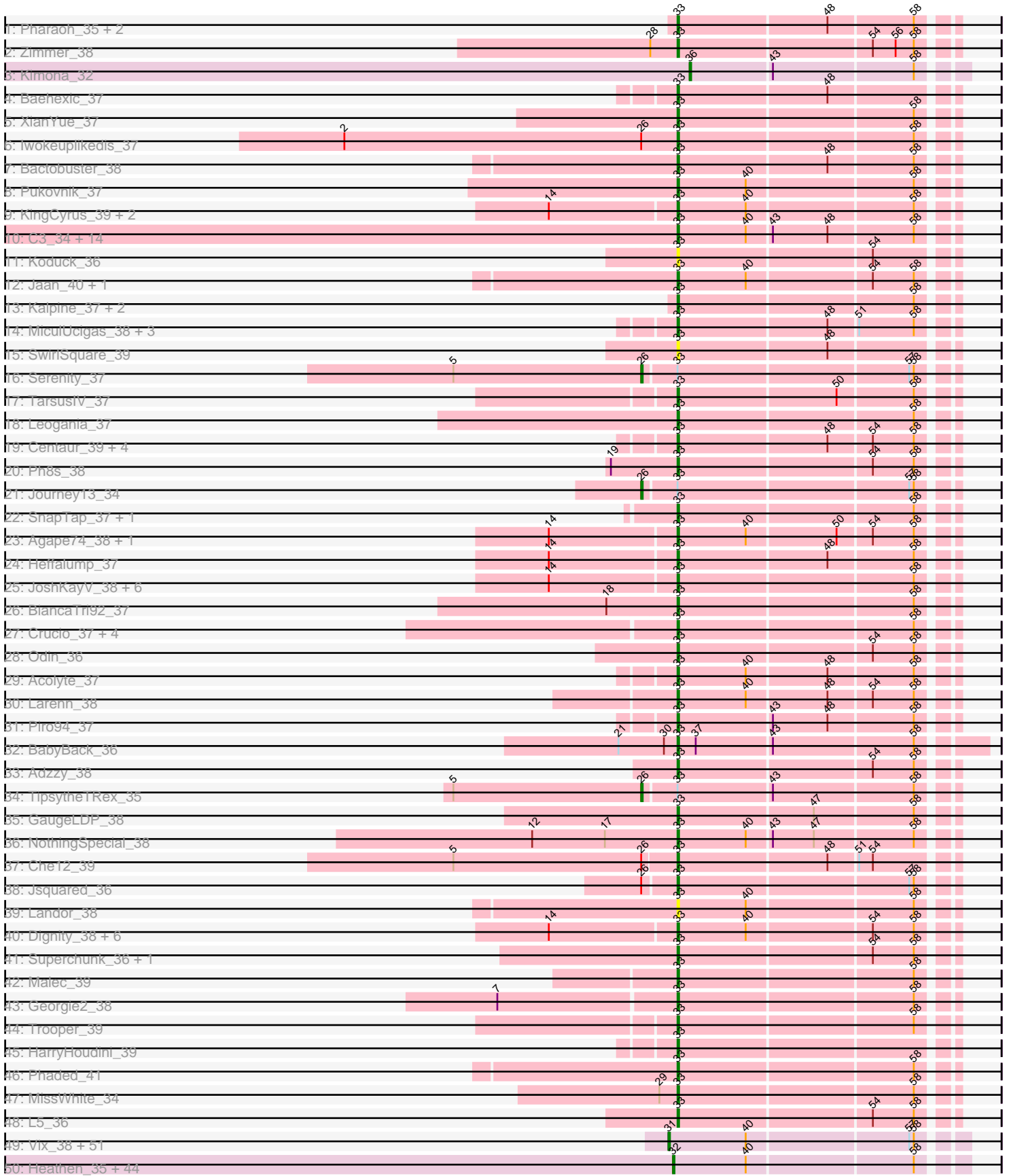
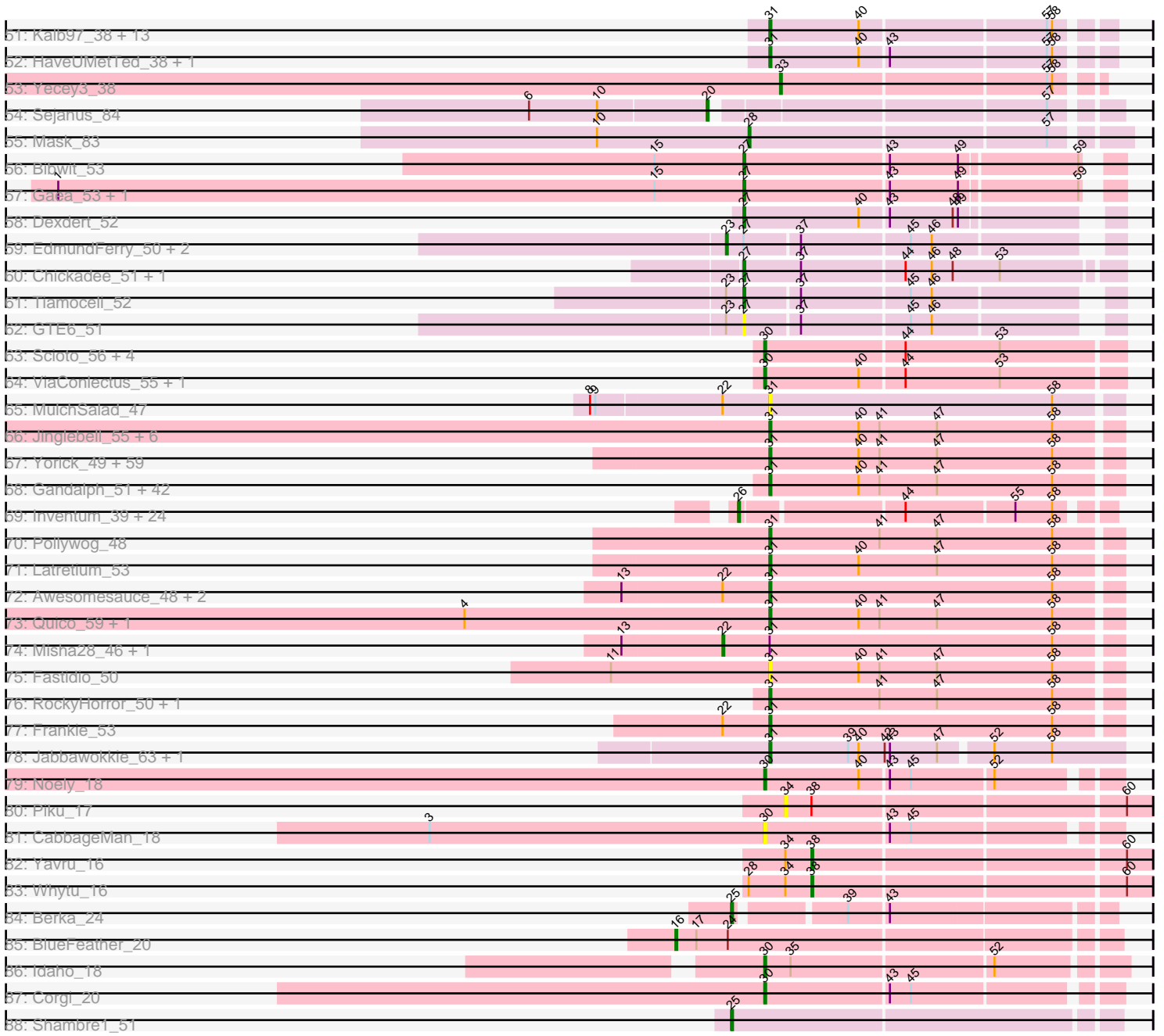


Pham 171123



Pham 171123



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 171123 Report

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

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 171123 has 390 members, 27 are drafts.

Phages represented in each track:

- Track 1 : Pharaoh_35, WeiHuaDA_42, NicoleTera_39
- Track 2 : Zimmer_38
- Track 3 : Kimona_32
- Track 4 : Baehexic_37
- Track 5 : XianYue_37
- Track 6 : Iwokeuplikedis_37
- Track 7 : Bactobuster_38
- Track 8 : Pukovnik_37
- Track 9 : KingCyrus_39, EvilGenius_39, ChipMunk_39
- Track 10 : C3_34, AN9_39, Pomar16_39, Naji_39, D29_36, VC3_39, AN18_39, StarStuff_39, Tomathan_39, AN3_36, DBQu4n_39, VA6_36, Duplo_39, Kerberos_39, D32_39
- Track 11 : Koduck_36
- Track 12 : Jaan_40, IronMan_38
- Track 13 : Kalpine_37, Trixie_37, Colin_40
- Track 14 : MiculUcigas_38, NaSiaTalie_38, Bugsy_40, Flare16_38
- Track 15 : SwirlSquare_39
- Track 16 : Serenity_37
- Track 17 : TarsusIV_37
- Track 18 : Leogania_37
- Track 19 : Centaur_39, WideWale_39, Drake55_40, Updawg_39, Equemioh13_39
- Track 20 : Ph8s_38
- Track 21 : Journey13_34
- Track 22 : SnapTap_37, SemperFi_38
- Track 23 : Agape74_38, Turbido_37
- Track 24 : Heffalump_37
- Track 25 : JoshKayV_38, QueenB2_37, Anselm_38, DudeLittle_36, Fameo_37, Retro23_38, Dalmatian_38
- Track 26 : BiancaTri92_37
- Track 27 : Crucio_37, FiringLine_37, QueenBeesly_37, Power_36, SweetiePie_37
- Track 28 : Odin_36
- Track 29 : Acolyte_37
- Track 30 : Larenn_38

- Track 31 : Piro94_37
- Track 32 : BabyBack_36
- Track 33 : Adzzy_38
- Track 34 : TipsytheTRex_35
- Track 35 : GaugeLDP_38
- Track 36 : NothingSpecial_38
- Track 37 : Che12_39
- Track 38 : Jsquared_36
- Track 39 : Landor_38
- Track 40 : Dignity_38, Jerm_38, Whabigail7_37, AbbyPaige_38, Leviathan_38, LilTurb_37, Smeagan_39
- Track 41 : Superchunk_36, Caraxes_37
- Track 42 : Malec_39
- Track 43 : Georgie2_38
- Track 44 : Trooper_39
- Track 45 : HarryHoudini_39
- Track 46 : Phaded_41
- Track 47 : MissWhite_34
- Track 48 : L5_36
- Track 49 : Vix_38, Microwolf_38, Dieselweasel_38, MuchMore_40, Colbster_38, DaHudson_38, Grum1_38, JHC117_38, GtownJaz_38, Grif_38, Penny1_38, Taurus_38, LBerry_38, Aglet_38, MarQuardt_38, Tiffany_38, Jobu08_37, AugsMagnumOpus_40, GingkoMaracino_38, Snickers_38, Mainiac_38, Pembroke_38, Cullens_38, Stagni_38, Fernando_38, Sabia_38, Lilith_38, Watson_38, EpicPhail_38, Malinsilva_40, Wooldri_40, Anubis_40, Phoebe_38, JenCasNa_38, SoYo_38, P28Green_38, Grub_38, SoilDragon_37, MoneyMay_38, Beauxregard13_38, Marie_38, Sabinator_37, Hercules11_38, StepMih_38, MadMarie_38, PGHhamlin_40, PotatoSplit_39, Farber_38, Zetzy_37, Ollie_38, LugYA_40, BreSam8_38
- Track 50 : Heathen_35, Sparxx_35, Melvin_36, Abdiel_34, Phelipe_35, SheldonCooper_36, JF4_35, TinaFeyge_35, MA5_35, Maxo_35, Fred313_35, TNguyen7_35, JF2_35, Kampy_35, BlueBird_36, SaturnRing_35, TroyPia_35, ChampagnePapi_36, Commander_35, BellusTerra_35, Eurydice_35, Obama12_36, Eagle_34, MK4_35, HelDan_35, Isca_35, Ohfah_35, LHTSCC_36, Pistachio_36, Rockstar_35, Scout_35, LeoAvram_35, BangNhom_35, Puppy_36, Cerulean_36, Polymorphads_35, Bugatti_35, Nebs_35, Medusa_35, BabyRay_35, Morrow_35, Giroux_35, Phantastic_35, Idleandcovert_35, B1_33
- Track 51 : Kalb97_38, Reba_38, Manu_38, Groupthink_38, Kalnoky_38, Phranny_38, PurpleHaze_37, JeppNRM_38, Pawn_38, Marius_38, Heliosoles_37, PhishRPhriends_36, ACFishhook_37, Gemma_37
- Track 52 : HaveUMetTed_38, OlanP_37
- Track 53 : Yecey3_38
- Track 54 : Sejanus_84
- Track 55 : Mask_83
- Track 56 : Bibwit_53
- Track 57 : Gaea_53, Ashertheman_54
- Track 58 : Dxdert_52
- Track 59 : EdmundFerry_50, Twonlo_49, RoadKill_49
- Track 60 : Chickadee_51, Kwekel_51
- Track 61 : Tiamoceli_52
- Track 62 : GTE6_51
- Track 63 : Scioto_56, Abblin_55, APunk_56, Sampson_55, Natkenzie_55
- Track 64 : ViaConlectus_55, Tardus_57

- Track 65 : MulchSalad_47
- Track 66 : Jinglebell_55, Llama_55, Modragons_54, AlpineSix_55, Seabastian_55, Ochi17_53, OfUltron_55
- Track 67 : Yorick_49, SassyB_45, LilMoolah_49, Marker_50, Sabbb_56, JalFarm20_59, ShiLan_49, GigiOuiOui_47, Aubs_49, UncleRicky_50, Tootsieroll_53, Che8_52, Burwell21_48, TDanisky_54, Llij_47, Leozinho_51, Ruby_48, Starcevich_50, PopTart_45, Avani_58, Lizziana_56, ShowerHandel_52, Ibhubesi_49, ArcusAngelus_53, Mahavrat_48, Eish_50, Seagreen_51, Eradicator_43, Girr_50, Karhdo_49, Drago_49, QuickMath_52, Chevrolet_59, Cabrinians_51, NormanBulbieJr_50, Priscilla_50, MadMen_44, Tweety_49, Royals2015_52, Madiba_46, Bubbles123_47, FreddyB_50, Sparkdehlily_54, DirtMcgirt_50, Phatniss_49, Plumbus_52, Jarcob_50, Dante_49, Kimberlium_53, Martik_50, Koella_44, Nitzel_45, Maravista_52, DotProduct_46, MisterCuddles_50, Nivrat_47, Totinger_53, Crumble_45, Doug_52, LittleShirley_50
- Track 68 : Gandalph_51, Empress_49, Doomphist_49, Poenanya_49, RedBird_47, OwlsT2W_49, Kersh_53, Veteran_47, Stap_49, PMC_44, Radiance_50, Boomer_52, Krakatau_48, RitaG_46, Spikelee_56, SiSi_49, KingMidas_50, PHappiness_46, Scottish_49, Daenerys_45, Mantra_47, Hamulus_51, Ramsey_51, Pacc40_45, Harley_52, OlympiaSaint_50, Dorothy_47, Job42_50, Cornie_43, Spoonbill_48, Blexus_48, GUmbie_47, Rockne_48, Oksu_54, DaddyRickover_50, Polka14_47, BuzzLyseyear_55, IbOuu_52, Nimbo_45, Leperchaun_43, JoeyJr_46, BlueCrab_47, BodEinwohner17_50
- Track 69 : Inventum_39, Leozinho_42, Pollywog_41, Ogopogo_43, Sassafras_41, OwlsT2W_40, Veteran_40, Empress_41, IbOuu_43, OlympiaSaint_40, Scottish_41, Royals2015_42, Blexus_40, Spoonbill_40, Radiance_41, GUmbie_40, Polka14_41, Eish_41, Daenerys_39, Dante_40, Chuckly_41, Job42_43, JoeyJr_40, Sandalphon_44, Tootsieroll_44
- Track 70 : Pollywog_48
- Track 71 : Latretium_53
- Track 72 : Awesomesauce_48, ChickenDinner_49, Piper2020_48
- Track 73 : Quico_59, Florinda_62
- Track 74 : Misha28_46, TootsiePop_46
- Track 75 : Fastidio_50
- Track 76 : RockyHorror_50, Zerg_49
- Track 77 : Frankie_53
- Track 78 : Jabbawokkie_63, Zapner_62
- Track 79 : Noely_18
- Track 80 : Piku_17
- Track 81 : CabbageMan_18
- Track 82 : Yavru_16
- Track 83 : Whytu_16
- Track 84 : Berka_24
- Track 85 : BlueFeather_20
- Track 86 : Idaho_18
- Track 87 : Corgi_20
- Track 88 : Shambre1_51

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

The start number called the most often in the published annotations is 31, it was called in 181 of the 363 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ACFishhook_37, Aglet_38, AlpineSix_55, Anubis_40, ArcusAngelus_53, Aubs_49, AugsMagnumOpus_40, Avani_58, Awesomesauce_48, Beauxregard13_38, Blexus_48, BlueCrab_47, BodEinwohner17_50, Boomer_52, BreSam8_38, Bubbles123_47, Burwell21_48, BuzzLyseyear_55, Cabrinians_51, Che8_52, Chevrolet_59, ChickenDinner_49, Colbster_38, Cornie_43, Crumble_45, Cullens_38, DaHudson_38, DaddyRickover_50, Daenerys_45, Dante_49, Dieselweasel_38, DirtMcgirt_50, Doomphist_49, Dorothy_47, DotProduct_46, Doug_52, Drago_49, Eish_50, Empress_49, EpicPhail_38, Eradicator_43, Farber_38, Fastidio_50, Fernando_38, Florinda_62, Frankie_53, FreddyB_50, GUmbie_47, Gandolph_51, Gemma_37, GigiOuiOui_47, GingkoMaracino_38, Girr_50, Grif_38, Groupthink_38, Grub_38, Grum1_38, GtownJaz_38, Hamulus_51, Harley_52, HaveUMetTed_38, Heliosoles_37, Hercules11_38, IbOuu_52, Ibhubesi_49, JHC117_38, Jabbawokkie_63, JalFarm20_59, Jarcob_50, JenCasNa_38, JeppNRM_38, Jinglebell_55, Job42_50, Jobu08_37, JoeyJr_46, Kalb97_38, Kalnoky_38, Karhdo_49, Kersh_53, Kimberlium_53, KingMidas_50, Koella_44, Krakatau_48, LBerry_38, Latretium_53, Leozinho_51, Leperchaun_43, LilMoolah_49, Lilith_38, LittleShirley_50, Lizziana_56, Llama_55, Llij_47, LugYA_40, MadMarie_38, MadMen_44, Madiba_46, Mahavrat_48, Mainiac_38, Malinsilva_40, Mantra_47, Manu_38, MarQuardt_38, Maravista_52, Marie_38, Marius_38, Marker_50, Martik_50, Microwolf_38, MisterCuddles_50, Modragons_54, MoneyMay_38, MuchMore_40, MulchSalad_47, Nimbo_45, Nitzel_45, Nivrat_47, NormanBulbieJr_50, Ochi17_53, OfUltron_55, Oksu_54, OlanP_37, Ollie_38, OlympiaSaint_50, OwlsT2W_49, P28Green_38, PGHhamlin_40, PHappiness_46, PMC_44, Pacc40_45, Pawn_38, Pembroke_38, Penny1_38, Phatniss_49, PhishRPhriends_36, Phoebe_38, Phranny_38, Piper2020_48, Plumbus_52, Poenanya_49, Polka14_47, Pollywog_48, PopTart_45, PotatoSplit_39, Priscilla_50, PurpleHaze_37, QuickMath_52, Quico_59, Radiance_50, Ramsey_51, Reba_38, RedBird_47, RitaG_46, Rockne_48, RockyHorror_50, Royals2015_52, Ruby_48, Sabbb_56, Sabia_38, Sabinator_37, SassyB_45, Scottish_49, Seabastian_55, Seagreen_51, ShiLan_49, ShowerHandel_52, SiSi_49, Snickers_38, SoYo_38, SoilDragon_37, Sparkdehlily_54, Spikelee_56, Spoonbill_48, Stagni_38, Stap_49, Starcevich_50, StepMih_38, TDanisky_54, Taurus_38, Tiffany_38, Tootsieroll_53, Totinger_53, Tweety_49, UncleRicky_50, Veteran_47, Vix_38, Watson_38, Wooldri_40, Yorick_49, Zapner_62, Zerg_49, Zetzy_37,

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

- Misha28_46, TootsiePop_46,

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

- AN3_36, AN9_39, AN18_39, APunk_56, Abblin_55, AbbyPaige_38, Abdiel_34, Acolyte_37, Adzzy_38, Agape74_38, Anselm_38, Ashertheman_54, B1_33, BabyBack_36, BabyRay_35, Bactobuster_38, Baehexic_37, BangNhom_35, BellusTerra_35, Berka_24, BiancaTri92_37, Bibwit_53, Blexus_40, BlueBird_36, BlueFeather_20, Bugatti_35, Buggy_40, C3_34, CabbageMan_18, Caraxes_37, Centaur_39, Cerulean_36, ChampagnePapi_36, Che12_39, Chickadee_51, ChipMunk_39, Chuckly_41, Colin_40, Commander_35, Corgi_20, Crucio_37, D29_36, D32_39, DBQu4n_39, Daenerys_39, Dalmatian_38, Dante_40, Dextert_52, Dignity_38, Drake55_40, DudeLittle_36, Duplo_39, Eagle_34, EdmundFerry_50, Eish_41, Empress_41, Equemioh13_39, Eurydice_35, EvilGenius_39, Fameo_37,

FiringLine_37, Flare16_38, Fred313_35, GTE6_51, GUmbie_40, Gaea_53, GaugeLDP_38, Georgie2_38, Giroux_35, HarryHoudini_39, Heathen_35, Heffalump_37, HelDan_35, IbOuu_43, Idaho_18, Idleandcovert_35, Inventum_39, IronMan_38, Isca_35, Iwokeuplikedis_37, JF2_35, JF4_35, Jaan_40, Jerm_38, Job42_43, JoeyJr_40, JoshKayV_38, Journey13_34, Jsquared_36, Kalpine_37, Kamy_35, Kerberos_39, Kimona_32, KingCyrus_39, Koduck_36, Kwekel_51, L5_36, LHTSCC_36, Landor_38, Larenn_38, LeoAvram_35, Leogania_37, Leozinho_42, Leviathan_38, LiITurb_37, MA5_35, MK4_35, Malec_39, Mask_83, Maxo_35, Medusa_35, Melvin_36, MiculUcigas_38, MissWhite_34, Morrow_35, NaSiaTalie_38, Naji_39, Natkenzie_55, Nebs_35, NicoleTera_39, Noely_18, NothingSpecial_38, Obama12_36, Odin_36, Ogopogo_43, Ohfah_35, OlympiaSaint_40, OwlsT2W_40, Ph8s_38, Phaded_41, Phantastic_35, Pharaoh_35, Phelipe_35, Piku_17, Piro94_37, Pistachio_36, Polka14_41, Pollywog_41, Polymorphads_35, Pomar16_39, Power_36, Pukovnik_37, Puppy_36, QueenB2_37, QueenBeesly_37, Radiance_41, Retro23_38, RoadKill_49, Rockstar_35, Royals2015_42, Sampson_55, Sandalphon_44, Sassafras_41, SaturnRing_35, Scioto_56, Scottish_41, Scout_35, Sejanus_84, SemperFi_38, Serenity_37, Shambre1_51, SheldonCooper_36, Smeagan_39, SnapTap_37, Sparxx_35, Spoonbill_40, StarStuff_39, Superchunk_36, SweetiePie_37, SwirlSquare_39, TNguyen7_35, Tardus_57, TarsusIV_37, Tiamoceli_52, TinaFeyge_35, TipsytheTRex_35, Tomathan_39, Tootsieroll_44, Trixie_37, Trooper_39, TroyPia_35, Turbido_37, Twonlo_49, Updawg_39, VA6_36, VC3_39, Veteran_40, ViaConlectus_55, WeiHuaDA_42, Whabigail7_37, Whytu_16, WideWale_39, XianYue_37, Yavru_16, Yecey3_38, Zimmer_38,

Summary by start number:

Start 16:

- Found in 1 of 390 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 363
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlueFeather_20 (FE),

Start 20:

- Found in 1 of 390 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 363
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sejanus_84 (AD),

Start 22:

- Found in 7 of 390 (1.8%) of genes in pham
- Manual Annotations of this start: 2 of 363
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Misha28_46 (F1), TootsiePop_46 (F1),

Start 23:

- Found in 5 of 390 (1.3%) of genes in pham
- Manual Annotations of this start: 3 of 363
- Called 60.0% of time when present
- Phage (with cluster) where this start called: EdmundFerry_50 (DE3), RoadKill_49 (DE3), Twonlo_49 (DE3),

Start 25:

- Found in 2 of 390 (0.5%) of genes in pham
- Manual Annotations of this start: 2 of 363
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Berka_24 (FE), Shambre1_51 (singleton),

Start 26:

- Found in 31 of 390 (7.9%) of genes in pham
- Manual Annotations of this start: 27 of 363
- Called 90.3% of time when present
- Phage (with cluster) where this start called: Blexus_40 (F1), Chuckly_41 (F1), Daenerys_39 (F1), Dante_40 (F1), Eish_41 (F1), Empress_41 (F1), GUmble_40 (F1), IbOuu_43 (F1), Inventum_39 (F1), Job42_43 (F1), JoeyJr_40 (F1), Journey13_34 (A2), Leozinho_42 (F1), Oogopogo_43 (F1), OlympiaSaint_40 (F1), OwlsT2W_40 (F1), Polka14_41 (F1), Pollywog_41 (F1), Radiance_41 (F1), Royals2015_42 (F1), Sandalphon_44 (F1), Sassafras_41 (F1), Scottish_41 (F1), Serenity_37 (A2), Spoonbill_40 (F1), TopsytheTRex_35 (A2), Tootsieroll_44 (F1), Veteran_40 (F1),

Start 27:

- Found in 11 of 390 (2.8%) of genes in pham
- Manual Annotations of this start: 7 of 363
- Called 72.7% of time when present
- Phage (with cluster) where this start called: Ashertheman_54 (DE1), Bibwit_53 (DE1), Chickadee_51 (DE3), Dextert_52 (DE3), GTE6_51 (DE3), Gaea_53 (DE1), Kwekel_51 (DE3), Tiamoceli_52 (DE3),

Start 28:

- Found in 3 of 390 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 363
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Mask_83 (AD),

Start 30:

- Found in 12 of 390 (3.1%) of genes in pham
- Manual Annotations of this start: 7 of 363
- Called 91.7% of time when present
- Phage (with cluster) where this start called: APunk_56 (DE4), Abblin_55 (DE4), CabbageMan_18 (FE), Corgi_20 (FE), Idaho_18 (FE), Natkenzie_55 (DE4), Noely_18 (FE), Sampson_55 (DE4), Scioto_56 (DE4), Tardus_57 (DE4), ViaConlectus_55 (DE4),

Start 31:

- Found in 194 of 390 (49.7%) of genes in pham
- Manual Annotations of this start: 181 of 363
- Called 99.0% of time when present
- Phage (with cluster) where this start called: ACFishhook_37 (A3), Aglet_38 (A3), AlpineSix_55 (F1), Anubis_40 (A3), ArcusAngelus_53 (F1), Aubs_49 (F1), AugsMagnumOpus_40 (A3), Avani_58 (F2), Awesomesauce_48 (F1), Beauxregard13_38 (A3), Blexus_48 (F1), BlueCrab_47 (F1), BodEinwohner17_50 (F1), Boomer_52 (F1), BreSam8_38 (A3), Bubbles123_47 (F1), Burwell21_48 (F1), BuzzLyseyear_55 (F1), Cabrinians_51 (F1), Che8_52 (F1), Chevrolet_59 (F1), ChickenDinner_49 (F1), Colbster_38 (A3), Cornie_43 (F5), Crumble_45 (F1), Cullens_38 (A3), DaHudson_38 (A3), DaddyRickover_50 (F1), Daenerys_45 (F1),

Dante_49 (F1), Dieselweasel_38 (A3), DirtMcgirt_50 (F1), Doomphist_49 (F1), Dorothy_47 (F1), DotProduct_46 (F1), Doug_52 (F1), Drago_49 (F1), Eish_50 (F1), Empress_49 (F1), EpicPhail_38 (A3), Eradicator_43 (F1), Farber_38 (A3), Fastidio_50 (F1), Fernando_38 (A3), Florinda_62 (F1), Frankie_53 (F1), FreddyB_50 (F1), GUmbie_47 (F1), Gandolph_51 (F1), Gemma_37 (A3), GigiOuiOui_47 (F1), GingkoMaracino_38 (A3), Girr_50 (F1), Grif_38 (A3), Groupthink_38 (A3), Grub_38 (A3), Grum1_38 (A3), GtownJaz_38 (A3), Hamulus_51 (F1), Harley_52 (F1), HaveUMetTed_38 (A3), Heliosoles_37 (A3), Hercules11_38 (A3), IbOuu_52 (F1), Ibhubesi_49 (F1), JHC117_38 (A3), Jabbawokkie_63 (F2), JalFarm20_59 (F1), Jarcob_50 (F1), JenCasNa_38 (A3), JeppNRM_38 (A3), Jinglebell_55 (F1), Job42_50 (F1), Jobu08_37 (A3), JoeyJr_46 (F1), Kalb97_38 (A3), Kalnoky_38 (A3), Karhdo_49 (F1), Kersh_53 (F1), Kimberlium_53 (F1), KingMidas_50 (F1), Koella_44 (F1), Krakatau_48 (F1), LBerry_38 (A3), Latretium_53 (F1), Leozinho_51 (F1), Leperchaun_43 (F1), LilMoolah_49 (F1), Lilith_38 (A3), LittleShirley_50 (F1), Lizziana_56 (F1), Llama_55 (F1), Llij_47 (F1), LugYA_40 (A3), MadMarie_38 (A3), MadMen_44 (F1), Madiba_46 (F1), Mahavrat_48 (F1), Mainiac_38 (A3), Malinsilva_40 (A3), Mantra_47 (F1), Manu_38 (A3), MarQuardt_38 (A3), Maravista_52 (F1), Marie_38 (A3), Marius_38 (A3), Marker_50 (F1), Martik_50 (F1), Microwolf_38 (A3), MisterCuddles_50 (F1), Modragons_54 (F1), MoneyMay_38 (A3), MuchMore_40 (A3), MulchSalad_47 (F), Nimbo_45 (F1), Nitzel_45 (F1), Nivrat_47 (F1), NormanBulbieJr_50 (F1), Ochi17_53 (F1), OfUltron_55 (F1), Oksu_54 (F1), OlanP_37 (A3), Ollie_38 (A3), OlympiaSaint_50 (F1), OwlsT2W_49 (F1), P28Green_38 (A3), PGHhamlin_40 (A3), PHappiness_46 (F1), PMC_44 (F1), Pacc40_45 (F1), Pawn_38 (A3), Pembroke_38 (A3), Penny1_38 (A3), Phatniss_49 (F1), PhishRPhriends_36 (A3), Phoebe_38 (A3), Phranny_38 (A3), Piper2020_48 (F1), Plumbus_52 (F1), Poenanya_49 (F1), Polka14_47 (F1), Pollywog_48 (F1), PopTart_45 (F1), PotatoSplit_39 (A3), Priscilla_50 (F1), PurpleHaze_37 (A3), QuickMath_52 (F1), Quico_59 (F1), Radiance_50 (F1), Ramsey_51 (F1), Reba_38 (A3), RedBird_47 (F1), RitaG_46 (F1), Rockne_48 (F1), RockyHorror_50 (F1), Royals2015_52 (F1), Ruby_48 (F1), Sabbb_56 (F1), Sabia_38 (A3), Sabinator_37 (A3), SassyB_45 (F1), Scottish_49 (F1), Seabastian_55 (F1), Seagreen_51 (F1), ShiLan_49 (F1), ShowerHandel_52 (F1), SiSi_49 (F1), Snickers_38 (A3), SoYo_38 (A3), SoilDragon_37 (A3), Sparkdehlily_54 (F1), Spikelee_56 (F1), Spoonbill_48 (F1), Stagni_38 (A3), Stap_49 (F1), Starceвич_50 (F1), StepMih_38 (A3), TDanisky_54 (F1), Taurus_38 (A3), Tiffany_38 (A3), Tootsieroll_53 (F1), Totinger_53 (F1), Tweety_49 (F1), UncleRicky_50 (F1), Veteran_47 (F1), Vix_38 (A3), Watson_38 (A3), Wooldri_40 (A3), Yorick_49 (F1), Zapner_62 (F2), Zerg_49 (F1), Zetzy_37 (A3),

Start 32:

- Found in 45 of 390 (11.5%) of genes in pham
- Manual Annotations of this start: 42 of 363
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abdiel_34 (A4), B1_33 (A3), BabyRay_35 (A3), BangNhom_35 (A4), BellusTerra_35 (A4), BlueBird_36 (A3), Bugatti_35 (A3), Cerulean_36 (A4), ChampagnePapi_36 (A4), Commander_35 (A4), Eagle_34 (A4), Eurydice_35 (A4), Fred313_35 (A3), Giroux_35 (A3), Heathen_35 (A3), HelDan_35 (A3), Idleandcovert_35 (A3), Isca_35 (A3), JF2_35 (A3), JF4_35 (A3), Kampy_35 (A4), LHTSCC_36 (A4), LeoAvram_35 (A4), MA5_35 (A3), MK4_35 (A3), Maxo_35 (A4), Medusa_35 (A4), Melvin_36 (A4), Morrow_35 (A4), Nebs_35 (A4), Obama12_36 (A4), Ohfah_35 (A4), Phantastic_35 (A3), Phelipe_35 (A4), Pistachio_36 (A3), Polymorphads_35 (A4), Puppy_36 (A3), Rockstar_35 (A3), SaturnRing_35 (A3), Scout_35 (A3), SheldonCooper_36 (A4), Sparxx_35 (A4), TNguyen7_35 (A3), TinaFeyge_35 (A4), TroyPia_35 (A4),

Start 33:

- Found in 95 of 390 (24.4%) of genes in pham
- Manual Annotations of this start: 86 of 363
- Called 96.8% of time when present
- Phage (with cluster) where this start called: AN3_36 (A2), AN9_39 (A2), ANI8_39 (A2), AbbyPaige_38 (A2), Acolyte_37 (A2), Adzzy_38 (A2), Agape74_38 (A2), Anselm_38 (A2), BabyBack_36 (A2), Bactobuster_38 (A2), Baehexic_37 (A2), BiancaTri92_37 (A2), Buggy_40 (A2), C3_34 (A2), Caraxes_37 (A2), Centaur_39 (A2), Che12_39 (A2), ChipMunk_39 (A2), Colin_40 (A2), Crucio_37 (A2), D29_36 (A2), D32_39 (A2), DBQu4n_39 (A2), Dalmatian_38 (A2), Dignity_38 (A2), Drake55_40 (A2), DudeLittle_36 (A2), Duplo_39 (A2), Equemioh13_39 (A2), EvilGenius_39 (A2), Fameo_37 (A2), FiringLine_37 (A2), Flare16_38 (A2), GaugeLDP_38 (A2), Georgie2_38 (A2), HarryHoudini_39 (A2), Heffalump_37 (A2), IronMan_38 (A2), Iwokeuplikedis_37 (A2), Jaan_40 (A2), Jerm_38 (A2), JoshKayV_38 (A2), Jsquared_36 (A2), Kalpine_37 (A2), Kerberos_39 (A2), KingCyrus_39 (A2), Koduck_36 (A2), L5_36 (A2), Landor_38 (A2), Larenn_38 (A2), Leogania_37 (A2), Leviathan_38 (A2), LiITurb_37 (A2), Malec_39 (A2), MiculUcigas_38 (A2), MissWhite_34 (A2), NaSiaTalie_38 (A2), Naji_39 (A2), NicoleTera_39 (A2), NothingSpecial_38 (A2), Odin_36 (A2), Ph8s_38 (A2), Phaded_41 (A2), Pharaoh_35 (A12), Piro94_37 (A2), Pomar16_39 (A2), Power_36 (A2), Pukovnik_37 (A2), QueenB2_37 (A2), QueenBeesly_37 (A2), Retro23_38 (A2), SemperFi_38 (A2), Smeagan_39 (A2), SnapTap_37 (A2), StarStuff_39 (A2), Superchunk_36 (A2), SweetiePie_37 (A2), SwirlSquare_39 (A2), TarsusIV_37 (A2), Tomathan_39 (A2), Trixie_37 (A2), Trooper_39 (A2), Turbido_37 (A2), Updawg_39 (A2), VA6_36 (A2), VC3_39 (A2), WeiHuaDA_42 (A2), Whabigail7_37 (A2), WideWale_39 (A2), XianYue_37 (A2), Yecey3_38 (A9), Zimmer_38 (A12),

Start 34:

- Found in 3 of 390 (0.8%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Piku_17 (FE),

Start 36:

- Found in 1 of 390 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 363
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kimona_32 (A19),

Start 38:

- Found in 3 of 390 (0.8%) of genes in pham
- Manual Annotations of this start: 2 of 363
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Whytu_16 (FE), Yavru_16 (FE),

Summary by clusters:

There are 16 clusters represented in this pham: F1, F2, AD, A12, F, DE1, DE3, DE4, singleton, A3, A2, FE, A19, A9, F5, A4,

Info for manual annotations of cluster A12:

- Start number 33 was manually annotated 2 times for cluster A12.

Info for manual annotations of cluster A19:

- Start number 36 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 26 was manually annotated 3 times for cluster A2.
- Start number 33 was manually annotated 83 times for cluster A2.

Info for manual annotations of cluster A3:

- Start number 31 was manually annotated 66 times for cluster A3.
- Start number 32 was manually annotated 18 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 32 was manually annotated 24 times for cluster A4.

Info for manual annotations of cluster A9:

- Start number 33 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster AD:

- Start number 20 was manually annotated 1 time for cluster AD.
- Start number 28 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster DE1:

- Start number 27 was manually annotated 3 times for cluster DE1.

Info for manual annotations of cluster DE3:

- Start number 23 was manually annotated 3 times for cluster DE3.
- Start number 27 was manually annotated 4 times for cluster DE3.

Info for manual annotations of cluster DE4:

- Start number 30 was manually annotated 4 times for cluster DE4.

Info for manual annotations of cluster F1:

- Start number 22 was manually annotated 2 times for cluster F1.
- Start number 26 was manually annotated 24 times for cluster F1.
- Start number 31 was manually annotated 111 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 31 was manually annotated 3 times for cluster F2.

Info for manual annotations of cluster F5:

- Start number 31 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster FE:

- Start number 16 was manually annotated 1 time for cluster FE.
- Start number 25 was manually annotated 1 time for cluster FE.
- Start number 30 was manually annotated 3 times for cluster FE.
- Start number 38 was manually annotated 2 times for cluster FE.

Gene Information:

Gene: ACFishhook_37 Start: 27807, Stop: 27625, Start Num: 31
Candidate Starts for ACFishhook_37:
(Start: 31 @27807 has 181 MA's), (40, 27756), (57, 27654), (58, 27651),

Gene: AN3_36 Start: 27680, Stop: 27510, Start Num: 33
Candidate Starts for AN3_36:
(Start: 33 @27680 has 86 MA's), (40, 27635), (43, 27620), (48, 27584), (58, 27530),

Gene: AN9_39 Start: 27665, Stop: 27495, Start Num: 33
Candidate Starts for AN9_39:
(Start: 33 @27665 has 86 MA's), (40, 27620), (43, 27605), (48, 27569), (58, 27515),

Gene: ANI8_39 Start: 27665, Stop: 27495, Start Num: 33
Candidate Starts for ANI8_39:
(Start: 33 @27665 has 86 MA's), (40, 27620), (43, 27605), (48, 27569), (58, 27515),

Gene: APunk_56 Start: 45016, Stop: 45216, Start Num: 30
Candidate Starts for APunk_56:
(Start: 30 @45016 has 7 MA's), (44, 45094), (53, 45148),

Gene: Abblin_55 Start: 45502, Stop: 45702, Start Num: 30
Candidate Starts for Abblin_55:
(Start: 30 @45502 has 7 MA's), (44, 45580), (53, 45634),

Gene: AbbyPaige_38 Start: 28214, Stop: 28044, Start Num: 33
Candidate Starts for AbbyPaige_38:
(14, 28295), (Start: 33 @28214 has 86 MA's), (40, 28169), (54, 28091), (58, 28064),

Gene: Abdiel_34 Start: 27322, Stop: 27149, Start Num: 32
Candidate Starts for Abdiel_34:
(Start: 32 @27322 has 42 MA's), (40, 27274), (58, 27169),

Gene: Acolyte_37 Start: 28346, Stop: 28176, Start Num: 33
Candidate Starts for Acolyte_37:
(Start: 33 @28346 has 86 MA's), (40, 28301), (48, 28250), (58, 28196),

Gene: Adzzy_38 Start: 26529, Stop: 26359, Start Num: 33
Candidate Starts for Adzzy_38:
(Start: 33 @26529 has 86 MA's), (54, 26406), (58, 26379),

Gene: Agape74_38 Start: 28199, Stop: 28029, Start Num: 33
Candidate Starts for Agape74_38:
(14, 28280), (Start: 33 @28199 has 86 MA's), (40, 28154), (50, 28097), (54, 28076), (58, 28049),

Gene: Aglet_38 Start: 27905, Stop: 27723, Start Num: 31
Candidate Starts for Aglet_38:
(Start: 31 @27905 has 181 MA's), (40, 27854), (57, 27752), (58, 27749),

Gene: AlpineSix_55 Start: 38663, Stop: 38860, Start Num: 31
Candidate Starts for AlpineSix_55:
(Start: 31 @38663 has 181 MA's), (40, 38714), (41, 38726), (47, 38759), (58, 38825),

Gene: Anselm_38 Start: 28317, Stop: 28147, Start Num: 33

Candidate Starts for Anselm_38:

(14, 28398), (Start: 33 @28317 has 86 MA's), (58, 28167),

Gene: Anubis_40 Start: 27790, Stop: 27608, Start Num: 31

Candidate Starts for Anubis_40:

(Start: 31 @27790 has 181 MA's), (40, 27739), (57, 27637), (58, 27634),

Gene: ArcusAngelus_53 Start: 37779, Stop: 37976, Start Num: 31

Candidate Starts for ArcusAngelus_53:

(Start: 31 @37779 has 181 MA's), (40, 37830), (41, 37842), (47, 37875), (58, 37941),

Gene: Ashertheman_54 Start: 44467, Stop: 44664, Start Num: 27

Candidate Starts for Ashertheman_54:

(1, 44074), (15, 44416), (Start: 27 @44467 has 7 MA's), (43, 44548), (49, 44587), (59, 44650),

Gene: Aubs_49 Start: 36346, Stop: 36543, Start Num: 31

Candidate Starts for Aubs_49:

(Start: 31 @36346 has 181 MA's), (40, 36397), (41, 36409), (47, 36442), (58, 36508),

Gene: AugsMagnumOpus_40 Start: 27896, Stop: 27714, Start Num: 31

Candidate Starts for AugsMagnumOpus_40:

(Start: 31 @27896 has 181 MA's), (40, 27845), (57, 27743), (58, 27740),

Gene: Avani_58 Start: 36654, Stop: 36851, Start Num: 31

Candidate Starts for Avani_58:

(Start: 31 @36654 has 181 MA's), (40, 36705), (41, 36717), (47, 36750), (58, 36816),

Gene: Awesomesauce_48 Start: 34991, Stop: 35188, Start Num: 31

Candidate Starts for Awesomesauce_48:

(13, 34907), (Start: 22 @34964 has 2 MA's), (Start: 31 @34991 has 181 MA's), (58, 35153),

Gene: B1_33 Start: 26932, Stop: 26753, Start Num: 32

Candidate Starts for B1_33:

(Start: 32 @26932 has 42 MA's), (40, 26884), (58, 26779),

Gene: BabyBack_36 Start: 28565, Stop: 28377, Start Num: 33

Candidate Starts for BabyBack_36:

(21, 28604), (Start: 30 @28574 has 7 MA's), (Start: 33 @28565 has 86 MA's), (37, 28553), (43, 28505), (58, 28415),

Gene: BabyRay_35 Start: 27483, Stop: 27304, Start Num: 32

Candidate Starts for BabyRay_35:

(Start: 32 @27483 has 42 MA's), (40, 27435), (58, 27330),

Gene: Bactobuster_38 Start: 29229, Stop: 29059, Start Num: 33

Candidate Starts for Bactobuster_38:

(Start: 33 @29229 has 86 MA's), (48, 29133), (58, 29079),

Gene: Baehexic_37 Start: 28367, Stop: 28197, Start Num: 33

Candidate Starts for Baehexic_37:

(Start: 33 @28367 has 86 MA's), (48, 28271),

Gene: BangNhom_35 Start: 27659, Stop: 27486, Start Num: 32

Candidate Starts for BangNhom_35:
(Start: 32 @27659 has 42 MA's), (40, 27611), (58, 27506),

Gene: Beauxregard13_38 Start: 27904, Stop: 27722, Start Num: 31
Candidate Starts for Beauxregard13_38:
(Start: 31 @27904 has 181 MA's), (40, 27853), (57, 27751), (58, 27748),

Gene: BellusTerra_35 Start: 27322, Stop: 27149, Start Num: 32
Candidate Starts for BellusTerra_35:
(Start: 32 @27322 has 42 MA's), (40, 27274), (58, 27169),

Gene: Berka_24 Start: 13339, Stop: 13533, Start Num: 25
Candidate Starts for Berka_24:
(Start: 25 @13339 has 2 MA's), (39, 13393), (43, 13414),

Gene: BiancaTri92_37 Start: 28784, Stop: 28614, Start Num: 33
Candidate Starts for BiancaTri92_37:
(18, 28829), (Start: 33 @28784 has 86 MA's), (58, 28634),

Gene: Bibwit_53 Start: 43981, Stop: 44178, Start Num: 27
Candidate Starts for Bibwit_53:
(15, 43930), (Start: 27 @43981 has 7 MA's), (43, 44062), (49, 44101), (59, 44164),

Gene: Blexus_40 Start: 31585, Stop: 31391, Start Num: 26
Candidate Starts for Blexus_40:
(Start: 26 @31585 has 27 MA's), (44, 31498), (55, 31438), (58, 31417),

Gene: Blexus_48 Start: 36433, Stop: 36630, Start Num: 31
Candidate Starts for Blexus_48:
(Start: 31 @36433 has 181 MA's), (40, 36484), (41, 36496), (47, 36529), (58, 36595),

Gene: BlueBird_36 Start: 27412, Stop: 27233, Start Num: 32
Candidate Starts for BlueBird_36:
(Start: 32 @27412 has 42 MA's), (40, 27364), (58, 27259),

Gene: BlueCrab_47 Start: 36159, Stop: 36356, Start Num: 31
Candidate Starts for BlueCrab_47:
(Start: 31 @36159 has 181 MA's), (40, 36210), (41, 36222), (47, 36255), (58, 36321),

Gene: BlueFeather_20 Start: 14165, Stop: 14407, Start Num: 16
Candidate Starts for BlueFeather_20:
(Start: 16 @14165 has 1 MA's), (17, 14177), (24, 14195),

Gene: BodEinwohner17_50 Start: 36375, Stop: 36572, Start Num: 31
Candidate Starts for BodEinwohner17_50:
(Start: 31 @36375 has 181 MA's), (40, 36426), (41, 36438), (47, 36471), (58, 36537),

Gene: Boomer_52 Start: 37608, Stop: 37805, Start Num: 31
Candidate Starts for Boomer_52:
(Start: 31 @37608 has 181 MA's), (40, 37659), (41, 37671), (47, 37704), (58, 37770),

Gene: BreSam8_38 Start: 27897, Stop: 27715, Start Num: 31
Candidate Starts for BreSam8_38:

(Start: 31 @27897 has 181 MA's), (40, 27846), (57, 27744), (58, 27741),

Gene: Bubbles123_47 Start: 37055, Stop: 37252, Start Num: 31

Candidate Starts for Bubbles123_47:

(Start: 31 @37055 has 181 MA's), (40, 37106), (41, 37118), (47, 37151), (58, 37217),

Gene: Bugatti_35 Start: 27412, Stop: 27233, Start Num: 32

Candidate Starts for Bugatti_35:

(Start: 32 @27412 has 42 MA's), (40, 27364), (58, 27259),

Gene: Buggy_40 Start: 28650, Stop: 28480, Start Num: 33

Candidate Starts for Buggy_40:

(Start: 33 @28650 has 86 MA's), (48, 28554), (51, 28536), (58, 28500),

Gene: Burwell21_48 Start: 36717, Stop: 36914, Start Num: 31

Candidate Starts for Burwell21_48:

(Start: 31 @36717 has 181 MA's), (40, 36768), (41, 36780), (47, 36813), (58, 36879),

Gene: BuzzLyseyear_55 Start: 37985, Stop: 38182, Start Num: 31

Candidate Starts for BuzzLyseyear_55:

(Start: 31 @37985 has 181 MA's), (40, 38036), (41, 38048), (47, 38081), (58, 38147),

Gene: C3_34 Start: 27665, Stop: 27495, Start Num: 33

Candidate Starts for C3_34:

(Start: 33 @27665 has 86 MA's), (40, 27620), (43, 27605), (48, 27569), (58, 27515),

Gene: CabbageMan_18 Start: 13371, Stop: 13559, Start Num: 30

Candidate Starts for CabbageMan_18:

(3, 13179), (Start: 30 @13371 has 7 MA's), (43, 13440), (45, 13452),

Gene: Cabrinians_51 Start: 36795, Stop: 36992, Start Num: 31

Candidate Starts for Cabrinians_51:

(Start: 31 @36795 has 181 MA's), (40, 36846), (41, 36858), (47, 36891), (58, 36957),

Gene: Caraxes_37 Start: 26412, Stop: 26242, Start Num: 33

Candidate Starts for Caraxes_37:

(Start: 33 @26412 has 86 MA's), (54, 26289), (58, 26262),

Gene: Centaur_39 Start: 28483, Stop: 28313, Start Num: 33

Candidate Starts for Centaur_39:

(Start: 33 @28483 has 86 MA's), (48, 28387), (54, 28360), (58, 28333),

Gene: Cerulean_36 Start: 27660, Stop: 27487, Start Num: 32

Candidate Starts for Cerulean_36:

(Start: 32 @27660 has 42 MA's), (40, 27612), (58, 27507),

Gene: ChampagnePapi_36 Start: 27659, Stop: 27486, Start Num: 32

Candidate Starts for ChampagnePapi_36:

(Start: 32 @27659 has 42 MA's), (40, 27611), (58, 27506),

Gene: Che12_39 Start: 26775, Stop: 26605, Start Num: 33

Candidate Starts for Che12_39:

(5, 26919), (Start: 26 @26796 has 27 MA's), (Start: 33 @26775 has 86 MA's), (48, 26679), (51, 26661), (54, 26652),

Gene: Che8_52 Start: 37604, Stop: 37801, Start Num: 31

Candidate Starts for Che8_52:

(Start: 31 @37604 has 181 MA's), (40, 37655), (41, 37667), (47, 37700), (58, 37766),

Gene: Chevrolet_59 Start: 37780, Stop: 37977, Start Num: 31

Candidate Starts for Chevrolet_59:

(Start: 31 @37780 has 181 MA's), (40, 37831), (41, 37843), (47, 37876), (58, 37942),

Gene: Chickadee_51 Start: 41286, Stop: 41495, Start Num: 27

Candidate Starts for Chickadee_51:

(Start: 27 @41286 has 7 MA's), (37, 41319), (44, 41376), (46, 41391), (48, 41403), (53, 41430),

Gene: ChickenDinner_49 Start: 35729, Stop: 35926, Start Num: 31

Candidate Starts for ChickenDinner_49:

(13, 35645), (Start: 22 @35702 has 2 MA's), (Start: 31 @35729 has 181 MA's), (58, 35891),

Gene: ChipMunk_39 Start: 29644, Stop: 29474, Start Num: 33

Candidate Starts for ChipMunk_39:

(14, 29725), (Start: 33 @29644 has 86 MA's), (40, 29599), (58, 29494),

Gene: Chuckly_41 Start: 31551, Stop: 31357, Start Num: 26

Candidate Starts for Chuckly_41:

(Start: 26 @31551 has 27 MA's), (44, 31464), (55, 31404), (58, 31383),

Gene: Colbster_38 Start: 27904, Stop: 27722, Start Num: 31

Candidate Starts for Colbster_38:

(Start: 31 @27904 has 181 MA's), (40, 27853), (57, 27751), (58, 27748),

Gene: Colin_40 Start: 28947, Stop: 28777, Start Num: 33

Candidate Starts for Colin_40:

(Start: 33 @28947 has 86 MA's), (58, 28797),

Gene: Commander_35 Start: 27323, Stop: 27150, Start Num: 32

Candidate Starts for Commander_35:

(Start: 32 @27323 has 42 MA's), (40, 27275), (58, 27170),

Gene: Corgi_20 Start: 13530, Stop: 13718, Start Num: 30

Candidate Starts for Corgi_20:

(Start: 30 @13530 has 7 MA's), (43, 13599), (45, 13611),

Gene: Cornie_43 Start: 34495, Stop: 34692, Start Num: 31

Candidate Starts for Cornie_43:

(Start: 31 @34495 has 181 MA's), (40, 34546), (41, 34558), (47, 34591), (58, 34657),

Gene: Crucio_37 Start: 27910, Stop: 27740, Start Num: 33

Candidate Starts for Crucio_37:

(Start: 33 @27910 has 86 MA's), (58, 27760),

Gene: Crumble_45 Start: 32731, Stop: 32928, Start Num: 31

Candidate Starts for Crumble_45:

(Start: 31 @32731 has 181 MA's), (40, 32782), (41, 32794), (47, 32827), (58, 32893),

Gene: Cullens_38 Start: 27903, Stop: 27721, Start Num: 31

Candidate Starts for Cullens_38:

(Start: 31 @27903 has 181 MA's), (40, 27852), (57, 27750), (58, 27747),

Gene: D29_36 Start: 27596, Stop: 27426, Start Num: 33

Candidate Starts for D29_36:

(Start: 33 @27596 has 86 MA's), (40, 27551), (43, 27536), (48, 27500), (58, 27446),

Gene: D32_39 Start: 27596, Stop: 27426, Start Num: 33

Candidate Starts for D32_39:

(Start: 33 @27596 has 86 MA's), (40, 27551), (43, 27536), (48, 27500), (58, 27446),

Gene: DBQu4n_39 Start: 27596, Stop: 27426, Start Num: 33

Candidate Starts for DBQu4n_39:

(Start: 33 @27596 has 86 MA's), (40, 27551), (43, 27536), (48, 27500), (58, 27446),

Gene: DaHudson_38 Start: 27896, Stop: 27714, Start Num: 31

Candidate Starts for DaHudson_38:

(Start: 31 @27896 has 181 MA's), (40, 27845), (57, 27743), (58, 27740),

Gene: DaddyRickover_50 Start: 37291, Stop: 37488, Start Num: 31

Candidate Starts for DaddyRickover_50:

(Start: 31 @37291 has 181 MA's), (40, 37342), (41, 37354), (47, 37387), (58, 37453),

Gene: Daenerys_45 Start: 35102, Stop: 35299, Start Num: 31

Candidate Starts for Daenerys_45:

(Start: 31 @35102 has 181 MA's), (40, 35153), (41, 35165), (47, 35198), (58, 35264),

Gene: Daenerys_39 Start: 31164, Stop: 30970, Start Num: 26

Candidate Starts for Daenerys_39:

(Start: 26 @31164 has 27 MA's), (44, 31077), (55, 31017), (58, 30996),

Gene: Dalmatian_38 Start: 28293, Stop: 28123, Start Num: 33

Candidate Starts for Dalmatian_38:

(14, 28374), (Start: 33 @28293 has 86 MA's), (58, 28143),

Gene: Dante_49 Start: 36138, Stop: 36335, Start Num: 31

Candidate Starts for Dante_49:

(Start: 31 @36138 has 181 MA's), (40, 36189), (41, 36201), (47, 36234), (58, 36300),

Gene: Dante_40 Start: 31281, Stop: 31087, Start Num: 26

Candidate Starts for Dante_40:

(Start: 26 @31281 has 27 MA's), (44, 31194), (55, 31134), (58, 31113),

Gene: Dextert_52 Start: 41572, Stop: 41766, Start Num: 27

Candidate Starts for Dextert_52:

(Start: 27 @41572 has 7 MA's), (40, 41638), (43, 41653), (48, 41689), (49, 41692),

Gene: Dieselweasel_38 Start: 27906, Stop: 27724, Start Num: 31

Candidate Starts for Dieselweasel_38:

(Start: 31 @27906 has 181 MA's), (40, 27855), (57, 27753), (58, 27750),

Gene: Dignity_38 Start: 28279, Stop: 28109, Start Num: 33

Candidate Starts for Dignity_38:

(14, 28360), (Start: 33 @28279 has 86 MA's), (40, 28234), (54, 28156), (58, 28129),

Gene: DirtMcgirt_50 Start: 35836, Stop: 36033, Start Num: 31

Candidate Starts for DirtMcgirt_50:

(Start: 31 @35836 has 181 MA's), (40, 35887), (41, 35899), (47, 35932), (58, 35998),

Gene: Doomphist_49 Start: 37373, Stop: 37570, Start Num: 31

Candidate Starts for Doomphist_49:

(Start: 31 @37373 has 181 MA's), (40, 37424), (41, 37436), (47, 37469), (58, 37535),

Gene: Dorothy_47 Start: 36172, Stop: 36369, Start Num: 31

Candidate Starts for Dorothy_47:

(Start: 31 @36172 has 181 MA's), (40, 36223), (41, 36235), (47, 36268), (58, 36334),

Gene: DotProduct_46 Start: 35833, Stop: 36027, Start Num: 31

Candidate Starts for DotProduct_46:

(Start: 31 @35833 has 181 MA's), (40, 35881), (41, 35893), (47, 35926), (58, 35992),

Gene: Doug_52 Start: 37491, Stop: 37688, Start Num: 31

Candidate Starts for Doug_52:

(Start: 31 @37491 has 181 MA's), (40, 37542), (41, 37554), (47, 37587), (58, 37653),

Gene: Drago_49 Start: 35839, Stop: 36036, Start Num: 31

Candidate Starts for Drago_49:

(Start: 31 @35839 has 181 MA's), (40, 35890), (41, 35902), (47, 35935), (58, 36001),

Gene: Drake55_40 Start: 28546, Stop: 28376, Start Num: 33

Candidate Starts for Drake55_40:

(Start: 33 @28546 has 86 MA's), (48, 28450), (54, 28423), (58, 28396),

Gene: DudeLittle_36 Start: 27959, Stop: 27789, Start Num: 33

Candidate Starts for DudeLittle_36:

(14, 28040), (Start: 33 @27959 has 86 MA's), (58, 27809),

Gene: Duplo_39 Start: 27634, Stop: 27464, Start Num: 33

Candidate Starts for Duplo_39:

(Start: 33 @27634 has 86 MA's), (40, 27589), (43, 27574), (48, 27538), (58, 27484),

Gene: Eagle_34 Start: 27346, Stop: 27173, Start Num: 32

Candidate Starts for Eagle_34:

(Start: 32 @27346 has 42 MA's), (40, 27298), (58, 27193),

Gene: EdmundFerry_50 Start: 41346, Stop: 41549, Start Num: 23

Candidate Starts for EdmundFerry_50:

(Start: 23 @41346 has 3 MA's), (Start: 27 @41355 has 7 MA's), (37, 41385), (45, 41445), (46, 41457),

Gene: Eish_50 Start: 36718, Stop: 36915, Start Num: 31

Candidate Starts for Eish_50:

(Start: 31 @36718 has 181 MA's), (40, 36769), (41, 36781), (47, 36814), (58, 36880),

Gene: Eish_41 Start: 31869, Stop: 31675, Start Num: 26
Candidate Starts for Eish_41:
(Start: 26 @31869 has 27 MA's), (44, 31782), (55, 31722), (58, 31701),

Gene: Empress_49 Start: 36516, Stop: 36713, Start Num: 31
Candidate Starts for Empress_49:
(Start: 31 @36516 has 181 MA's), (40, 36567), (41, 36579), (47, 36612), (58, 36678),

Gene: Empress_41 Start: 32577, Stop: 32383, Start Num: 26
Candidate Starts for Empress_41:
(Start: 26 @32577 has 27 MA's), (44, 32490), (55, 32430), (58, 32409),

Gene: EpicPhail_38 Start: 27904, Stop: 27722, Start Num: 31
Candidate Starts for EpicPhail_38:
(Start: 31 @27904 has 181 MA's), (40, 27853), (57, 27751), (58, 27748),

Gene: Equemioh13_39 Start: 28486, Stop: 28316, Start Num: 33
Candidate Starts for Equemioh13_39:
(Start: 33 @28486 has 86 MA's), (48, 28390), (54, 28363), (58, 28336),

Gene: Eradicator_43 Start: 35055, Stop: 35252, Start Num: 31
Candidate Starts for Eradicator_43:
(Start: 31 @35055 has 181 MA's), (40, 35106), (41, 35118), (47, 35151), (58, 35217),

Gene: Eurydice_35 Start: 27321, Stop: 27148, Start Num: 32
Candidate Starts for Eurydice_35:
(Start: 32 @27321 has 42 MA's), (40, 27273), (58, 27168),

Gene: EvilGenius_39 Start: 29648, Stop: 29478, Start Num: 33
Candidate Starts for EvilGenius_39:
(14, 29729), (Start: 33 @29648 has 86 MA's), (40, 29603), (58, 29498),

Gene: Fameo_37 Start: 28087, Stop: 27917, Start Num: 33
Candidate Starts for Fameo_37:
(14, 28168), (Start: 33 @28087 has 86 MA's), (58, 27937),

Gene: Farber_38 Start: 27897, Stop: 27715, Start Num: 31
Candidate Starts for Farber_38:
(Start: 31 @27897 has 181 MA's), (40, 27846), (57, 27744), (58, 27741),

Gene: Fastidio_50 Start: 35796, Stop: 35993, Start Num: 31
Candidate Starts for Fastidio_50:
(11, 35706), (Start: 31 @35796 has 181 MA's), (40, 35847), (41, 35859), (47, 35892), (58, 35958),

Gene: Fernando_38 Start: 27903, Stop: 27721, Start Num: 31
Candidate Starts for Fernando_38:
(Start: 31 @27903 has 181 MA's), (40, 27852), (57, 27750), (58, 27747),

Gene: FiringLine_37 Start: 27891, Stop: 27721, Start Num: 33
Candidate Starts for FiringLine_37:
(Start: 33 @27891 has 86 MA's), (58, 27741),

Gene: Flare16_38 Start: 28158, Stop: 27988, Start Num: 33

Candidate Starts for Flare16_38:
(Start: 33 @28158 has 86 MA's), (48, 28062), (51, 28044), (58, 28008),

Gene: Florinda_62 Start: 38976, Stop: 39173, Start Num: 31
Candidate Starts for Florinda_62:
(4, 38802), (Start: 31 @38976 has 181 MA's), (40, 39027), (41, 39039), (47, 39072), (58, 39138),

Gene: Frankie_53 Start: 37777, Stop: 37974, Start Num: 31
Candidate Starts for Frankie_53:
(Start: 22 @37750 has 2 MA's), (Start: 31 @37777 has 181 MA's), (58, 37939),

Gene: Fred313_35 Start: 27164, Stop: 26985, Start Num: 32
Candidate Starts for Fred313_35:
(Start: 32 @27164 has 42 MA's), (40, 27116), (58, 27011),

Gene: FreddyB_50 Start: 35643, Stop: 35840, Start Num: 31
Candidate Starts for FreddyB_50:
(Start: 31 @35643 has 181 MA's), (40, 35694), (41, 35706), (47, 35739), (58, 35805),

Gene: GTE6_51 Start: 41823, Stop: 42017, Start Num: 27
Candidate Starts for GTE6_51:
(Start: 23 @41814 has 3 MA's), (Start: 27 @41823 has 7 MA's), (37, 41853), (45, 41913), (46, 41925),

Gene: GUmbie_40 Start: 31183, Stop: 30989, Start Num: 26
Candidate Starts for GUmbie_40:
(Start: 26 @31183 has 27 MA's), (44, 31096), (55, 31036), (58, 31015),

Gene: GUmbie_47 Start: 36062, Stop: 36259, Start Num: 31
Candidate Starts for GUmbie_47:
(Start: 31 @36062 has 181 MA's), (40, 36113), (41, 36125), (47, 36158), (58, 36224),

Gene: Gaea_53 Start: 43767, Stop: 43964, Start Num: 27
Candidate Starts for Gaea_53:
(1, 43374), (15, 43716), (Start: 27 @43767 has 7 MA's), (43, 43848), (49, 43887), (59, 43950),

Gene: Gandolph_51 Start: 36305, Stop: 36502, Start Num: 31
Candidate Starts for Gandolph_51:
(Start: 31 @36305 has 181 MA's), (40, 36356), (41, 36368), (47, 36401), (58, 36467),

Gene: GaugeLDP_38 Start: 28708, Stop: 28538, Start Num: 33
Candidate Starts for GaugeLDP_38:
(Start: 33 @28708 has 86 MA's), (47, 28621), (58, 28558),

Gene: Gemma_37 Start: 27728, Stop: 27546, Start Num: 31
Candidate Starts for Gemma_37:
(Start: 31 @27728 has 181 MA's), (40, 27677), (57, 27575), (58, 27572),

Gene: Georgie2_38 Start: 27936, Stop: 27766, Start Num: 33
Candidate Starts for Georgie2_38:
(7, 28050), (Start: 33 @27936 has 86 MA's), (58, 27786),

Gene: GigiOuiOui_47 Start: 35975, Stop: 36172, Start Num: 31
Candidate Starts for GigiOuiOui_47:

(Start: 31 @35975 has 181 MA's), (40, 36026), (41, 36038), (47, 36071), (58, 36137),

Gene: GingkoMaracino_38 Start: 27790, Stop: 27608, Start Num: 31

Candidate Starts for GingkoMaracino_38:

(Start: 31 @27790 has 181 MA's), (40, 27739), (57, 27637), (58, 27634),

Gene: Giroux_35 Start: 27411, Stop: 27232, Start Num: 32

Candidate Starts for Giroux_35:

(Start: 32 @27411 has 42 MA's), (40, 27363), (58, 27258),

Gene: Girr_50 Start: 37034, Stop: 37231, Start Num: 31

Candidate Starts for Girr_50:

(Start: 31 @37034 has 181 MA's), (40, 37085), (41, 37097), (47, 37130), (58, 37196),

Gene: Grif_38 Start: 27978, Stop: 27796, Start Num: 31

Candidate Starts for Grif_38:

(Start: 31 @27978 has 181 MA's), (40, 27927), (57, 27825), (58, 27822),

Gene: Groupthink_38 Start: 27732, Stop: 27550, Start Num: 31

Candidate Starts for Groupthink_38:

(Start: 31 @27732 has 181 MA's), (40, 27681), (57, 27579), (58, 27576),

Gene: Grub_38 Start: 27896, Stop: 27714, Start Num: 31

Candidate Starts for Grub_38:

(Start: 31 @27896 has 181 MA's), (40, 27845), (57, 27743), (58, 27740),

Gene: Grum1_38 Start: 27903, Stop: 27721, Start Num: 31

Candidate Starts for Grum1_38:

(Start: 31 @27903 has 181 MA's), (40, 27852), (57, 27750), (58, 27747),

Gene: GtownJaz_38 Start: 27905, Stop: 27723, Start Num: 31

Candidate Starts for GtownJaz_38:

(Start: 31 @27905 has 181 MA's), (40, 27854), (57, 27752), (58, 27749),

Gene: Hamulus_51 Start: 37417, Stop: 37614, Start Num: 31

Candidate Starts for Hamulus_51:

(Start: 31 @37417 has 181 MA's), (40, 37468), (41, 37480), (47, 37513), (58, 37579),

Gene: Harley_52 Start: 36770, Stop: 36967, Start Num: 31

Candidate Starts for Harley_52:

(Start: 31 @36770 has 181 MA's), (40, 36821), (41, 36833), (47, 36866), (58, 36932),

Gene: HarryHoudini_39 Start: 28432, Stop: 28262, Start Num: 33

Candidate Starts for HarryHoudini_39:

(Start: 33 @28432 has 86 MA's),

Gene: HaveUMetTed_38 Start: 27725, Stop: 27543, Start Num: 31

Candidate Starts for HaveUMetTed_38:

(Start: 31 @27725 has 181 MA's), (40, 27674), (43, 27659), (57, 27572), (58, 27569),

Gene: Heathen_35 Start: 27220, Stop: 27041, Start Num: 32

Candidate Starts for Heathen_35:

(Start: 32 @27220 has 42 MA's), (40, 27172), (58, 27067),

Gene: Heffalump_37 Start: 28819, Stop: 28649, Start Num: 33

Candidate Starts for Heffalump_37:

(14, 28900), (Start: 33 @28819 has 86 MA's), (48, 28723), (58, 28669),

Gene: HelDan_35 Start: 27472, Stop: 27293, Start Num: 32

Candidate Starts for HelDan_35:

(Start: 32 @27472 has 42 MA's), (40, 27424), (58, 27319),

Gene: Heliosoles_37 Start: 27732, Stop: 27550, Start Num: 31

Candidate Starts for Heliosoles_37:

(Start: 31 @27732 has 181 MA's), (40, 27681), (57, 27579), (58, 27576),

Gene: Hercules11_38 Start: 27912, Stop: 27730, Start Num: 31

Candidate Starts for Hercules11_38:

(Start: 31 @27912 has 181 MA's), (40, 27861), (57, 27759), (58, 27756),

Gene: lbOuu_43 Start: 31738, Stop: 31544, Start Num: 26

Candidate Starts for lbOuu_43:

(Start: 26 @31738 has 27 MA's), (44, 31651), (55, 31591), (58, 31570),

Gene: lbOuu_52 Start: 37352, Stop: 37549, Start Num: 31

Candidate Starts for lbOuu_52:

(Start: 31 @37352 has 181 MA's), (40, 37403), (41, 37415), (47, 37448), (58, 37514),

Gene: lbhubesi_49 Start: 35857, Stop: 36054, Start Num: 31

Candidate Starts for lbhubesi_49:

(Start: 31 @35857 has 181 MA's), (40, 35908), (41, 35920), (47, 35953), (58, 36019),

Gene: Idaho_18 Start: 13771, Stop: 13965, Start Num: 30

Candidate Starts for Idaho_18:

(Start: 30 @13771 has 7 MA's), (35, 13786), (52, 13897),

Gene: Idleandcovert_35 Start: 27412, Stop: 27233, Start Num: 32

Candidate Starts for Idleandcovert_35:

(Start: 32 @27412 has 42 MA's), (40, 27364), (58, 27259),

Gene: Inventum_39 Start: 31844, Stop: 31650, Start Num: 26

Candidate Starts for Inventum_39:

(Start: 26 @31844 has 27 MA's), (44, 31757), (55, 31697), (58, 31676),

Gene: IronMan_38 Start: 29131, Stop: 28961, Start Num: 33

Candidate Starts for IronMan_38:

(Start: 33 @29131 has 86 MA's), (40, 29086), (54, 29008), (58, 28981),

Gene: Isca_35 Start: 27181, Stop: 27002, Start Num: 32

Candidate Starts for Isca_35:

(Start: 32 @27181 has 42 MA's), (40, 27133), (58, 27028),

Gene: Iwokeuplikedis_37 Start: 27530, Stop: 27360, Start Num: 33

Candidate Starts for Iwokeuplikedis_37:

(2, 27749), (Start: 26 @27554 has 27 MA's), (Start: 33 @27530 has 86 MA's), (58, 27380),

Gene: JF2_35 Start: 26932, Stop: 26753, Start Num: 32
Candidate Starts for JF2_35:
(Start: 32 @26932 has 42 MA's), (40, 26884), (58, 26779),

Gene: JF4_35 Start: 26932, Stop: 26753, Start Num: 32
Candidate Starts for JF4_35:
(Start: 32 @26932 has 42 MA's), (40, 26884), (58, 26779),

Gene: JHC117_38 Start: 27902, Stop: 27720, Start Num: 31
Candidate Starts for JHC117_38:
(Start: 31 @27902 has 181 MA's), (40, 27851), (57, 27749), (58, 27746),

Gene: Jaan_40 Start: 29710, Stop: 29540, Start Num: 33
Candidate Starts for Jaan_40:
(Start: 33 @29710 has 86 MA's), (40, 29665), (54, 29587), (58, 29560),

Gene: Jabbawokkie_63 Start: 37588, Stop: 37785, Start Num: 31
Candidate Starts for Jabbawokkie_63:
(Start: 31 @37588 has 181 MA's), (39, 37633), (40, 37639), (42, 37654), (43, 37657), (47, 37684), (52, 37711), (58, 37744),

Gene: JalFarm20_59 Start: 39334, Stop: 39531, Start Num: 31
Candidate Starts for JalFarm20_59:
(Start: 31 @39334 has 181 MA's), (40, 39385), (41, 39397), (47, 39430), (58, 39496),

Gene: Jarcob_50 Start: 36763, Stop: 36960, Start Num: 31
Candidate Starts for Jarcob_50:
(Start: 31 @36763 has 181 MA's), (40, 36814), (41, 36826), (47, 36859), (58, 36925),

Gene: JenCasNa_38 Start: 27903, Stop: 27721, Start Num: 31
Candidate Starts for JenCasNa_38:
(Start: 31 @27903 has 181 MA's), (40, 27852), (57, 27750), (58, 27747),

Gene: JeppNRM_38 Start: 27730, Stop: 27548, Start Num: 31
Candidate Starts for JeppNRM_38:
(Start: 31 @27730 has 181 MA's), (40, 27679), (57, 27577), (58, 27574),

Gene: Jerm_38 Start: 28272, Stop: 28102, Start Num: 33
Candidate Starts for Jerm_38:
(14, 28353), (Start: 33 @28272 has 86 MA's), (40, 28227), (54, 28149), (58, 28122),

Gene: Jinglebell_55 Start: 38662, Stop: 38859, Start Num: 31
Candidate Starts for Jinglebell_55:
(Start: 31 @38662 has 181 MA's), (40, 38713), (41, 38725), (47, 38758), (58, 38824),

Gene: Job42_50 Start: 38024, Stop: 38221, Start Num: 31
Candidate Starts for Job42_50:
(Start: 31 @38024 has 181 MA's), (40, 38075), (41, 38087), (47, 38120), (58, 38186),

Gene: Job42_43 Start: 33160, Stop: 32966, Start Num: 26
Candidate Starts for Job42_43:
(Start: 26 @33160 has 27 MA's), (44, 33073), (55, 33013), (58, 32992),

Gene: Jobu08_37 Start: 27733, Stop: 27551, Start Num: 31
Candidate Starts for Jobu08_37:
(Start: 31 @27733 has 181 MA's), (40, 27682), (57, 27580), (58, 27577),

Gene: JoeyJr_46 Start: 35270, Stop: 35467, Start Num: 31
Candidate Starts for JoeyJr_46:
(Start: 31 @35270 has 181 MA's), (40, 35321), (41, 35333), (47, 35366), (58, 35432),

Gene: JoeyJr_40 Start: 31332, Stop: 31138, Start Num: 26
Candidate Starts for JoeyJr_40:
(Start: 26 @31332 has 27 MA's), (44, 31245), (55, 31185), (58, 31164),

Gene: JoshKayV_38 Start: 28235, Stop: 28065, Start Num: 33
Candidate Starts for JoshKayV_38:
(14, 28316), (Start: 33 @28235 has 86 MA's), (58, 28085),

Gene: Journey13_34 Start: 26962, Stop: 26771, Start Num: 26
Candidate Starts for Journey13_34:
(Start: 26 @26962 has 27 MA's), (Start: 33 @26941 has 86 MA's), (57, 26794), (58, 26791),

Gene: Jsquared_36 Start: 26790, Stop: 26620, Start Num: 33
Candidate Starts for Jsquared_36:
(Start: 26 @26811 has 27 MA's), (Start: 33 @26790 has 86 MA's), (57, 26643), (58, 26640),

Gene: Kalb97_38 Start: 27731, Stop: 27549, Start Num: 31
Candidate Starts for Kalb97_38:
(Start: 31 @27731 has 181 MA's), (40, 27680), (57, 27578), (58, 27575),

Gene: Kalnoky_38 Start: 27732, Stop: 27550, Start Num: 31
Candidate Starts for Kalnoky_38:
(Start: 31 @27732 has 181 MA's), (40, 27681), (57, 27579), (58, 27576),

Gene: Kalpine_37 Start: 28631, Stop: 28461, Start Num: 33
Candidate Starts for Kalpine_37:
(Start: 33 @28631 has 86 MA's), (58, 28481),

Gene: Kamy_35 Start: 27323, Stop: 27150, Start Num: 32
Candidate Starts for Kamy_35:
(Start: 32 @27323 has 42 MA's), (40, 27275), (58, 27170),

Gene: Karhdo_49 Start: 36857, Stop: 37054, Start Num: 31
Candidate Starts for Karhdo_49:
(Start: 31 @36857 has 181 MA's), (40, 36908), (41, 36920), (47, 36953), (58, 37019),

Gene: Kerberos_39 Start: 27596, Stop: 27426, Start Num: 33
Candidate Starts for Kerberos_39:
(Start: 33 @27596 has 86 MA's), (40, 27551), (43, 27536), (48, 27500), (58, 27446),

Gene: Kersh_53 Start: 38807, Stop: 39004, Start Num: 31
Candidate Starts for Kersh_53:
(Start: 31 @38807 has 181 MA's), (40, 38858), (41, 38870), (47, 38903), (58, 38969),

Gene: Kimberlium_53 Start: 38669, Stop: 38866, Start Num: 31

Candidate Starts for Kimberlium_53:

(Start: 31 @38669 has 181 MA's), (40, 38720), (41, 38732), (47, 38765), (58, 38831),

Gene: Kimona_32 Start: 25489, Stop: 25322, Start Num: 36

Candidate Starts for Kimona_32:

(Start: 36 @25489 has 1 MA's), (43, 25438), (58, 25348),

Gene: KingCyrus_39 Start: 29643, Stop: 29473, Start Num: 33

Candidate Starts for KingCyrus_39:

(14, 29724), (Start: 33 @29643 has 86 MA's), (40, 29598), (58, 29493),

Gene: KingMidas_50 Start: 36932, Stop: 37129, Start Num: 31

Candidate Starts for KingMidas_50:

(Start: 31 @36932 has 181 MA's), (40, 36983), (41, 36995), (47, 37028), (58, 37094),

Gene: Koduck_36 Start: 26767, Stop: 26597, Start Num: 33

Candidate Starts for Koduck_36:

(Start: 33 @26767 has 86 MA's), (54, 26644),

Gene: Koella_44 Start: 32693, Stop: 32890, Start Num: 31

Candidate Starts for Koella_44:

(Start: 31 @32693 has 181 MA's), (40, 32744), (41, 32756), (47, 32789), (58, 32855),

Gene: Krakatau_48 Start: 36504, Stop: 36701, Start Num: 31

Candidate Starts for Krakatau_48:

(Start: 31 @36504 has 181 MA's), (40, 36555), (41, 36567), (47, 36600), (58, 36666),

Gene: Kwekel_51 Start: 41247, Stop: 41456, Start Num: 27

Candidate Starts for Kwekel_51:

(Start: 27 @41247 has 7 MA's), (37, 41280), (44, 41337), (46, 41352), (48, 41364), (53, 41391),

Gene: L5_36 Start: 26727, Stop: 26557, Start Num: 33

Candidate Starts for L5_36:

(Start: 33 @26727 has 86 MA's), (54, 26604), (58, 26577),

Gene: LBerry_38 Start: 27904, Stop: 27722, Start Num: 31

Candidate Starts for LBerry_38:

(Start: 31 @27904 has 181 MA's), (40, 27853), (57, 27751), (58, 27748),

Gene: LHTSCC_36 Start: 27659, Stop: 27486, Start Num: 32

Candidate Starts for LHTSCC_36:

(Start: 32 @27659 has 42 MA's), (40, 27611), (58, 27506),

Gene: Landor_38 Start: 29245, Stop: 29075, Start Num: 33

Candidate Starts for Landor_38:

(Start: 33 @29245 has 86 MA's), (40, 29200), (58, 29095),

Gene: Larenn_38 Start: 28329, Stop: 28159, Start Num: 33

Candidate Starts for Larenn_38:

(Start: 33 @28329 has 86 MA's), (40, 28284), (48, 28233), (54, 28206), (58, 28179),

Gene: Latretium_53 Start: 37646, Stop: 37843, Start Num: 31

Candidate Starts for Latretium_53:

(Start: 31 @37646 has 181 MA's), (40, 37697), (47, 37742), (58, 37808),

Gene: LeoAvram_35 Start: 27321, Stop: 27148, Start Num: 32

Candidate Starts for LeoAvram_35:

(Start: 32 @27321 has 42 MA's), (40, 27273), (58, 27168),

Gene: Leogania_37 Start: 29148, Stop: 28978, Start Num: 33

Candidate Starts for Leogania_37:

(Start: 33 @29148 has 86 MA's), (58, 28998),

Gene: Leozinho_42 Start: 31585, Stop: 31391, Start Num: 26

Candidate Starts for Leozinho_42:

(Start: 26 @31585 has 27 MA's), (44, 31498), (55, 31438), (58, 31417),

Gene: Leozinho_51 Start: 36607, Stop: 36804, Start Num: 31

Candidate Starts for Leozinho_51:

(Start: 31 @36607 has 181 MA's), (40, 36658), (41, 36670), (47, 36703), (58, 36769),

Gene: Leperchaun_43 Start: 34500, Stop: 34697, Start Num: 31

Candidate Starts for Leperchaun_43:

(Start: 31 @34500 has 181 MA's), (40, 34551), (41, 34563), (47, 34596), (58, 34662),

Gene: Leviathan_38 Start: 28328, Stop: 28158, Start Num: 33

Candidate Starts for Leviathan_38:

(14, 28409), (Start: 33 @28328 has 86 MA's), (40, 28283), (54, 28205), (58, 28178),

Gene: LilMoolah_49 Start: 36424, Stop: 36621, Start Num: 31

Candidate Starts for LilMoolah_49:

(Start: 31 @36424 has 181 MA's), (40, 36475), (41, 36487), (47, 36520), (58, 36586),

Gene: LilTurb_37 Start: 28161, Stop: 27991, Start Num: 33

Candidate Starts for LilTurb_37:

(14, 28242), (Start: 33 @28161 has 86 MA's), (40, 28116), (54, 28038), (58, 28011),

Gene: Lilit_38 Start: 27897, Stop: 27715, Start Num: 31

Candidate Starts for Lilit_38:

(Start: 31 @27897 has 181 MA's), (40, 27846), (57, 27744), (58, 27741),

Gene: LittleShirley_50 Start: 37455, Stop: 37652, Start Num: 31

Candidate Starts for LittleShirley_50:

(Start: 31 @37455 has 181 MA's), (40, 37506), (41, 37518), (47, 37551), (58, 37617),

Gene: Lizziana_56 Start: 37766, Stop: 37963, Start Num: 31

Candidate Starts for Lizziana_56:

(Start: 31 @37766 has 181 MA's), (40, 37817), (41, 37829), (47, 37862), (58, 37928),

Gene: Llama_55 Start: 38660, Stop: 38857, Start Num: 31

Candidate Starts for Llama_55:

(Start: 31 @38660 has 181 MA's), (40, 38711), (41, 38723), (47, 38756), (58, 38822),

Gene: Llij_47 Start: 35993, Stop: 36190, Start Num: 31

Candidate Starts for Llij_47:

(Start: 31 @35993 has 181 MA's), (40, 36044), (41, 36056), (47, 36089), (58, 36155),

Gene: LugYA_40 Start: 27904, Stop: 27722, Start Num: 31
Candidate Starts for LugYA_40:
(Start: 31 @27904 has 181 MA's), (40, 27853), (57, 27751), (58, 27748),

Gene: MA5_35 Start: 27064, Stop: 26885, Start Num: 32
Candidate Starts for MA5_35:
(Start: 32 @27064 has 42 MA's), (40, 27016), (58, 26911),

Gene: MK4_35 Start: 27166, Stop: 26987, Start Num: 32
Candidate Starts for MK4_35:
(Start: 32 @27166 has 42 MA's), (40, 27118), (58, 27013),

Gene: MadMarie_38 Start: 27906, Stop: 27724, Start Num: 31
Candidate Starts for MadMarie_38:
(Start: 31 @27906 has 181 MA's), (40, 27855), (57, 27753), (58, 27750),

Gene: MadMen_44 Start: 35477, Stop: 35674, Start Num: 31
Candidate Starts for MadMen_44:
(Start: 31 @35477 has 181 MA's), (40, 35528), (41, 35540), (47, 35573), (58, 35639),

Gene: Madiba_46 Start: 34766, Stop: 34963, Start Num: 31
Candidate Starts for Madiba_46:
(Start: 31 @34766 has 181 MA's), (40, 34817), (41, 34829), (47, 34862), (58, 34928),

Gene: Mahavrat_48 Start: 35954, Stop: 36151, Start Num: 31
Candidate Starts for Mahavrat_48:
(Start: 31 @35954 has 181 MA's), (40, 36005), (41, 36017), (47, 36050), (58, 36116),

Gene: Mainiac_38 Start: 27897, Stop: 27715, Start Num: 31
Candidate Starts for Mainiac_38:
(Start: 31 @27897 has 181 MA's), (40, 27846), (57, 27744), (58, 27741),

Gene: Malec_39 Start: 28893, Stop: 28723, Start Num: 33
Candidate Starts for Malec_39:
(Start: 33 @28893 has 86 MA's), (58, 28743),

Gene: Malinsilva_40 Start: 27896, Stop: 27714, Start Num: 31
Candidate Starts for Malinsilva_40:
(Start: 31 @27896 has 181 MA's), (40, 27845), (57, 27743), (58, 27740),

Gene: Mantra_47 Start: 35945, Stop: 36142, Start Num: 31
Candidate Starts for Mantra_47:
(Start: 31 @35945 has 181 MA's), (40, 35996), (41, 36008), (47, 36041), (58, 36107),

Gene: Manu_38 Start: 27732, Stop: 27550, Start Num: 31
Candidate Starts for Manu_38:
(Start: 31 @27732 has 181 MA's), (40, 27681), (57, 27579), (58, 27576),

Gene: MarQuardt_38 Start: 27905, Stop: 27723, Start Num: 31
Candidate Starts for MarQuardt_38:
(Start: 31 @27905 has 181 MA's), (40, 27854), (57, 27752), (58, 27749),

Gene: Maravista_52 Start: 38428, Stop: 38625, Start Num: 31
Candidate Starts for Maravista_52:
(Start: 31 @38428 has 181 MA's), (40, 38479), (41, 38491), (47, 38524), (58, 38590),

Gene: Marie_38 Start: 27903, Stop: 27721, Start Num: 31
Candidate Starts for Marie_38:
(Start: 31 @27903 has 181 MA's), (40, 27852), (57, 27750), (58, 27747),

Gene: Marius_38 Start: 27732, Stop: 27550, Start Num: 31
Candidate Starts for Marius_38:
(Start: 31 @27732 has 181 MA's), (40, 27681), (57, 27579), (58, 27576),

Gene: Marker_50 Start: 36326, Stop: 36523, Start Num: 31
Candidate Starts for Marker_50:
(Start: 31 @36326 has 181 MA's), (40, 36377), (41, 36389), (47, 36422), (58, 36488),

Gene: Martik_50 Start: 36719, Stop: 36916, Start Num: 31
Candidate Starts for Martik_50:
(Start: 31 @36719 has 181 MA's), (40, 36770), (41, 36782), (47, 36815), (58, 36881),

Gene: Mask_83 Start: 58809, Stop: 59012, Start Num: 28
Candidate Starts for Mask_83:
(10, 58722), (Start: 28 @58809 has 1 MA's), (57, 58974),

Gene: Maxo_35 Start: 27323, Stop: 27150, Start Num: 32
Candidate Starts for Maxo_35:
(Start: 32 @27323 has 42 MA's), (40, 27275), (58, 27170),

Gene: Medusa_35 Start: 27323, Stop: 27150, Start Num: 32
Candidate Starts for Medusa_35:
(Start: 32 @27323 has 42 MA's), (40, 27275), (58, 27170),

Gene: Melvin_36 Start: 27322, Stop: 27149, Start Num: 32
Candidate Starts for Melvin_36:
(Start: 32 @27322 has 42 MA's), (40, 27274), (58, 27169),

Gene: Microwolf_38 Start: 27905, Stop: 27723, Start Num: 31
Candidate Starts for Microwolf_38:
(Start: 31 @27905 has 181 MA's), (40, 27854), (57, 27752), (58, 27749),

Gene: MiculUcigas_38 Start: 28157, Stop: 27987, Start Num: 33
Candidate Starts for MiculUcigas_38:
(Start: 33 @28157 has 86 MA's), (48, 28061), (51, 28043), (58, 28007),

Gene: Misha28_46 Start: 34969, Stop: 35193, Start Num: 22
Candidate Starts for Misha28_46:
(13, 34912), (Start: 22 @34969 has 2 MA's), (Start: 31 @34996 has 181 MA's), (58, 35158),

Gene: MissWhite_34 Start: 26128, Stop: 25958, Start Num: 33
Candidate Starts for MissWhite_34:
(29, 26140), (Start: 33 @26128 has 86 MA's), (58, 25978),

Gene: MisterCuddles_50 Start: 37034, Stop: 37231, Start Num: 31

Candidate Starts for MisterCuddles_50:

(Start: 31 @37034 has 181 MA's), (40, 37085), (41, 37097), (47, 37130), (58, 37196),

Gene: Modragons_54 Start: 38506, Stop: 38703, Start Num: 31

Candidate Starts for Modragons_54:

(Start: 31 @38506 has 181 MA's), (40, 38557), (41, 38569), (47, 38602), (58, 38668),

Gene: MoneyMay_38 Start: 27903, Stop: 27721, Start Num: 31

Candidate Starts for MoneyMay_38:

(Start: 31 @27903 has 181 MA's), (40, 27852), (57, 27750), (58, 27747),

Gene: Morrow_35 Start: 27327, Stop: 27154, Start Num: 32

Candidate Starts for Morrow_35:

(Start: 32 @27327 has 42 MA's), (40, 27279), (58, 27174),

Gene: MuchMore_40 Start: 27896, Stop: 27714, Start Num: 31

Candidate Starts for MuchMore_40:

(Start: 31 @27896 has 181 MA's), (40, 27845), (57, 27743), (58, 27740),

Gene: MulchSalad_47 Start: 33570, Stop: 33767, Start Num: 31

Candidate Starts for MulchSalad_47:

(8, 33471), (9, 33474), (Start: 22 @33543 has 2 MA's), (Start: 31 @33570 has 181 MA's), (58, 33732),

Gene: NaSiaTalie_38 Start: 28155, Stop: 27985, Start Num: 33

Candidate Starts for NaSiaTalie_38:

(Start: 33 @28155 has 86 MA's), (48, 28059), (51, 28041), (58, 28005),

Gene: Naji_39 Start: 27596, Stop: 27426, Start Num: 33

Candidate Starts for Naji_39:

(Start: 33 @27596 has 86 MA's), (40, 27551), (43, 27536), (48, 27500), (58, 27446),

Gene: Natkenzie_55 Start: 45502, Stop: 45702, Start Num: 30

Candidate Starts for Natkenzie_55:

(Start: 30 @45502 has 7 MA's), (44, 45580), (53, 45634),

Gene: Nebs_35 Start: 27321, Stop: 27148, Start Num: 32

Candidate Starts for Nebs_35:

(Start: 32 @27321 has 42 MA's), (40, 27273), (58, 27168),

Gene: NicoleTera_39 Start: 28870, Stop: 28700, Start Num: 33

Candidate Starts for NicoleTera_39:

(Start: 33 @28870 has 86 MA's), (48, 28774), (58, 28720),

Gene: Nimbo_45 Start: 35073, Stop: 35270, Start Num: 31

Candidate Starts for Nimbo_45:

(Start: 31 @35073 has 181 MA's), (40, 35124), (41, 35136), (47, 35169), (58, 35235),

Gene: Nitzel_45 Start: 35193, Stop: 35390, Start Num: 31

Candidate Starts for Nitzel_45:

(Start: 31 @35193 has 181 MA's), (40, 35244), (41, 35256), (47, 35289), (58, 35355),

Gene: Nivrat_47 Start: 36297, Stop: 36494, Start Num: 31

Candidate Starts for Nivrat_47:

(Start: 31 @36297 has 181 MA's), (40, 36348), (41, 36360), (47, 36393), (58, 36459),

Gene: Noely_18 Start: 12900, Stop: 13088, Start Num: 30

Candidate Starts for Noely_18:

(Start: 30 @12900 has 7 MA's), (40, 12954), (43, 12969), (45, 12981), (52, 13026),

Gene: NormanBulbieJr_50 Start: 36706, Stop: 36903, Start Num: 31

Candidate Starts for NormanBulbieJr_50:

(Start: 31 @36706 has 181 MA's), (40, 36757), (41, 36769), (47, 36802), (58, 36868),

Gene: NothingSpecial_38 Start: 29153, Stop: 28983, Start Num: 33

Candidate Starts for NothingSpecial_38:

(12, 29249), (17, 29201), (Start: 33 @29153 has 86 MA's), (40, 29108), (43, 29093), (47, 29066), (58, 29003),

Gene: Obama12_36 Start: 27661, Stop: 27488, Start Num: 32

Candidate Starts for Obama12_36:

(Start: 32 @27661 has 42 MA's), (40, 27613), (58, 27508),

Gene: Ochi17_53 Start: 38113, Stop: 38310, Start Num: 31

Candidate Starts for Ochi17_53:

(Start: 31 @38113 has 181 MA's), (40, 38164), (41, 38176), (47, 38209), (58, 38275),

Gene: Odin_36 Start: 26579, Stop: 26409, Start Num: 33

Candidate Starts for Odin_36:

(Start: 33 @26579 has 86 MA's), (54, 26456), (58, 26429),

Gene: OfUltron_55 Start: 38662, Stop: 38859, Start Num: 31

Candidate Starts for OfUltron_55:

(Start: 31 @38662 has 181 MA's), (40, 38713), (41, 38725), (47, 38758), (58, 38824),

Gene: Ogopogo_43 Start: 31095, Stop: 30901, Start Num: 26

Candidate Starts for Ogopogo_43:

(Start: 26 @31095 has 27 MA's), (44, 31008), (55, 30948), (58, 30927),

Gene: Ohfah_35 Start: 27321, Stop: 27148, Start Num: 32

Candidate Starts for Ohfah_35:

(Start: 32 @27321 has 42 MA's), (40, 27273), (58, 27168),

Gene: Oksu_54 Start: 38558, Stop: 38755, Start Num: 31

Candidate Starts for Oksu_54:

(Start: 31 @38558 has 181 MA's), (40, 38609), (41, 38621), (47, 38654), (58, 38720),

Gene: OlanP_37 Start: 27913, Stop: 27731, Start Num: 31

Candidate Starts for OlanP_37:

(Start: 31 @27913 has 181 MA's), (40, 27862), (43, 27847), (57, 27760), (58, 27757),

Gene: Ollie_38 Start: 27775, Stop: 27593, Start Num: 31

Candidate Starts for Ollie_38:

(Start: 31 @27775 has 181 MA's), (40, 27724), (57, 27622), (58, 27619),

Gene: OlympiaSaint_40 Start: 31613, Stop: 31419, Start Num: 26

Candidate Starts for OlympiaSaint_40:

(Start: 26 @31613 has 27 MA's), (44, 31526), (55, 31466), (58, 31445),

Gene: OlympiaSaint_50 Start: 36632, Stop: 36829, Start Num: 31

Candidate Starts for OlympiaSaint_50:

(Start: 31 @36632 has 181 MA's), (40, 36683), (41, 36695), (47, 36728), (58, 36794),

Gene: OwlsT2W_49 Start: 36635, Stop: 36832, Start Num: 31

Candidate Starts for OwlsT2W_49:

(Start: 31 @36635 has 181 MA's), (40, 36686), (41, 36698), (47, 36731), (58, 36797),

Gene: OwlsT2W_40 Start: 31588, Stop: 31394, Start Num: 26

Candidate Starts for OwlsT2W_40:

(Start: 26 @31588 has 27 MA's), (44, 31501), (55, 31441), (58, 31420),

Gene: P28Green_38 Start: 27906, Stop: 27724, Start Num: 31

Candidate Starts for P28Green_38:

(Start: 31 @27906 has 181 MA's), (40, 27855), (57, 27753), (58, 27750),

Gene: PGHhamlin_40 Start: 27896, Stop: 27714, Start Num: 31

Candidate Starts for PGHhamlin_40:

(Start: 31 @27896 has 181 MA's), (40, 27845), (57, 27743), (58, 27740),

Gene: PHappiness_46 Start: 35046, Stop: 35243, Start Num: 31

Candidate Starts for PHappiness_46:

(Start: 31 @35046 has 181 MA's), (40, 35097), (41, 35109), (47, 35142), (58, 35208),

Gene: PMC_44 Start: 35844, Stop: 36041, Start Num: 31

Candidate Starts for PMC_44:

(Start: 31 @35844 has 181 MA's), (40, 35895), (41, 35907), (47, 35940), (58, 36006),

Gene: Pacc40_45 Start: 35120, Stop: 35317, Start Num: 31

Candidate Starts for Pacc40_45:

(Start: 31 @35120 has 181 MA's), (40, 35171), (41, 35183), (47, 35216), (58, 35282),

Gene: Pawn_38 Start: 27733, Stop: 27551, Start Num: 31

Candidate Starts for Pawn_38:

(Start: 31 @27733 has 181 MA's), (40, 27682), (57, 27580), (58, 27577),

Gene: Pembroke_38 Start: 27905, Stop: 27723, Start Num: 31

Candidate Starts for Pembroke_38:

(Start: 31 @27905 has 181 MA's), (40, 27854), (57, 27752), (58, 27749),

Gene: Penny1_38 Start: 27904, Stop: 27722, Start Num: 31

Candidate Starts for Penny1_38:

(Start: 31 @27904 has 181 MA's), (40, 27853), (57, 27751), (58, 27748),

Gene: Ph8s_38 Start: 26829, Stop: 26659, Start Num: 33

Candidate Starts for Ph8s_38:

(19, 26871), (Start: 33 @26829 has 86 MA's), (54, 26706), (58, 26679),

Gene: Phaded_41 Start: 29586, Stop: 29416, Start Num: 33

Candidate Starts for Phaded_41:

(Start: 33 @29586 has 86 MA's), (58, 29436),

Gene: Phantastic_35 Start: 27197, Stop: 27018, Start Num: 32

Candidate Starts for Phantastic_35:

(Start: 32 @27197 has 42 MA's), (40, 27149), (58, 27044),

Gene: Pharaoh_35 Start: 28307, Stop: 28137, Start Num: 33

Candidate Starts for Pharaoh_35:

(Start: 33 @28307 has 86 MA's), (48, 28211), (58, 28157),

Gene: Phatniss_49 Start: 37088, Stop: 37285, Start Num: 31

Candidate Starts for Phatniss_49:

(Start: 31 @37088 has 181 MA's), (40, 37139), (41, 37151), (47, 37184), (58, 37250),

Gene: Phelipe_35 Start: 27324, Stop: 27151, Start Num: 32

Candidate Starts for Phelipe_35:

(Start: 32 @27324 has 42 MA's), (40, 27276), (58, 27171),

Gene: PhishRPhriends_36 Start: 26910, Stop: 26728, Start Num: 31

Candidate Starts for PhishRPhriends_36:

(Start: 31 @26910 has 181 MA's), (40, 26859), (57, 26757), (58, 26754),

Gene: Phoebe_38 Start: 27896, Stop: 27714, Start Num: 31

Candidate Starts for Phoebe_38:

(Start: 31 @27896 has 181 MA's), (40, 27845), (57, 27743), (58, 27740),

Gene: Phranny_38 Start: 27718, Stop: 27536, Start Num: 31

Candidate Starts for Phranny_38:

(Start: 31 @27718 has 181 MA's), (40, 27667), (57, 27565), (58, 27562),

Gene: Piku_17 Start: 12712, Stop: 12912, Start Num: 34

Candidate Starts for Piku_17:

(34, 12712), (Start: 38 @12727 has 2 MA's), (60, 12898),

Gene: Piper2020_48 Start: 35712, Stop: 35909, Start Num: 31

Candidate Starts for Piper2020_48:

(13, 35628), (Start: 22 @35685 has 2 MA's), (Start: 31 @35712 has 181 MA's), (58, 35874),

Gene: Piro94_37 Start: 28335, Stop: 28165, Start Num: 33

Candidate Starts for Piro94_37:

(Start: 33 @28335 has 86 MA's), (43, 28275), (48, 28239), (58, 28185),

Gene: Pistachio_36 Start: 26959, Stop: 26780, Start Num: 32

Candidate Starts for Pistachio_36:

(Start: 32 @26959 has 42 MA's), (40, 26911), (58, 26806),

Gene: Plumbus_52 Start: 36835, Stop: 37032, Start Num: 31

Candidate Starts for Plumbus_52:

(Start: 31 @36835 has 181 MA's), (40, 36886), (41, 36898), (47, 36931), (58, 36997),

Gene: Poenanya_49 Start: 37373, Stop: 37570, Start Num: 31

Candidate Starts for Poenanya_49:

(Start: 31 @37373 has 181 MA's), (40, 37424), (41, 37436), (47, 37469), (58, 37535),

Gene: Polka14_41 Start: 31785, Stop: 31591, Start Num: 26
Candidate Starts for Polka14_41:
(Start: 26 @31785 has 27 MA's), (44, 31698), (55, 31638), (58, 31617),

Gene: Polka14_47 Start: 35723, Stop: 35920, Start Num: 31
Candidate Starts for Polka14_47:
(Start: 31 @35723 has 181 MA's), (40, 35774), (41, 35786), (47, 35819), (58, 35885),

Gene: Pollywog_41 Start: 31707, Stop: 31513, Start Num: 26
Candidate Starts for Pollywog_41:
(Start: 26 @31707 has 27 MA's), (44, 31620), (55, 31560), (58, 31539),

Gene: Pollywog_48 Start: 36551, Stop: 36748, Start Num: 31
Candidate Starts for Pollywog_48:
(Start: 31 @36551 has 181 MA's), (41, 36614), (47, 36647), (58, 36713),

Gene: Polymorphads_35 Start: 27320, Stop: 27147, Start Num: 32
Candidate Starts for Polymorphads_35:
(Start: 32 @27320 has 42 MA's), (40, 27272), (58, 27167),

Gene: Pomar16_39 Start: 27637, Stop: 27467, Start Num: 33
Candidate Starts for Pomar16_39:
(Start: 33 @27637 has 86 MA's), (40, 27592), (43, 27577), (48, 27541), (58, 27487),

Gene: PopTart_45 Start: 35859, Stop: 36056, Start Num: 31
Candidate Starts for PopTart_45:
(Start: 31 @35859 has 181 MA's), (40, 35910), (41, 35922), (47, 35955), (58, 36021),

Gene: PotatoSplit_39 Start: 27904, Stop: 27722, Start Num: 31
Candidate Starts for PotatoSplit_39:
(Start: 31 @27904 has 181 MA's), (40, 27853), (57, 27751), (58, 27748),

Gene: Power_36 Start: 27944, Stop: 27774, Start Num: 33
Candidate Starts for Power_36:
(Start: 33 @27944 has 86 MA's), (58, 27794),

Gene: Priscilla_50 Start: 36805, Stop: 37002, Start Num: 31
Candidate Starts for Priscilla_50:
(Start: 31 @36805 has 181 MA's), (40, 36856), (41, 36868), (47, 36901), (58, 36967),

Gene: Pukovnik_37 Start: 28796, Stop: 28626, Start Num: 33
Candidate Starts for Pukovnik_37:
(Start: 33 @28796 has 86 MA's), (40, 28751), (58, 28646),

Gene: Puppy_36 Start: 27029, Stop: 26850, Start Num: 32
Candidate Starts for Puppy_36:
(Start: 32 @27029 has 42 MA's), (40, 26981), (58, 26876),

Gene: PurpleHaze_37 Start: 27731, Stop: 27549, Start Num: 31
Candidate Starts for PurpleHaze_37:
(Start: 31 @27731 has 181 MA's), (40, 27680), (57, 27578), (58, 27575),

Gene: QueenB2_37 Start: 28005, Stop: 27835, Start Num: 33

Candidate Starts for QueenB2_37:
(14, 28086), (Start: 33 @28005 has 86 MA's), (58, 27855),

Gene: QueenBeesly_37 Start: 27891, Stop: 27721, Start Num: 33
Candidate Starts for QueenBeesly_37:
(Start: 33 @27891 has 86 MA's), (58, 27741),

Gene: QuickMath_52 Start: 38892, Stop: 39089, Start Num: 31
Candidate Starts for QuickMath_52:
(Start: 31 @38892 has 181 MA's), (40, 38943), (41, 38955), (47, 38988), (58, 39054),

Gene: Quico_59 Start: 38796, Stop: 38993, Start Num: 31
Candidate Starts for Quico_59:
(4, 38622), (Start: 31 @38796 has 181 MA's), (40, 38847), (41, 38859), (47, 38892), (58, 38958),

Gene: Radiance_50 Start: 36960, Stop: 37157, Start Num: 31
Candidate Starts for Radiance_50:
(Start: 31 @36960 has 181 MA's), (40, 37011), (41, 37023), (47, 37056), (58, 37122),

Gene: Radiance_41 Start: 31335, Stop: 31141, Start Num: 26
Candidate Starts for Radiance_41:
(Start: 26 @31335 has 27 MA's), (44, 31248), (55, 31188), (58, 31167),

Gene: Ramsey_51 Start: 37587, Stop: 37784, Start Num: 31
Candidate Starts for Ramsey_51:
(Start: 31 @37587 has 181 MA's), (40, 37638), (41, 37650), (47, 37683), (58, 37749),

Gene: Reba_38 Start: 27391, Stop: 27209, Start Num: 31
Candidate Starts for Reba_38:
(Start: 31 @27391 has 181 MA's), (40, 27340), (57, 27238), (58, 27235),

Gene: RedBird_47 Start: 36184, Stop: 36381, Start Num: 31
Candidate Starts for RedBird_47:
(Start: 31 @36184 has 181 MA's), (40, 36235), (41, 36247), (47, 36280), (58, 36346),

Gene: Retro23_38 Start: 28289, Stop: 28119, Start Num: 33
Candidate Starts for Retro23_38:
(14, 28370), (Start: 33 @28289 has 86 MA's), (58, 28139),

Gene: RitaG_46 Start: 35391, Stop: 35588, Start Num: 31
Candidate Starts for RitaG_46:
(Start: 31 @35391 has 181 MA's), (40, 35442), (41, 35454), (47, 35487), (58, 35553),

Gene: RoadKill_49 Start: 40844, Stop: 41047, Start Num: 23
Candidate Starts for RoadKill_49:
(Start: 23 @40844 has 3 MA's), (Start: 27 @40853 has 7 MA's), (37, 40883), (45, 40943), (46, 40955),

Gene: Rockne_48 Start: 35844, Stop: 36041, Start Num: 31
Candidate Starts for Rockne_48:
(Start: 31 @35844 has 181 MA's), (40, 35895), (41, 35907), (47, 35940), (58, 36006),

Gene: Rockstar_35 Start: 27173, Stop: 26994, Start Num: 32
Candidate Starts for Rockstar_35:

(Start: 32 @27173 has 42 MA's), (40, 27125), (58, 27020),

Gene: RockyHorror_50 Start: 36248, Stop: 36445, Start Num: 31

Candidate Starts for RockyHorror_50:

(Start: 31 @36248 has 181 MA's), (41, 36311), (47, 36344), (58, 36410),

Gene: Royals2015_42 Start: 31621, Stop: 31427, Start Num: 26

Candidate Starts for Royals2015_42:

(Start: 26 @31621 has 27 MA's), (44, 31534), (55, 31474), (58, 31453),

Gene: Royals2015_52 Start: 36653, Stop: 36850, Start Num: 31

Candidate Starts for Royals2015_52:

(Start: 31 @36653 has 181 MA's), (40, 36704), (41, 36716), (47, 36749), (58, 36815),

Gene: Ruby_48 Start: 37035, Stop: 37232, Start Num: 31

Candidate Starts for Ruby_48:

(Start: 31 @37035 has 181 MA's), (40, 37086), (41, 37098), (47, 37131), (58, 37197),

Gene: Sabbb_56 Start: 38083, Stop: 38280, Start Num: 31

Candidate Starts for Sabbb_56:

(Start: 31 @38083 has 181 MA's), (40, 38134), (41, 38146), (47, 38179), (58, 38245),

Gene: Sabia_38 Start: 27897, Stop: 27715, Start Num: 31

Candidate Starts for Sabia_38:

(Start: 31 @27897 has 181 MA's), (40, 27846), (57, 27744), (58, 27741),

Gene: Sabinator_37 Start: 27902, Stop: 27720, Start Num: 31

Candidate Starts for Sabinator_37:

(Start: 31 @27902 has 181 MA's), (40, 27851), (57, 27749), (58, 27746),

Gene: Sampson_55 Start: 45447, Stop: 45647, Start Num: 30

Candidate Starts for Sampson_55:

(Start: 30 @45447 has 7 MA's), (44, 45525), (53, 45579),

Gene: Sandalphon_44 Start: 32523, Stop: 32329, Start Num: 26

Candidate Starts for Sandalphon_44:

(Start: 26 @32523 has 27 MA's), (44, 32436), (55, 32376), (58, 32355),

Gene: Sassafras_41 Start: 31844, Stop: 31650, Start Num: 26

Candidate Starts for Sassafras_41:

(Start: 26 @31844 has 27 MA's), (44, 31757), (55, 31697), (58, 31676),

Gene: SassyB_45 Start: 35859, Stop: 36056, Start Num: 31

Candidate Starts for SassyB_45:

(Start: 31 @35859 has 181 MA's), (40, 35910), (41, 35922), (47, 35955), (58, 36021),

Gene: SaturnRing_35 Start: 27412, Stop: 27233, Start Num: 32

Candidate Starts for SaturnRing_35:

(Start: 32 @27412 has 42 MA's), (40, 27364), (58, 27259),

Gene: Scioto_56 Start: 45503, Stop: 45703, Start Num: 30

Candidate Starts for Scioto_56:

(Start: 30 @45503 has 7 MA's), (44, 45581), (53, 45635),

Gene: Scottish_41 Start: 32465, Stop: 32271, Start Num: 26
Candidate Starts for Scottish_41:
(Start: 26 @32465 has 27 MA's), (44, 32378), (55, 32318), (58, 32297),

Gene: Scottish_49 Start: 36403, Stop: 36600, Start Num: 31
Candidate Starts for Scottish_49:
(Start: 31 @36403 has 181 MA's), (40, 36454), (41, 36466), (47, 36499), (58, 36565),

Gene: Scout_35 Start: 26719, Stop: 26540, Start Num: 32
Candidate Starts for Scout_35:
(Start: 32 @26719 has 42 MA's), (40, 26671), (58, 26566),

Gene: Seabastian_55 Start: 38663, Stop: 38860, Start Num: 31
Candidate Starts for Seabastian_55:
(Start: 31 @38663 has 181 MA's), (40, 38714), (41, 38726), (47, 38759), (58, 38825),

Gene: Seagreen_51 Start: 36587, Stop: 36784, Start Num: 31
Candidate Starts for Seagreen_51:
(Start: 31 @36587 has 181 MA's), (40, 36638), (41, 36650), (47, 36683), (58, 36749),

Gene: Sejanus_84 Start: 57638, Stop: 57847, Start Num: 20
Candidate Starts for Sejanus_84:
(6, 57539), (10, 57578), (Start: 20 @57638 has 1 MA's), (57, 57815),

Gene: SemperFi_38 Start: 28159, Stop: 27989, Start Num: 33
Candidate Starts for SemperFi_38:
(Start: 33 @28159 has 86 MA's), (58, 28009),

Gene: Serenity_37 Start: 26863, Stop: 26672, Start Num: 26
Candidate Starts for Serenity_37:
(5, 26986), (Start: 26 @26863 has 27 MA's), (Start: 33 @26842 has 86 MA's), (57, 26695), (58, 26692),

Gene: Shambre1_51 Start: 32314, Stop: 32526, Start Num: 25
Candidate Starts for Shambre1_51:
(Start: 25 @32314 has 2 MA's),

Gene: SheldonCooper_36 Start: 27660, Stop: 27487, Start Num: 32
Candidate Starts for SheldonCooper_36:
(Start: 32 @27660 has 42 MA's), (40, 27612), (58, 27507),

Gene: ShiLan_49 Start: 36752, Stop: 36949, Start Num: 31
Candidate Starts for ShiLan_49:
(Start: 31 @36752 has 181 MA's), (40, 36803), (41, 36815), (47, 36848), (58, 36914),

Gene: ShowerHandel_52 Start: 36719, Stop: 36916, Start Num: 31
Candidate Starts for ShowerHandel_52:
(Start: 31 @36719 has 181 MA's), (40, 36770), (41, 36782), (47, 36815), (58, 36881),

Gene: SiSi_49 Start: 36409, Stop: 36606, Start Num: 31
Candidate Starts for SiSi_49:
(Start: 31 @36409 has 181 MA's), (40, 36460), (41, 36472), (47, 36505), (58, 36571),

Gene: Smeagan_39 Start: 28415, Stop: 28245, Start Num: 33
Candidate Starts for Smeagan_39:
(14, 28496), (Start: 33 @28415 has 86 MA's), (40, 28370), (54, 28292), (58, 28265),

Gene: SnapTap_37 Start: 27970, Stop: 27800, Start Num: 33
Candidate Starts for SnapTap_37:
(Start: 33 @27970 has 86 MA's), (58, 27820),

Gene: Snickers_38 Start: 27877, Stop: 27695, Start Num: 31
Candidate Starts for Snickers_38:
(Start: 31 @27877 has 181 MA's), (40, 27826), (57, 27724), (58, 27721),

Gene: SoYo_38 Start: 27815, Stop: 27633, Start Num: 31
Candidate Starts for SoYo_38:
(Start: 31 @27815 has 181 MA's), (40, 27764), (57, 27662), (58, 27659),

Gene: SoilDragon_37 Start: 27349, Stop: 27167, Start Num: 31
Candidate Starts for SoilDragon_37:
(Start: 31 @27349 has 181 MA's), (40, 27298), (57, 27196), (58, 27193),

Gene: Sparkdehlily_54 Start: 37405, Stop: 37602, Start Num: 31
Candidate Starts for Sparkdehlily_54:
(Start: 31 @37405 has 181 MA's), (40, 37456), (41, 37468), (47, 37501), (58, 37567),

Gene: Sparxx_35 Start: 27322, Stop: 27149, Start Num: 32
Candidate Starts for Sparxx_35:
(Start: 32 @27322 has 42 MA's), (40, 27274), (58, 27169),

Gene: Spikelee_56 Start: 38143, Stop: 38340, Start Num: 31
Candidate Starts for Spikelee_56:
(Start: 31 @38143 has 181 MA's), (40, 38194), (41, 38206), (47, 38239), (58, 38305),

Gene: Spoonbill_40 Start: 31424, Stop: 31230, Start Num: 26
Candidate Starts for Spoonbill_40:
(Start: 26 @31424 has 27 MA's), (44, 31337), (55, 31277), (58, 31256),

Gene: Spoonbill_48 Start: 35345, Stop: 35542, Start Num: 31
Candidate Starts for Spoonbill_48:
(Start: 31 @35345 has 181 MA's), (40, 35396), (41, 35408), (47, 35441), (58, 35507),

Gene: Stagni_38 Start: 27906, Stop: 27724, Start Num: 31
Candidate Starts for Stagni_38:
(Start: 31 @27906 has 181 MA's), (40, 27855), (57, 27753), (58, 27750),

Gene: Stap_49 Start: 36146, Stop: 36343, Start Num: 31
Candidate Starts for Stap_49:
(Start: 31 @36146 has 181 MA's), (40, 36197), (41, 36209), (47, 36242), (58, 36308),

Gene: StarStuff_39 Start: 27599, Stop: 27429, Start Num: 33
Candidate Starts for StarStuff_39:
(Start: 33 @27599 has 86 MA's), (40, 27554), (43, 27539), (48, 27503), (58, 27449),

Gene: Starcevich_50 Start: 37039, Stop: 37236, Start Num: 31
Candidate Starts for Starcevich_50:
(Start: 31 @37039 has 181 MA's), (40, 37090), (41, 37102), (47, 37135), (58, 37201),

Gene: StepMih_38 Start: 27897, Stop: 27715, Start Num: 31
Candidate Starts for StepMih_38:
(Start: 31 @27897 has 181 MA's), (40, 27846), (57, 27744), (58, 27741),

Gene: Superchunk_36 Start: 26412, Stop: 26242, Start Num: 33
Candidate Starts for Superchunk_36:
(Start: 33 @26412 has 86 MA's), (54, 26289), (58, 26262),

Gene: SweetiePie_37 Start: 27970, Stop: 27800, Start Num: 33
Candidate Starts for SweetiePie_37:
(Start: 33 @27970 has 86 MA's), (58, 27820),

Gene: SwirlSquare_39 Start: 26439, Stop: 26269, Start Num: 33
Candidate Starts for SwirlSquare_39:
(Start: 33 @26439 has 86 MA's), (48, 26343),

Gene: TDanisky_54 Start: 37405, Stop: 37602, Start Num: 31
Candidate Starts for TDanisky_54:
(Start: 31 @37405 has 181 MA's), (40, 37456), (41, 37468), (47, 37501), (58, 37567),

Gene: TNguyen7_35 Start: 27376, Stop: 27197, Start Num: 32
Candidate Starts for TNguyen7_35:
(Start: 32 @27376 has 42 MA's), (40, 27328), (58, 27223),

Gene: Tardus_57 Start: 45204, Stop: 45404, Start Num: 30
Candidate Starts for Tardus_57:
(Start: 30 @45204 has 7 MA's), (40, 45258), (44, 45282), (53, 45336),

Gene: TarsusIV_37 Start: 28077, Stop: 27907, Start Num: 33
Candidate Starts for TarsusIV_37:
(Start: 33 @28077 has 86 MA's), (50, 27975), (58, 27927),

Gene: Taurus_38 Start: 27903, Stop: 27721, Start Num: 31
Candidate Starts for Taurus_38:
(Start: 31 @27903 has 181 MA's), (40, 27852), (57, 27750), (58, 27747),

Gene: Tiamoceli_52 Start: 42144, Stop: 42338, Start Num: 27
Candidate Starts for Tiamoceli_52:
(Start: 23 @42135 has 3 MA's), (Start: 27 @42144 has 7 MA's), (37, 42174), (45, 42234), (46, 42246),

Gene: Tiffany_38 Start: 27789, Stop: 27607, Start Num: 31
Candidate Starts for Tiffany_38:
(Start: 31 @27789 has 181 MA's), (40, 27738), (57, 27636), (58, 27633),

Gene: TinaFeyge_35 Start: 27319, Stop: 27146, Start Num: 32
Candidate Starts for TinaFeyge_35:
(Start: 32 @27319 has 42 MA's), (40, 27271), (58, 27166),

Gene: TipsytheTRex_35 Start: 27089, Stop: 26898, Start Num: 26

Candidate Starts for TopsytheTRex_35:
(5, 27212), (Start: 26 @27089 has 27 MA's), (Start: 33 @27068 has 86 MA's), (43, 27008), (58, 26918),

Gene: Tomathan_39 Start: 27596, Stop: 27426, Start Num: 33
Candidate Starts for Tomathan_39:
(Start: 33 @27596 has 86 MA's), (40, 27551), (43, 27536), (48, 27500), (58, 27446),

Gene: TootsiePop_46 Start: 34969, Stop: 35193, Start Num: 22
Candidate Starts for TootsiePop_46:
(13, 34912), (Start: 22 @34969 has 2 MA's), (Start: 31 @34996 has 181 MA's), (58, 35158),

Gene: Tootsieroll_53 Start: 36596, Stop: 36793, Start Num: 31
Candidate Starts for Tootsieroll_53:
(Start: 31 @36596 has 181 MA's), (40, 36647), (41, 36659), (47, 36692), (58, 36758),

Gene: Tootsieroll_44 Start: 31573, Stop: 31379, Start Num: 26
Candidate Starts for Tootsieroll_44:
(Start: 26 @31573 has 27 MA's), (44, 31486), (55, 31426), (58, 31405),

Gene: Totinger_53 Start: 36181, Stop: 36378, Start Num: 31
Candidate Starts for Totinger_53:
(Start: 31 @36181 has 181 MA's), (40, 36232), (41, 36244), (47, 36277), (58, 36343),

Gene: Trixie_37 Start: 28496, Stop: 28326, Start Num: 33
Candidate Starts for Trixie_37:
(Start: 33 @28496 has 86 MA's), (58, 28346),

Gene: Trooper_39 Start: 28311, Stop: 28141, Start Num: 33
Candidate Starts for Trooper_39:
(Start: 33 @28311 has 86 MA's), (58, 28161),

Gene: TroyPia_35 Start: 27322, Stop: 27149, Start Num: 32
Candidate Starts for TroyPia_35:
(Start: 32 @27322 has 42 MA's), (40, 27274), (58, 27169),

Gene: Turbido_37 Start: 28155, Stop: 27985, Start Num: 33
Candidate Starts for Turbido_37:
(14, 28236), (Start: 33 @28155 has 86 MA's), (40, 28110), (50, 28053), (54, 28032), (58, 28005),

Gene: Tweety_49 Start: 36917, Stop: 37114, Start Num: 31
Candidate Starts for Tweety_49:
(Start: 31 @36917 has 181 MA's), (40, 36968), (41, 36980), (47, 37013), (58, 37079),

Gene: Twonlo_49 Start: 40765, Stop: 40968, Start Num: 23
Candidate Starts for Twonlo_49:
(Start: 23 @40765 has 3 MA's), (Start: 27 @40774 has 7 MA's), (37, 40804), (45, 40864), (46, 40876),

Gene: UncleRicky_50 Start: 37336, Stop: 37533, Start Num: 31
Candidate Starts for UncleRicky_50:
(Start: 31 @37336 has 181 MA's), (40, 37387), (41, 37399), (47, 37432), (58, 37498),

Gene: Updawg_39 Start: 28486, Stop: 28316, Start Num: 33

Candidate Starts for Updawg_39:

(Start: 33 @28486 has 86 MA's), (48, 28390), (54, 28363), (58, 28336),

Gene: VA6_36 Start: 27677, Stop: 27507, Start Num: 33

Candidate Starts for VA6_36:

(Start: 33 @27677 has 86 MA's), (40, 27632), (43, 27617), (48, 27581), (58, 27527),

Gene: VC3_39 Start: 27665, Stop: 27495, Start Num: 33

Candidate Starts for VC3_39:

(Start: 33 @27665 has 86 MA's), (40, 27620), (43, 27605), (48, 27569), (58, 27515),

Gene: Veteran_40 Start: 31183, Stop: 30989, Start Num: 26

Candidate Starts for Veteran_40:

(Start: 26 @31183 has 27 MA's), (44, 31096), (55, 31036), (58, 31015),

Gene: Veteran_47 Start: 36053, Stop: 36250, Start Num: 31

Candidate Starts for Veteran_47:

(Start: 31 @36053 has 181 MA's), (40, 36104), (41, 36116), (47, 36149), (58, 36215),

Gene: ViaConlectus_55 Start: 44156, Stop: 44356, Start Num: 30

Candidate Starts for ViaConlectus_55:

(Start: 30 @44156 has 7 MA's), (40, 44210), (44, 44234), (53, 44288),

Gene: Vix_38 Start: 27986, Stop: 27804, Start Num: 31

Candidate Starts for Vix_38:

(Start: 31 @27986 has 181 MA's), (40, 27935), (57, 27833), (58, 27830),

Gene: Watson_38 Start: 27896, Stop: 27714, Start Num: 31

Candidate Starts for Watson_38:

(Start: 31 @27896 has 181 MA's), (40, 27845), (57, 27743), (58, 27740),

Gene: WeiHuaDA_42 Start: 29572, Stop: 29402, Start Num: 33

Candidate Starts for WeiHuaDA_42:

(Start: 33 @29572 has 86 MA's), (48, 29476), (58, 29422),

Gene: Whabigail7_37 Start: 28143, Stop: 27973, Start Num: 33

Candidate Starts for Whabigail7_37:

(14, 28224), (Start: 33 @28143 has 86 MA's), (40, 28098), (54, 28020), (58, 27993),

Gene: Whytu_16 Start: 12793, Stop: 12978, Start Num: 38

Candidate Starts for Whytu_16:

(Start: 28 @12757 has 1 MA's), (34, 12778), (Start: 38 @12793 has 2 MA's), (60, 12964),

Gene: WideWale_39 Start: 28486, Stop: 28316, Start Num: 33

Candidate Starts for WideWale_39:

(Start: 33 @28486 has 86 MA's), (48, 28390), (54, 28363), (58, 28336),

Gene: Wooldri_40 Start: 27815, Stop: 27633, Start Num: 31

Candidate Starts for Wooldri_40:

(Start: 31 @27815 has 181 MA's), (40, 27764), (57, 27662), (58, 27659),

Gene: XianYue_37 Start: 27771, Stop: 27601, Start Num: 33

Candidate Starts for XianYue_37:

(Start: 33 @27771 has 86 MA's), (58, 27621),

Gene: Yavru_16 Start: 12688, Stop: 12873, Start Num: 38

Candidate Starts for Yavru_16:

(34, 12673), (Start: 38 @12688 has 2 MA's), (60, 12859),

Gene: Yecey3_38 Start: 27629, Stop: 27459, Start Num: 33

Candidate Starts for Yecey3_38:

(Start: 33 @27629 has 86 MA's), (57, 27482), (58, 27479),

Gene: Yorick_49 Start: 37093, Stop: 37290, Start Num: 31

Candidate Starts for Yorick_49:

(Start: 31 @37093 has 181 MA's), (40, 37144), (41, 37156), (47, 37189), (58, 37255),

Gene: Zapner_62 Start: 37589, Stop: 37786, Start Num: 31

Candidate Starts for Zapner_62:

(Start: 31 @37589 has 181 MA's), (39, 37634), (40, 37640), (42, 37655), (43, 37658), (47, 37685), (52, 37712), (58, 37745),

Gene: Zerg_49 Start: 36357, Stop: 36554, Start Num: 31

Candidate Starts for Zerg_49:

(Start: 31 @36357 has 181 MA's), (41, 36420), (47, 36453), (58, 36519),

Gene: Zetzy_37 Start: 27467, Stop: 27285, Start Num: 31

Candidate Starts for Zetzy_37:

(Start: 31 @27467 has 181 MA's), (40, 27416), (57, 27314), (58, 27311),

Gene: Zimmer_38 Start: 29474, Stop: 29304, Start Num: 33

Candidate Starts for Zimmer_38:

(Start: 28 @29492 has 1 MA's), (Start: 33 @29474 has 86 MA's), (54, 29351), (56, 29336), (58, 29324),