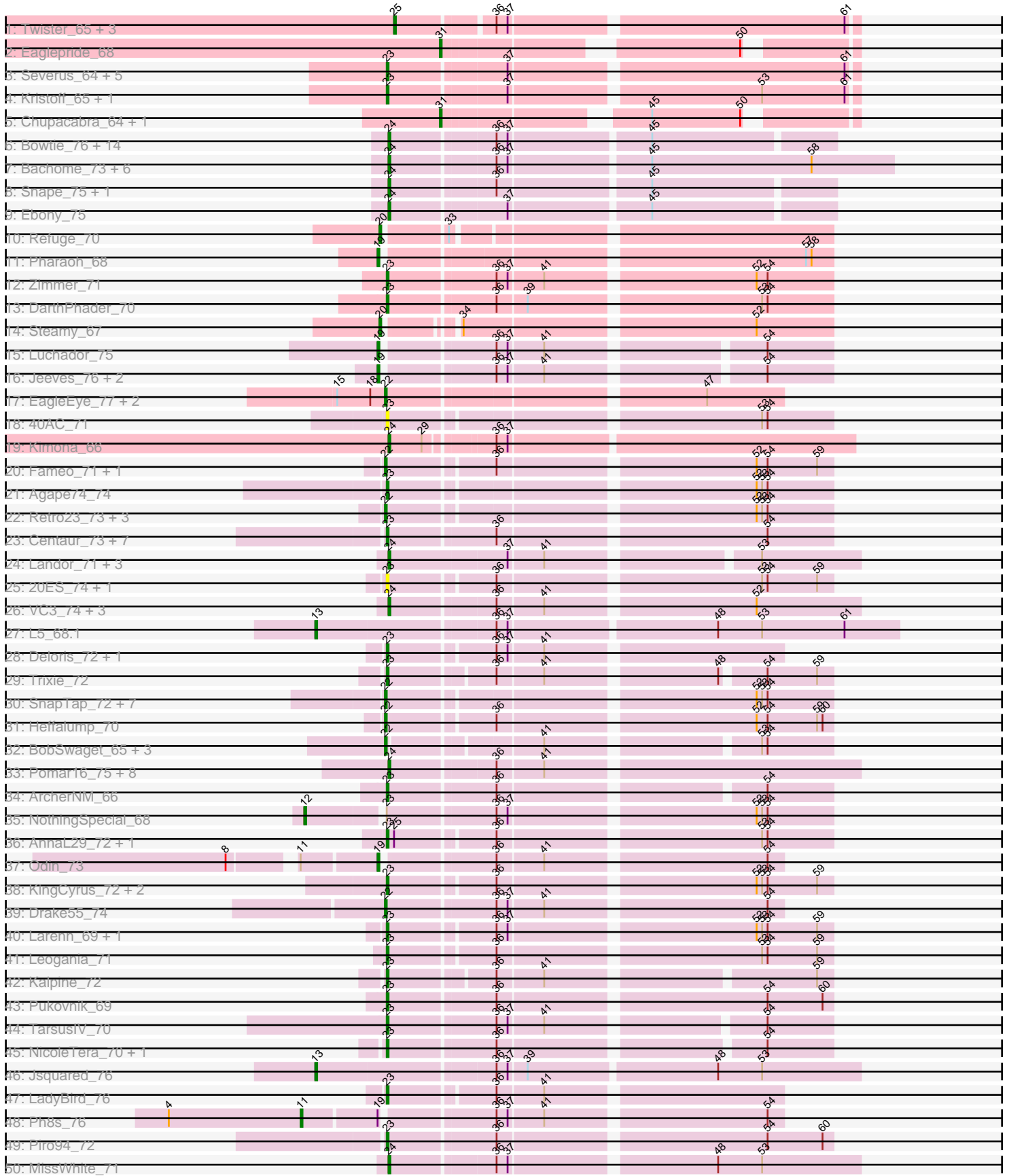
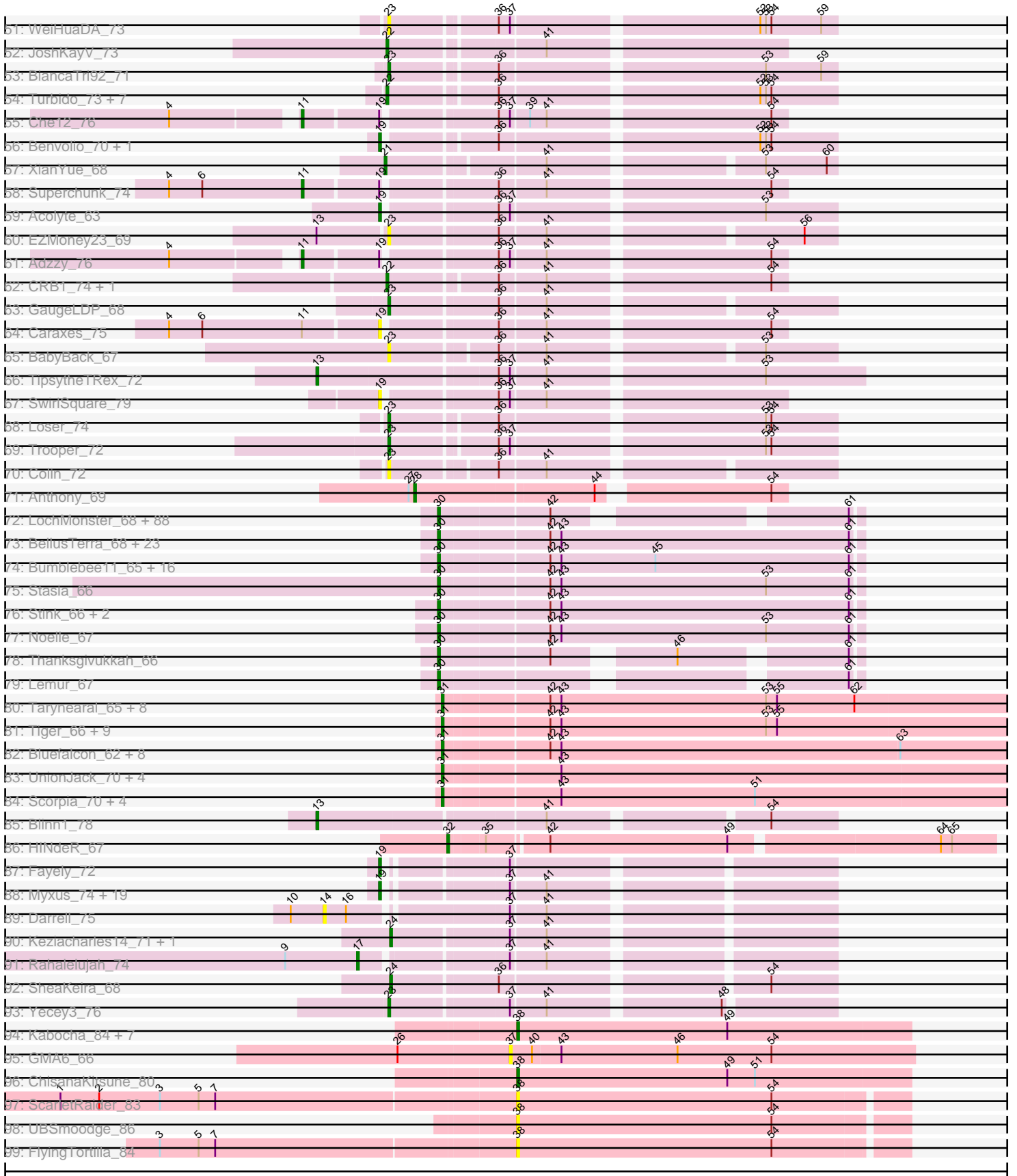


Pham 163273



Pham 163273



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 163273 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163273 has 374 members, 28 are drafts.

Phages represented in each track:

- Track 1 : Twister_65, Topanga_63, Edison31_61, WalterMcMickey_65
- Track 2 : Eaglepride_68
- Track 3 : Severus_64, Poompha_63, Trike_63, KittenMittens_63, PeaceMeal1_64, Drake94_64
- Track 4 : Kristoff_65, Rebeuca_67
- Track 5 : Chupacabra_64, Goose_67
- Track 6 : Bowtie_76, Et2Brutus_74, Flaverint_76, Joselito_74, Fibonacci_74, Mabel_75, Timothy_75, Lucivia_76, Munch_75, Aneem_76, Insomnia_72, MaCh_75, Jabith_74, Orange_74, TinyTimmy_71
- Track 7 : Bachome_73, Sham4_71, Gilberta_72, Salz_70, Hutc2_70, Bud_70, Petersenfast_69
- Track 8 : Snape_75, Mulciber_73
- Track 9 : Ebony_75
- Track 10 : Refuge_70
- Track 11 : Pharaoh_68
- Track 12 : Zimmer_71
- Track 13 : DARTHPhader_70
- Track 14 : Steamy_67
- Track 15 : Luchador_75
- Track 16 : Jeeves_76, SororFago_74, Gail_74
- Track 17 : EagleEye_77, PainterBoy_75, Lucyedi_76
- Track 18 : 40AC_71
- Track 19 : Kimona_66
- Track 20 : Fameo_71, QueenB2_70
- Track 21 : Agape74_74
- Track 22 : Retro23_73, Dalmatian_73, DudeLittle_71, Anselm_74
- Track 23 : Centaur_73, Baehexic_71, WideWale_73, NaSiaTalie_73, Flare16_73, Updawg_73, Equemioh13_72, MiculUcigas_73
- Track 24 : Landor_71, IronMan_70, Phaded_68, Jaan_71
- Track 25 : 20ES_74, First_0073
- Track 26 : VC3_74, AN9_75, ANI8_75, C3_68
- Track 27 : L5_68.1
- Track 28 : Deloris_72, BengiVuitton_72
- Track 29 : Trixie_72
- Track 30 : SnapTap_72, FiringLine_73, Crucio_73, QueenBeesly_73, Georgie2_74, Power_72, SemperFi_73, SweetiePie_72
- Track 31 : Heffalump_70

- Track 32 : BobSwaget_65, Rachaly_68, Miko_66, Loko_66
- Track 33 : Pomar16_75, Naji_75, D32_74, Tomathan_75, D29_68.1, StarStuff_75, Duplo_75, Kerberos_75, DBQu4n_75
- Track 34 : ArcherNM_66
- Track 35 : NothingSpecial_68
- Track 36 : AnnaL29_72, RedRock_71
- Track 37 : Odin_73
- Track 38 : KingCyrus_72, ChipMunk_73, EvilGenius_72
- Track 39 : Drake55_74
- Track 40 : Larenn_69, Malec_70
- Track 41 : Leogania_71
- Track 42 : Kalpine_72
- Track 43 : Pukovnik_69
- Track 44 : TarsusIV_70
- Track 45 : NicoleTera_70, Changeling_71
- Track 46 : Jsquared_76
- Track 47 : LadyBird_76
- Track 48 : Ph8s_76
- Track 49 : Piro94_72
- Track 50 : MissWhite_71
- Track 51 : WeiHuaDA_73
- Track 52 : JoshKayV_73
- Track 53 : BiancaTri92_71
- Track 54 : Turbido_73, Buggy_74, Dignity_74, Jerm_74, Leviathan_74, Smeagan_75, LilTurb_73, Whabigail7_73
- Track 55 : Che12_76
- Track 56 : Benvolio_70, Echild_73
- Track 57 : XianYue_68
- Track 58 : Superchunk_74
- Track 59 : Acolyte_63
- Track 60 : EZMoney23_69
- Track 61 : Adzzy_76
- Track 62 : CRB1_74, HarryHoudini_73
- Track 63 : GaugeLDP_68
- Track 64 : Caraxes_75
- Track 65 : BabyBack_67
- Track 66 : TipsytheTRex_72
- Track 67 : SwirlSquare_79
- Track 68 : Loser_74
- Track 69 : Trooper_72
- Track 70 : Colin_72
- Track 71 : Anthony_69
- Track 72 : LochMonster_68, Kingmustik0402_67, Sparxx_68, Romney_66, MeeZee_66, PeterPeter_67, Peaches_65, NorthStar_65, Eapen_67, Deano_64, Alberto7_68, Kyee_67, KFPoly_66, NotAPhaseMom_66, Connomayer_67, Scamp_67, Camperdownii_65, LittleB_67, Phighter1804_67, Arturo_64, Druantia_66, Eros_67, LittleGuy_67, Ulysses_66, Holli_66, TygerBlood_67, Citius_67, Caelakin_66, Chaph_67, Skipitt_66, Lunsford_67, Phontbonne_67, Kampy_66, Phacado_67, Funston_66, OKaNui_66, Clarenza_66, Sabertooth_67, Mazhar510_67, JoongJeon_66, Burger_65, TinaFeyge_65, Millski_66, Taquarus_66, Commander_65, Nyxis_66, YoSam321_67, Bartimeaus_67, Relief_66, Wander_67, Albee_67, Maxo_68, Flux_67, Maverick_66, Eris_66, Lorenzo_67, Blackmoor_66, TiroTheta9_66, Shaka_65, Melvin_69, Medusa_67, HamSlice_63, Jaykayelowell_64,

Broseidon_67, Koreni_66, Cocoaberry_67, Gadost_67, Annyong_66, Baby16_67, Tinybot_66, LappelDuVide_63, Iracema64_67, DirtyDunning_66, Houdini22_66, Avle17_67, Iceman_66, Pumbaa_67, Wilbur_67, Spino_66, Bruiser_66, Roosevelt_65, Abdiel_67, Ruin_67, Florean_67, Palestino_66, Nemo27_66, Bombshell_67, Dhanush_67, Pipcraft_64

- Track 73 : BellusTerra_68, Kremtemulon_63, Obama12_68, LHTSCC_69, ChampagnePapi_69, ICleared_66, Kratark_66, Cerulean_68, Shygu2_66, TroyPia_68, Cintron_67, Eurydice_68, Eagle_66, Ohfah_68, Phelipe_68, SheldonCooper_67, BangNhom_65, Nebs_68, CentreCat_67, Morrow_68, JetBlade_67, LeoAvram_66, Polymorphads_67, Happiness_66
- Track 74 : Bumblebee11_65, AbbysRanger_66, Mundrea_66, Backyardigan_64, PetiteSangsue_66, Wizard007_66, Morpher26_66, Xena_65, Wile_65, Katalie136_66, Cici_66, Datway_66, Perplexer_66, Cindaradix_63, Achebe_65, BubbleTrouble_66, Badger_65
- Track 75 : Stasia_66
- Track 76 : Stink_66, Miramae_66, AvatarAhPeg_66
- Track 77 : Noelle_67
- Track 78 : Thanksgivukkah_66
- Track 79 : Lemur_67
- Track 80 : Tarynearal_65, Micasa_64, LittleCherry_65, Bonamassa_66, Swirley_66, Dublin_66, MarysWell_66, HuhtaEnerson15_64, Milcery_66
- Track 81 : Tiger_66, AgentM_66, Phlorence_65, PickleBack_67, Jovo_67, Lev2_67, Conspiracy_67, Aragog_66, ForGetIt_67, Discoknowium_64
- Track 82 : Bluefalcon_62, Theia_65, Cuco_65, Ghoulboy_66, Archetta_64, Zolita_65, Coog_63, Midas2_63, SydNat_66
- Track 83 : UnionJack_70, Jabiru_68, ElTiger69_72, Airmid_69, MyraDee_70
- Track 84 : Scorpia_70, Chadwick_70, Benedict_70, PetterN_74, Naca_69
- Track 85 : Blinn1_78
- Track 86 : HINdeR_67
- Track 87 : Fayely_72
- Track 88 : Myxus_74, Priya_72, Catalina_76, ExplosioNervosa_72, Aliter_75, Phonnegut_74, Conquerage_72, Alma_72, Spouty_69, Pioneer_74, HortumSL17_75, PackMan_73, EmyBug_68, Tubs_74, Qobbit_72, Beemo_74, Phaeder_74, Scherzo_73, Ugenie5_69, Eidsmoe_72
- Track 89 : Darrell_75
- Track 90 : Keziacharles14_71, LoneWolf_75
- Track 91 : Rahalelujah_74
- Track 92 : SheaKeira_68
- Track 93 : Yecey3_76
- Track 94 : Kabocha_84, Chidiebere_83, Oogie_82, Gray_83, Schomber_81, Aloki_78, Pakusa_79, Hanem_82
- Track 95 : GMA6_66
- Track 96 : ChisanaKitsune_80
- Track 97 : ScarletRaider_83
- Track 98 : UBSmoodge_86
- Track 99 : FlyingTortilla_84

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

The start number called the most often in the published annotations is 30, it was called in 135 of the 346 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbysRanger_66, Abdiel_67, Achebe_65, Albee_67, Alberto7_68, Annyong_66, Arturo_64, AvatarAhPeg_66, Avle17_67, Baby16_67, Backyardigan_64, Badger_65, BangNhom_65, Bartimeaus_67, BellusTerra_68, Blackmoor_66, Bombshell_67, Broseidon_67, Bruiser_66, BubbleTrouble_66, Bumblebee11_65, Burger_65, Caelakin_66, Camperdownii_65, CentreCat_67, Cerulean_68, ChampagnePapi_69, Chaph_67, Cici_66, Cindaradix_63, Cintron_67, Citius_67, Clarenza_66, Cocoaberry_67, Commander_65, Connomayer_67, Datway_66, Deano_64, Dhanush_67, DirtyDunning_66, Druantia_66, Eagle_66, Eapen_67, Eris_66, Eros_67, Eurydice_68, Florean_67, Flux_67, Funston_66, Gadost_67, HamSlice_63, Happiness_66, Holli_66, Houdini22_66, ICleared_66, Iceman_66, Iracema64_67, Jaykayelowell_64, JetBlade_67, JoongJeon_66, KFPoly_66, Kamy_66, Katalie136_66, Kingmustik0402_67, Koreni_66, Kratak_66, Kremtemulon_63, Kyee_67, LHTSCC_69, LappelDuVide_63, Lemur_67, LeoAvram_66, LittleB_67, LittleGuy_67, LochMonster_68, Lorenzo_67, Lunsford_67, Maverick_66, Maxo_68, Mazhar510_67, Medusa_67, MeeZee_66, Melvin_69, Millski_66, Miramae_66, Morpher26_66, Morrow_68, Mundrea_66, Nebs_68, Nemo27_66, Noelle_67, NorthStar_65, NotAPhaseMom_66, Nyxis_66, OKaNui_66, Obama12_68, Ohfah_68, Palestino_66, Peaches_65, Perplexer_66, PeterPeter_67, PetiteSangsue_66, Phacado_67, Phelipe_68, Phighter1804_67, Phontbonne_67, Pipcraft_64, Polymorphads_67, Pumbaa_67, Relief_66, Romney_66, Roosevelt_65, Ruin_67, Sabertooth_67, Scamp_67, Shaka_65, SheldonCooper_67, Shygu2_66, Skipitt_66, Sparxx_68, Spino_66, Stasia_66, Stink_66, Taquarus_66, Thanksgivukkah_66, TinaFeyge_65, Tinybot_66, TiroTheta9_66, TroyPia_68, TygerBlood_67, Ulysses_66, Wander_67, Wilbur_67, Wile_65, Wizard007_66, Xena_65, YoSam321_67,

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

-

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

- 20ES_74, 40AC_71, AN9_75, ANI8_75, Acolyte_63, Adzzy_76, Agape74_74, AgentM_66, Airmid_69, Aliter_75, Alma_72, Aloki_78, Aneem_76, AnnaL29_72, Anselm_74, Anthony_69, Aragog_66, ArcherNM_66, Archetta_64, BabyBack_67, Bachome_73, Baehexic_71, Beemo_74, Benedict_70, BengiVuitton_72, Benvolio_70, BiancaTri92_71, Blinn1_78, Bluefalcon_62, BobSwaget_65, Bonamassa_66, Bowtie_76, Bud_70, Buggy_74, C3_68, CRB1_74, Caraxes_75, Catalina_76, Centaur_73, Chadwick_70, Changeling_71, Che12_76, Chidiebere_83, ChipMunk_73, ChisanaKitsune_80, Chupacabra_64, Colin_72, Conquerage_72, Conspiracy_67, Coog_63, Crucio_73, Cuco_65, D29_68.1, D32_74, DBQu4n_75, Dalmatian_73, Darrell_75, DarthPhader_70, Deloris_72, Dignity_74, Discoknowium_64, Drake55_74, Drake94_64, Dublin_66, DudeLittle_71, Duplo_75, EZMoney23_69, EagleEye_77, Eaglepride_68, Ebony_75, Echild_73, Edison31_61, Eidsmoe_72, EITiger69_72, EmyBug_68, Equemioh13_72, Et2Brutus_74, EvilGenius_72, ExplosioNervosa_72, Fameo_71, Fayely_72, Fibonacci_74, FiringLine_73, First_0073, Flare16_73, Flaverint_76, FlyingTortilla_84, ForGetIt_67, GMA6_66, Gail_74, GaugeLDP_68, Georgie2_74, Ghoulyboy_66, Gilberta_72, Goose_67, Gray_83, HINdeR_67, Hanem_82, HarryHoudini_73, Heffalump_70, HortumSL17_75, HuhtaEnerson15_64, Hutc2_70, Insomnia_72, IronMan_70, Jaan_71, Jabiru_68, Jabith_74, Jeeves_76, Jerm_74, Joselito_74, JoshKayV_73, Jovo_67, Jsquared_76, Kabocha_84, Kalpine_72, Kerberos_75, Keziacharles14_71,

Kimona_66, KingCyrus_72, KittenMittens_63, Kristoff_65, L5_68.1, LadyBird_76, Landor_71, Larenn_69, Leogania_71, Lev2_67, Leviathan_74, LiITurb_73, LittleCherry_65, Lökk_66, LoneWolf_75, Loser_74, Luchador_75, Lucivia_76, Lucyedi_76, MaCh_75, Mabel_75, Malec_70, MarysWell_66, Micasa_64, MiculUcigas_73, Midas2_63, Miko_66, Milcery_66, MissWhite_71, Mulciber_73, Munch_75, MyraDee_70, Myxus_74, NaSiaTalie_73, Naca_69, Naji_75, NicoleTera_70, NothingSpecial_68, Odin_73, Oogie_82, Orange_74, PackMan_73, PainterBoy_75, Pakusa_79, PeaceMeal1_64, Petersenfast_69, PetterN_74, Ph8s_76, Phaded_68, Phaeder_74, Pharaoh_68, Phlorence_65, Phonnegut_74, PickleBack_67, Pioneer_74, Piro94_72, Pomar16_75, Poompha_63, Power_72, Priya_72, Pukovnik_69, Qobbit_72, QueenB2_70, QueenBeesly_73, Rachaly_68, Rahalelujah_74, Rebeuca_67, RedRock_71, Refuge_70, Retro23_73, Salz_70, ScarletRaider_83, Scherzo_73, Schomber_81, Scorpia_70, SemperFi_73, Severus_64, Sham4_71, SheaKeira_68, Smeagan_75, SnapTap_72, Snape_75, SororFago_74, Spouty_69, StarStuff_75, Steamy_67, Superchunk_74, SweetiePie_72, SwirlSquare_79, Swirley_66, SydNat_66, TarsusIV_70, Tarynearal_65, Theia_65, Tiger_66, Timothy_75, TinyTimmy_71, TopsytheTRex_72, Tomathan_75, Topanga_63, Trike_63, Trixie_72, Trooper_72, Tubs_74, Turbido_73, Twister_65, UBSmoodge_86, Ugenie5_69, UnionJack_70, Updawg_73, VC3_74, WalterMcMickey_65, WeiHuaDA_73, Whabigail7_73, WideWale_73, XianYue_68, Yecey3_76, Zimmer_71, Zolita_65,

Summary by start number:

Start 11:

- Found in 6 of 374 (1.6%) of genes in pham
- Manual Annotations of this start: 4 of 346
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Adzzy_76 (A2), Che12_76 (A2), Ph8s_76 (A2), Superchunk_74 (A2),

Start 12:

- Found in 1 of 374 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 346
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NothingSpecial_68 (A2),

Start 13:

- Found in 5 of 374 (1.3%) of genes in pham
- Manual Annotations of this start: 4 of 346
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Blinn1_78 (A6), Jsquared_76 (A2), L5_68.1 (A2), TopsytheTRex_72 (A2),

Start 14:

- Found in 1 of 374 (0.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Darrell_75 (A9),

Start 17:

- Found in 1 of 374 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 346

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rahalelujah_74 (A9),

Start 19:

- Found in 36 of 374 (9.6%) of genes in pham
- Manual Annotations of this start: 28 of 346
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Acolyte_63 (A2), Aliter_75 (A9), Alma_72 (A9), Beemo_74 (A9), Benvolio_70 (A2), Caraxes_75 (A2), Catalina_76 (A9), Conquerage_72 (A9), Echild_73 (A2), Eidsmoe_72 (A9), EmyBug_68 (A9), ExplosioNervosa_72 (A9), Fayely_72 (A9), Gail_74 (A14), HortumSL17_75 (A9), Jeeves_76 (A14), Luchador_75 (A14), Myxus_74 (A9), Odin_73 (A2), PackMan_73 (A9), Phaeder_74 (A9), Pharaoh_68 (A12), Phonnegut_74 (A9), Pioneer_74 (A9), Priya_72 (A9), Qobbit_72 (A9), Scherzo_73 (A9), SororFago_74 (A14), Spouty_69 (A9), SwirlSquare_79 (A2), Tubs_74 (A9), Ugenie5_69 (A9),

Start 20:

- Found in 2 of 374 (0.5%) of genes in pham
- Manual Annotations of this start: 2 of 346
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Refuge_70 (A12), Steamy_67 (A12),

Start 21:

- Found in 1 of 374 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 346
- Called 100.0% of time when present
- Phage (with cluster) where this start called: XianYue_68 (A2),

Start 22:

- Found in 34 of 374 (9.1%) of genes in pham
- Manual Annotations of this start: 33 of 346
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anselm_74 (A2), BobSwaget_65 (A2), Buggy_74 (A2), CRB1_74 (A2), Crucio_73 (A2), Dalmatian_73 (A2), Dignity_74 (A2), Drake55_74 (A2), DudeLittle_71 (A2), EagleEye_77 (A16), Fameo_71 (A2), FiringLine_73 (A2), Georgie2_74 (A2), HarryHoudini_73 (A2), Heffalump_70 (A2), Jerm_74 (A2), JoshKayV_73 (A2), Leviathan_74 (A2), LilTurb_73 (A2), Lokk_66 (A2), Lucyedi_76 (A16), Miko_66 (A2), PainterBoy_75 (A16), Power_72 (A2), QueenB2_70 (A2), QueenBeesly_73 (A2), Rachaly_68 (A2), Retro23_73 (A2), SemperFi_73 (A2), Smeagan_75 (A2), SnapTap_72 (A2), SweetiePie_72 (A2), Turbido_73 (A2), Whabigail7_73 (A2),

Start 23:

- Found in 51 of 374 (13.6%) of genes in pham
- Manual Annotations of this start: 43 of 346
- Called 98.0% of time when present
- Phage (with cluster) where this start called: 20ES_74 (A2), 40AC_71 (A17), Agape74_74 (A2), AnnaL29_72 (A2), ArcherNM_66 (A2), BabyBack_67 (A2), Baehexic_71 (A2), BengiVuitton_72 (A2), BiancaTri92_71 (A2), Centaur_73 (A2), Changeling_71 (A2), ChipMunk_73 (A2), Colin_72 (A2), DarthPhader_70 (A12), Deloris_72 (A2), Drake94_64 (A10), EZMoney23_69 (A2), Equemioh13_72 (A2), EvilGenius_72 (A2), First_0073 (A2), Flare16_73 (A2), GaugeLDP_68 (A2), Kalpine_72 (A2), KingCyrus_72 (A2), KittenMittens_63 (A10), Kristoff_65 (A10),

LadyBird_76 (A2), Larenn_69 (A2), Leogania_71 (A2), Loser_74 (A2), Malec_70 (A2), MiculUcigas_73 (A2), NaSiaTalie_73 (A2), NicoleTera_70 (A2), PeaceMeal1_64 (A10), Piro94_72 (A2), Poompha_63 (A10), Pukovnik_69 (A2), Rebeuca_67 (A10), RedRock_71 (A2), Severus_64 (A10), TarsusIV_70 (A2), Trike_63 (A10), Trixie_72 (A2), Trooper_72 (A2), Updawg_73 (A2), WeiHuaDA_73 (A2), WideWale_73 (A2), Yecey3_76 (A9), Zimmer_71 (A12),

Start 24:

- Found in 47 of 374 (12.6%) of genes in pham
- Manual Annotations of this start: 43 of 346
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AN9_75 (A2), ANI8_75 (A2), Aneem_76 (A11), Bachome_73 (A11), Bowtie_76 (A11), Bud_70 (A11), C3_68 (A2), D29_68.1 (A2), D32_74 (A2), DBQu4n_75 (A2), Duplo_75 (A2), Ebony_75 (A11), Et2Brutus_74 (A11), Fibonacci_74 (A11), Flaverint_76 (A11), Gilberta_72 (A11), Hutc2_70 (A11), Insomnia_72 (A11), IronMan_70 (A2), Jaan_71 (A2), Jabith_74 (A11), Joselito_74 (A11), Kerberos_75 (A2), Keziacharles14_71 (A9), Kimona_66 (A19), Landor_71 (A2), LoneWolf_75 (A9), Lucivia_76 (A11), MaCh_75 (A11), Mabel_75 (A11), MissWhite_71 (A2), Mulciber_73 (A11), Munch_75 (A11), Naji_75 (A2), Orange_74 (A11), Petersenfast_69 (A11), Phaded_68 (A2), Pomar16_75 (A2), Salz_70 (A11), Sham4_71 (A11), SheaKeira_68 (A9), Snape_75 (A11), StarStuff_75 (A2), Timothy_75 (A11), TinyTimmy_71 (A11), Tomathan_75 (A2), VC3_74 (A2),

Start 25:

- Found in 6 of 374 (1.6%) of genes in pham
- Manual Annotations of this start: 3 of 346
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Edison31_61 (A10), Topanga_63 (A10), Twister_65 (A10), WalterMcMickey_65 (A10),

Start 28:

- Found in 1 of 374 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 346
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anthony_69 (A20),

Start 30:

- Found in 137 of 374 (36.6%) of genes in pham
- Manual Annotations of this start: 135 of 346
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbysRanger_66 (A4), Abdiel_67 (A4), Achebe_65 (A4), Albee_67 (A4), Alberto7_68 (A4), Annyong_66 (A4), Arturo_64 (A4), AvatarAhPeg_66 (A4), Avle17_67 (A4), Baby16_67 (A4), Backyardigan_64 (A4), Badger_65 (A4), BangNhom_65 (A4), Bartimeaus_67 (A4), BellusTerra_68 (A4), Blackmoor_66 (A4), Bombshell_67 (A4), Broseidon_67 (A4), Bruiser_66 (A4), BubbleTrouble_66 (A4), Bumblebee11_65 (A4), Burger_65 (A4), Caelakin_66 (A4), Camperdownii_65 (A4), CentreCat_67 (A4), Cerulean_68 (A4), ChampagnePapi_69 (A4), Chaph_67 (A4), Cici_66 (A4), Cindaradix_63 (A4), Cintron_67 (A4), Citius_67 (A4), Clarenza_66 (A4), Cocoaberry_67 (A4), Commander_65 (A4), Connomayer_67 (A4), Datway_66 (A4), Deano_64 (A4), Dhanush_67 (A4), DirtyDunning_66 (A4), Druantia_66 (A4), Eagle_66 (A4), Eapen_67 (A4), Eris_66 (A4), Eros_67 (A4), Eurydice_68 (A4), Florean_67 (A4), Flux_67 (A4), Funston_66 (A4), Gadost_67 (A4), HamSlice_63 (A4), Happiness_66 (A4), Holli_66 (A4), Houdini22_66 (A4),

ICleared_66 (A4), Iceman_66 (A4), Iracema64_67 (A4), Jaykayelowell_64 (A4), JetBlade_67 (A4), JoongJeon_66 (A4), KFPoly_66 (A4), Kampy_66 (A4), Katalie136_66 (A4), Kingmustik0402_67 (A4), Koreni_66 (A4), Kratark_66 (A4), Kremtemulon_63 (A4), Kyee_67 (A4), LHTSCC_69 (A4), LappelDuVide_63 (A4), Lemur_67 (A4), LeoAvram_66 (A4), LittleB_67 (A4), LittleGuy_67 (A4), LochMonster_68 (A4), Lorenzo_67 (A4), Lunsford_67 (A4), Maverick_66 (A4), Maxo_68 (A4), Mazhar510_67 (A4), Medusa_67 (A4), MeeZee_66 (A4), Melvin_69 (A4), Millski_66 (A4), Miramae_66 (A4), Morpher26_66 (A4), Morrow_68 (A4), Mundrea_66 (A4), Nebs_68 (A4), Nemo27_66 (A4), Noelle_67 (A4), NorthStar_65 (A4), NotAPhaseMom_66 (A4), Nyxis_66 (A4), OKaNui_66 (A4), Obama12_68 (A4), Ohfah_68 (A4), Palestino_66 (A4), Peaches_65 (A4), Perplexer_66 (A4), PeterPeter_67 (A4), PetiteSangsue_66 (A4), Phacado_67 (A4), Phelipe_68 (A4), Phighter1804_67 (A4), Phontbonne_67 (A4), Pipcraft_64 (A4), Polymorphads_67 (A4), Pumbaa_67 (A4), Relief_66 (A4), Romney_66 (A4), Roosevelt_65 (A4), Ruin_67 (A4), Sabertooth_67 (A4), Scamp_67 (A4), Shaka_65 (A4), SheldonCooper_67 (A4), Shygu2_66 (A4), Skipitt_66 (A4), Sparxx_68 (A4), Spino_66 (A4), Stasia_66 (A4), Stink_66 (A4), Taquarus_66 (A4), Thanksgivukkah_66 (A4), TinaFeyge_65 (A4), Tinybot_66 (A4), TiroTheta9_66 (A4), TroyPia_68 (A4), TygerBlood_67 (A4), Ulysses_66 (A4), Wander_67 (A4), Wilbur_67 (A4), Wile_65 (A4), Wizard007_66 (A4), Xena_65 (A4), YoSam321_67 (A4),

Start 31:

- Found in 41 of 374 (11.0%) of genes in pham
- Manual Annotations of this start: 40 of 346
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AgentM_66 (A5), Airmid_69 (A5), Aragog_66 (A5), Archetta_64 (A5), Benedict_70 (A5), Bluefalcon_62 (A5), Bonamassa_66 (A5), Chadwick_70 (A5), Chupacabra_64 (A10), Conspiracy_67 (A5), Coog_63 (A5), Cuco_65 (A5), Discoknowium_64 (A5), Dublin_66 (A5), Eaglepride_68 (A10), ElTiger69_72 (A5), ForGetIt_67 (A5), Ghouboy_66 (A5), Goose_67 (A10), HuhtaEnerson15_64 (A5), Jabiru_68 (A5), Jovo_67 (A5), Lev2_67 (A5), LittleCherry_65 (A5), MarysWell_66 (A5), Micasa_64 (A5), Midas2_63 (A5), Milcery_66 (A5), MyraDee_70 (A18), Naca_69 (A5), PetterN_74 (A5), Phlorence_65 (A5), PickleBack_67 (A5), Scorpia_70 (A5), Swirley_66 (A5), SydNat_66 (A5), Tarynearl_65 (A5), Theia_65 (A5), Tiger_66 (A5), UnionJack_70 (A5), Zolita_65 (A5),

Start 32:

- Found in 1 of 374 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 346
- Called 100.0% of time when present
- Phage (with cluster) where this start called: HINdeR_67 (A7),

Start 37:

- Found in 90 of 374 (24.1%) of genes in pham
- No Manual Annotations of this start.
- Called 1.1% of time when present
- Phage (with cluster) where this start called: GMA6_66 (DQ),

Start 38:

- Found in 12 of 374 (3.2%) of genes in pham
- Manual Annotations of this start: 6 of 346
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Alok_78 (DQ), Chidiebere_83 (DQ), ChisanaKitsune_80 (DQ), FlyingTortilla_84 (DQ), Gray_83 (DQ), Hanem_82 (DQ), Kabocha_84 (DQ), Oogie_82 (DQ), Pakusa_79 (DQ), ScarletRaider_83 (DQ), Schomber_81 (DQ), UBSmoodge_86 (DQ),

Summary by clusters:

There are 16 clusters represented in this pham: A20, A14, A17, A16, A11, A10, A12, A19, A18, A2, A5, A4, A7, A6, A9, DQ,

Info for manual annotations of cluster A10:

- Start number 23 was manually annotated 8 times for cluster A10.
- Start number 25 was manually annotated 3 times for cluster A10.
- Start number 31 was manually annotated 3 times for cluster A10.

Info for manual annotations of cluster A11:

- Start number 24 was manually annotated 22 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 19 was manually annotated 1 time for cluster A12.
- Start number 20 was manually annotated 2 times for cluster A12.
- Start number 23 was manually annotated 2 times for cluster A12.

Info for manual annotations of cluster A14:

- Start number 19 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A16:

- Start number 22 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A18:

- Start number 31 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A19:

- Start number 24 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 11 was manually annotated 4 times for cluster A2.
- Start number 12 was manually annotated 1 time for cluster A2.
- Start number 13 was manually annotated 3 times for cluster A2.
- Start number 19 was manually annotated 4 times for cluster A2.
- Start number 21 was manually annotated 1 time for cluster A2.
- Start number 22 was manually annotated 30 times for cluster A2.
- Start number 23 was manually annotated 32 times for cluster A2.
- Start number 24 was manually annotated 17 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 28 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A4:

- Start number 30 was manually annotated 135 times for cluster A4.

Info for manual annotations of cluster A5:

- Start number 31 was manually annotated 36 times for cluster A5.

Info for manual annotations of cluster A6:

- Start number 13 was manually annotated 1 time for cluster A6.

Info for manual annotations of cluster A7:

- Start number 32 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster A9:

- Start number 17 was manually annotated 1 time for cluster A9.
- Start number 19 was manually annotated 19 times for cluster A9.
- Start number 23 was manually annotated 1 time for cluster A9.
- Start number 24 was manually annotated 3 times for cluster A9.

Info for manual annotations of cluster DQ:

- Start number 38 was manually annotated 6 times for cluster DQ.

Gene Information:

Gene: 20ES_74 Start: 43517, Stop: 43293, Start Num: 23

Candidate Starts for 20ES_74:

(Start: 23 @43517 has 43 MA's), (36, 43466), (53, 43331), (54, 43328), (59, 43301),

Gene: 40AC_71 Start: 44020, Stop: 43796, Start Num: 23

Candidate Starts for 40AC_71:

(Start: 23 @44020 has 43 MA's), (53, 43834), (54, 43831),

Gene: AN9_75 Start: 43459, Stop: 43217, Start Num: 24

Candidate Starts for AN9_75:

(Start: 24 @43459 has 43 MA's), (36, 43405), (41, 43381), (52, 43273),

Gene: ANI8_75 Start: 43459, Stop: 43217, Start Num: 24

Candidate Starts for ANI8_75:

(Start: 24 @43459 has 43 MA's), (36, 43405), (41, 43381), (52, 43273),

Gene: AbbysRanger_66 Start: 42647, Stop: 42423, Start Num: 30

Candidate Starts for AbbysRanger_66:

(Start: 30 @42647 has 135 MA's), (42, 42590), (43, 42584), (45, 42533), (61, 42428),

Gene: Abdiel_67 Start: 42370, Stop: 42173, Start Num: 30

Candidate Starts for Abdiel_67:

(Start: 30 @42370 has 135 MA's), (42, 42313), (61, 42178),

Gene: Achebe_65 Start: 42630, Stop: 42406, Start Num: 30

Candidate Starts for Achebe_65:

(Start: 30 @42630 has 135 MA's), (42, 42573), (43, 42567), (45, 42516), (61, 42411),

Gene: Acolyte_63 Start: 41528, Stop: 41301, Start Num: 19

Candidate Starts for Acolyte_63:

(Start: 19 @41528 has 28 MA's), (36, 41474), (37, 41468), (53, 41339),

Gene: Adzzy_76 Start: 42404, Stop: 42165, Start Num: 11
Candidate Starts for Adzzy_76:
(4, 42464), (Start: 11 @42404 has 4 MA's), (Start: 19 @42365 has 28 MA's), (36, 42311), (37, 42305),
(41, 42287), (54, 42173),

Gene: Agape74_74 Start: 43761, Stop: 43537, Start Num: 23
Candidate Starts for Agape74_74:
(Start: 23 @43761 has 43 MA's), (52, 43578), (53, 43575), (54, 43572),

Gene: AgentM_66 Start: 41898, Stop: 41596, Start Num: 31
Candidate Starts for AgentM_66:
(Start: 31 @41898 has 40 MA's), (42, 41844), (43, 41838), (53, 41727), (55, 41721),

Gene: Airmid_69 Start: 42731, Stop: 42429, Start Num: 31
Candidate Starts for Airmid_69:
(Start: 31 @42731 has 40 MA's), (43, 42671),

Gene: Albee_67 Start: 42357, Stop: 42160, Start Num: 30
Candidate Starts for Albee_67:
(Start: 30 @42357 has 135 MA's), (42, 42300), (61, 42165),

Gene: Alberto7_68 Start: 42694, Stop: 42497, Start Num: 30
Candidate Starts for Alberto7_68:
(Start: 30 @42694 has 135 MA's), (42, 42637), (61, 42502),

Gene: Aliter_75 Start: 42851, Stop: 42633, Start Num: 19
Candidate Starts for Aliter_75:
(Start: 19 @42851 has 28 MA's), (37, 42794), (41, 42776),

Gene: Alma_72 Start: 42828, Stop: 42610, Start Num: 19
Candidate Starts for Alma_72:
(Start: 19 @42828 has 28 MA's), (37, 42771), (41, 42753),

Gene: Aloki_78 Start: 63735, Stop: 63947, Start Num: 38
Candidate Starts for Aloki_78:
(Start: 38 @63735 has 6 MA's), (49, 63849),

Gene: Aneem_76 Start: 43515, Stop: 43288, Start Num: 24
Candidate Starts for Aneem_76:
(Start: 24 @43515 has 43 MA's), (36, 43461), (37, 43455), (45, 43383),

Gene: AnnaL29_72 Start: 43717, Stop: 43493, Start Num: 23
Candidate Starts for AnnaL29_72:
(Start: 23 @43717 has 43 MA's), (Start: 25 @43714 has 3 MA's), (36, 43666), (53, 43531), (54,
43528),

Gene: Annyong_66 Start: 42402, Stop: 42205, Start Num: 30
Candidate Starts for Annyong_66:
(Start: 30 @42402 has 135 MA's), (42, 42345), (61, 42210),

Gene: Anselm_74 Start: 43911, Stop: 43687, Start Num: 22
Candidate Starts for Anselm_74:
(Start: 22 @43911 has 33 MA's), (52, 43728), (53, 43725), (54, 43722),

Gene: Anthony_69 Start: 41982, Stop: 41797, Start Num: 28
Candidate Starts for Anthony_69:
(27, 41985), (Start: 28 @41982 has 1 MA's), (44, 41889), (54, 41805),

Gene: Aragog_66 Start: 41918, Stop: 41616, Start Num: 31
Candidate Starts for Aragog_66:
(Start: 31 @41918 has 40 MA's), (42, 41864), (43, 41858), (53, 41747), (55, 41741),

Gene: ArcherNM_66 Start: 42985, Stop: 42764, Start Num: 23
Candidate Starts for ArcherNM_66:
(Start: 23 @42985 has 43 MA's), (36, 42931), (54, 42799),

Gene: Archetta_64 Start: 41864, Stop: 41562, Start Num: 31
Candidate Starts for Archetta_64:
(Start: 31 @41864 has 40 MA's), (42, 41810), (43, 41804), (63, 41621),

Gene: Arturo_64 Start: 42484, Stop: 42287, Start Num: 30
Candidate Starts for Arturo_64:
(Start: 30 @42484 has 135 MA's), (42, 42427), (61, 42292),

Gene: AvatarAhPeg_66 Start: 42517, Stop: 42293, Start Num: 30
Candidate Starts for AvatarAhPeg_66:
(Start: 30 @42517 has 135 MA's), (42, 42460), (43, 42454), (61, 42298),

Gene: Avle17_67 Start: 42354, Stop: 42157, Start Num: 30
Candidate Starts for Avle17_67:
(Start: 30 @42354 has 135 MA's), (42, 42297), (61, 42162),

Gene: Baby16_67 Start: 42368, Stop: 42171, Start Num: 30
Candidate Starts for Baby16_67:
(Start: 30 @42368 has 135 MA's), (42, 42311), (61, 42176),

Gene: BabyBack_67 Start: 43490, Stop: 43272, Start Num: 23
Candidate Starts for BabyBack_67:
(Start: 23 @43490 has 43 MA's), (36, 43439), (41, 43415), (53, 43310),

Gene: Bachome_73 Start: 42394, Stop: 42131, Start Num: 24
Candidate Starts for Bachome_73:
(Start: 24 @42394 has 43 MA's), (36, 42340), (37, 42334), (45, 42262), (58, 42175),

Gene: Backyardigan_64 Start: 42663, Stop: 42439, Start Num: 30
Candidate Starts for Backyardigan_64:
(Start: 30 @42663 has 135 MA's), (42, 42606), (43, 42600), (45, 42549), (61, 42444),

Gene: Badger_65 Start: 42631, Stop: 42407, Start Num: 30
Candidate Starts for Badger_65:
(Start: 30 @42631 has 135 MA's), (42, 42574), (43, 42568), (45, 42517), (61, 42412),

Gene: Baehexic_71 Start: 43242, Stop: 43015, Start Num: 23
Candidate Starts for Baehexic_71:
(Start: 23 @43242 has 43 MA's), (36, 43188), (54, 43050),

Gene: BangNhom_65 Start: 42796, Stop: 42572, Start Num: 30
Candidate Starts for BangNhom_65:
(Start: 30 @42796 has 135 MA's), (42, 42739), (43, 42733), (61, 42577),

Gene: Bartimeaus_67 Start: 42359, Stop: 42162, Start Num: 30
Candidate Starts for Bartimeaus_67:
(Start: 30 @42359 has 135 MA's), (42, 42302), (61, 42167),

Gene: Beemo_74 Start: 42869, Stop: 42651, Start Num: 19
Candidate Starts for Beemo_74:
(Start: 19 @42869 has 28 MA's), (37, 42812), (41, 42794),

Gene: BellusTerra_68 Start: 42397, Stop: 42173, Start Num: 30
Candidate Starts for BellusTerra_68:
(Start: 30 @42397 has 135 MA's), (42, 42340), (43, 42334), (61, 42178),

Gene: Benedict_70 Start: 42463, Stop: 42161, Start Num: 31
Candidate Starts for Benedict_70:
(Start: 31 @42463 has 40 MA's), (43, 42403), (51, 42298),

Gene: BengiVuitton_72 Start: 43467, Stop: 43270, Start Num: 23
Candidate Starts for BengiVuitton_72:
(Start: 23 @43467 has 43 MA's), (36, 43416), (37, 43410), (41, 43392),

Gene: Benvolio_70 Start: 43151, Stop: 42927, Start Num: 19
Candidate Starts for Benvolio_70:
(Start: 19 @43151 has 28 MA's), (36, 43100), (52, 42968), (53, 42965), (54, 42962),

Gene: BiancaTri92_71 Start: 43505, Stop: 43281, Start Num: 23
Candidate Starts for BiancaTri92_71:
(Start: 23 @43505 has 43 MA's), (36, 43454), (53, 43319), (59, 43289),

Gene: Blackmoor_66 Start: 42359, Stop: 42162, Start Num: 30
Candidate Starts for Blackmoor_66:
(Start: 30 @42359 has 135 MA's), (42, 42302), (61, 42167),

Gene: Blinn1_78 Start: 42893, Stop: 42633, Start Num: 13
Candidate Starts for Blinn1_78:
(Start: 13 @42893 has 4 MA's), (41, 42776), (54, 42668),

Gene: Bluefalcon_62 Start: 41884, Stop: 41582, Start Num: 31
Candidate Starts for Bluefalcon_62:
(Start: 31 @41884 has 40 MA's), (42, 41830), (43, 41824), (63, 41641),

Gene: BobSwaget_65 Start: 41376, Stop: 41158, Start Num: 22
Candidate Starts for BobSwaget_65:
(Start: 22 @41376 has 33 MA's), (41, 41301), (53, 41196), (54, 41193),

Gene: Bombshell_67 Start: 42354, Stop: 42157, Start Num: 30
Candidate Starts for Bombshell_67:
(Start: 30 @42354 has 135 MA's), (42, 42297), (61, 42162),

Gene: Bonamassa_66 Start: 42093, Stop: 41791, Start Num: 31

Candidate Starts for Bonamassa_66:
(Start: 31 @42093 has 40 MA's), (42, 42039), (43, 42033), (53, 41922), (55, 41916), (62, 41874),

Gene: Bowtie_76 Start: 43522, Stop: 43295, Start Num: 24
Candidate Starts for Bowtie_76:
(Start: 24 @43522 has 43 MA's), (36, 43468), (37, 43462), (45, 43390),

Gene: Broseidon_67 Start: 42359, Stop: 42162, Start Num: 30
Candidate Starts for Broseidon_67:
(Start: 30 @42359 has 135 MA's), (42, 42302), (61, 42167),

Gene: Bruiser_66 Start: 42357, Stop: 42160, Start Num: 30
Candidate Starts for Bruiser_66:
(Start: 30 @42357 has 135 MA's), (42, 42300), (61, 42165),

Gene: BubbleTrouble_66 Start: 42384, Stop: 42160, Start Num: 30
Candidate Starts for BubbleTrouble_66:
(Start: 30 @42384 has 135 MA's), (42, 42327), (43, 42321), (45, 42270), (61, 42165),

Gene: Bud_70 Start: 41952, Stop: 41689, Start Num: 24
Candidate Starts for Bud_70:
(Start: 24 @41952 has 43 MA's), (36, 41898), (37, 41892), (45, 41820), (58, 41733),

Gene: Buggy_74 Start: 43814, Stop: 43590, Start Num: 22
Candidate Starts for Buggy_74:
(Start: 22 @43814 has 33 MA's), (36, 43763), (52, 43631), (53, 43628), (54, 43625),

Gene: Bumblebee11_65 Start: 42633, Stop: 42409, Start Num: 30
Candidate Starts for Bumblebee11_65:
(Start: 30 @42633 has 135 MA's), (42, 42576), (43, 42570), (45, 42519), (61, 42414),

Gene: Burger_65 Start: 42357, Stop: 42160, Start Num: 30
Candidate Starts for Burger_65:
(Start: 30 @42357 has 135 MA's), (42, 42300), (61, 42165),

Gene: C3_68 Start: 43459, Stop: 43217, Start Num: 24
Candidate Starts for C3_68:
(Start: 24 @43459 has 43 MA's), (36, 43405), (41, 43381), (52, 43273),

Gene: CRB1_74 Start: 44013, Stop: 43816, Start Num: 22
Candidate Starts for CRB1_74:
(Start: 22 @44013 has 33 MA's), (36, 43962), (41, 43938), (54, 43824),

Gene: Caelakin_66 Start: 42357, Stop: 42160, Start Num: 30
Candidate Starts for Caelakin_66:
(Start: 30 @42357 has 135 MA's), (42, 42300), (61, 42165),

Gene: Camperdownii_65 Start: 42031, Stop: 41834, Start Num: 30
Candidate Starts for Camperdownii_65:
(Start: 30 @42031 has 135 MA's), (42, 41974), (61, 41839),

Gene: Caraxes_75 Start: 42129, Stop: 41929, Start Num: 19
Candidate Starts for Caraxes_75:

(4, 42240), (6, 42222), (Start: 11 @42168 has 4 MA's), (Start: 19 @42129 has 28 MA's), (36, 42075), (41, 42051), (54, 41937),

Gene: Catalina_76 Start: 42925, Stop: 42707, Start Num: 19
Candidate Starts for Catalina_76:
(Start: 19 @42925 has 28 MA's), (37, 42868), (41, 42850),

Gene: Centaur_73 Start: 43457, Stop: 43230, Start Num: 23
Candidate Starts for Centaur_73:
(Start: 23 @43457 has 43 MA's), (36, 43403), (54, 43265),

Gene: CentreCat_67 Start: 42396, Stop: 42172, Start Num: 30
Candidate Starts for CentreCat_67:
(Start: 30 @42396 has 135 MA's), (42, 42339), (43, 42333), (61, 42177),

Gene: Cerulean_68 Start: 42797, Stop: 42573, Start Num: 30
Candidate Starts for Cerulean_68:
(Start: 30 @42797 has 135 MA's), (42, 42740), (43, 42734), (61, 42578),

Gene: Chadwick_70 Start: 42207, Stop: 41905, Start Num: 31
Candidate Starts for Chadwick_70:
(Start: 31 @42207 has 40 MA's), (43, 42147), (51, 42042),

Gene: ChampagnePapi_69 Start: 42796, Stop: 42572, Start Num: 30
Candidate Starts for ChampagnePapi_69:
(Start: 30 @42796 has 135 MA's), (42, 42739), (43, 42733), (61, 42577),

Gene: Changeling_71 Start: 43693, Stop: 43472, Start Num: 23
Candidate Starts for Changeling_71:
(Start: 23 @43693 has 43 MA's), (36, 43639), (54, 43507),

Gene: Chaph_67 Start: 42368, Stop: 42171, Start Num: 30
Candidate Starts for Chaph_67:
(Start: 30 @42368 has 135 MA's), (42, 42311), (61, 42176),

Gene: Che12_76 Start: 42288, Stop: 42049, Start Num: 11
Candidate Starts for Che12_76:
(4, 42348), (Start: 11 @42288 has 4 MA's), (Start: 19 @42249 has 28 MA's), (36, 42195), (37, 42189), (39, 42180), (41, 42171), (54, 42057),

Gene: Chidiebere_83 Start: 64268, Stop: 64480, Start Num: 38
Candidate Starts for Chidiebere_83:
(Start: 38 @64268 has 6 MA's), (49, 64382),

Gene: ChipMunk_73 Start: 44854, Stop: 44630, Start Num: 23
Candidate Starts for ChipMunk_73:
(Start: 23 @44854 has 43 MA's), (36, 44803), (52, 44671), (53, 44668), (54, 44665), (59, 44638),

Gene: ChisanaKitsune_80 Start: 63445, Stop: 63657, Start Num: 38
Candidate Starts for ChisanaKitsune_80:
(Start: 38 @63445 has 6 MA's), (49, 63559), (51, 63574),

Gene: Chupacabra_64 Start: 41694, Stop: 41500, Start Num: 31

Candidate Starts for Chupacabra_64:
(Start: 31 @41694 has 40 MA's), (45, 41598), (50, 41550),

Gene: Cici_66 Start: 42648, Stop: 42424, Start Num: 30
Candidate Starts for Cici_66:
(Start: 30 @42648 has 135 MA's), (42, 42591), (43, 42585), (45, 42534), (61, 42429),

Gene: Cindaradix_63 Start: 42259, Stop: 42035, Start Num: 30
Candidate Starts for Cindaradix_63:
(Start: 30 @42259 has 135 MA's), (42, 42202), (43, 42196), (45, 42145), (61, 42040),

Gene: Cintron_67 Start: 42507, Stop: 42283, Start Num: 30
Candidate Starts for Cintron_67:
(Start: 30 @42507 has 135 MA's), (42, 42450), (43, 42444), (61, 42288),

Gene: Citius_67 Start: 42378, Stop: 42181, Start Num: 30
Candidate Starts for Citius_67:
(Start: 30 @42378 has 135 MA's), (42, 42321), (61, 42186),

Gene: Clarenza_66 Start: 42354, Stop: 42157, Start Num: 30
Candidate Starts for Clarenza_66:
(Start: 30 @42354 has 135 MA's), (42, 42297), (61, 42162),

Gene: Cocoaberry_67 Start: 42361, Stop: 42164, Start Num: 30
Candidate Starts for Cocoaberry_67:
(Start: 30 @42361 has 135 MA's), (42, 42304), (61, 42169),

Gene: Colin_72 Start: 44437, Stop: 44219, Start Num: 23
Candidate Starts for Colin_72:
(Start: 23 @44437 has 43 MA's), (36, 44386), (41, 44362),

Gene: Commander_65 Start: 42356, Stop: 42159, Start Num: 30
Candidate Starts for Commander_65:
(Start: 30 @42356 has 135 MA's), (42, 42299), (61, 42164),

Gene: Connomayer_67 Start: 42357, Stop: 42160, Start Num: 30
Candidate Starts for Connomayer_67:
(Start: 30 @42357 has 135 MA's), (42, 42300), (61, 42165),

Gene: Conquerage_72 Start: 42600, Stop: 42382, Start Num: 19
Candidate Starts for Conquerage_72:
(Start: 19 @42600 has 28 MA's), (37, 42543), (41, 42525),

Gene: Conspiracy_67 Start: 42140, Stop: 41838, Start Num: 31
Candidate Starts for Conspiracy_67:
(Start: 31 @42140 has 40 MA's), (42, 42086), (43, 42080), (53, 41969), (55, 41963),

Gene: Coog_63 Start: 41911, Stop: 41609, Start Num: 31
Candidate Starts for Coog_63:
(Start: 31 @41911 has 40 MA's), (42, 41857), (43, 41851), (63, 41668),

Gene: Crucio_73 Start: 43811, Stop: 43587, Start Num: 22
Candidate Starts for Crucio_73:

(Start: 22 @43811 has 33 MA's), (52, 43628), (53, 43625), (54, 43622),

Gene: Cuco_65 Start: 41771, Stop: 41469, Start Num: 31

Candidate Starts for Cuco_65:

(Start: 31 @41771 has 40 MA's), (42, 41717), (43, 41711), (63, 41528),

Gene: D29_68.1 Start: 44004, Stop: 43762, Start Num: 24

Candidate Starts for D29_68.1:

(Start: 24 @44004 has 43 MA's), (36, 43950), (41, 43926),

Gene: D32_74 Start: 44004, Stop: 43762, Start Num: 24

Candidate Starts for D32_74:

(Start: 24 @44004 has 43 MA's), (36, 43950), (41, 43926),

Gene: DBQu4n_75 Start: 43984, Stop: 43742, Start Num: 24

Candidate Starts for DBQu4n_75:

(Start: 24 @43984 has 43 MA's), (36, 43930), (41, 43906),

Gene: Dalmatian_73 Start: 43630, Stop: 43406, Start Num: 22

Candidate Starts for Dalmatian_73:

(Start: 22 @43630 has 33 MA's), (52, 43447), (53, 43444), (54, 43441),

Gene: Darrell_75 Start: 43444, Stop: 43193, Start Num: 14

Candidate Starts for Darrell_75:

(10, 43462), (14, 43444), (16, 43432), (37, 43354), (41, 43336),

Gene: DARTHPhader_70 Start: 44013, Stop: 43786, Start Num: 23

Candidate Starts for DARTHPhader_70:

(Start: 23 @44013 has 43 MA's), (36, 43959), (39, 43944), (53, 43824), (54, 43821),

Gene: Datway_66 Start: 42619, Stop: 42395, Start Num: 30

Candidate Starts for Datway_66:

(Start: 30 @42619 has 135 MA's), (42, 42562), (43, 42556), (45, 42505), (61, 42400),

Gene: Deano_64 Start: 42365, Stop: 42168, Start Num: 30

Candidate Starts for Deano_64:

(Start: 30 @42365 has 135 MA's), (42, 42308), (61, 42173),

Gene: Deloris_72 Start: 43163, Stop: 42966, Start Num: 23

Candidate Starts for Deloris_72:

(Start: 23 @43163 has 43 MA's), (36, 43112), (37, 43106), (41, 43088),

Gene: Dhanush_67 Start: 42360, Stop: 42163, Start Num: 30

Candidate Starts for Dhanush_67:

(Start: 30 @42360 has 135 MA's), (42, 42303), (61, 42168),

Gene: Dignity_74 Start: 43852, Stop: 43628, Start Num: 22

Candidate Starts for Dignity_74:

(Start: 22 @43852 has 33 MA's), (36, 43801), (52, 43669), (53, 43666), (54, 43663),

Gene: DirtyDunning_66 Start: 42372, Stop: 42175, Start Num: 30

Candidate Starts for DirtyDunning_66:

(Start: 30 @42372 has 135 MA's), (42, 42315), (61, 42180),

Gene: Discoknowium_64 Start: 41657, Stop: 41355, Start Num: 31
Candidate Starts for Discoknowium_64:
(Start: 31 @41657 has 40 MA's), (42, 41603), (43, 41597), (53, 41486), (55, 41480),

Gene: Drake55_74 Start: 43531, Stop: 43331, Start Num: 22
Candidate Starts for Drake55_74:
(Start: 22 @43531 has 33 MA's), (36, 43477), (37, 43471), (41, 43453), (54, 43339),

Gene: Drake94_64 Start: 40814, Stop: 40575, Start Num: 23
Candidate Starts for Drake94_64:
(Start: 23 @40814 has 43 MA's), (37, 40754), (61, 40580),

Gene: Druantia_66 Start: 42360, Stop: 42163, Start Num: 30
Candidate Starts for Druantia_66:
(Start: 30 @42360 has 135 MA's), (42, 42303), (61, 42168),

Gene: Dublin_66 Start: 42050, Stop: 41748, Start Num: 31
Candidate Starts for Dublin_66:
(Start: 31 @42050 has 40 MA's), (42, 41996), (43, 41990), (53, 41879), (55, 41873), (62, 41831),

Gene: DudeLittle_71 Start: 43396, Stop: 43172, Start Num: 22
Candidate Starts for DudeLittle_71:
(Start: 22 @43396 has 33 MA's), (52, 43213), (53, 43210), (54, 43207),

Gene: Duplo_75 Start: 44041, Stop: 43799, Start Num: 24
Candidate Starts for Duplo_75:
(Start: 24 @44041 has 43 MA's), (36, 43987), (41, 43963),

Gene: EZMoney23_69 Start: 43235, Stop: 43014, Start Num: 23
Candidate Starts for EZMoney23_69:
(Start: 13 @43271 has 4 MA's), (Start: 23 @43235 has 43 MA's), (36, 43181), (41, 43157), (56, 43031),

Gene: Eagle_66 Start: 42418, Stop: 42194, Start Num: 30
Candidate Starts for Eagle_66:
(Start: 30 @42418 has 135 MA's), (42, 42361), (43, 42355), (61, 42199),

Gene: EagleEye_77 Start: 43527, Stop: 43327, Start Num: 22
Candidate Starts for EagleEye_77:
(15, 43551), (18, 43533), (Start: 22 @43527 has 33 MA's), (47, 43368),

Gene: Eaglepride_68 Start: 41798, Stop: 41607, Start Num: 31
Candidate Starts for Eaglepride_68:
(Start: 31 @41798 has 40 MA's), (50, 41657),

Gene: Eapen_67 Start: 42352, Stop: 42155, Start Num: 30
Candidate Starts for Eapen_67:
(Start: 30 @42352 has 135 MA's), (42, 42295), (61, 42160),

Gene: Ebony_75 Start: 43086, Stop: 42859, Start Num: 24
Candidate Starts for Ebony_75:
(Start: 24 @43086 has 43 MA's), (37, 43026), (45, 42954),

Gene: Echild_73 Start: 43175, Stop: 42951, Start Num: 19

Candidate Starts for Echild_73:

(Start: 19 @43175 has 28 MA's), (36, 43124), (52, 42992), (53, 42989), (54, 42986),

Gene: Edison31_61 Start: 41608, Stop: 41375, Start Num: 25

Candidate Starts for Edison31_61:

(Start: 25 @41608 has 3 MA's), (36, 41560), (37, 41554), (61, 41380),

Gene: Eidsmoe_72 Start: 42592, Stop: 42374, Start Num: 19

Candidate Starts for Eidsmoe_72:

(Start: 19 @42592 has 28 MA's), (37, 42535), (41, 42517),

Gene: EITiger69_72 Start: 43134, Stop: 42832, Start Num: 31

Candidate Starts for EITiger69_72:

(Start: 31 @43134 has 40 MA's), (43, 43074),

Gene: EmyBug_68 Start: 42594, Stop: 42376, Start Num: 19

Candidate Starts for EmyBug_68:

(Start: 19 @42594 has 28 MA's), (37, 42537), (41, 42519),

Gene: Equemioh13_72 Start: 43362, Stop: 43135, Start Num: 23

Candidate Starts for Equemioh13_72:

(Start: 23 @43362 has 43 MA's), (36, 43308), (54, 43170),

Gene: Eris_66 Start: 42372, Stop: 42175, Start Num: 30

Candidate Starts for Eris_66:

(Start: 30 @42372 has 135 MA's), (42, 42315), (61, 42180),

Gene: Eros_67 Start: 42359, Stop: 42162, Start Num: 30

Candidate Starts for Eros_67:

(Start: 30 @42359 has 135 MA's), (42, 42302), (61, 42167),

Gene: Et2Brutus_74 Start: 43049, Stop: 42822, Start Num: 24

Candidate Starts for Et2Brutus_74:

(Start: 24 @43049 has 43 MA's), (36, 42995), (37, 42989), (45, 42917),

Gene: Eurydice_68 Start: 42393, Stop: 42169, Start Num: 30

Candidate Starts for Eurydice_68:

(Start: 30 @42393 has 135 MA's), (42, 42336), (43, 42330), (61, 42174),

Gene: EvilGenius_72 Start: 44855, Stop: 44631, Start Num: 23

Candidate Starts for EvilGenius_72:

(Start: 23 @44855 has 43 MA's), (36, 44804), (52, 44672), (53, 44669), (54, 44666), (59, 44639),

Gene: ExplosioNervosa_72 Start: 42660, Stop: 42442, Start Num: 19

Candidate Starts for ExplosioNervosa_72:

(Start: 19 @42660 has 28 MA's), (37, 42603), (41, 42585),

Gene: Fameo_71 Start: 43438, Stop: 43214, Start Num: 22

Candidate Starts for Fameo_71:

(Start: 22 @43438 has 33 MA's), (36, 43387), (52, 43255), (54, 43249), (59, 43222),

Gene: Fayely_72 Start: 42561, Stop: 42343, Start Num: 19

Candidate Starts for Fayely_72:

(Start: 19 @42561 has 28 MA's), (37, 42504),

Gene: Fibonacci_74 Start: 43055, Stop: 42828, Start Num: 24

Candidate Starts for Fibonacci_74:

(Start: 24 @43055 has 43 MA's), (36, 43001), (37, 42995), (45, 42923),

Gene: FiringLine_73 Start: 43793, Stop: 43569, Start Num: 22

Candidate Starts for FiringLine_73:

(Start: 22 @43793 has 33 MA's), (52, 43610), (53, 43607), (54, 43604),

Gene: First_0073 Start: 43417, Stop: 43193, Start Num: 23

Candidate Starts for First_0073:

(Start: 23 @43417 has 43 MA's), (36, 43366), (53, 43231), (54, 43228), (59, 43201),

Gene: Flare16_73 Start: 43501, Stop: 43274, Start Num: 23

Candidate Starts for Flare16_73:

(Start: 23 @43501 has 43 MA's), (36, 43447), (54, 43309),

Gene: Flaverint_76 Start: 43513, Stop: 43286, Start Num: 24

Candidate Starts for Flaverint_76:

(Start: 24 @43513 has 43 MA's), (36, 43459), (37, 43453), (45, 43381),

Gene: Florean_67 Start: 42356, Stop: 42159, Start Num: 30

Candidate Starts for Florean_67:

(Start: 30 @42356 has 135 MA's), (42, 42299), (61, 42164),

Gene: Flux_67 Start: 42356, Stop: 42159, Start Num: 30

Candidate Starts for Flux_67:

(Start: 30 @42356 has 135 MA's), (42, 42299), (61, 42164),

Gene: FlyingTortilla_84 Start: 67913, Stop: 68119, Start Num: 38

Candidate Starts for FlyingTortilla_84:

(3, 67724), (5, 67745), (7, 67754), (Start: 38 @67913 has 6 MA's), (54, 68051),

Gene: ForGetIt_67 Start: 42165, Stop: 41863, Start Num: 31

Candidate Starts for ForGetIt_67:

(Start: 31 @42165 has 40 MA's), (42, 42111), (43, 42105), (53, 41994), (55, 41988),

Gene: Funston_66 Start: 42357, Stop: 42160, Start Num: 30

Candidate Starts for Funston_66:

(Start: 30 @42357 has 135 MA's), (42, 42300), (61, 42165),

Gene: GMA6_66 Start: 54553, Stop: 54771, Start Num: 37

Candidate Starts for GMA6_66:

(26, 54493), (37, 54553), (40, 54565), (43, 54580), (46, 54643), (54, 54694),

Gene: Gadost_67 Start: 42361, Stop: 42164, Start Num: 30

Candidate Starts for Gadost_67:

(Start: 30 @42361 has 135 MA's), (42, 42304), (61, 42169),

Gene: Gail_74 Start: 43840, Stop: 43619, Start Num: 19

Candidate Starts for Gail_74:

(Start: 19 @43840 has 28 MA's), (36, 43786), (37, 43780), (41, 43762), (54, 43654),

Gene: GaugeLDP_68 Start: 43061, Stop: 42840, Start Num: 23

Candidate Starts for GaugeLDP_68:

(Start: 23 @43061 has 43 MA's), (36, 43007), (41, 42983),

Gene: Georgie2_74 Start: 43838, Stop: 43614, Start Num: 22

Candidate Starts for Georgie2_74:

(Start: 22 @43838 has 33 MA's), (52, 43655), (53, 43652), (54, 43649),

Gene: Ghouboy_66 Start: 42138, Stop: 41836, Start Num: 31

Candidate Starts for Ghouboy_66:

(Start: 31 @42138 has 40 MA's), (42, 42084), (43, 42078), (63, 41895),

Gene: Gilberta_72 Start: 42389, Stop: 42126, Start Num: 24

Candidate Starts for Gilberta_72:

(Start: 24 @42389 has 43 MA's), (36, 42335), (37, 42329), (45, 42257), (58, 42170),

Gene: Goose_67 Start: 41510, Stop: 41316, Start Num: 31

Candidate Starts for Goose_67:

(Start: 31 @41510 has 40 MA's), (45, 41414), (50, 41366),

Gene: Gray_83 Start: 64199, Stop: 64411, Start Num: 38

Candidate Starts for Gray_83:

(Start: 38 @64199 has 6 MA's), (49, 64313),

Gene: HINdeR_67 Start: 45176, Stop: 44895, Start Num: 32

Candidate Starts for HINdeR_67:

(Start: 32 @45176 has 1 MA's), (35, 45158), (42, 45128), (49, 45032), (64, 44924), (65, 44918),

Gene: HamSlice_63 Start: 42355, Stop: 42158, Start Num: 30

Candidate Starts for HamSlice_63:

(Start: 30 @42355 has 135 MA's), (42, 42298), (61, 42163),

Gene: Hanem_82 Start: 63735, Stop: 63947, Start Num: 38

Candidate Starts for Hanem_82:

(Start: 38 @63735 has 6 MA's), (49, 63849),

Gene: Happiness_66 Start: 42379, Stop: 42155, Start Num: 30

Candidate Starts for Happiness_66:

(Start: 30 @42379 has 135 MA's), (42, 42322), (43, 42316), (61, 42160),

Gene: HarryHoudini_73 Start: 43532, Stop: 43332, Start Num: 22

Candidate Starts for HarryHoudini_73:

(Start: 22 @43532 has 33 MA's), (36, 43478), (41, 43454), (54, 43340),

Gene: Heffalump_70 Start: 43906, Stop: 43682, Start Num: 22

Candidate Starts for Heffalump_70:

(Start: 22 @43906 has 33 MA's), (36, 43855), (52, 43723), (54, 43717), (59, 43690), (60, 43687),

Gene: Holli_66 Start: 42147, Stop: 41950, Start Num: 30

Candidate Starts for Holli_66:

(Start: 30 @42147 has 135 MA's), (42, 42090), (61, 41955),

Gene: HortumSL17_75 Start: 42923, Stop: 42705, Start Num: 19

Candidate Starts for HortumSL17_75:

(Start: 19 @42923 has 28 MA's), (37, 42866), (41, 42848),

Gene: Houdini22_66 Start: 42361, Stop: 42164, Start Num: 30

Candidate Starts for Houdini22_66:

(Start: 30 @42361 has 135 MA's), (42, 42304), (61, 42169),

Gene: HuhtaEnerson15_64 Start: 41746, Stop: 41444, Start Num: 31

Candidate Starts for HuhtaEnerson15_64:

(Start: 31 @41746 has 40 MA's), (42, 41692), (43, 41686), (53, 41575), (55, 41569), (62, 41527),

Gene: Hutc2_70 Start: 41938, Stop: 41675, Start Num: 24

Candidate Starts for Hutc2_70:

(Start: 24 @41938 has 43 MA's), (36, 41884), (37, 41878), (45, 41806), (58, 41719),

Gene: ICleared_66 Start: 42425, Stop: 42201, Start Num: 30

Candidate Starts for ICleared_66:

(Start: 30 @42425 has 135 MA's), (42, 42368), (43, 42362), (61, 42206),

Gene: Iceman_66 Start: 42646, Stop: 42449, Start Num: 30

Candidate Starts for Iceman_66:

(Start: 30 @42646 has 135 MA's), (42, 42589), (61, 42454),

Gene: Insomnia_72 Start: 43230, Stop: 43003, Start Num: 24

Candidate Starts for Insomnia_72:

(Start: 24 @43230 has 43 MA's), (36, 43176), (37, 43170), (45, 43098),

Gene: Iracema64_67 Start: 42624, Stop: 42427, Start Num: 30

Candidate Starts for Iracema64_67:

(Start: 30 @42624 has 135 MA's), (42, 42567), (61, 42432),

Gene: IronMan_70 Start: 44663, Stop: 44424, Start Num: 24

Candidate Starts for IronMan_70:

(Start: 24 @44663 has 43 MA's), (37, 44600), (41, 44582), (53, 44477),

Gene: Jaan_71 Start: 44833, Stop: 44594, Start Num: 24

Candidate Starts for Jaan_71:

(Start: 24 @44833 has 43 MA's), (37, 44770), (41, 44752), (53, 44647),

Gene: Jabiru_68 Start: 42318, Stop: 42016, Start Num: 31

Candidate Starts for Jabiru_68:

(Start: 31 @42318 has 40 MA's), (43, 42258),

Gene: Jabith_74 Start: 43247, Stop: 43020, Start Num: 24

Candidate Starts for Jabith_74:

(Start: 24 @43247 has 43 MA's), (36, 43193), (37, 43187), (45, 43115),

Gene: Jaykayelowell_64 Start: 42350, Stop: 42153, Start Num: 30

Candidate Starts for Jaykayelowell_64:

(Start: 30 @42350 has 135 MA's), (42, 42293), (61, 42158),

Gene: Jeeves_76 Start: 42825, Stop: 42604, Start Num: 19
Candidate Starts for Jeeves_76:
(Start: 19 @42825 has 28 MA's), (36, 42771), (37, 42765), (41, 42747), (54, 42639),

Gene: Jerm_74 Start: 43834, Stop: 43610, Start Num: 22
Candidate Starts for Jerm_74:
(Start: 22 @43834 has 33 MA's), (36, 43783), (52, 43651), (53, 43648), (54, 43645),

Gene: JetBlade_67 Start: 42387, Stop: 42163, Start Num: 30
Candidate Starts for JetBlade_67:
(Start: 30 @42387 has 135 MA's), (42, 42330), (43, 42324), (61, 42168),

Gene: JoongJeon_66 Start: 42354, Stop: 42157, Start Num: 30
Candidate Starts for JoongJeon_66:
(Start: 30 @42354 has 135 MA's), (42, 42297), (61, 42162),

Gene: Joselito_74 Start: 43267, Stop: 43040, Start Num: 24
Candidate Starts for Joselito_74:
(Start: 24 @43267 has 43 MA's), (36, 43213), (37, 43207), (45, 43135),

Gene: JoshKayV_73 Start: 43858, Stop: 43661, Start Num: 22
Candidate Starts for JoshKayV_73:
(Start: 22 @43858 has 33 MA's), (41, 43783),

Gene: Jovo_67 Start: 42421, Stop: 42119, Start Num: 31
Candidate Starts for Jovo_67:
(Start: 31 @42421 has 40 MA's), (42, 42367), (43, 42361), (53, 42250), (55, 42244),

Gene: Jsquared_76 Start: 43035, Stop: 42751, Start Num: 13
Candidate Starts for Jsquared_76:
(Start: 13 @43035 has 4 MA's), (36, 42942), (37, 42936), (39, 42927), (48, 42828), (53, 42804),

Gene: KFPoly_66 Start: 42351, Stop: 42154, Start Num: 30
Candidate Starts for KFPoly_66:
(Start: 30 @42351 has 135 MA's), (42, 42294), (61, 42159),

Gene: Kabocha_84 Start: 65081, Stop: 65293, Start Num: 38
Candidate Starts for Kabocha_84:
(Start: 38 @65081 has 6 MA's), (49, 65195),

Gene: Kalpine_72 Start: 43855, Stop: 43637, Start Num: 23
Candidate Starts for Kalpine_72:
(Start: 23 @43855 has 43 MA's), (36, 43804), (41, 43780), (59, 43645),

Gene: Kamy_66 Start: 42359, Stop: 42162, Start Num: 30
Candidate Starts for Kamy_66:
(Start: 30 @42359 has 135 MA's), (42, 42302), (61, 42167),

Gene: Katalie136_66 Start: 42633, Stop: 42409, Start Num: 30
Candidate Starts for Katalie136_66:
(Start: 30 @42633 has 135 MA's), (42, 42576), (43, 42570), (45, 42519), (61, 42414),

Gene: Kerberos_75 Start: 44003, Stop: 43761, Start Num: 24

Candidate Starts for Kerberos_75:

(Start: 24 @44003 has 43 MA's), (36, 43949), (41, 43925),

Gene: Keziacharles14_71 Start: 43500, Stop: 43279, Start Num: 24

Candidate Starts for Keziacharles14_71:

(Start: 24 @43500 has 43 MA's), (37, 43440), (41, 43422),

Gene: Kimona_66 Start: 41475, Stop: 41236, Start Num: 24

Candidate Starts for Kimona_66:

(Start: 24 @41475 has 43 MA's), (29, 41457), (36, 41424), (37, 41418),

Gene: KingCyrus_72 Start: 44850, Stop: 44626, Start Num: 23

Candidate Starts for KingCyrus_72:

(Start: 23 @44850 has 43 MA's), (36, 44799), (52, 44667), (53, 44664), (54, 44661), (59, 44634),

Gene: Kingmustik0402_67 Start: 42346, Stop: 42149, Start Num: 30

Candidate Starts for Kingmustik0402_67:

(Start: 30 @42346 has 135 MA's), (42, 42289), (61, 42154),

Gene: KittenMittens_63 Start: 40822, Stop: 40583, Start Num: 23

Candidate Starts for KittenMittens_63:

(Start: 23 @40822 has 43 MA's), (37, 40762), (61, 40588),

Gene: Koreni_66 Start: 42038, Stop: 41841, Start Num: 30

Candidate Starts for Koreni_66:

(Start: 30 @42038 has 135 MA's), (42, 41981), (61, 41846),

Gene: Kratark_66 Start: 42394, Stop: 42170, Start Num: 30

Candidate Starts for Kratark_66:

(Start: 30 @42394 has 135 MA's), (42, 42337), (43, 42331), (61, 42175),

Gene: Kremtemulon_63 Start: 42490, Stop: 42266, Start Num: 30

Candidate Starts for Kremtemulon_63:

(Start: 30 @42490 has 135 MA's), (42, 42433), (43, 42427), (61, 42271),

Gene: Kristoff_65 Start: 42136, Stop: 41897, Start Num: 23

Candidate Starts for Kristoff_65:

(Start: 23 @42136 has 43 MA's), (37, 42076), (53, 41947), (61, 41902),

Gene: Kyee_67 Start: 42355, Stop: 42158, Start Num: 30

Candidate Starts for Kyee_67:

(Start: 30 @42355 has 135 MA's), (42, 42298), (61, 42163),

Gene: L5_68.1 Start: 42962, Stop: 42657, Start Num: 13

Candidate Starts for L5_68.1:

(Start: 13 @42962 has 4 MA's), (36, 42869), (37, 42863), (48, 42755), (53, 42731), (61, 42686),

Gene: LHTSCC_69 Start: 42796, Stop: 42572, Start Num: 30

Candidate Starts for LHTSCC_69:

(Start: 30 @42796 has 135 MA's), (42, 42739), (43, 42733), (61, 42577),

Gene: LadyBird_76 Start: 44079, Stop: 43882, Start Num: 23

Candidate Starts for LadyBird_76:

(Start: 23 @44079 has 43 MA's), (36, 44028), (41, 44004),

Gene: Landor_71 Start: 44756, Stop: 44517, Start Num: 24

Candidate Starts for Landor_71:

(Start: 24 @44756 has 43 MA's), (37, 44693), (41, 44675), (53, 44570),

Gene: LappelDuVide_63 Start: 42356, Stop: 42159, Start Num: 30

Candidate Starts for LappelDuVide_63:

(Start: 30 @42356 has 135 MA's), (42, 42299), (61, 42164),

Gene: Larenn_69 Start: 43196, Stop: 42972, Start Num: 23

Candidate Starts for Larenn_69:

(Start: 23 @43196 has 43 MA's), (36, 43145), (37, 43139), (52, 43013), (53, 43010), (54, 43007), (59, 42980),

Gene: Lemur_67 Start: 42354, Stop: 42157, Start Num: 30

Candidate Starts for Lemur_67:

(Start: 30 @42354 has 135 MA's), (61, 42162),

Gene: LeoAvram_66 Start: 42387, Stop: 42163, Start Num: 30

Candidate Starts for LeoAvram_66:

(Start: 30 @42387 has 135 MA's), (42, 42330), (43, 42324), (61, 42168),

Gene: Leogania_71 Start: 43883, Stop: 43659, Start Num: 23

Candidate Starts for Leogania_71:

(Start: 23 @43883 has 43 MA's), (36, 43832), (53, 43697), (54, 43694), (59, 43667),

Gene: Lev2_67 Start: 42053, Stop: 41751, Start Num: 31

Candidate Starts for Lev2_67:

(Start: 31 @42053 has 40 MA's), (42, 41999), (43, 41993), (53, 41882), (55, 41876),

Gene: Leviathan_74 Start: 43901, Stop: 43677, Start Num: 22

Candidate Starts for Leviathan_74:

(Start: 22 @43901 has 33 MA's), (36, 43850), (52, 43718), (53, 43715), (54, 43712),

Gene: LilTurb_73 Start: 43715, Stop: 43491, Start Num: 22

Candidate Starts for LilTurb_73:

(Start: 22 @43715 has 33 MA's), (36, 43664), (52, 43532), (53, 43529), (54, 43526),

Gene: LittleB_67 Start: 42358, Stop: 42161, Start Num: 30

Candidate Starts for LittleB_67:

(Start: 30 @42358 has 135 MA's), (42, 42301), (61, 42166),

Gene: LittleCherry_65 Start: 41616, Stop: 41314, Start Num: 31

Candidate Starts for LittleCherry_65:

(Start: 31 @41616 has 40 MA's), (42, 41562), (43, 41556), (53, 41445), (55, 41439), (62, 41397),

Gene: LittleGuy_67 Start: 42253, Stop: 42056, Start Num: 30

Candidate Starts for LittleGuy_67:

(Start: 30 @42253 has 135 MA's), (42, 42196), (61, 42061),

Gene: LochMonster_68 Start: 42596, Stop: 42399, Start Num: 30

Candidate Starts for LochMonster_68:

(Start: 30 @42596 has 135 MA's), (42, 42539), (61, 42404),

Gene: Lokk_66 Start: 42000, Stop: 41782, Start Num: 22

Candidate Starts for Lokk_66:

(Start: 22 @42000 has 33 MA's), (41, 41925), (53, 41820), (54, 41817),

Gene: LoneWolf_75 Start: 43122, Stop: 42901, Start Num: 24

Candidate Starts for LoneWolf_75:

(Start: 24 @43122 has 43 MA's), (37, 43062), (41, 43044),

Gene: Lorenzo_67 Start: 42357, Stop: 42160, Start Num: 30

Candidate Starts for Lorenzo_67:

(Start: 30 @42357 has 135 MA's), (42, 42300), (61, 42165),

Gene: Loser_74 Start: 43958, Stop: 43734, Start Num: 23

Candidate Starts for Loser_74:

(Start: 23 @43958 has 43 MA's), (36, 43907), (53, 43772), (54, 43769),

Gene: Luchador_75 Start: 44307, Stop: 44086, Start Num: 19

Candidate Starts for Luchador_75:

(Start: 19 @44307 has 28 MA's), (36, 44253), (37, 44247), (41, 44229), (54, 44121),

Gene: Lucivia_76 Start: 43546, Stop: 43319, Start Num: 24

Candidate Starts for Lucivia_76:

(Start: 24 @43546 has 43 MA's), (36, 43492), (37, 43486), (45, 43414),

Gene: Lucyedi_76 Start: 43723, Stop: 43523, Start Num: 22

Candidate Starts for Lucyedi_76:

(15, 43747), (18, 43729), (Start: 22 @43723 has 33 MA's), (47, 43564),

Gene: Lunsford_67 Start: 42351, Stop: 42154, Start Num: 30

Candidate Starts for Lunsford_67:

(Start: 30 @42351 has 135 MA's), (42, 42294), (61, 42159),

Gene: MaCh_75 Start: 43510, Stop: 43283, Start Num: 24

Candidate Starts for MaCh_75:

(Start: 24 @43510 has 43 MA's), (36, 43456), (37, 43450), (45, 43378),

Gene: Mabel_75 Start: 43511, Stop: 43284, Start Num: 24

Candidate Starts for Mabel_75:

(Start: 24 @43511 has 43 MA's), (36, 43457), (37, 43451), (45, 43379),

Gene: Malec_70 Start: 43763, Stop: 43539, Start Num: 23

Candidate Starts for Malec_70:

(Start: 23 @43763 has 43 MA's), (36, 43712), (37, 43706), (52, 43580), (53, 43577), (54, 43574), (59, 43547),

Gene: MarysWell_66 Start: 42293, Stop: 41991, Start Num: 31

Candidate Starts for MarysWell_66:

(Start: 31 @42293 has 40 MA's), (42, 42239), (43, 42233), (53, 42122), (55, 42116), (62, 42074),

Gene: Maverick_66 Start: 42357, Stop: 42160, Start Num: 30

Candidate Starts for Maverick_66:

(Start: 30 @42357 has 135 MA's), (42, 42300), (61, 42165),

Gene: Maxo_68 Start: 42359, Stop: 42162, Start Num: 30

Candidate Starts for Maxo_68:

(Start: 30 @42359 has 135 MA's), (42, 42302), (61, 42167),

Gene: Mazhar510_67 Start: 42358, Stop: 42161, Start Num: 30

Candidate Starts for Mazhar510_67:

(Start: 30 @42358 has 135 MA's), (42, 42301), (61, 42166),

Gene: Medusa_67 Start: 42371, Stop: 42174, Start Num: 30

Candidate Starts for Medusa_67:

(Start: 30 @42371 has 135 MA's), (42, 42314), (61, 42179),

Gene: MeeZee_66 Start: 42354, Stop: 42157, Start Num: 30

Candidate Starts for MeeZee_66:

(Start: 30 @42354 has 135 MA's), (42, 42297), (61, 42162),

Gene: Melvin_69 Start: 42352, Stop: 42155, Start Num: 30

Candidate Starts for Melvin_69:

(Start: 30 @42352 has 135 MA's), (42, 42295), (61, 42160),

Gene: Micasa_64 Start: 42015, Stop: 41713, Start Num: 31

Candidate Starts for Micasa_64:

(Start: 31 @42015 has 40 MA's), (42, 41961), (43, 41955), (53, 41844), (55, 41838), (62, 41796),

Gene: MiculUcigas_73 Start: 43404, Stop: 43177, Start Num: 23

Candidate Starts for MiculUcigas_73:

(Start: 23 @43404 has 43 MA's), (36, 43350), (54, 43212),

Gene: Midas2_63 Start: 41911, Stop: 41609, Start Num: 31

Candidate Starts for Midas2_63:

(Start: 31 @41911 has 40 MA's), (42, 41857), (43, 41851), (63, 41668),

Gene: Miko_66 Start: 42778, Stop: 42560, Start Num: 22

Candidate Starts for Miko_66:

(Start: 22 @42778 has 33 MA's), (41, 42703), (53, 42598), (54, 42595),

Gene: Milcery_66 Start: 41805, Stop: 41503, Start Num: 31

Candidate Starts for Milcery_66:

(Start: 31 @41805 has 40 MA's), (42, 41751), (43, 41745), (53, 41634), (55, 41628), (62, 41586),

Gene: Millski_66 Start: 42358, Stop: 42161, Start Num: 30

Candidate Starts for Millski_66:

(Start: 30 @42358 has 135 MA's), (42, 42301), (61, 42166),

Gene: Miramae_66 Start: 42179, Stop: 41955, Start Num: 30

Candidate Starts for Miramae_66:

(Start: 30 @42179 has 135 MA's), (42, 42122), (43, 42116), (61, 41960),

Gene: MissWhite_71 Start: 41889, Stop: 41647, Start Num: 24

Candidate Starts for MissWhite_71:

(Start: 24 @41889 has 43 MA's), (36, 41835), (37, 41829), (48, 41724), (53, 41700),

Gene: Morpher26_66 Start: 42654, Stop: 42430, Start Num: 30

Candidate Starts for Morpher26_66:

(Start: 30 @42654 has 135 MA's), (42, 42597), (43, 42591), (45, 42540), (61, 42435),

Gene: Morrow_68 Start: 42399, Stop: 42175, Start Num: 30

Candidate Starts for Morrow_68:

(Start: 30 @42399 has 135 MA's), (42, 42342), (43, 42336), (61, 42180),

Gene: Mulciber_73 Start: 43052, Stop: 42825, Start Num: 24

Candidate Starts for Mulciber_73:

(Start: 24 @43052 has 43 MA's), (36, 42998), (45, 42920),

Gene: Munch_75 Start: 43515, Stop: 43288, Start Num: 24

Candidate Starts for Munch_75:

(Start: 24 @43515 has 43 MA's), (36, 43461), (37, 43455), (45, 43383),

Gene: Mundrea_66 Start: 42647, Stop: 42423, Start Num: 30

Candidate Starts for Mundrea_66:

(Start: 30 @42647 has 135 MA's), (42, 42590), (43, 42584), (45, 42533), (61, 42428),

Gene: MyraDee_70 Start: 40654, Stop: 40406, Start Num: 31

Candidate Starts for MyraDee_70:

(Start: 31 @40654 has 40 MA's), (43, 40594),

Gene: Myxus_74 Start: 42923, Stop: 42705, Start Num: 19

Candidate Starts for Myxus_74:

(Start: 19 @42923 has 28 MA's), (37, 42866), (41, 42848),

Gene: NaSiaTalie_73 Start: 43498, Stop: 43271, Start Num: 23

Candidate Starts for NaSiaTalie_73:

(Start: 23 @43498 has 43 MA's), (36, 43444), (54, 43306),

Gene: Naca_69 Start: 43206, Stop: 42904, Start Num: 31

Candidate Starts for Naca_69:

(Start: 31 @43206 has 40 MA's), (43, 43146), (51, 43041),

Gene: Naji_75 Start: 44004, Stop: 43762, Start Num: 24

Candidate Starts for Naji_75:

(Start: 24 @44004 has 43 MA's), (36, 43950), (41, 43926),

Gene: Nebs_68 Start: 42396, Stop: 42172, Start Num: 30

Candidate Starts for Nebs_68:

(Start: 30 @42396 has 135 MA's), (42, 42339), (43, 42333), (61, 42177),

Gene: Nemo27_66 Start: 42356, Stop: 42159, Start Num: 30

Candidate Starts for Nemo27_66:

(Start: 30 @42356 has 135 MA's), (42, 42299), (61, 42164),

Gene: NicoleTera_70 Start: 43518, Stop: 43297, Start Num: 23

Candidate Starts for NicoleTera_70:

(Start: 23 @43518 has 43 MA's), (36, 43464), (54, 43332),

Gene: Noelle_67 Start: 42962, Stop: 42738, Start Num: 30
Candidate Starts for Noelle_67:
(Start: 30 @42962 has 135 MA's), (42, 42905), (43, 42899), (53, 42788), (61, 42743),

Gene: NorthStar_65 Start: 42357, Stop: 42160, Start Num: 30
Candidate Starts for NorthStar_65:
(Start: 30 @42357 has 135 MA's), (42, 42300), (61, 42165),

Gene: NotAPhaseMom_66 Start: 42361, Stop: 42164, Start Num: 30
Candidate Starts for NotAPhaseMom_66:
(Start: 30 @42361 has 135 MA's), (42, 42304), (61, 42169),

Gene: NothingSpecial_68 Start: 43574, Stop: 43308, Start Num: 12
Candidate Starts for NothingSpecial_68:
(Start: 12 @43574 has 1 MA's), (Start: 23 @43535 has 43 MA's), (36, 43481), (37, 43475), (52, 43349), (53, 43346), (54, 43343),

Gene: Nyxis_66 Start: 42247, Stop: 42050, Start Num: 30
Candidate Starts for Nyxis_66:
(Start: 30 @42247 has 135 MA's), (42, 42190), (61, 42055),

Gene: OKaNui_66 Start: 42407, Stop: 42210, Start Num: 30
Candidate Starts for OKaNui_66:
(Start: 30 @42407 has 135 MA's), (42, 42350), (61, 42215),

Gene: Obama12_68 Start: 42780, Stop: 42556, Start Num: 30
Candidate Starts for Obama12_68:
(Start: 30 @42780 has 135 MA's), (42, 42723), (43, 42717), (61, 42561),

Gene: Odin_73 Start: 42517, Stop: 42317, Start Num: 19
Candidate Starts for Odin_73:
(8, 42586), (Start: 11 @42556 has 4 MA's), (Start: 19 @42517 has 28 MA's), (36, 42463), (41, 42439), (54, 42325),

Gene: Ohfah_68 Start: 42396, Stop: 42172, Start Num: 30
Candidate Starts for Ohfah_68:
(Start: 30 @42396 has 135 MA's), (42, 42339), (43, 42333), (61, 42177),

Gene: Oogie_82 Start: 65894, Stop: 66106, Start Num: 38
Candidate Starts for Oogie_82:
(Start: 38 @65894 has 6 MA's), (49, 66008),

Gene: Orange_74 Start: 43064, Stop: 42837, Start Num: 24
Candidate Starts for Orange_74:
(Start: 24 @43064 has 43 MA's), (36, 43010), (37, 43004), (45, 42932),

Gene: PackMan_73 Start: 42798, Stop: 42580, Start Num: 19
Candidate Starts for PackMan_73:
(Start: 19 @42798 has 28 MA's), (37, 42741), (41, 42723),

Gene: PainterBoy_75 Start: 43432, Stop: 43232, Start Num: 22
Candidate Starts for PainterBoy_75:

(15, 43456), (18, 43438), (Start: 22 @43432 has 33 MA's), (47, 43273),

Gene: Pakusa_79 Start: 63461, Stop: 63673, Start Num: 38

Candidate Starts for Pakusa_79:

(Start: 38 @63461 has 6 MA's), (49, 63575),

Gene: Palestino_66 Start: 42357, Stop: 42160, Start Num: 30

Candidate Starts for Palestino_66:

(Start: 30 @42357 has 135 MA's), (42, 42300), (61, 42165),

Gene: PeaceMeal1_64 Start: 40823, Stop: 40584, Start Num: 23

Candidate Starts for PeaceMeal1_64:

(Start: 23 @40823 has 43 MA's), (37, 40763), (61, 40589),

Gene: Peaches_65 Start: 42356, Stop: 42159, Start Num: 30

Candidate Starts for Peaches_65:

(Start: 30 @42356 has 135 MA's), (42, 42299), (61, 42164),

Gene: Perplexer_66 Start: 42630, Stop: 42406, Start Num: 30

Candidate Starts for Perplexer_66:

(Start: 30 @42630 has 135 MA's), (42, 42573), (43, 42567), (45, 42516), (61, 42411),

Gene: PeterPeter_67 Start: 42354, Stop: 42157, Start Num: 30

Candidate Starts for PeterPeter_67:

(Start: 30 @42354 has 135 MA's), (42, 42297), (61, 42162),

Gene: Petersenfast_69 Start: 41946, Stop: 41683, Start Num: 24

Candidate Starts for Petersenfast_69:

(Start: 24 @41946 has 43 MA's), (36, 41892), (37, 41886), (45, 41814), (58, 41727),

Gene: PetiteSangsue_66 Start: 42633, Stop: 42409, Start Num: 30

Candidate Starts for PetiteSangsue_66:

(Start: 30 @42633 has 135 MA's), (42, 42576), (43, 42570), (45, 42519), (61, 42414),

Gene: PetterN_74 Start: 42993, Stop: 42691, Start Num: 31

Candidate Starts for PetterN_74:

(Start: 31 @42993 has 40 MA's), (43, 42933), (51, 42828),

Gene: Ph8s_76 Start: 42621, Stop: 42382, Start Num: 11

Candidate Starts for Ph8s_76:

(4, 42693), (Start: 11 @42621 has 4 MA's), (Start: 19 @42582 has 28 MA's), (36, 42528), (37, 42522), (41, 42504), (54, 42390),

Gene: Phacado_67 Start: 42356, Stop: 42159, Start Num: 30

Candidate Starts for Phacado_67:

(Start: 30 @42356 has 135 MA's), (42, 42299), (61, 42164),

Gene: Phaded_68 Start: 44715, Stop: 44476, Start Num: 24

Candidate Starts for Phaded_68:

(Start: 24 @44715 has 43 MA's), (37, 44652), (41, 44634), (53, 44529),

Gene: Phaeder_74 Start: 42798, Stop: 42580, Start Num: 19

Candidate Starts for Phaeder_74:

(Start: 19 @42798 has 28 MA's), (37, 42741), (41, 42723),

Gene: Pharaoh_68 Start: 42838, Stop: 42611, Start Num: 19

Candidate Starts for Pharaoh_68:

(Start: 19 @42838 has 28 MA's), (57, 42625), (58, 42622),

Gene: Phelipe_68 Start: 42396, Stop: 42172, Start Num: 30

Candidate Starts for Phelipe_68:

(Start: 30 @42396 has 135 MA's), (42, 42339), (43, 42333), (61, 42177),

Gene: Phighter1804_67 Start: 42421, Stop: 42224, Start Num: 30

Candidate Starts for Phighter1804_67:

(Start: 30 @42421 has 135 MA's), (42, 42364), (61, 42229),

Gene: Phlorence_65 Start: 41798, Stop: 41496, Start Num: 31

Candidate Starts for Phlorence_65:

(Start: 31 @41798 has 40 MA's), (42, 41744), (43, 41738), (53, 41627), (55, 41621),

Gene: Phonnegut_74 Start: 42868, Stop: 42650, Start Num: 19

Candidate Starts for Phonnegut_74:

(Start: 19 @42868 has 28 MA's), (37, 42811), (41, 42793),

Gene: Phontbonne_67 Start: 42263, Stop: 42066, Start Num: 30

Candidate Starts for Phontbonne_67:

(Start: 30 @42263 has 135 MA's), (42, 42206), (61, 42071),

Gene: PickleBack_67 Start: 41975, Stop: 41673, Start Num: 31

Candidate Starts for PickleBack_67:

(Start: 31 @41975 has 40 MA's), (42, 41921), (43, 41915), (53, 41804), (55, 41798),

Gene: Pioneer_74 Start: 42868, Stop: 42650, Start Num: 19

Candidate Starts for Pioneer_74:

(Start: 19 @42868 has 28 MA's), (37, 42811), (41, 42793),

Gene: Pipcraft_64 Start: 42357, Stop: 42160, Start Num: 30

Candidate Starts for Pipcraft_64:

(Start: 30 @42357 has 135 MA's), (42, 42300), (61, 42165),

Gene: Piro94_72 Start: 43466, Stop: 43239, Start Num: 23

Candidate Starts for Piro94_72:

(Start: 23 @43466 has 43 MA's), (36, 43412), (54, 43274), (60, 43244),

Gene: Polymorphads_67 Start: 42377, Stop: 42153, Start Num: 30

Candidate Starts for Polymorphads_67:

(Start: 30 @42377 has 135 MA's), (42, 42320), (43, 42314), (61, 42158),

Gene: Pomar16_75 Start: 44044, Stop: 43802, Start Num: 24

Candidate Starts for Pomar16_75:

(Start: 24 @44044 has 43 MA's), (36, 43990), (41, 43966),

Gene: Poompha_63 Start: 40821, Stop: 40582, Start Num: 23

Candidate Starts for Poompha_63:

(Start: 23 @40821 has 43 MA's), (37, 40761), (61, 40587),

Gene: Power_72 Start: 43836, Stop: 43612, Start Num: 22
Candidate Starts for Power_72:
(Start: 22 @43836 has 33 MA's), (52, 43653), (53, 43650), (54, 43647),

Gene: Priya_72 Start: 42595, Stop: 42377, Start Num: 19
Candidate Starts for Priya_72:
(Start: 19 @42595 has 28 MA's), (37, 42538), (41, 42520),

Gene: Pukovnik_69 Start: 44363, Stop: 44136, Start Num: 23
Candidate Starts for Pukovnik_69:
(Start: 23 @44363 has 43 MA's), (36, 44309), (54, 44171), (60, 44141),

Gene: Pumbaa_67 Start: 42302, Stop: 42105, Start Num: 30
Candidate Starts for Pumbaa_67:
(Start: 30 @42302 has 135 MA's), (42, 42245), (61, 42110),

Gene: Qobbit_72 Start: 42557, Stop: 42339, Start Num: 19
Candidate Starts for Qobbit_72:
(Start: 19 @42557 has 28 MA's), (37, 42500), (41, 42482),

Gene: QueenB2_70 Start: 43119, Stop: 42895, Start Num: 22
Candidate Starts for QueenB2_70:
(Start: 22 @43119 has 33 MA's), (36, 43068), (52, 42936), (54, 42930), (59, 42903),

Gene: QueenBeesly_73 Start: 43793, Stop: 43569, Start Num: 22
Candidate Starts for QueenBeesly_73:
(Start: 22 @43793 has 33 MA's), (52, 43610), (53, 43607), (54, 43604),

Gene: Rachaly_68 Start: 42923, Stop: 42705, Start Num: 22
Candidate Starts for Rachaly_68:
(Start: 22 @42923 has 33 MA's), (41, 42848), (53, 42743), (54, 42740),

Gene: Rahalelujah_74 Start: 42760, Stop: 42527, Start Num: 17
Candidate Starts for Rahalelujah_74:
(9, 42799), (Start: 17 @42760 has 1 MA's), (37, 42688), (41, 42670),

Gene: Rebeuca_67 Start: 42137, Stop: 41898, Start Num: 23
Candidate Starts for Rebeuca_67:
(Start: 23 @42137 has 43 MA's), (37, 42077), (53, 41948), (61, 41903),

Gene: RedRock_71 Start: 43761, Stop: 43537, Start Num: 23
Candidate Starts for RedRock_71:
(Start: 23 @43761 has 43 MA's), (Start: 25 @43758 has 3 MA's), (36, 43710), (53, 43575), (54, 43572),

Gene: Refuge_70 Start: 44062, Stop: 43841, Start Num: 20
Candidate Starts for Refuge_70:
(Start: 20 @44062 has 2 MA's), (33, 44032),

Gene: Relief_66 Start: 42354, Stop: 42157, Start Num: 30
Candidate Starts for Relief_66:
(Start: 30 @42354 has 135 MA's), (42, 42297), (61, 42162),

Gene: Retro23_73 Start: 43524, Stop: 43300, Start Num: 22
Candidate Starts for Retro23_73:
(Start: 22 @43524 has 33 MA's), (52, 43341), (53, 43338), (54, 43335),

Gene: Romney_66 Start: 42354, Stop: 42157, Start Num: 30
Candidate Starts for Romney_66:
(Start: 30 @42354 has 135 MA's), (42, 42297), (61, 42162),

Gene: Roosevelt_65 Start: 42359, Stop: 42162, Start Num: 30
Candidate Starts for Roosevelt_65:
(Start: 30 @42359 has 135 MA's), (42, 42302), (61, 42167),

Gene: Ruin_67 Start: 42350, Stop: 42153, Start Num: 30
Candidate Starts for Ruin_67:
(Start: 30 @42350 has 135 MA's), (42, 42293), (61, 42158),

Gene: Sabertooth_67 Start: 42359, Stop: 42162, Start Num: 30
Candidate Starts for Sabertooth_67:
(Start: 30 @42359 has 135 MA's), (42, 42302), (61, 42167),

Gene: Salz_70 Start: 41861, Stop: 41598, Start Num: 24
Candidate Starts for Salz_70:
(Start: 24 @41861 has 43 MA's), (36, 41807), (37, 41801), (45, 41729), (58, 41642),

Gene: Scamp_67 Start: 42359, Stop: 42162, Start Num: 30
Candidate Starts for Scamp_67:
(Start: 30 @42359 has 135 MA's), (42, 42302), (61, 42167),

Gene: ScarletRaider_83 Start: 67178, Stop: 67384, Start Num: 38
Candidate Starts for ScarletRaider_83:
(1, 66935), (2, 66956), (3, 66989), (5, 67010), (7, 67019), (Start: 38 @67178 has 6 MA's), (54, 67316),

Gene: Scherzo_73 Start: 43087, Stop: 42869, Start Num: 19
Candidate Starts for Scherzo_73:
(Start: 19 @43087 has 28 MA's), (37, 43030), (41, 43012),

Gene: Schomber_81 Start: 63469, Stop: 63681, Start Num: 38
Candidate Starts for Schomber_81:
(Start: 38 @63469 has 6 MA's), (49, 63583),

Gene: Scorpia_70 Start: 42564, Stop: 42262, Start Num: 31
Candidate Starts for Scorpia_70:
(Start: 31 @42564 has 40 MA's), (43, 42504), (51, 42399),

Gene: SemperFi_73 Start: 43681, Stop: 43457, Start Num: 22
Candidate Starts for SemperFi_73:
(Start: 22 @43681 has 33 MA's), (52, 43498), (53, 43495), (54, 43492),

Gene: Severus_64 Start: 40821, Stop: 40582, Start Num: 23
Candidate Starts for Severus_64:
(Start: 23 @40821 has 43 MA's), (37, 40761), (61, 40587),

Gene: Shaka_65 Start: 42354, Stop: 42157, Start Num: 30
Candidate Starts for Shaka_65:
(Start: 30 @42354 has 135 MA's), (42, 42297), (61, 42162),

Gene: Sham4_71 Start: 41945, Stop: 41682, Start Num: 24
Candidate Starts for Sham4_71:
(Start: 24 @41945 has 43 MA's), (36, 41891), (37, 41885), (45, 41813), (58, 41726),

Gene: SheaKeira_68 Start: 41846, Stop: 41625, Start Num: 24
Candidate Starts for SheaKeira_68:
(Start: 24 @41846 has 43 MA's), (36, 41792), (54, 41660),

Gene: SheldonCooper_67 Start: 42797, Stop: 42573, Start Num: 30
Candidate Starts for SheldonCooper_67:
(Start: 30 @42797 has 135 MA's), (42, 42740), (43, 42734), (61, 42578),

Gene: Shygu2_66 Start: 42684, Stop: 42460, Start Num: 30
Candidate Starts for Shygu2_66:
(Start: 30 @42684 has 135 MA's), (42, 42627), (43, 42621), (61, 42465),

Gene: Skipitt_66 Start: 42351, Stop: 42154, Start Num: 30
Candidate Starts for Skipitt_66:
(Start: 30 @42351 has 135 MA's), (42, 42294), (61, 42159),

Gene: Smeagan_75 Start: 43992, Stop: 43768, Start Num: 22
Candidate Starts for Smeagan_75:
(Start: 22 @43992 has 33 MA's), (36, 43941), (52, 43809), (53, 43806), (54, 43803),

Gene: SnapTap_72 Start: 43492, Stop: 43268, Start Num: 22
Candidate Starts for SnapTap_72:
(Start: 22 @43492 has 33 MA's), (52, 43309), (53, 43306), (54, 43303),

Gene: Snape_75 Start: 43054, Stop: 42827, Start Num: 24
Candidate Starts for Snape_75:
(Start: 24 @43054 has 43 MA's), (36, 43000), (45, 42922),

Gene: SororFago_74 Start: 44027, Stop: 43806, Start Num: 19
Candidate Starts for SororFago_74:
(Start: 19 @44027 has 28 MA's), (36, 43973), (37, 43967), (41, 43949), (54, 43841),

Gene: Sparxx_68 Start: 42352, Stop: 42155, Start Num: 30
Candidate Starts for Sparxx_68:
(Start: 30 @42352 has 135 MA's), (42, 42295), (61, 42160),

Gene: Spino_66 Start: 42360, Stop: 42163, Start Num: 30
Candidate Starts for Spino_66:
(Start: 30 @42360 has 135 MA's), (42, 42303), (61, 42168),

Gene: Spouty_69 Start: 42594, Stop: 42376, Start Num: 19
Candidate Starts for Spouty_69:
(Start: 19 @42594 has 28 MA's), (37, 42537), (41, 42519),

Gene: StarStuff_75 Start: 44006, Stop: 43764, Start Num: 24

Candidate Starts for StarStuff_75:

(Start: 24 @44006 has 43 MA's), (36, 43952), (41, 43928),

Gene: Stasia_66 Start: 42567, Stop: 42343, Start Num: 30

Candidate Starts for Stasia_66:

(Start: 30 @42567 has 135 MA's), (42, 42510), (43, 42504), (53, 42393), (61, 42348),

Gene: Steamy_67 Start: 42288, Stop: 42067, Start Num: 20

Candidate Starts for Steamy_67:

(Start: 20 @42288 has 2 MA's), (34, 42258), (52, 42108),

Gene: Stink_66 Start: 42459, Stop: 42235, Start Num: 30

Candidate Starts for Stink_66:

(Start: 30 @42459 has 135 MA's), (42, 42402), (43, 42396), (61, 42240),

Gene: Superchunk_74 Start: 42168, Stop: 41929, Start Num: 11

Candidate Starts for Superchunk_74:

(4, 42240), (6, 42222), (Start: 11 @42168 has 4 MA's), (Start: 19 @42129 has 28 MA's), (36, 42075), (41, 42051), (54, 41937),

Gene: SweetiePie_72 Start: 43624, Stop: 43400, Start Num: 22

Candidate Starts for SweetiePie_72:

(Start: 22 @43624 has 33 MA's), (52, 43441), (53, 43438), (54, 43435),

Gene: SwirlSquare_79 Start: 42851, Stop: 42651, Start Num: 19

Candidate Starts for SwirlSquare_79:

(Start: 19 @42851 has 28 MA's), (36, 42797), (37, 42791), (41, 42773),

Gene: Swirley_66 Start: 41955, Stop: 41653, Start Num: 31

Candidate Starts for Swirley_66:

(Start: 31 @41955 has 40 MA's), (42, 41901), (43, 41895), (53, 41784), (55, 41778), (62, 41736),

Gene: SydNat_66 Start: 42147, Stop: 41845, Start Num: 31

Candidate Starts for SydNat_66:

(Start: 31 @42147 has 40 MA's), (42, 42093), (43, 42087), (63, 41904),

Gene: Taquarus_66 Start: 42360, Stop: 42163, Start Num: 30

Candidate Starts for Taquarus_66:

(Start: 30 @42360 has 135 MA's), (42, 42303), (61, 42168),

Gene: TarsusIV_70 Start: 43465, Stop: 43244, Start Num: 23

Candidate Starts for TarsusIV_70:

(Start: 23 @43465 has 43 MA's), (36, 43411), (37, 43405), (41, 43387), (54, 43279),

Gene: Tarynearal_65 Start: 41791, Stop: 41489, Start Num: 31

Candidate Starts for Tarynearal_65:

(Start: 31 @41791 has 40 MA's), (42, 41737), (43, 41731), (53, 41620), (55, 41614), (62, 41572),

Gene: Thanksgivukkah_66 Start: 42355, Stop: 42158, Start Num: 30

Candidate Starts for Thanksgivukkah_66:

(Start: 30 @42355 has 135 MA's), (42, 42298), (46, 42244), (61, 42163),

Gene: Theia_65 Start: 42277, Stop: 41975, Start Num: 31

Candidate Starts for Theia_65:
(Start: 31 @42277 has 40 MA's), (42, 42223), (43, 42217), (63, 42034),

Gene: Tiger_66 Start: 41719, Stop: 41417, Start Num: 31
Candidate Starts for Tiger_66:
(Start: 31 @41719 has 40 MA's), (42, 41665), (43, 41659), (53, 41548), (55, 41542),

Gene: Timothy_75 Start: 43031, Stop: 42804, Start Num: 24
Candidate Starts for Timothy_75:
(Start: 24 @43031 has 43 MA's), (36, 42977), (37, 42971), (45, 42899),

Gene: TinaFeyge_65 Start: 42352, Stop: 42155, Start Num: 30
Candidate Starts for TinaFeyge_65:
(Start: 30 @42352 has 135 MA's), (42, 42295), (61, 42160),

Gene: TinyTimmy_71 Start: 42760, Stop: 42533, Start Num: 24
Candidate Starts for TinyTimmy_71:
(Start: 24 @42760 has 43 MA's), (36, 42706), (37, 42700), (45, 42628),

Gene: Tinybot_66 Start: 42387, Stop: 42190, Start Num: 30
Candidate Starts for Tinybot_66:
(Start: 30 @42387 has 135 MA's), (42, 42330), (61, 42195),

Gene: TopsytheTRex_72 Start: 43101, Stop: 42820, Start Num: 13
Candidate Starts for TopsytheTRex_72:
(Start: 13 @43101 has 4 MA's), (36, 43008), (37, 43002), (41, 42984), (53, 42873),

Gene: TiroTheta9_66 Start: 42351, Stop: 42154, Start Num: 30
Candidate Starts for TiroTheta9_66:
(Start: 30 @42351 has 135 MA's), (42, 42294), (61, 42159),

Gene: Tomathan_75 Start: 44117, Stop: 43875, Start Num: 24
Candidate Starts for Tomathan_75:
(Start: 24 @44117 has 43 MA's), (36, 44063), (41, 44039),

Gene: Topanga_63 Start: 41611, Stop: 41378, Start Num: 25
Candidate Starts for Topanga_63:
(Start: 25 @41611 has 3 MA's), (36, 41563), (37, 41557), (61, 41383),

Gene: Trike_63 Start: 40825, Stop: 40589, Start Num: 23
Candidate Starts for Trike_63:
(Start: 23 @40825 has 43 MA's), (37, 40768), (61, 40594),

Gene: Trixie_72 Start: 44253, Stop: 44035, Start Num: 23
Candidate Starts for Trixie_72:
(Start: 23 @44253 has 43 MA's), (36, 44202), (41, 44178), (48, 44091), (54, 44070), (59, 44043),

Gene: Trooper_72 Start: 43427, Stop: 43203, Start Num: 23
Candidate Starts for Trooper_72:
(Start: 23 @43427 has 43 MA's), (36, 43376), (37, 43370), (53, 43241), (54, 43238),

Gene: TroyPia_68 Start: 42391, Stop: 42167, Start Num: 30
Candidate Starts for TroyPia_68:

(Start: 30 @42391 has 135 MA's), (42, 42334), (43, 42328), (61, 42172),

Gene: Tubs_74 Start: 42798, Stop: 42580, Start Num: 19

Candidate Starts for Tubs_74:

(Start: 19 @42798 has 28 MA's), (37, 42741), (41, 42723),

Gene: Turbido_73 Start: 43711, Stop: 43487, Start Num: 22

Candidate Starts for Turbido_73:

(Start: 22 @43711 has 33 MA's), (36, 43660), (52, 43528), (53, 43525), (54, 43522),

Gene: Twister_65 Start: 41732, Stop: 41499, Start Num: 25

Candidate Starts for Twister_65:

(Start: 25 @41732 has 3 MA's), (36, 41684), (37, 41678), (61, 41504),

Gene: TygerBlood_67 Start: 42357, Stop: 42160, Start Num: 30

Candidate Starts for TygerBlood_67:

(Start: 30 @42357 has 135 MA's), (42, 42300), (61, 42165),

Gene: UBSmoodge_86 Start: 67618, Stop: 67824, Start Num: 38

Candidate Starts for UBSmoodge_86:

(Start: 38 @67618 has 6 MA's), (54, 67756),

Gene: Ugenie5_69 Start: 43086, Stop: 42868, Start Num: 19

Candidate Starts for Ugenie5_69:

(Start: 19 @43086 has 28 MA's), (37, 43029), (41, 43011),

Gene: Ulysses_66 Start: 42043, Stop: 41846, Start Num: 30

Candidate Starts for Ulysses_66:

(Start: 30 @42043 has 135 MA's), (42, 41986), (61, 41851),

Gene: UnionJack_70 Start: 42228, Stop: 41926, Start Num: 31

Candidate Starts for UnionJack_70:

(Start: 31 @42228 has 40 MA's), (43, 42168),

Gene: Updawg_73 Start: 43362, Stop: 43135, Start Num: 23

Candidate Starts for Updawg_73:

(Start: 23 @43362 has 43 MA's), (36, 43308), (54, 43170),

Gene: VC3_74 Start: 43459, Stop: 43217, Start Num: 24

Candidate Starts for VC3_74:

(Start: 24 @43459 has 43 MA's), (36, 43405), (41, 43381), (52, 43273),

Gene: WalterMcMickey_65 Start: 41732, Stop: 41499, Start Num: 25

Candidate Starts for WalterMcMickey_65:

(Start: 25 @41732 has 3 MA's), (36, 41684), (37, 41678), (61, 41504),

Gene: Wander_67 Start: 42354, Stop: 42157, Start Num: 30

Candidate Starts for Wander_67:

(Start: 30 @42354 has 135 MA's), (42, 42297), (61, 42162),

Gene: WeiHuaDA_73 Start: 44299, Stop: 44075, Start Num: 23

Candidate Starts for WeiHuaDA_73:

(Start: 23 @44299 has 43 MA's), (36, 44248), (37, 44242), (52, 44116), (53, 44113), (54, 44110), (59, 44083),

Gene: Whabigail7_73 Start: 43711, Stop: 43487, Start Num: 22

Candidate Starts for Whabigail7_73:

(Start: 22 @43711 has 33 MA's), (36, 43660), (52, 43528), (53, 43525), (54, 43522),

Gene: WideWale_73 Start: 43362, Stop: 43135, Start Num: 23

Candidate Starts for WideWale_73:

(Start: 23 @43362 has 43 MA's), (36, 43308), (54, 43170),

Gene: Wilbur_67 Start: 42354, Stop: 42157, Start Num: 30

Candidate Starts for Wilbur_67:

(Start: 30 @42354 has 135 MA's), (42, 42297), (61, 42162),

Gene: Wile_65 Start: 42663, Stop: 42439, Start Num: 30

Candidate Starts for Wile_65:

(Start: 30 @42663 has 135 MA's), (42, 42606), (43, 42600), (45, 42549), (61, 42444),

Gene: Wizard007_66 Start: 42389, Stop: 42165, Start Num: 30

Candidate Starts for Wizard007_66:

(Start: 30 @42389 has 135 MA's), (42, 42332), (43, 42326), (45, 42275), (61, 42170),

Gene: Xena_65 Start: 42630, Stop: 42406, Start Num: 30

Candidate Starts for Xena_65:

(Start: 30 @42630 has 135 MA's), (42, 42573), (43, 42567), (45, 42516), (61, 42411),

Gene: XianYue_68 Start: 43295, Stop: 43074, Start Num: 21

Candidate Starts for XianYue_68:

(Start: 21 @43295 has 1 MA's), (41, 43217), (53, 43112), (60, 43079),

Gene: Yecey3_76 Start: 42829, Stop: 42608, Start Num: 23

Candidate Starts for Yecey3_76:

(Start: 23 @42829 has 43 MA's), (37, 42769), (41, 42751), (48, 42664),

Gene: YoSam321_67 Start: 42351, Stop: 42154, Start Num: 30

Candidate Starts for YoSam321_67:

(Start: 30 @42351 has 135 MA's), (42, 42294), (61, 42159),

Gene: Zimmer_71 Start: 43934, Stop: 43707, Start Num: 23

Candidate Starts for Zimmer_71:

(Start: 23 @43934 has 43 MA's), (36, 43880), (37, 43874), (41, 43856), (52, 43748), (54, 43742),

Gene: Zolita_65 Start: 42151, Stop: 41849, Start Num: 31

Candidate Starts for Zolita_65:

(Start: 31 @42151 has 40 MA's), (42, 42097), (43, 42091), (63, 41908),