (Start: 3 @14547 has 413 MA's), (6, 14601), (15, 14667),

Gene: Fameo_19 Start: 13770, Stop: 13964, Start Num: 3

Candidate Starts for Fameo_19:

(Start: 3 @13770 has 413 MA's),

Gene: Fayely_20 Start: 14547, Stop: 14744, Start Num: 3

Candidate Starts for Fayely_20:

(1, 14478), (Start: 3 @14547 has 413 MA's), (6, 14601), (15, 14667),

Gene: Fibonacci_19 Start: 14305, Stop: 14475, Start Num: 3

Candidate Starts for Fibonacci_19:

(1, 14236), (Start: 3 @14305 has 413 MA's), (8, 14371), (14, 14413),

Gene: FiringLine_19 Start: 13692, Stop: 13886, Start Num: 3

Candidate Starts for FiringLine_19:

(1, 13623), (Start: 3 @13692 has 413 MA's),

Gene: First_0019 Start: 13760, Stop: 13954, Start Num: 3

Candidate Starts for First_0019:

(1, 13691), (Start: 3 @13760 has 413 MA's),

Gene: Flare16_19 Start: 13796, Stop: 13990, Start Num: 3

Candidate Starts for Flare16_19:

(1, 13727), (Start: 3 @13796 has 413 MA's), (22, 13982),

Gene: Flaverint_19 Start: 14302, Stop: 14472, Start Num: 3

Candidate Starts for Flaverint_19:

(1, 14233), (Start: 3 @14302 has 413 MA's), (8, 14368), (14, 14410),

Gene: Florean_18 Start: 13038, Stop: 13205, Start Num: 3

Candidate Starts for Florean_18:

(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155),

Gene: Flux_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Flux_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: ForGetIt_15 Start: 12021, Stop: 12164, Start Num: 3

Candidate Starts for ForGetIt_15:

(1, 11955), (Start: 3 @12021 has 413 MA's), (14, 12087), (17, 12129),

Gene: Funston_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Funston_18:

(Start: 3 @13041 has 413 MA's), (14, 13146), (16, 13158),

Gene: Gadost_18 Start: 13045, Stop: 13212, Start Num: 3

Candidate Starts for Gadost_18:

(Start: 3 @13045 has 413 MA's), (10, 13123), (14, 13150), (16, 13162),

Gene: Gail_18 Start: 12857, Stop: 13066, Start Num: 3

Candidate Starts for Gail_18:

(1, 12788), (Start: 3 @12857 has 413 MA's), (5, 12908), (20, 13043), (23, 13058),

Gene: Garak_23 Start: 13854, Stop: 14045, Start Num: 3

Candidate Starts for Garak_23:

(1, 13785), (Start: 3 @13854 has 413 MA's), (9, 13929), (17, 14010), (22, 14037),

Gene: GaugeLDP_21 Start: 15063, Stop: 15254, Start Num: 3

Candidate Starts for GaugeLDP_21:

(1, 14994), (Start: 3 @15063 has 413 MA's), (22, 15246),

Gene: George_14 Start: 12171, Stop: 12314, Start Num: 3

Candidate Starts for George_14:

(1, 12105), (Start: 3 @12171 has 413 MA's), (14, 12237), (17, 12279),

Gene: Georgie2_20 Start: 13693, Stop: 13887, Start Num: 3

Candidate Starts for Georgie2_20:

(1, 13624), (Start: 3 @13693 has 413 MA's),

Gene: Ghoulboy_15 Start: 12248, Stop: 12388, Start Num: 3
Candidate Starts for Ghoulboy_15:
(1, 12182), (Start: 3 @12248 has 413 MA's), (14, 12314), (17, 12356),

Gene: Gilberta_19 Start: 14299, Stop: 14469, Start Num: 3
Candidate Starts for Gilberta_19:
(1, 14230), (Start: 3 @14299 has 413 MA's), (8, 14365), (14, 14407),

Gene: Gladiator_22 Start: 13826, Stop: 14017, Start Num: 3
Candidate Starts for Gladiator_22:
(1, 13757), (Start: 3 @13826 has 413 MA's), (9, 13901), (18, 13991), (22, 14009),

Gene: Goose_18 Start: 12821, Stop: 12988, Start Num: 3
Candidate Starts for Goose_18:
(1, 12755), (Start: 3 @12821 has 413 MA's), (7, 12875), (9, 12890), (10, 12896),

Gene: GreedyLawyer_22 Start: 13858, Stop: 14049, Start Num: 3
Candidate Starts for GreedyLawyer_22:
(1, 13789), (Start: 3 @13858 has 413 MA's), (9, 13933), (17, 14014), (22, 14041),

Gene: Groundhog_14 Start: 11735, Stop: 11863, Start Num: 3
Candidate Starts for Groundhog_14:
(1, 11669), (Start: 3 @11735 has 413 MA's),

Gene: Gruunaga_22 Start: 13826, Stop: 14017, Start Num: 3
Candidate Starts for Gruunaga_22:
(1, 13757), (Start: 3 @13826 has 413 MA's), (9, 13901), (18, 13991), (22, 14009),

Gene: HINdeR_18 Start: 14513, Stop: 14683, Start Num: 3
Candidate Starts for HINdeR_18:
(Start: 3 @14513 has 413 MA's), (16, 14630),

Gene: HamSlice_17 Start: 13039, Stop: 13206, Start Num: 3
Candidate Starts for HamSlice_17:
(Start: 3 @13039 has 413 MA's), (10, 13117), (14, 13144), (16, 13156),

Gene: Hammer_22 Start: 13841, Stop: 14032, Start Num: 3
Candidate Starts for Hammer_22:
(1, 13772), (Start: 3 @13841 has 413 MA's), (9, 13916), (18, 14006), (22, 14024),

Gene: Happiness_18 Start: 13047, Stop: 13214, Start Num: 3
Candidate Starts for Happiness_18:
(Start: 3 @13047 has 413 MA's), (14, 13152), (16, 13164),

Gene: HarryHoudini_21 Start: 14253, Stop: 14447, Start Num: 3
Candidate Starts for HarryHoudini_21:
(1, 14184), (Start: 3 @14253 has 413 MA's), (22, 14439),

Gene: Heffalump_21 Start: 15572, Stop: 15766, Start Num: 3
Candidate Starts for Heffalump_21:
(1, 15503), (Start: 3 @15572 has 413 MA's),

Gene: Helmet_23 Start: 13854, Stop: 14045, Start Num: 3

Candidate Starts for Helmet_23:

(1, 13785), (Start: 3 @13854 has 413 MA's), (9, 13929), (17, 14010), (22, 14037),

Gene: Herbertwm_16 Start: 12450, Stop: 12650, Start Num: 3

Candidate Starts for Herbertwm_16:

(1, 12381), (Start: 3 @12450 has 413 MA's), (6, 12504),

Gene: Hexamo_22 Start: 13808, Stop: 13999, Start Num: 3

Candidate Starts for Hexamo_22:

(1, 13739), (Start: 3 @13808 has 413 MA's), (9, 13883), (18, 13973), (22, 13991),

Gene: Holli_18 Start: 12831, Stop: 12998, Start Num: 3

Candidate Starts for Holli_18:

(Start: 3 @12831 has 413 MA's), (10, 12909), (14, 12936), (16, 12948),

Gene: Hoot_22 Start: 13837, Stop: 14028, Start Num: 3

Candidate Starts for Hoot_22:

(1, 13768), (Start: 3 @13837 has 413 MA's), (9, 13912), (17, 13993), (22, 14020),

Gene: HortumSL17_20 Start: 14514, Stop: 14711, Start Num: 3

Candidate Starts for HortumSL17_20:

(1, 14445), (Start: 3 @14514 has 413 MA's), (6, 14568), (15, 14634),

Gene: Houdini22_18 Start: 13045, Stop: 13212, Start Num: 3

Candidate Starts for Houdini22_18:

(Start: 3 @13045 has 413 MA's), (10, 13123), (14, 13150), (16, 13162),

Gene: HuhtaEnerson15_15 Start: 12171, Stop: 12314, Start Num: 3

Candidate Starts for HuhtaEnerson15_15:

(1, 12105), (Start: 3 @12171 has 413 MA's), (14, 12237), (17, 12279),

Gene: Hutc2_19 Start: 14305, Stop: 14475, Start Num: 3

Candidate Starts for Hutc2_19:

(1, 14236), (Start: 3 @14305 has 413 MA's), (8, 14371), (14, 14413),

Gene: ICleared_18 Start: 13039, Stop: 13206, Start Num: 3

Candidate Starts for ICleared_18:

(Start: 3 @13039 has 413 MA's), (10, 13117), (14, 13144), (16, 13156),

Gene: Iceman_19 Start: 13330, Stop: 13497, Start Num: 3

Candidate Starts for Iceman_19:

(Start: 3 @13330 has 413 MA's), (10, 13408), (14, 13435), (16, 13447),

Gene: Indra_22 Start: 13853, Stop: 14044, Start Num: 3

Candidate Starts for Indra_22:

(1, 13784), (Start: 3 @13853 has 413 MA's), (9, 13928), (18, 14018), (22, 14036),

Gene: Insomnia_19 Start: 14354, Stop: 14524, Start Num: 3

Candidate Starts for Insomnia_19:

(1, 14285), (Start: 3 @14354 has 413 MA's), (8, 14420), (14, 14462),

Gene: Iracema64_19 Start: 13353, Stop: 13520, Start Num: 3

Candidate Starts for Iracema64_19:

(Start: 3 @13353 has 413 MA's), (10, 13431), (14, 13458), (16, 13470),

Gene: IronMan_21 Start: 15438, Stop: 15632, Start Num: 3

Candidate Starts for IronMan_21:

(1, 15369), (Start: 3 @15438 has 413 MA's),

Gene: Isiphiwo_22 Start: 13849, Stop: 14040, Start Num: 3

Candidate Starts for Isiphiwo_22:

(1, 13780), (Start: 3 @13849 has 413 MA's), (9, 13924), (17, 14005), (22, 14032),

Gene: Iwokeuplikedis_20 Start: 13723, Stop: 13914, Start Num: 3

Candidate Starts for Iwokeuplikedis_20:

(1, 13654), (Start: 3 @13723 has 413 MA's), (17, 13876),

Gene: Jaan_22 Start: 15836, Stop: 16030, Start Num: 3

Candidate Starts for Jaan_22:

(1, 15767), (Start: 3 @15836 has 413 MA's),

Gene: Jabiru_15 Start: 12060, Stop: 12203, Start Num: 3

Candidate Starts for Jabiru_15:

(1, 11994), (Start: 3 @12060 has 413 MA's), (17, 12168),

Gene: Jabith_19 Start: 14354, Stop: 14524, Start Num: 3

Candidate Starts for Jabith_19:

(1, 14285), (Start: 3 @14354 has 413 MA's), (8, 14420), (14, 14462),

Gene: Jaykayelowell_18 Start: 13037, Stop: 13204, Start Num: 3

Candidate Starts for Jaykayelowell_18:

(Start: 3 @13037 has 413 MA's), (10, 13115), (14, 13142), (16, 13154),

Gene: Jeeves_18 Start: 12900, Stop: 13097, Start Num: 3

Candidate Starts for Jeeves_18:

(1, 12831), (Start: 3 @12900 has 413 MA's), (23, 13089),

Gene: Jeffabunny_22 Start: 13860, Stop: 14051, Start Num: 3

Candidate Starts for Jeffabunny_22:

(1, 13791), (Start: 3 @13860 has 413 MA's), (9, 13935), (18, 14025), (22, 14043),

Gene: Jerm_21 Start: 14170, Stop: 14367, Start Num: 3

Candidate Starts for Jerm_21:

(1, 14101), (Start: 3 @14170 has 413 MA's), (6, 14224),

Gene: JetBlade_18 Start: 13038, Stop: 13205, Start Num: 3

Candidate Starts for JetBlade_18:

(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155),

Gene: JewelBug_22 Start: 13861, Stop: 14052, Start Num: 3

Candidate Starts for JewelBug_22:

(1, 13792), (Start: 3 @13861 has 413 MA's), (9, 13936), (17, 14017), (22, 14044),

Gene: JoongJeon_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for JoongJeon_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Jordennis_22 Start: 13849, Stop: 14040, Start Num: 3

Candidate Starts for Jordennis_22:

(1, 13780), (Start: 3 @13849 has 413 MA's), (9, 13924), (17, 14005), (22, 14032),

Gene: Joselito_19 Start: 14302, Stop: 14472, Start Num: 3

Candidate Starts for Joselito_19:

(1, 14233), (Start: 3 @14302 has 413 MA's), (8, 14368), (14, 14410),

Gene: JoshKayV_21 Start: 14174, Stop: 14365, Start Num: 3

Candidate Starts for JoshKayV_21:

(1, 14105), (Start: 3 @14174 has 413 MA's), (9, 14249),

Gene: Journey13_17 Start: 12883, Stop: 13074, Start Num: 3

Candidate Starts for Journey13_17:

(1, 12814), (Start: 3 @12883 has 413 MA's), (6, 12937), (9, 12958), (17, 13033), (22, 13066),

Gene: Jovo_15 Start: 12280, Stop: 12420, Start Num: 3

Candidate Starts for Jovo_15:

(1, 12214), (Start: 3 @12280 has 413 MA's), (14, 12346), (17, 12388),

Gene: Jsquared_18 Start: 12584, Stop: 12778, Start Num: 3

Candidate Starts for Jsquared_18:

(1, 12515), (Start: 3 @12584 has 413 MA's), (14, 12695), (22, 12770),

Gene: KFPoly_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for KFPoly_18:

(Start: 3 @13041 has 413 MA's), (14, 13146), (16, 13158), (17, 13188),

Gene: Kalpine_22 Start: 15533, Stop: 15727, Start Num: 3

Candidate Starts for Kalpine_22:

(1, 15464), (Start: 3 @15533 has 413 MA's), (22, 15719),

Gene: Kamy_18 Start: 13039, Stop: 13206, Start Num: 3

Candidate Starts for Kamy_18:

(Start: 3 @13039 has 413 MA's), (10, 13117), (14, 13144), (16, 13156),

Gene: Katalie136_18 Start: 13043, Stop: 13216, Start Num: 3

Candidate Starts for Katalie136_18:

(1, 12977), (Start: 3 @13043 has 413 MA's), (10, 13127), (14, 13154), (17, 13196),

Gene: Kazan_22 Start: 13864, Stop: 14055, Start Num: 3

Candidate Starts for Kazan_22:

(1, 13795), (Start: 3 @13864 has 413 MA's), (9, 13939), (17, 14020), (22, 14047),

Gene: Kerberos_22 Start: 13643, Stop: 13837, Start Num: 3

Candidate Starts for Kerberos_22:

(1, 13574), (Start: 3 @13643 has 413 MA's), (11, 13730),

Gene: Keziacharles14_18 Start: 12652, Stop: 12843, Start Num: 3

Candidate Starts for Keziacharles14_18:

(1, 12583), (Start: 3 @12652 has 413 MA's), (15, 12766), (21, 12829),

Gene: Kimona_15 Start: 10526, Stop: 10693, Start Num: 3
Candidate Starts for Kimona_15:
(1, 10460), (Start: 3 @10526 has 413 MA's), (9, 10598), (17, 10673),

Gene: KingCyrus_21 Start: 14145, Stop: 14339, Start Num: 3
Candidate Starts for KingCyrus_21:
(1, 14076), (Start: 3 @14145 has 413 MA's),

Gene: Kingmustik0402_18 Start: 13033, Stop: 13200, Start Num: 3
Candidate Starts for Kingmustik0402_18:
(Start: 3 @13033 has 413 MA's), (10, 13111), (14, 13138), (16, 13150),

Gene: Kipper29_22 Start: 13858, Stop: 14049, Start Num: 3
Candidate Starts for Kipper29_22:
(1, 13789), (Start: 3 @13858 has 413 MA's), (9, 13933), (17, 14014), (22, 14041),

Gene: KittenMittens_17 Start: 10919, Stop: 11086, Start Num: 3
Candidate Starts for KittenMittens_17:
(1, 10853), (Start: 3 @10919 has 413 MA's), (9, 10988), (10, 10994),

Gene: Koduck_19 Start: 12925, Stop: 13116, Start Num: 3
Candidate Starts for Koduck_19:
(1, 12856), (Start: 3 @12925 has 413 MA's), (14, 13033), (22, 13108),

Gene: Koko_22 Start: 13852, Stop: 14043, Start Num: 3
Candidate Starts for Koko_22:
(1, 13783), (Start: 3 @13852 has 413 MA's), (9, 13927), (18, 14017), (22, 14035),

Gene: Koreni_17 Start: 12687, Stop: 12854, Start Num: 3
Candidate Starts for Koreni_17:
(Start: 3 @12687 has 413 MA's), (14, 12792), (16, 12804),

Gene: Kratark_18 Start: 13036, Stop: 13203, Start Num: 3
Candidate Starts for Kratark_18:
(Start: 3 @13036 has 413 MA's), (14, 13141), (16, 13153),

Gene: Kremtemulon_17 Start: 13089, Stop: 13256, Start Num: 3
Candidate Starts for Kremtemulon_17:
(Start: 3 @13089 has 413 MA's), (14, 13194), (16, 13206),

Gene: Kristoff_19 Start: 13002, Stop: 13169, Start Num: 3
Candidate Starts for Kristoff_19:
(1, 12936), (Start: 3 @13002 has 413 MA's), (7, 13056), (9, 13071), (10, 13077),

Gene: Kugel_18 Start: 13308, Stop: 13436, Start Num: 3
Candidate Starts for Kugel_18:
(1, 13242), (Start: 3 @13308 has 413 MA's), (19, 13416),

Gene: Kyee_18 Start: 13042, Stop: 13209, Start Num: 3
Candidate Starts for Kyee_18:
(Start: 3 @13042 has 413 MA's), (14, 13147), (16, 13159),

Gene: Kykar_15 Start: 12805, Stop: 12933, Start Num: 3

Candidate Starts for Kykar_15:

(1, 12739), (Start: 3 @12805 has 413 MA's), (19, 12913),

Gene: L5_19.1 Start: 12933, Stop: 13127, Start Num: 3

Candidate Starts for L5_19.1:

(1, 12864), (Start: 3 @12933 has 413 MA's), (14, 13044), (22, 13119),

Gene: LHTSCC_19 Start: 13353, Stop: 13520, Start Num: 3

Candidate Starts for LHTSCC_19:

(Start: 3 @13353 has 413 MA's), (10, 13431), (14, 13458), (16, 13470),

Gene: LadyBird_19 Start: 13715, Stop: 13909, Start Num: 3

Candidate Starts for LadyBird_19:

(1, 13646), (Start: 3 @13715 has 413 MA's),

Gene: Landor_20 Start: 15488, Stop: 15682, Start Num: 3

Candidate Starts for Landor_20:

(1, 15419), (Start: 3 @15488 has 413 MA's),

Gene: LappelDuVide_17 Start: 13038, Stop: 13205, Start Num: 3

Candidate Starts for LappelDuVide_17:

(Start: 3 @13038 has 413 MA's), (14, 13143), (16, 13155),

Gene: Larenn_20 Start: 14027, Stop: 14215, Start Num: 3

Candidate Starts for Larenn_20:

(1, 13958), (Start: 3 @14027 has 413 MA's), (22, 14207),

Gene: Lemur_18 Start: 13038, Stop: 13205, Start Num: 3

Candidate Starts for Lemur_18:

(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155),

Gene: LeoAvram_18 Start: 13038, Stop: 13205, Start Num: 3

Candidate Starts for LeoAvram_18:

(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155),

Gene: Leogania_21 Start: 15892, Stop: 16086, Start Num: 3

Candidate Starts for Leogania_21:

(1, 15823), (Start: 3 @15892 has 413 MA's),

Gene: Lev2_15 Start: 11992, Stop: 12132, Start Num: 3

Candidate Starts for Lev2_15:

(1, 11926), (Start: 3 @11992 has 413 MA's), (14, 12058), (17, 12100),

Gene: Leviathan_21 Start: 14202, Stop: 14399, Start Num: 3

Candidate Starts for Leviathan_21:

(1, 14133), (Start: 3 @14202 has 413 MA's), (6, 14256),

Gene: LilTurb_21 Start: 14229, Stop: 14426, Start Num: 3

Candidate Starts for LilTurb_21:

(1, 14160), (Start: 3 @14229 has 413 MA's), (6, 14283),

Gene: Lilbunny_21 Start: 13834, Stop: 14025, Start Num: 3

Candidate Starts for Lilbunny_21:

(1, 13765), (Start: 3 @13834 has 413 MA's), (9, 13909), (17, 13990), (22, 14017),

Gene: LittleB_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for LittleB_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: LittleCherry_15 Start: 12172, Stop: 12315, Start Num: 3

Candidate Starts for LittleCherry_15:

(1, 12106), (Start: 3 @12172 has 413 MA's), (14, 12238), (17, 12280),

Gene: LittleGuy_18 Start: 12984, Stop: 13151, Start Num: 3

Candidate Starts for LittleGuy_18:

(Start: 3 @12984 has 413 MA's), (10, 13062), (14, 13089), (16, 13101),

Gene: LochMonster_18 Start: 13016, Stop: 13183, Start Num: 3

Candidate Starts for LochMonster_18:

(Start: 3 @13016 has 413 MA's), (14, 13121), (16, 13133),

Gene: Lokk_22 Start: 15421, Stop: 15624, Start Num: 3

Candidate Starts for Lokk_22:

(1, 15352), (Start: 3 @15421 has 413 MA's), (14, 15532), (17, 15574),

Gene: LoneWolf_20 Start: 14323, Stop: 14520, Start Num: 3

Candidate Starts for LoneWolf_20:

(1, 14254), (Start: 3 @14323 has 413 MA's),

Gene: Lorenzo_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Lorenzo_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Loser_22 Start: 15523, Stop: 15723, Start Num: 3

Candidate Starts for Loser_22:

(1, 15454), (Start: 3 @15523 has 413 MA's), (22, 15715),

Gene: Luchador_20 Start: 14084, Stop: 14293, Start Num: 3

Candidate Starts for Luchador_20:

(1, 14015), (Start: 3 @14084 has 413 MA's), (23, 14285),

Gene: Lucivia_19 Start: 14351, Stop: 14521, Start Num: 3

Candidate Starts for Lucivia_19:

(1, 14282), (Start: 3 @14351 has 413 MA's), (8, 14417), (14, 14459),

Gene: Lucyedi_20 Start: 13927, Stop: 14100, Start Num: 3

Candidate Starts for Lucyedi_20:

(1, 13858), (Start: 3 @13927 has 413 MA's), (6, 13981), (7, 13987),

Gene: Lunsford_19 Start: 13038, Stop: 13205, Start Num: 3

Candidate Starts for Lunsford_19:

(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155),

Gene: MaCh_19 Start: 14299, Stop: 14469, Start Num: 3

Candidate Starts for MaCh_19:

(1, 14230), (Start: 3 @14299 has 413 MA's), (8, 14365), (14, 14407),

Gene: Mabel_19 Start: 14366, Stop: 14536, Start Num: 3
Candidate Starts for Mabel_19:
(1, 14297), (Start: 3 @14366 has 413 MA's), (8, 14432), (14, 14474),

Gene: Malec_20 Start: 14032, Stop: 14220, Start Num: 3
Candidate Starts for Malec_20:
(1, 13963), (Start: 3 @14032 has 413 MA's), (22, 14212),

Gene: Maminiaina_20 Start: 14247, Stop: 14444, Start Num: 3
Candidate Starts for Maminiaina_20:
(1, 14178), (Start: 3 @14247 has 413 MA's),

Gene: MarysWell_14 Start: 12139, Stop: 12282, Start Num: 3
Candidate Starts for MarysWell_14:
(1, 12073), (Start: 3 @12139 has 413 MA's), (14, 12205), (17, 12247),

Gene: Maverick_18 Start: 13041, Stop: 13208, Start Num: 3
Candidate Starts for Maverick_18:
(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Maxo_18 Start: 13039, Stop: 13206, Start Num: 3
Candidate Starts for Maxo_18:
(Start: 3 @13039 has 413 MA's), (10, 13117), (14, 13144), (16, 13156),

Gene: Mazhar510_18 Start: 13042, Stop: 13209, Start Num: 3
Candidate Starts for Mazhar510_18:
(Start: 3 @13042 has 413 MA's), (10, 13120), (14, 13147), (16, 13159),

Gene: McFly_22 Start: 13858, Stop: 14049, Start Num: 3
Candidate Starts for McFly_22:
(1, 13789), (Start: 3 @13858 has 413 MA's), (9, 13933), (17, 14014), (22, 14041),

Gene: Medusa_18 Start: 13042, Stop: 13209, Start Num: 3
Candidate Starts for Medusa_18:
(Start: 3 @13042 has 413 MA's), (10, 13120), (14, 13147), (16, 13159),

Gene: MeeZee_18 Start: 13041, Stop: 13208, Start Num: 3
Candidate Starts for MeeZee_18:
(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158), (17, 13188),

Gene: Melvin_18 Start: 13041, Stop: 13208, Start Num: 3
Candidate Starts for Melvin_18:
(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Micasa_14 Start: 12140, Stop: 12283, Start Num: 3
Candidate Starts for Micasa_14:
(1, 12074), (Start: 3 @12140 has 413 MA's), (14, 12206), (17, 12248),

Gene: MiculUcigas_19 Start: 13796, Stop: 13990, Start Num: 3
Candidate Starts for MiculUcigas_19:
(1, 13727), (Start: 3 @13796 has 413 MA's), (22, 13982),

Gene: Midas2_15 Start: 12139, Stop: 12282, Start Num: 3
Candidate Starts for Midas2_15:
(1, 12073), (Start: 3 @12139 has 413 MA's), (14, 12205), (17, 12247),

Gene: Miko_22 Start: 15390, Stop: 15593, Start Num: 3
Candidate Starts for Miko_22:
(1, 15321), (Start: 3 @15390 has 413 MA's), (14, 15501), (17, 15543),

Gene: Milcery_15 Start: 12176, Stop: 12319, Start Num: 3
Candidate Starts for Milcery_15:
(1, 12110), (Start: 3 @12176 has 413 MA's), (14, 12242), (17, 12284),

Gene: Millski_18 Start: 13044, Stop: 13211, Start Num: 3
Candidate Starts for Millski_18:
(Start: 3 @13044 has 413 MA's), (14, 13149), (16, 13161),

Gene: Miramae_18 Start: 12989, Stop: 13162, Start Num: 3
Candidate Starts for Miramae_18:
(1, 12923), (Start: 3 @12989 has 413 MA's), (14, 13100), (16, 13112),

Gene: MissWhite_19 Start: 12831, Stop: 13022, Start Num: 3
Candidate Starts for MissWhite_19:
(1, 12762), (Start: 3 @12831 has 413 MA's), (8, 12903), (9, 12906), (18, 12996), (22, 13014),

Gene: Morpher26_18 Start: 13043, Stop: 13216, Start Num: 3
Candidate Starts for Morpher26_18:
(1, 12977), (Start: 3 @13043 has 413 MA's), (10, 13127), (14, 13154), (17, 13196),

Gene: Morrow_18 Start: 13044, Stop: 13211, Start Num: 3
Candidate Starts for Morrow_18:
(Start: 3 @13044 has 413 MA's), (10, 13122), (14, 13149), (16, 13161),

Gene: Mulciber_19 Start: 14302, Stop: 14472, Start Num: 3
Candidate Starts for Mulciber_19:
(1, 14233), (Start: 3 @14302 has 413 MA's), (8, 14368), (14, 14410),

Gene: Munch_19 Start: 14302, Stop: 14472, Start Num: 3
Candidate Starts for Munch_19:
(1, 14233), (Start: 3 @14302 has 413 MA's), (8, 14368), (14, 14410),

Gene: Mundrea_18 Start: 13009, Stop: 13182, Start Num: 3
Candidate Starts for Mundrea_18:
(1, 12943), (Start: 3 @13009 has 413 MA's), (10, 13093), (14, 13120),

Gene: Myxus_20 Start: 14514, Stop: 14711, Start Num: 3
Candidate Starts for Myxus_20:
(1, 14445), (Start: 3 @14514 has 413 MA's), (6, 14568), (15, 14634),

Gene: NaSiaTalie_19 Start: 13793, Stop: 13987, Start Num: 3
Candidate Starts for NaSiaTalie_19:
(1, 13724), (Start: 3 @13793 has 413 MA's), (22, 13979),

Gene: Naca_15 Start: 12093, Stop: 12236, Start Num: 3

Candidate Starts for Naca_15:
(1, 12027), (Start: 3 @12093 has 413 MA's), (17, 12201),

Gene: Naji_22 Start: 13643, Stop: 13837, Start Num: 3
Candidate Starts for Naji_22:
(1, 13574), (Start: 3 @13643 has 413 MA's), (11, 13730),

Gene: NearlyHeadless_15 Start: 11784, Stop: 11912, Start Num: 3
Candidate Starts for NearlyHeadless_15:
(1, 11718), (Start: 3 @11784 has 413 MA's),

Gene: Nebs_18 Start: 13038, Stop: 13205, Start Num: 3
Candidate Starts for Nebs_18:
(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155),

Gene: Neeharika16_22 Start: 13849, Stop: 14040, Start Num: 3
Candidate Starts for Neeharika16_22:
(1, 13780), (Start: 3 @13849 has 413 MA's), (9, 13924), (17, 14005), (22, 14032),

Gene: Nemo27_18 Start: 13040, Stop: 13207, Start Num: 3
Candidate Starts for Nemo27_18:
(Start: 3 @13040 has 413 MA's), (10, 13118), (14, 13145), (16, 13157),

Gene: Newrala_22 Start: 13849, Stop: 14040, Start Num: 3
Candidate Starts for Newrala_22:
(1, 13780), (Start: 3 @13849 has 413 MA's), (9, 13924), (17, 14005), (22, 14032),

Gene: NicoleTera_23 Start: 15507, Stop: 15701, Start Num: 3
Candidate Starts for NicoleTera_23:
(1, 15438), (Start: 3 @15507 has 413 MA's), (11, 15591),

Gene: Noelle_18 Start: 13095, Stop: 13268, Start Num: 3
Candidate Starts for Noelle_18:
(1, 13029), (Start: 3 @13095 has 413 MA's),

Gene: NorthStar_18 Start: 13041, Stop: 13208, Start Num: 3
Candidate Starts for NorthStar_18:
(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: NotAPhaseMom_18 Start: 13045, Stop: 13212, Start Num: 3
Candidate Starts for NotAPhaseMom_18:
(Start: 3 @13045 has 413 MA's), (10, 13123), (14, 13150), (16, 13162),

Gene: NothingSpecial_21 Start: 15763, Stop: 15957, Start Num: 3
Candidate Starts for NothingSpecial_21:
(1, 15691), (Start: 3 @15763 has 413 MA's),

Gene: Nyxis_18 Start: 12984, Stop: 13151, Start Num: 3
Candidate Starts for Nyxis_18:
(Start: 3 @12984 has 413 MA's), (10, 13062), (14, 13089), (16, 13101),

Gene: OKCentral2016_18 Start: 12521, Stop: 12688, Start Num: 3
Candidate Starts for OKCentral2016_18:

(1, 12455), (Start: 3 @12521 has 413 MA's), (7, 12575), (9, 12590), (10, 12596),

Gene: OKaNui_19 Start: 13094, Stop: 13261, Start Num: 3

Candidate Starts for OKaNui_19:

(Start: 3 @13094 has 413 MA's), (10, 13172), (14, 13199), (16, 13211),

Gene: Obama12_19 Start: 13355, Stop: 13522, Start Num: 3

Candidate Starts for Obama12_19:

(Start: 3 @13355 has 413 MA's), (10, 13433), (14, 13460), (16, 13472),

Gene: Odin_18 Start: 12535, Stop: 12729, Start Num: 3

Candidate Starts for Odin_18:

(1, 12466), (Start: 3 @12535 has 413 MA's), (6, 12589), (9, 12610),

Gene: Ohfah_18 Start: 13038, Stop: 13205, Start Num: 3

Candidate Starts for Ohfah_18:

(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155),

Gene: Orange_19 Start: 14302, Stop: 14472, Start Num: 3

Candidate Starts for Orange_19:

(1, 14233), (Start: 3 @14302 has 413 MA's), (8, 14368), (14, 14410),

Gene: PackMan_20 Start: 14514, Stop: 14711, Start Num: 3

Candidate Starts for PackMan_20:

(1, 14445), (Start: 3 @14514 has 413 MA's), (6, 14568), (15, 14634),

Gene: PainterBoy_20 Start: 13927, Stop: 14100, Start Num: 3

Candidate Starts for PainterBoy_20:

(1, 13858), (Start: 3 @13927 has 413 MA's), (6, 13981), (7, 13987),

Gene: Palestino_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Palestino_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: PeaceMeal1_17 Start: 10920, Stop: 11087, Start Num: 3

Candidate Starts for PeaceMeal1_17:

(1, 10854), (Start: 3 @10920 has 413 MA's), (9, 10989),

Gene: Peaches_18 Start: 13040, Stop: 13207, Start Num: 3

Candidate Starts for Peaches_18:

(Start: 3 @13040 has 413 MA's), (10, 13118), (14, 13145), (16, 13157),

Gene: Perplexer_18 Start: 13037, Stop: 13210, Start Num: 3

Candidate Starts for Perplexer_18:

(1, 12971), (Start: 3 @13037 has 413 MA's), (10, 13121), (14, 13148), (17, 13190),

Gene: PeterPeter_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for PeterPeter_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Petersenfast_18 Start: 14305, Stop: 14475, Start Num: 3

Candidate Starts for Petersenfast_18:

(1, 14236), (Start: 3 @14305 has 413 MA's), (8, 14371), (14, 14413),

Gene: PetiteSangsue_18 Start: 13043, Stop: 13216, Start Num: 3
Candidate Starts for PetiteSangsue_18:
(1, 12977), (Start: 3 @13043 has 413 MA's), (10, 13127), (14, 13154), (17, 13196),

Gene: PetterN_16 Start: 11980, Stop: 12123, Start Num: 3
Candidate Starts for PetterN_16:
(1, 11914), (Start: 3 @11980 has 413 MA's), (17, 12088),

Gene: Ph8s_20 Start: 12494, Stop: 12688, Start Num: 3
Candidate Starts for Ph8s_20:
(1, 12425), (Start: 3 @12494 has 413 MA's), (6, 12548), (9, 12569),

Gene: Phacado_18 Start: 13040, Stop: 13207, Start Num: 3
Candidate Starts for Phacado_18:
(Start: 3 @13040 has 413 MA's), (10, 13118), (14, 13145), (16, 13157),

Gene: Phaded_22 Start: 15835, Stop: 16029, Start Num: 3
Candidate Starts for Phaded_22:
(1, 15766), (Start: 3 @15835 has 413 MA's),

Gene: Phaeder_20 Start: 14514, Stop: 14711, Start Num: 3
Candidate Starts for Phaeder_20:
(1, 14445), (Start: 3 @14514 has 413 MA's), (6, 14568), (15, 14634),

Gene: Pharaoh_19 Start: 14261, Stop: 14467, Start Num: 2
Candidate Starts for Pharaoh_19:
(1, 14192), (Start: 2 @14261 has 5 MA's), (22, 14450),

Gene: Phelipe_18 Start: 13041, Stop: 13208, Start Num: 3
Candidate Starts for Phelipe_18:
(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Phighter1804_18 Start: 13019, Stop: 13186, Start Num: 3
Candidate Starts for Phighter1804_18:
(Start: 3 @13019 has 413 MA's), (14, 13124), (16, 13136),

Gene: Phillis_15 Start: 11742, Stop: 11870, Start Num: 3
Candidate Starts for Phillis_15:
(1, 11676), (Start: 3 @11742 has 413 MA's), (19, 11850),

Gene: Phlei_14 Start: 14366, Stop: 14542, Start Num: 3
Candidate Starts for Phlei_14:
(1, 14297), (Start: 3 @14366 has 413 MA's), (14, 14480),

Gene: Phlorence_15 Start: 12279, Stop: 12419, Start Num: 3
Candidate Starts for Phlorence_15:
(1, 12213), (Start: 3 @12279 has 413 MA's), (14, 12345), (17, 12387),

Gene: Phonnegut_20 Start: 14547, Stop: 14744, Start Num: 3
Candidate Starts for Phonnegut_20:
(1, 14478), (Start: 3 @14547 has 413 MA's), (6, 14601), (15, 14667),

Gene: Phontbonne_18 Start: 12985, Stop: 13152, Start Num: 3
Candidate Starts for Phontbonne_18:
(Start: 3 @12985 has 413 MA's), (10, 13063), (14, 13090), (16, 13102),

Gene: PickleBack_15 Start: 11993, Stop: 12133, Start Num: 3
Candidate Starts for PickleBack_15:
(1, 11927), (Start: 3 @11993 has 413 MA's), (14, 12059), (17, 12101),

Gene: Pioneer_20 Start: 14547, Stop: 14744, Start Num: 3
Candidate Starts for Pioneer_20:
(1, 14478), (Start: 3 @14547 has 413 MA's), (6, 14601), (15, 14667),

Gene: Pipcraft_18 Start: 13041, Stop: 13208, Start Num: 3
Candidate Starts for Pipcraft_18:
(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Piro94_20 Start: 14254, Stop: 14448, Start Num: 3
Candidate Starts for Piro94_20:
(1, 14185), (Start: 3 @14254 has 413 MA's), (22, 14440),

Gene: Pmask_22 Start: 13850, Stop: 14041, Start Num: 3
Candidate Starts for Pmask_22:
(1, 13781), (Start: 3 @13850 has 413 MA's), (9, 13925), (17, 14006), (22, 14033),

Gene: Polymorphads_18 Start: 13038, Stop: 13205, Start Num: 3
Candidate Starts for Polymorphads_18:
(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155),

Gene: Pomar16_22 Start: 13684, Stop: 13878, Start Num: 3
Candidate Starts for Pomar16_22:
(1, 13615), (Start: 3 @13684 has 413 MA's), (11, 13771),

Gene: Poompha_17 Start: 10918, Stop: 11085, Start Num: 3
Candidate Starts for Poompha_17:
(1, 10852), (Start: 3 @10918 has 413 MA's), (9, 10987), (10, 10993),

Gene: Power_19 Start: 13692, Stop: 13886, Start Num: 3
Candidate Starts for Power_19:
(1, 13623), (Start: 3 @13692 has 413 MA's),

Gene: Priamo_22 Start: 13877, Stop: 14068, Start Num: 3
Candidate Starts for Priamo_22:
(1, 13808), (Start: 3 @13877 has 413 MA's), (9, 13952), (17, 14033), (22, 14060),

Gene: Priya_20 Start: 14545, Stop: 14742, Start Num: 3
Candidate Starts for Priya_20:
(1, 14476), (Start: 3 @14545 has 413 MA's), (6, 14599), (15, 14665),

Gene: Pukovnik_21 Start: 15388, Stop: 15582, Start Num: 3
Candidate Starts for Pukovnik_21:
(1, 15319), (Start: 3 @15388 has 413 MA's),

Gene: Pumbaa_18 Start: 13016, Stop: 13183, Start Num: 3

Candidate Starts for Pumbaa_18:
(Start: 3 @13016 has 413 MA's), (14, 13121), (16, 13133),

Gene: Qobbit_20 Start: 14544, Stop: 14741, Start Num: 3
Candidate Starts for Qobbit_20:
(1, 14475), (Start: 3 @14544 has 413 MA's), (6, 14598), (15, 14664),

Gene: QueenB2_19 Start: 13770, Stop: 13964, Start Num: 3
Candidate Starts for QueenB2_19:
(Start: 3 @13770 has 413 MA's),

Gene: QueenBeesly_19 Start: 13692, Stop: 13886, Start Num: 3
Candidate Starts for QueenBeesly_19:
(1, 13623), (Start: 3 @13692 has 413 MA's),

Gene: Rachaly_22 Start: 15418, Stop: 15621, Start Num: 3
Candidate Starts for Rachaly_22:
(1, 15349), (Start: 3 @15418 has 413 MA's), (14, 15529), (17, 15571),

Gene: Rahalelujah_18 Start: 12584, Stop: 12781, Start Num: 3
Candidate Starts for Rahalelujah_18:
(1, 12515), (Start: 3 @12584 has 413 MA's), (4, 12599), (9, 12659), (17, 12740), (21, 12767),

Gene: Rebeuca_19 Start: 13003, Stop: 13170, Start Num: 3
Candidate Starts for Rebeuca_19:
(1, 12937), (Start: 3 @13003 has 413 MA's), (7, 13057), (9, 13072), (10, 13078),

Gene: RedRock_22 Start: 15680, Stop: 15880, Start Num: 3
Candidate Starts for RedRock_22:
(1, 15611), (Start: 3 @15680 has 413 MA's), (22, 15872),

Gene: Refuge_22 Start: 16063, Stop: 16269, Start Num: 2
Candidate Starts for Refuge_22:
(1, 15994), (Start: 2 @16063 has 5 MA's), (14, 16177),

Gene: Relief_18 Start: 13039, Stop: 13206, Start Num: 3
Candidate Starts for Relief_18:
(Start: 3 @13039 has 413 MA's), (10, 13117), (14, 13144), (16, 13156),

Gene: Retro23_19 Start: 13843, Stop: 14037, Start Num: 3
Candidate Starts for Retro23_19:
(1, 13774), (Start: 3 @13843 has 413 MA's),

Gene: RhynO_19 Start: 12979, Stop: 13146, Start Num: 3
Candidate Starts for RhynO_19:
(1, 12913), (Start: 3 @12979 has 413 MA's), (7, 13033), (9, 13048), (10, 13054),

Gene: Rifter_22 Start: 13825, Stop: 14016, Start Num: 3
Candidate Starts for Rifter_22:
(1, 13756), (Start: 3 @13825 has 413 MA's), (9, 13900), (18, 13990), (22, 14008),

Gene: Roary_15 Start: 11733, Stop: 11861, Start Num: 3
Candidate Starts for Roary_15:

(1, 11667), (Start: 3 @11733 has 413 MA's),

Gene: Roksolana_22 Start: 13853, Stop: 14044, Start Num: 3

Candidate Starts for Roksolana_22:

(1, 13784), (Start: 3 @13853 has 413 MA's), (9, 13928), (18, 14018), (22, 14036),

Gene: Romney_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Romney_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158), (17, 13188),

Gene: Roosevelt_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Roosevelt_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Ruin_18 Start: 13037, Stop: 13204, Start Num: 3

Candidate Starts for Ruin_18:

(Start: 3 @13037 has 413 MA's), (10, 13115), (14, 13142), (16, 13154),

Gene: Sabertooth_18 Start: 13038, Stop: 13205, Start Num: 3

Candidate Starts for Sabertooth_18:

(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155),

Gene: Saintus_15 Start: 11748, Stop: 11876, Start Num: 3

Candidate Starts for Saintus_15:

(1, 11682), (Start: 3 @11748 has 413 MA's),

Gene: Salz_19 Start: 14299, Stop: 14469, Start Num: 3

Candidate Starts for Salz_19:

(1, 14230), (Start: 3 @14299 has 413 MA's), (8, 14365), (14, 14407),

Gene: Scamp_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Scamp_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Scherzo_20 Start: 14547, Stop: 14744, Start Num: 3

Candidate Starts for Scherzo_20:

(1, 14478), (Start: 3 @14547 has 413 MA's), (6, 14601), (15, 14667),

Gene: Scorpia_16 Start: 11981, Stop: 12124, Start Num: 3

Candidate Starts for Scorpia_16:

(1, 11915), (Start: 3 @11981 has 413 MA's), (17, 12089),

Gene: SemperFi_21 Start: 14120, Stop: 14314, Start Num: 3

Candidate Starts for SemperFi_21:

(1, 14051), (Start: 3 @14120 has 413 MA's),

Gene: Serenity_18 Start: 12667, Stop: 12861, Start Num: 3

Candidate Starts for Serenity_18:

(1, 12598), (Start: 3 @12667 has 413 MA's), (14, 12778), (22, 12853),

Gene: Severus_17 Start: 10918, Stop: 11085, Start Num: 3

Candidate Starts for Severus_17:

(1, 10852), (Start: 3 @10918 has 413 MA's), (9, 10987), (10, 10993),

Gene: Shaka_18 Start: 13041, Stop: 13208, Start Num: 3
Candidate Starts for Shaka_18:
(Start: 3 @13041 has 413 MA's), (14, 13146), (16, 13158),

Gene: Sham4_19 Start: 14305, Stop: 14475, Start Num: 3
Candidate Starts for Sham4_19:
(1, 14236), (Start: 3 @14305 has 413 MA's), (8, 14371), (14, 14413),

Gene: SheaKeira_19 Start: 12723, Stop: 12920, Start Num: 3
Candidate Starts for SheaKeira_19:
(1, 12654), (Start: 3 @12723 has 413 MA's), (6, 12777),

Gene: Sheen_20 Start: 14765, Stop: 14920, Start Num: 3
Candidate Starts for Sheen_20:
(1, 14699), (Start: 3 @14765 has 413 MA's),

Gene: SheldonCooper_19 Start: 13354, Stop: 13521, Start Num: 3
Candidate Starts for SheldonCooper_19:
(Start: 3 @13354 has 413 MA's), (10, 13432), (14, 13459), (16, 13471),

Gene: Shygu2_18 Start: 13038, Stop: 13211, Start Num: 3
Candidate Starts for Shygu2_18:
(1, 12972), (Start: 3 @13038 has 413 MA's), (10, 13122), (14, 13149),

Gene: Skipitt_18 Start: 13038, Stop: 13205, Start Num: 3
Candidate Starts for Skipitt_18:
(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155), (17, 13185),

Gene: Smeadley_15 Start: 11766, Stop: 11894, Start Num: 3
Candidate Starts for Smeadley_15:
(1, 11700), (Start: 3 @11766 has 413 MA's),

Gene: Smeagan_21 Start: 14205, Stop: 14402, Start Num: 3
Candidate Starts for Smeagan_21:
(1, 14136), (Start: 3 @14205 has 413 MA's), (6, 14259),

Gene: SmellyB_22 Start: 13858, Stop: 14049, Start Num: 3
Candidate Starts for SmellyB_22:
(1, 13789), (Start: 3 @13858 has 413 MA's), (9, 13933), (17, 14014), (22, 14041),

Gene: SnapTap_19 Start: 13692, Stop: 13886, Start Num: 3
Candidate Starts for SnapTap_19:
(1, 13623), (Start: 3 @13692 has 413 MA's),

Gene: Snape_19 Start: 14305, Stop: 14475, Start Num: 3
Candidate Starts for Snape_19:
(1, 14236), (Start: 3 @14305 has 413 MA's), (8, 14371), (14, 14413),

Gene: SororFago_18 Start: 12878, Stop: 13087, Start Num: 3
Candidate Starts for SororFago_18:
(1, 12809), (Start: 3 @12878 has 413 MA's), (20, 13064), (23, 13079),

Gene: Sparxx_18 Start: 13038, Stop: 13205, Start Num: 3
Candidate Starts for Sparxx_18:
(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155),

Gene: Spino_18 Start: 13041, Stop: 13208, Start Num: 3
Candidate Starts for Spino_18:
(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158), (17, 13188),

Gene: Spouty_19 Start: 14544, Stop: 14741, Start Num: 3
Candidate Starts for Spouty_19:
(1, 14475), (Start: 3 @14544 has 413 MA's), (6, 14598), (15, 14664),

Gene: StarStuff_22 Start: 13643, Stop: 13837, Start Num: 3
Candidate Starts for StarStuff_22:
(1, 13574), (Start: 3 @13643 has 413 MA's), (11, 13730),

Gene: Stasia_19 Start: 13477, Stop: 13647, Start Num: 3
Candidate Starts for Stasia_19:
(1, 13411), (Start: 3 @13477 has 413 MA's), (7, 13537), (10, 13558), (16, 13597),

Gene: Steamy_20 Start: 14293, Stop: 14499, Start Num: 2
Candidate Starts for Steamy_20:
(1, 14224), (Start: 2 @14293 has 5 MA's),

Gene: Stephig9_15 Start: 11747, Stop: 11875, Start Num: 3
Candidate Starts for Stephig9_15:
(1, 11681), (Start: 3 @11747 has 413 MA's),

Gene: Stink_19 Start: 13326, Stop: 13499, Start Num: 3
Candidate Starts for Stink_19:
(1, 13260), (Start: 3 @13326 has 413 MA's), (16, 13449),

Gene: SuperAwesome_22 Start: 13849, Stop: 14040, Start Num: 3
Candidate Starts for SuperAwesome_22:
(1, 13780), (Start: 3 @13849 has 413 MA's), (9, 13924), (17, 14005), (22, 14032),

Gene: SuperCallie99_22 Start: 13848, Stop: 14039, Start Num: 3
Candidate Starts for SuperCallie99_22:
(1, 13779), (Start: 3 @13848 has 413 MA's), (9, 13923), (17, 14004), (22, 14031),

Gene: Superchunk_18 Start: 12393, Stop: 12587, Start Num: 3
Candidate Starts for Superchunk_18:
(1, 12324), (Start: 3 @12393 has 413 MA's), (6, 12447), (9, 12468),

Gene: SweetiePie_19 Start: 13692, Stop: 13886, Start Num: 3
Candidate Starts for SweetiePie_19:
(1, 13623), (Start: 3 @13692 has 413 MA's),

Gene: SwirlSquare_21 Start: 12572, Stop: 12766, Start Num: 3
Candidate Starts for SwirlSquare_21:
(1, 12503), (Start: 3 @12572 has 413 MA's), (9, 12647),

Gene: Swirley_15 Start: 12141, Stop: 12284, Start Num: 3

Candidate Starts for Swirley_15:

(1, 12075), (Start: 3 @12141 has 413 MA's), (14, 12207), (17, 12249),

Gene: SydNat_15 Start: 12248, Stop: 12388, Start Num: 3

Candidate Starts for SydNat_15:

(1, 12182), (Start: 3 @12248 has 413 MA's), (14, 12314), (17, 12356),

Gene: Taquarus_18 Start: 13044, Stop: 13211, Start Num: 3

Candidate Starts for Taquarus_18:

(Start: 3 @13044 has 413 MA's), (10, 13122), (14, 13149), (16, 13161),

Gene: Target_19 Start: 14028, Stop: 14156, Start Num: 3

Candidate Starts for Target_19:

(1, 13962), (Start: 3 @14028 has 413 MA's), (19, 14136),

Gene: TarsusIV_19 Start: 13792, Stop: 13989, Start Num: 3

Candidate Starts for TarsusIV_19:

(1, 13723), (Start: 3 @13792 has 413 MA's), (6, 13846),

Gene: Tarynearal_14 Start: 12168, Stop: 12311, Start Num: 3

Candidate Starts for Tarynearal_14:

(1, 12102), (Start: 3 @12168 has 413 MA's), (14, 12234), (17, 12276),

Gene: Thanksgivukkah_18 Start: 13045, Stop: 13212, Start Num: 3

Candidate Starts for Thanksgivukkah_18:

(Start: 3 @13045 has 413 MA's), (14, 13150), (16, 13162),

Gene: Tiger_15 Start: 11994, Stop: 12137, Start Num: 3

Candidate Starts for Tiger_15:

(1, 11928), (Start: 3 @11994 has 413 MA's), (14, 12060), (17, 12102),

Gene: Timothy_19 Start: 14302, Stop: 14472, Start Num: 3

Candidate Starts for Timothy_19:

(1, 14233), (Start: 3 @14302 has 413 MA's), (8, 14368), (14, 14410),

Gene: Timshel_19 Start: 14647, Stop: 14814, Start Num: 3

Candidate Starts for Timshel_19:

(Start: 3 @14647 has 413 MA's), (13, 14746), (16, 14764),

Gene: TinaFeyge_18 Start: 13038, Stop: 13205, Start Num: 3

Candidate Starts for TinaFeyge_18:

(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155), (17, 13185),

Gene: TinyTimmy_18 Start: 14345, Stop: 14515, Start Num: 3

Candidate Starts for TinyTimmy_18:

(1, 14276), (Start: 3 @14345 has 413 MA's), (8, 14411), (14, 14453),

Gene: Tinybot_17 Start: 13019, Stop: 13186, Start Num: 3

Candidate Starts for Tinybot_17:

(Start: 3 @13019 has 413 MA's), (10, 13097), (14, 13124), (16, 13136),

Gene: TipsytheTRex_18 Start: 12802, Stop: 12996, Start Num: 3

Candidate Starts for TipsytheTRex_18:

(1, 12733), (Start: 3 @12802 has 413 MA's), (14, 12913), (22, 12988),

Gene: TiroTheta9_18 Start: 13038, Stop: 13205, Start Num: 3

Candidate Starts for TiroTheta9_18:

(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155),

Gene: Toaka_18 Start: 12876, Stop: 13067, Start Num: 3

Candidate Starts for Toaka_18:

(1, 12807), (Start: 3 @12876 has 413 MA's),

Gene: Tomathan_22 Start: 13643, Stop: 13837, Start Num: 3

Candidate Starts for Tomathan_22:

(1, 13574), (Start: 3 @13643 has 413 MA's), (11, 13730),

Gene: ToneTone_20 Start: 13766, Stop: 13957, Start Num: 3

Candidate Starts for ToneTone_20:

(1, 13697), (Start: 3 @13766 has 413 MA's), (9, 13841), (17, 13922), (22, 13949),

Gene: Topanga_18 Start: 12956, Stop: 13123, Start Num: 3

Candidate Starts for Topanga_18:

(1, 12890), (Start: 3 @12956 has 413 MA's), (7, 13010), (9, 13025),

Gene: Trike_16 Start: 10926, Stop: 11093, Start Num: 3

Candidate Starts for Trike_16:

(1, 10860), (Start: 3 @10926 has 413 MA's), (9, 10995), (10, 11001),

Gene: Trixie_22 Start: 15405, Stop: 15599, Start Num: 3

Candidate Starts for Trixie_22:

(1, 15336), (Start: 3 @15405 has 413 MA's), (9, 15477),

Gene: Trooper_19 Start: 13583, Stop: 13774, Start Num: 3

Candidate Starts for Trooper_19:

(1, 13514), (Start: 3 @13583 has 413 MA's),

Gene: TroyPia_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for TroyPia_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: Tubs_20 Start: 14514, Stop: 14711, Start Num: 3

Candidate Starts for Tubs_20:

(1, 14445), (Start: 3 @14514 has 413 MA's), (6, 14568), (15, 14634),

Gene: Tucker_22 Start: 13852, Stop: 14043, Start Num: 3

Candidate Starts for Tucker_22:

(1, 13783), (Start: 3 @13852 has 413 MA's), (9, 13927), (18, 14017), (22, 14035),

Gene: Turbido_21 Start: 14232, Stop: 14429, Start Num: 3

Candidate Starts for Turbido_21:

(1, 14163), (Start: 3 @14232 has 413 MA's), (6, 14286),

Gene: Twister_18 Start: 12855, Stop: 13022, Start Num: 3

Candidate Starts for Twister_18:

(1, 12789), (Start: 3 @12855 has 413 MA's), (7, 12909), (9, 12924),

Gene: TygerBlood_18 Start: 13040, Stop: 13207, Start Num: 3
Candidate Starts for TygerBlood_18:
(Start: 3 @13040 has 413 MA's), (10, 13118), (14, 13145), (16, 13157),

Gene: Ugenie5_17 Start: 14547, Stop: 14744, Start Num: 3
Candidate Starts for Ugenie5_17:
(1, 14478), (Start: 3 @14547 has 413 MA's), (6, 14601), (15, 14667),

Gene: Ulysses_17 Start: 12762, Stop: 12929, Start Num: 3
Candidate Starts for Ulysses_17:
(Start: 3 @12762 has 413 MA's), (14, 12867), (16, 12879),

Gene: UnionJack_15 Start: 11720, Stop: 11863, Start Num: 3
Candidate Starts for UnionJack_15:
(1, 11654), (Start: 3 @11720 has 413 MA's), (17, 11828),

Gene: Updawg_21 Start: 14238, Stop: 14432, Start Num: 3
Candidate Starts for Updawg_21:
(1, 14169), (Start: 3 @14238 has 413 MA's), (22, 14424),

Gene: VA6_19 Start: 13750, Stop: 13944, Start Num: 3
Candidate Starts for VA6_19:
(1, 13681), (Start: 3 @13750 has 413 MA's),

Gene: VC3_22 Start: 13755, Stop: 13931, Start Num: 3
Candidate Starts for VC3_22:
(1, 13686), (Start: 3 @13755 has 413 MA's), (6, 13809), (14, 13869), (17, 13911), (18, 13920),

Gene: Vanisoa_18 Start: 12602, Stop: 12799, Start Num: 3
Candidate Starts for Vanisoa_18:
(1, 12533), (Start: 3 @12602 has 413 MA's), (9, 12677), (21, 12785),

Gene: VohminGhazi_22 Start: 13858, Stop: 14049, Start Num: 3
Candidate Starts for VohminGhazi_22:
(1, 13789), (Start: 3 @13858 has 413 MA's), (9, 13933), (17, 14014), (22, 14041),

Gene: WalterMcMickey_18 Start: 12855, Stop: 13022, Start Num: 3
Candidate Starts for WalterMcMickey_18:
(1, 12789), (Start: 3 @12855 has 413 MA's), (7, 12909), (9, 12924),

Gene: Wander_18 Start: 13041, Stop: 13208, Start Num: 3
Candidate Starts for Wander_18:
(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158),

Gene: WeiHuaDA_25 Start: 16007, Stop: 16201, Start Num: 3
Candidate Starts for WeiHuaDA_25:
(Start: 3 @16007 has 413 MA's), (22, 16193),

Gene: Whabigail7_21 Start: 14220, Stop: 14417, Start Num: 3
Candidate Starts for Whabigail7_21:
(1, 14151), (Start: 3 @14220 has 413 MA's), (6, 14274),

Gene: WideWale_21 Start: 14238, Stop: 14432, Start Num: 3

Candidate Starts for WideWale_21:

(1, 14169), (Start: 3 @14238 has 413 MA's), (22, 14424),

Gene: Wiks_22 Start: 13834, Stop: 14025, Start Num: 3

Candidate Starts for Wiks_22:

(1, 13765), (Start: 3 @13834 has 413 MA's), (9, 13909), (17, 13990), (22, 14017),

Gene: Wilbur_18 Start: 13041, Stop: 13208, Start Num: 3

Candidate Starts for Wilbur_18:

(Start: 3 @13041 has 413 MA's), (10, 13119), (14, 13146), (16, 13158), (17, 13188),

Gene: Wile_18 Start: 13053, Stop: 13226, Start Num: 3

Candidate Starts for Wile_18:

(Start: 3 @13053 has 413 MA's), (10, 13137), (14, 13164), (16, 13176),

Gene: Wizard007_18 Start: 13043, Stop: 13210, Start Num: 3

Candidate Starts for Wizard007_18:

(Start: 3 @13043 has 413 MA's), (10, 13121), (14, 13148), (16, 13160),

Gene: WunderPhul_22 Start: 13834, Stop: 14025, Start Num: 3

Candidate Starts for WunderPhul_22:

(1, 13765), (Start: 3 @13834 has 413 MA's), (9, 13909), (17, 13990), (22, 14017),

Gene: Xena_18 Start: 13040, Stop: 13213, Start Num: 3

Candidate Starts for Xena_18:

(Start: 3 @13040 has 413 MA's), (10, 13124), (14, 13151), (16, 13163),

Gene: XianYue_19 Start: 13711, Stop: 13908, Start Num: 3

Candidate Starts for XianYue_19:

(1, 13642), (Start: 3 @13711 has 413 MA's), (9, 13786),

Gene: Yecey3_19 Start: 12638, Stop: 12835, Start Num: 3

Candidate Starts for Yecey3_19:

(1, 12569), (Start: 3 @12638 has 413 MA's), (6, 12692), (17, 12794),

Gene: YoSam321_18 Start: 13038, Stop: 13205, Start Num: 3

Candidate Starts for YoSam321_18:

(Start: 3 @13038 has 413 MA's), (10, 13116), (14, 13143), (16, 13155), (17, 13185),

Gene: Yokurt_22 Start: 13834, Stop: 14025, Start Num: 3

Candidate Starts for Yokurt_22:

(1, 13765), (Start: 3 @13834 has 413 MA's), (9, 13909), (17, 13990), (22, 14017),

Gene: Zaka_22 Start: 13834, Stop: 14025, Start Num: 3

Candidate Starts for Zaka_22:

(1, 13765), (Start: 3 @13834 has 413 MA's), (9, 13909), (17, 13990), (22, 14017),

Gene: Zimmer_21 Start: 15319, Stop: 15525, Start Num: 2

Candidate Starts for Zimmer_21:

(1, 15250), (Start: 2 @15319 has 5 MA's), (6, 15373), (9, 15394), (14, 15433),

Gene: Zolita_14 Start: 12249, Stop: 12389, Start Num: 3

Candidate Starts for Zolita_14:

(1, 12183), (Start: 3 @12249 has 413 MA's), (14, 12315), (17, 12357),

Gene: Zulu_22 Start: 13833, Stop: 14024, Start Num: 3

Candidate Starts for Zulu_22:

(1, 13764), (Start: 3 @13833 has 413 MA's), (9, 13908), (17, 13989), (22, 14016),