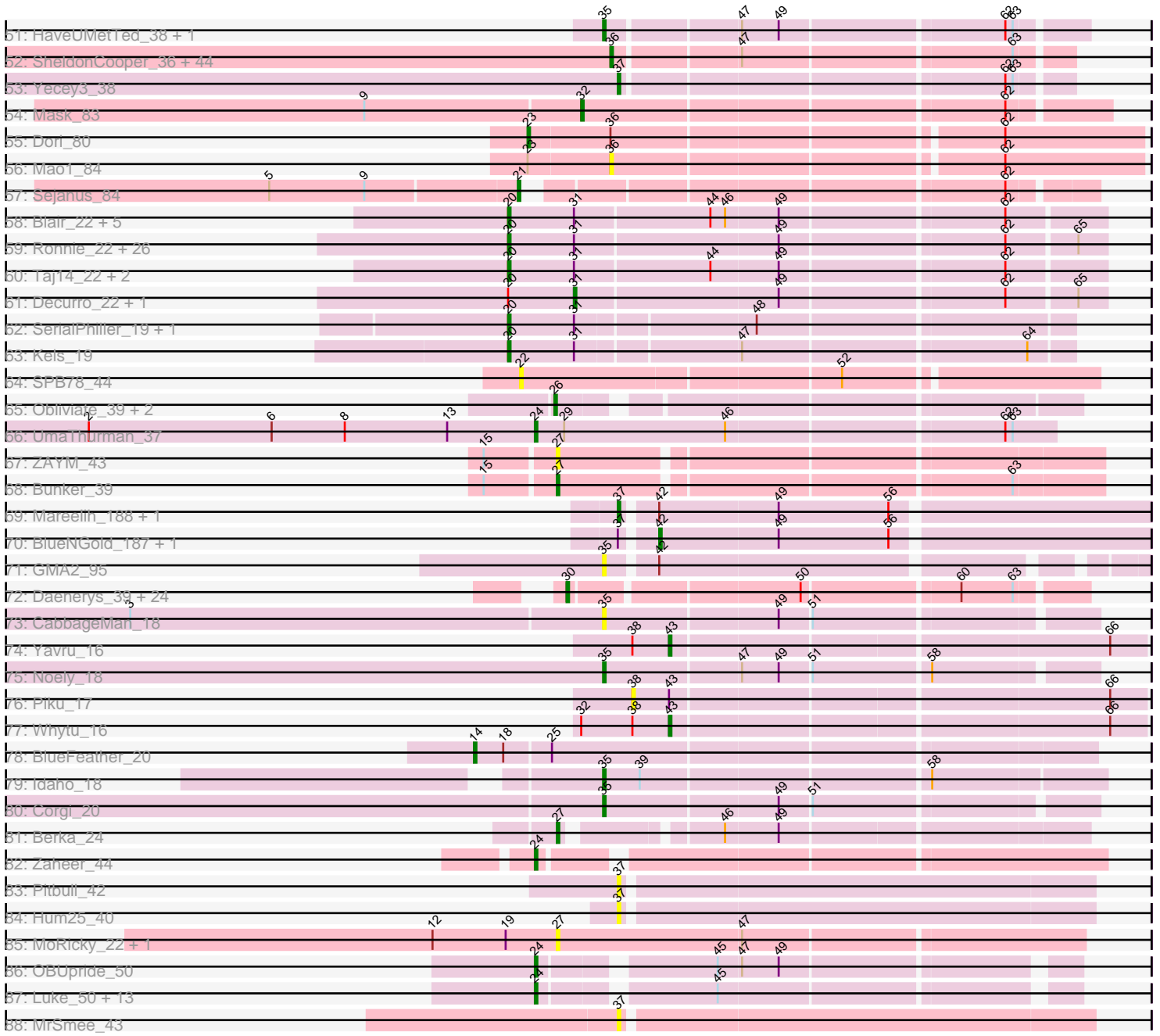


Pham 157517



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 157517 Report

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

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 157517 has 321 members, 26 are drafts.

Phages represented in each track:

- Track 1 : Zimmer_38
- Track 2 : Kimona_32
- Track 3 : Baehexic_37
- Track 4 : Trooper_39
- Track 5 : TopsytheTRex_35
- Track 6 : HarryHoudini_39
- Track 7 : AN9_39, AN18_39, Kerberos_39, StarStuff_39, Naji_39, C3_34, AN3_36, DBQu4n_39, Duplo_39, VC3_39, D29_36, Tomathan_39, D32_39, Pomar16_39, VA6_36
- Track 8 : BiancaTri92_37
- Track 9 : NothingSpecial_38
- Track 10 : Updawg_39, Equemioh13_39, Centaur_39, Drake55_40, WideWale_39
- Track 11 : Whabigail7_37, AbbyPaige_38, Dignity_38, LilTurb_37, Jerm_38, Leviathan_38, Smeagan_39
- Track 12 : SweetiePie_37, Crucio_37, QueenBeesly_37, FiringLine_37, Power_36
- Track 13 : Che12_39
- Track 14 : Journey13_34
- Track 15 : Pukovnik_37
- Track 16 : DudeLittle_36, Anselm_38, Fameo_37, Retro23_38, QueenB2_37, Dalmatian_38, JoshKayV_38
- Track 17 : Bactobuster_38
- Track 18 : Landor_38
- Track 19 : GaugeLDP_38
- Track 20 : KingCyrus_39, EvilGenius_39, ChipMunk_39
- Track 21 : Odin_36
- Track 22 : Koduck_36
- Track 23 : Flare16_38, Buggy_40, MiculUcigas_38, NaSiaTalie_38
- Track 24 : Jaan_40, IronMan_38
- Track 25 : Superchunk_36, Caraxes_37
- Track 26 : Colin_40, Trixie_37, Kalpine_37
- Track 27 : Iwokeuplikedis_37
- Track 28 : SwirlSquare_39
- Track 29 : Serenity_37

- Track 30 : Larenn_38
- Track 31 : Malec_39
- Track 32 : TarsusIV_37
- Track 33 : NicoleTera_39, Pharaoh_35, WeiHuaDA_42
- Track 34 : MissWhite_34
- Track 35 : L5_36
- Track 36 : Agape74_38, Turbido_37
- Track 37 : Ph8s_38
- Track 38 : Piro94_37
- Track 39 : BabyBack_35
- Track 40 : Jsquared_36
- Track 41 : Adzzy_38
- Track 42 : Acolyte_37
- Track 43 : SnapTap_37, SemperFi_38
- Track 44 : Georgie2_38
- Track 45 : XianYue_37
- Track 46 : Heffalump_37
- Track 47 : Leogania_37
- Track 48 : Phaded_41
- Track 49 : EpicPhail_38, Grub_38, Vix_38, Microwolf_38, Taurus_38, Dieselweasel_38, Watson_38, LBerry_38, StepMih_38, MadMarie_38, PGHhamlin_40, BreSam8_38, MuchMore_40, Farber_38, Aglet_38, Wooldri_40, MarQuardt_38, Tiffany_38, Anubis_40, Colbster_38, DaHudson_38, Fernando_38, Grum1_38, Phoebe_38, Jobu08_37, AugsMagnumOpus_40, Snickers_38, Zetzy_37, JenCasNa_38, GingkoMaracino_38, PotatoSplit_39, P28Green_38, Mainiac_38, Malinsilva_40, Pembroke_38, Ollie_38, LugYA_40, Cullens_38, JHC117_38, SoilDragon_37, GtownJaz_38, MoneyMay_38, Beauxregard13_38, Grif_38, SoYo_38, Marie_38, Sabinator_37, Stagni_38, Sabia_38, Hercules11_38, Lilith_38, Penny1_38
- Track 50 : Marius_38, Kalb97_38, Reba_38, Manu_38, Phranny_38, ACFishhook_37, PhishRPhriends_36, JeppNRM_38, Pawn_38, Groupthink_38, Heliosoles_37, PurpleHaze_37, Kalnoky_38, Gemma_37
- Track 51 : HaveUMetTed_38, OlanP_37
- Track 52 : SheldonCooper_36, LeoAvram_35, TroyPia_35, JF4_35, BangNhom_35, Heathen_35, Puppy_36, TinaFeyge_35, ChampagnePapi_36, Eagle_34, Maxo_35, Cerulean_36, BellusTerra_35, Bugatti_35, Scout_35, Commander_35, BlueBird_36, Fred313_35, TNguyen7_35, Eurydice_35, Medusa_35, Pistachio_36, BabyRay_35, JF2_35, Polymorphads_35, Nebs_35, Rockstar_35, Obama12_36, Morrow_35, SaturnRing_35, Kamy_35, Giroux_35, MK4_35, HelDan_35, Melvin_36, Phantastic_35, Sparxx_35, Isca_35, Abdiel_34, B1_33, Ohfah_35, MA5_35, LHTSCC_36, Idleandcovert_35, Felipe_35
- Track 53 : Yecey3_38
- Track 54 : Mask_83
- Track 55 : Dori_80
- Track 56 : Mao1_84
- Track 57 : Sejanus_84
- Track 58 : Blair_22, Elkhorn_22, KylieMac_23, StewieGriff_22, Lore_22, Laila_24
- Track 59 : Ronnie_22, Inspire2_22, Mariposa_22, Guntur_22, Sandman_22, Sourignavong_23, Azathoth_22, Courtney3_22, CGermain_22, Stratus_22, Maggie_22, Copper_22, Link_22, Toulouse_21, Massimo_22, LouisXIV_22, Prospero_22, TymAbreu_22, Yank_22, Dewayne_22, Seume_22, Arby_22, Hunnie_22, Moloch_22, Muttie_22, Chestnut_22, TinoCrisci_22
- Track 60 : Taj14_22, Saphira_23, Swenson_22

- Track 61 : Decurro_22, Jessica_23
- Track 62 : SerialPhiller_19, Arielagos_19
- Track 63 : Kels_19
- Track 64 : SPB78_44
- Track 65 : Obliviate_39, Petra_40, Zarbodnamra_42
- Track 66 : UmaThurman_37
- Track 67 : ZAYM_43
- Track 68 : Bunker_39
- Track 69 : Mareelih_188, Boopy_191
- Track 70 : BlueNGold_187, Forza_191
- Track 71 : GMA2_95
- Track 72 : Daenerys_39, Inventum_39, Empress_41, Leozinho_42, Dante_40, Pollywog_41, Spoonbill_40, Chuckly_41, Job42_43, Ogopogo_43, Blexus_40, IbOuu_43, Sassafras_41, OwlsT2W_40, Veteran_40, Eish_41, GUmbie_40, Royals2015_42, Sandalphon_44, Radiance_41, Tootsieroll_44, JoeyJr_40, OlympiaSaint_40, Scottish_41, Polka14_41
- Track 73 : CabbageMan_18
- Track 74 : Yavru_16
- Track 75 : Noely_18
- Track 76 : Piku_17
- Track 77 : Whytu_16
- Track 78 : BlueFeather_20
- Track 79 : Idaho_18
- Track 80 : Corgi_20
- Track 81 : Berka_24
- Track 82 : Zaheer_44
- Track 83 : Pitbull_42
- Track 84 : Hum25_40
- Track 85 : MoRicky_22, Smilerella_21
- Track 86 : OBUpride_50
- Track 87 : Luke_50, LilHazelNut_50, Evanesce_49, Hadrien_50, Gancho_49, Ubuntu_50, Forge_48, Ein37_50, Amymech_50, Amochick_50, Webster2_50, Kinbote_50, DeepSoil15_50, Daegal_52
- Track 88 : MrSmee_43

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

The start number called the most often in the published annotations is 37, it was called in 87 of the 295 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AN3_36, AN9_39, ANI8_39, AbbyPaige_38, Acolyte_37, Adzzy_38, Agape74_38, Anselm_38, BabyBack_35, Bactobuster_38, Baehexic_37, BiancaTri92_37, Boopy_191, Buggy_40, C3_34, Caraxes_37, Centaur_39, Che12_39, ChipMunk_39, Colin_40, Crucio_37, D29_36, D32_39, DBQu4n_39, Dalmatian_38, Dignity_38, Drake55_40, DudeLittle_36, Duplo_39, Equemioh13_39, EvilGenius_39, Fameo_37, FiringLine_37, Flare16_38, GaugeLDP_38, Georgie2_38, HarryHoudini_39, Heffalump_37, Hum25_40, IronMan_38, Iwokeuplikedis_37, Jaan_40, Jerm_38, JoshKayV_38, Jsquared_36, Kalpine_37, Kerberos_39, KingCyrus_39, Koduck_36, L5_36, Landor_38, Larenn_38, Leogania_37, Leviathan_38, LilTurb_37, Malec_39,

Mareelih_188, MiculUcigas_38, MissWhite_34, MrSmee_43, NaSiaTalie_38, Naji_39, NicoleTera_39, NothingSpecial_38, Odin_36, Ph8s_38, Phaded_41, Pharaoh_35, Piro94_37, Pitbull_42, Pomar16_39, Power_36, Pukovnik_37, QueenB2_37, QueenBeesly_37, Retro23_38, SemperFi_38, Smeagan_39, SnapTap_37, StarStuff_39, Superchunk_36, SweetiePie_37, SwirlSquare_39, TarsusIV_37, Tomathan_39, Trixie_37, Trooper_39, Turbido_37, Updawg_39, VA6_36, VC3_39, WeiHuaDA_42, Whabigail7_37, WideWale_39, XianYue_37, Yecey3_38, Zimmer_38,

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

- BlueNGold_187, Forza_191, Journey13_34, Serenity_37, TipsytheTRex_35,

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

- ACFishhook_37, Abdiel_34, Aglet_38, Amochick_50, Amymech_50, Anubis_40, Arby_22, Arielagos_19, AugsMagnumOpus_40, Azathoth_22, B1_33, BabyRay_35, BangNhom_35, Beauxregard13_38, BellusTerra_35, Berka_24, Blair_22, Blexus_40, BlueBird_36, BlueFeather_20, BreSam8_38, Bugatti_35, Bunker_39, CGermain_22, CabbageMan_18, Cerulean_36, ChampagnePapi_36, Chestnut_22, Chuckly_41, Colbster_38, Commander_35, Copper_22, Corgi_20, Courtney3_22, Cullens_38, DaHudson_38, Daegal_52, Daenerys_39, Dante_40, Decurro_22, DeepSoil15_50, Dewayne_22, Dieselweasel_38, Dori_80, Eagle_34, Ein37_50, Eish_41, Elkhorn_22, Empress_41, EpicPhail_38, Eurydice_35, Evanesce_49, Farber_38, Fernando_38, Forge_48, Fred313_35, GMA2_95, GUmbie_40, Gancho_49, Gemma_37, GingkoMaracino_38, Giroux_35, Grif_38, Groupthink_38, Grub_38, Grum1_38, GtownJaz_38, Guntur_22, Hadrien_50, HaveUMetTed_38, Heathen_35, HelDan_35, Heliosoles_37, Hercules11_38, Hunnie_22, IbOuu_43, Idaho_18, Idleandcovert_35, Inspire2_22, Inventum_39, Isca_35, JF2_35, JF4_35, JHC117_38, JenCasNa_38, JeppNRM_38, Jessica_23, Job42_43, Jobu08_37, JoeyJr_40, Kalb97_38, Kalnok_38, Kamy_35, Kels_19, Kimona_32, Kinbote_50, KylieMac_23, LBerry_38, LHTSCC_36, Laila_24, LeoAvram_35, Leozinho_42, LilHazelNut_50, Lilith_38, Link_22, Lore_22, LouisXIV_22, LugYA_40, Luke_50, MA5_35, MK4_35, MadMarie_38, Maggie_22, Mainiac_38, Malinsilva_40, Manu_38, Mao1_84, MarQuardt_38, Marie_38, Mariposa_22, Marius_38, Mask_83, Massimo_22, Maxo_35, Medusa_35, Melvin_36, Microwolf_38, MoRicky_22, Moloch_22, MoneyMay_38, Morrow_35, MuchMore_40, Muttie_22, Nebs_35, Noely_18, OBUpride_50, Obama12_36, Obliviate_39, OgoPogo_43, Ohfah_35, OlanP_37, Ollie_38, OlympiaSaint_40, OwlsT2W_40, P28Green_38, PGHhamlin_40, Pawn_38, Pembroke_38, Penny1_38, Petra_40, Phantastic_35, Phelipe_35, PhishRPhriends_36, Phoebe_38, Phranny_38, Piku_17, Pistachio_36, Polka14_41, Pollywog_41, Polymorphads_35, PotatoSplit_39, Prospero_22, Puppy_36, PurpleHaze_37, Radiance_41, Reba_38, Rockstar_35, Ronnie_22, Royals2015_42, SPB78_44, Sabia_38, Sabinator_37, Sandalphon_44, Sandman_22, Saphira_23, Sassafras_41, SaturnRing_35, Scottish_41, Scout_35, Sejanus_84, SerialPhiller_19, Seume_22, SheldonCooper_36, Smilerella_21, Snickers_38, SoYo_38, SoilDragon_37, Sourignavong_23, Sparxx_35, Spoonbill_40, Stagni_38, StepMih_38, StewieGriff_22, Stratus_22, Swenson_22, TNguyen7_35, Taj14_22, Taurus_38, Tiffany_38, TinaFeyge_35, TinoCrisci_22, Tootsieroll_44, Toulouse_21, TroyPia_35, TymAbreu_22, Ubuntu_50, UmaThurman_37, Veteran_40, Vix_38, Watson_38, Webster2_50, Whytu_16, Wooldri_40, Yank_22, Yavru_16, ZAYM_43, Zaheer_44, Zarbodnamra_42, Zetzy_37,

Summary by start number:

Start 14:

- Found in 1 of 321 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 295
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlueFeather_20 (FE),

Start 20:

- Found in 41 of 321 (12.8%) of genes in pham
- Manual Annotations of this start: 38 of 295
- Called 95.1% of time when present
- Phage (with cluster) where this start called: Arby_22 (AN), Arielagos_19 (AN), Azathoth_22 (AN), Blair_22 (AN), CGermain_22 (AN), Chestnut_22 (AN), Copper_22 (AN), Courtney3_22 (AN), Dewayne_22 (AN), Elkhorn_22 (AN), Guntur_22 (AN), Hunnie_22 (AN), Inspire2_22 (AN), Kels_19 (AN), KylieMac_23 (AN), Laila_24 (AN), Link_22 (AN), Lore_22 (AN), LouisXIV_22 (AN), Maggie_22 (AN), Mariposa_22 (AN), Massimo_22 (AN), Moloch_22 (AN), Muttie_22 (AN), Prospero_22 (AN), Ronnie_22 (AN), Sandman_22 (AN), Saphira_23 (AN), SerialPhiller_19 (AN), Seume_22 (AN), Sourignavong_23 (AN), StewieGriff_22 (AN), Stratus_22 (AN), Swenson_22 (AN), Taj14_22 (AN), TinoCrisci_22 (AN), Toulouse_21 (AN), TymAbreu_22 (AN), Yank_22 (AN),

Start 21:

- Found in 2 of 321 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 295
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Sejanus_84 (AD),

Start 22:

- Found in 1 of 321 (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: SPB78_44 (BA),

Start 23:

- Found in 2 of 321 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 295
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Dori_80 (AD),

Start 24:

- Found in 17 of 321 (5.3%) of genes in pham
- Manual Annotations of this start: 16 of 295
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amochick_50 (Q), Amymech_50 (Q), Daegal_52 (Q), DeepSoil15_50 (Q), Ein37_50 (Q), Evanesce_49 (Q), Forge_48 (Q), Gancho_49 (Q), Hadrien_50 (Q), Kinbote_50 (Q), LilHazelNut_50 (Q), Luke_50 (Q), OBUpride_50 (Q), Ubuntu_50 (Q), UmaThurman_37 (CV), Webster2_50 (Q), Zaheer_44 (FF),

Start 26:

- Found in 3 of 321 (0.9%) of genes in pham
- Manual Annotations of this start: 3 of 295
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Obliviate_39 (CV), Petra_40 (CV), Zarbodnamra_42 (CV),

Start 27:

- Found in 5 of 321 (1.6%) of genes in pham
- Manual Annotations of this start: 2 of 295
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Berka_24 (FE), Bunker_39 (DB), MoRicky_22 (GH), Smilerella_21 (GH), ZAYM_43 (DB),

Start 28:

- Found in 6 of 321 (1.9%) of genes in pham
- Manual Annotations of this start: 3 of 295
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Journey13_34 (A2), Serenity_37 (A2), TipsytheTRex_35 (A2),

Start 30:

- Found in 25 of 321 (7.8%) of genes in pham
- Manual Annotations of this start: 24 of 295
- Called 100.0% 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), Leozinho_42 (F1), Ogoopogo_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), Spoonbill_40 (F1), Tootsieroll_44 (F1), Veteran_40 (F1),

Start 31:

- Found in 42 of 321 (13.1%) of genes in pham
- Manual Annotations of this start: 2 of 295
- Called 4.8% of time when present
- Phage (with cluster) where this start called: Decurro_22 (AN), Jessica_23 (AN),

Start 32:

- Found in 2 of 321 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 295
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Mask_83 (AD),

Start 35:

- Found in 73 of 321 (22.7%) of genes in pham
- Manual Annotations of this start: 69 of 295
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ACFishhook_37 (A3), Aglet_38 (A3), Anubis_40 (A3), AugsMagnumOpus_40 (A3), Beauxregard13_38 (A3), BreSam8_38 (A3), CabbageMan_18 (FE), Colbster_38 (A3), Corgi_20 (FE), Cullens_38 (A3), DaHudson_38 (A3), Dieselweasel_38 (A3), EpicPhail_38 (A3), Farber_38 (A3), Fernando_38 (A3), GMA2_95 (DS), Gemma_37 (A3), GingkoMaracino_38 (A3), Grif_38 (A3), Groupthink_38 (A3), Grub_38 (A3), Grum1_38 (A3), GtownJaz_38 (A3), HaveUMetTed_38 (A3), Heliosoles_37 (A3), Hercules11_38 (A3), Idaho_18 (FE), JHC117_38 (A3), JenCasNa_38 (A3), JeppNRM_38 (A3), Jobu08_37 (A3),

Kalb97_38 (A3), Kalnoky_38 (A3), LBerry_38 (A3), Lilith_38 (A3), LugYA_40 (A3), MadMarie_38 (A3), Mainiac_38 (A3), Malinsilva_40 (A3), Manu_38 (A3), MarQuardt_38 (A3), Marie_38 (A3), Marius_38 (A3), Microwolf_38 (A3), MoneyMay_38 (A3), MuchMore_40 (A3), Noely_18 (FE), OlanP_37 (A3), Ollie_38 (A3), P28Green_38 (A3), PGHhamlin_40 (A3), Pawn_38 (A3), Pembroke_38 (A3), Penny1_38 (A3), PhishRPhriends_36 (A3), Phoebe_38 (A3), Phranny_38 (A3), PotatoSplit_39 (A3), PurpleHaze_37 (A3), Reba_38 (A3), Sabia_38 (A3), Sabinator_37 (A3), Snickers_38 (A3), SoYo_38 (A3), SoilDragon_37 (A3), Stagni_38 (A3), StepMih_38 (A3), Taurus_38 (A3), Tiffany_38 (A3), Vix_38 (A3), Watson_38 (A3), Wooldri_40 (A3), Zetzy_37 (A3),

Start 36:

- Found in 47 of 321 (14.6%) of genes in pham
- Manual Annotations of this start: 42 of 295
- Called 97.9% 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), Mao1_84 (AD), 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 37:

- Found in 102 of 321 (31.8%) of genes in pham
- Manual Annotations of this start: 87 of 295
- Called 95.1% 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_35 (A2), Bactobuster_38 (A2), Baehexic_37 (A2), BiancaTri92_37 (A2), Boopy_191 (DS), 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), Hum25_40 (FQ), 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), Mareelih_188 (DS), MiculUcigas_38 (A2), MissWhite_34 (A2), MrSmee_43 (UNK), 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), Pitbull_42 (FQ), 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 38:

- Found in 3 of 321 (0.9%) 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 40:

- Found in 1 of 321 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 295
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kimona_32 (A19),

Start 42:

- Found in 5 of 321 (1.6%) of genes in pham
- Manual Annotations of this start: 2 of 295
- Called 40.0% of time when present
- Phage (with cluster) where this start called: BlueNGold_187 (DS), Forza_191 (DS),

Start 43:

- Found in 3 of 321 (0.9%) of genes in pham
- Manual Annotations of this start: 2 of 295
- 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 19 clusters represented in this pham: F1, FF, AD, FQ, DB, GH, A12, BA, AN, Q, A3, A2, A4, CV, A19, A9, UNK, DS, FE,

Info for manual annotations of cluster A12:

- Start number 37 was manually annotated 2 times for cluster A12.

Info for manual annotations of cluster A19:

- Start number 40 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 28 was manually annotated 3 times for cluster A2.
- Start number 37 was manually annotated 82 times for cluster A2.

Info for manual annotations of cluster A3:

- Start number 35 was manually annotated 66 times for cluster A3.
- Start number 36 was manually annotated 18 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 36 was manually annotated 24 times for cluster A4.

Info for manual annotations of cluster A9:

- Start number 37 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster AD:

- Start number 21 was manually annotated 1 time for cluster AD.

- Start number 23 was manually annotated 1 time for cluster AD.
- Start number 32 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster AN:

- Start number 20 was manually annotated 38 times for cluster AN.
- Start number 31 was manually annotated 2 times for cluster AN.

Info for manual annotations of cluster CV:

- Start number 24 was manually annotated 1 time for cluster CV.
- Start number 26 was manually annotated 3 times for cluster CV.

Info for manual annotations of cluster DB:

- Start number 27 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DS:

- Start number 37 was manually annotated 2 times for cluster DS.
- Start number 42 was manually annotated 2 times for cluster DS.

Info for manual annotations of cluster F1:

- Start number 30 was manually annotated 24 times for cluster F1.

Info for manual annotations of cluster FE:

- Start number 14 was manually annotated 1 time for cluster FE.
- Start number 27 was manually annotated 1 time for cluster FE.
- Start number 35 was manually annotated 3 times for cluster FE.
- Start number 43 was manually annotated 2 times for cluster FE.

Info for manual annotations of cluster FF:

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

Info for manual annotations of cluster Q:

- Start number 24 was manually annotated 14 times for cluster Q.

Gene Information:

Gene: ACFishhook_37 Start: 27807, Stop: 27625, Start Num: 35

Candidate Starts for ACFishhook_37:

(Start: 35 @27807 has 69 MA's), (47, 27756), (62, 27654), (63, 27651),

Gene: AN3_36 Start: 27680, Stop: 27510, Start Num: 37

Candidate Starts for AN3_36:

(Start: 37 @27680 has 87 MA's), (47, 27635), (49, 27620), (54, 27584), (63, 27530),

Gene: AN9_39 Start: 27665, Stop: 27495, Start Num: 37

Candidate Starts for AN9_39:

(Start: 37 @27665 has 87 MA's), (47, 27620), (49, 27605), (54, 27569), (63, 27515),

Gene: ANI8_39 Start: 27665, Stop: 27495, Start Num: 37
Candidate Starts for ANI8_39:
(Start: 37 @27665 has 87 MA's), (47, 27620), (49, 27605), (54, 27569), (63, 27515),

Gene: AbbyPaige_38 Start: 28214, Stop: 28044, Start Num: 37
Candidate Starts for AbbyPaige_38:
(11, 28295), (Start: 37 @28214 has 87 MA's), (47, 28169), (59, 28091), (63, 28064),

Gene: Abdiel_34 Start: 27322, Stop: 27149, Start Num: 36
Candidate Starts for Abdiel_34:
(Start: 36 @27322 has 42 MA's), (47, 27274), (63, 27169),

Gene: Acolyte_37 Start: 28346, Stop: 28176, Start Num: 37
Candidate Starts for Acolyte_37:
(Start: 37 @28346 has 87 MA's), (47, 28301), (54, 28250), (63, 28196),

Gene: Adzzy_38 Start: 26529, Stop: 26359, Start Num: 37
Candidate Starts for Adzzy_38:
(Start: 37 @26529 has 87 MA's), (59, 26406), (63, 26379),

Gene: Agape74_38 Start: 28199, Stop: 28029, Start Num: 37
Candidate Starts for Agape74_38:
(11, 28280), (Start: 37 @28199 has 87 MA's), (47, 28154), (55, 28097), (59, 28076), (63, 28049),

Gene: Aglet_38 Start: 27905, Stop: 27723, Start Num: 35
Candidate Starts for Aglet_38:
(Start: 35 @27905 has 69 MA's), (47, 27854), (62, 27752), (63, 27749),

Gene: Amochick_50 Start: 36955, Stop: 37152, Start Num: 24
Candidate Starts for Amochick_50:
(Start: 24 @36955 has 16 MA's), (45, 37018),

Gene: Amymech_50 Start: 36949, Stop: 37146, Start Num: 24
Candidate Starts for Amymech_50:
(Start: 24 @36949 has 16 MA's), (45, 37012),

Gene: Anselm_38 Start: 28317, Stop: 28147, Start Num: 37
Candidate Starts for Anselm_38:
(11, 28398), (Start: 37 @28317 has 87 MA's), (63, 28167),

Gene: Anubis_40 Start: 27790, Stop: 27608, Start Num: 35
Candidate Starts for Anubis_40:
(Start: 35 @27790 has 69 MA's), (47, 27739), (62, 27637), (63, 27634),

Gene: Arby_22 Start: 13886, Stop: 14119, Start Num: 20
Candidate Starts for Arby_22:
(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: Arielagos_19 Start: 13063, Stop: 13281, Start Num: 20
Candidate Starts for Arielagos_19:
(Start: 20 @13063 has 38 MA's), (Start: 31 @13090 has 2 MA's), (48, 13159),

Gene: AugsMagnumOpus_40 Start: 27896, Stop: 27714, Start Num: 35
Candidate Starts for AugsMagnumOpus_40:
(Start: 35 @27896 has 69 MA's), (47, 27845), (62, 27743), (63, 27740),

Gene: Azathoth_22 Start: 13886, Stop: 14119, Start Num: 20
Candidate Starts for Azathoth_22:
(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: B1_33 Start: 26932, Stop: 26753, Start Num: 36
Candidate Starts for B1_33:
(Start: 36 @26932 has 42 MA's), (47, 26884), (63, 26779),

Gene: BabyBack_35 Start: 28565, Stop: 28377, Start Num: 37
Candidate Starts for BabyBack_35:
(Start: 21 @28604 has 1 MA's), (34, 28574), (Start: 37 @28565 has 87 MA's), (41, 28553), (49, 28505), (63, 28415),

Gene: BabyRay_35 Start: 27483, Stop: 27304, Start Num: 36
Candidate Starts for BabyRay_35:
(Start: 36 @27483 has 42 MA's), (47, 27435), (63, 27330),

Gene: Bactobuster_38 Start: 29229, Stop: 29059, Start Num: 37
Candidate Starts for Bactobuster_38:
(Start: 37 @29229 has 87 MA's), (54, 29133), (63, 29079),

Gene: Baehexic_37 Start: 28367, Stop: 28197, Start Num: 37
Candidate Starts for Baehexic_37:
(Start: 37 @28367 has 87 MA's), (54, 28271),

Gene: BangNhom_35 Start: 27659, Stop: 27486, Start Num: 36
Candidate Starts for BangNhom_35:
(Start: 36 @27659 has 42 MA's), (47, 27611), (63, 27506),

Gene: Beauxregard13_38 Start: 27904, Stop: 27722, Start Num: 35
Candidate Starts for Beauxregard13_38:
(Start: 35 @27904 has 69 MA's), (47, 27853), (62, 27751), (63, 27748),

Gene: BellusTerra_35 Start: 27322, Stop: 27149, Start Num: 36
Candidate Starts for BellusTerra_35:
(Start: 36 @27322 has 42 MA's), (47, 27274), (63, 27169),

Gene: Berka_24 Start: 13339, Stop: 13533, Start Num: 27
Candidate Starts for Berka_24:
(Start: 27 @13339 has 2 MA's), (46, 13393), (49, 13414),

Gene: BiancaTri92_37 Start: 28784, Stop: 28614, Start Num: 37
Candidate Starts for BiancaTri92_37:
(16, 28829), (Start: 37 @28784 has 87 MA's), (63, 28634),

Gene: Blair_22 Start: 13883, Stop: 14116, Start Num: 20
Candidate Starts for Blair_22:

(Start: 20 @13883 has 38 MA's), (Start: 31 @13910 has 2 MA's), (44, 13964), (46, 13970), (49, 13991), (62, 14078),

Gene: Blexus_40 Start: 31585, Stop: 31391, Start Num: 30
Candidate Starts for Blexus_40:
(Start: 30 @31585 has 24 MA's), (50, 31498), (60, 31438), (63, 31417),

Gene: BlueBird_36 Start: 27412, Stop: 27233, Start Num: 36
Candidate Starts for BlueBird_36:
(Start: 36 @27412 has 42 MA's), (47, 27364), (63, 27259),

Gene: BlueFeather_20 Start: 14165, Stop: 14407, Start Num: 14
Candidate Starts for BlueFeather_20:
(Start: 14 @14165 has 1 MA's), (18, 14177), (25, 14195),

Gene: BlueNGold_187 Start: 109354, Stop: 109548, Start Num: 42
Candidate Starts for BlueNGold_187:
(Start: 37 @109342 has 87 MA's), (Start: 42 @109354 has 2 MA's), (49, 109402), (56, 109447),

Gene: Boopy_191 Start: 109353, Stop: 109559, Start Num: 37
Candidate Starts for Boopy_191:
(Start: 37 @109353 has 87 MA's), (Start: 42 @109365 has 2 MA's), (49, 109413), (56, 109458),

Gene: BreSam8_38 Start: 27897, Stop: 27715, Start Num: 35
Candidate Starts for BreSam8_38:
(Start: 35 @27897 has 69 MA's), (47, 27846), (62, 27744), (63, 27741),

Gene: Bugatti_35 Start: 27412, Stop: 27233, Start Num: 36
Candidate Starts for Bugatti_35:
(Start: 36 @27412 has 42 MA's), (47, 27364), (63, 27259),

Gene: Buggy_40 Start: 28650, Stop: 28480, Start Num: 37
Candidate Starts for Buggy_40:
(Start: 37 @28650 has 87 MA's), (54, 28554), (57, 28536), (63, 28500),

Gene: Bunker_39 Start: 31881, Stop: 32090, Start Num: 27
Candidate Starts for Bunker_39:
(15, 31854), (Start: 27 @31881 has 2 MA's), (63, 32055),

Gene: C3_34 Start: 27665, Stop: 27495, Start Num: 37
Candidate Starts for C3_34:
(Start: 37 @27665 has 87 MA's), (47, 27620), (49, 27605), (54, 27569), (63, 27515),

Gene: CGermain_22 Start: 13886, Stop: 14119, Start Num: 20
Candidate Starts for CGermain_22:
(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: CabbageMan_18 Start: 13371, Stop: 13559, Start Num: 35
Candidate Starts for CabbageMan_18:
(3, 13179), (Start: 35 @13371 has 69 MA's), (49, 13440), (51, 13452),

Gene: Caraxes_37 Start: 26412, Stop: 26242, Start Num: 37

Candidate Starts for Caraxes_37:

(Start: 37 @26412 has 87 MA's), (59, 26289), (63, 26262),

Gene: Centaur_39 Start: 28483, Stop: 28313, Start Num: 37

Candidate Starts for Centaur_39:

(Start: 37 @28483 has 87 MA's), (54, 28387), (59, 28360), (63, 28333),

Gene: Cerulean_36 Start: 27660, Stop: 27487, Start Num: 36

Candidate Starts for Cerulean_36:

(Start: 36 @27660 has 42 MA's), (47, 27612), (63, 27507),

Gene: ChampagnePapi_36 Start: 27659, Stop: 27486, Start Num: 36

Candidate Starts for ChampagnePapi_36:

(Start: 36 @27659 has 42 MA's), (47, 27611), (63, 27506),

Gene: Che12_39 Start: 26775, Stop: 26605, Start Num: 37

Candidate Starts for Che12_39:

(4, 26919), (Start: 28 @26796 has 3 MA's), (Start: 37 @26775 has 87 MA's), (54, 26679), (57, 26661), (59, 26652),

Gene: Chestnut_22 Start: 13886, Stop: 14119, Start Num: 20

Candidate Starts for Chestnut_22:

(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: ChipMunk_39 Start: 29644, Stop: 29474, Start Num: 37

Candidate Starts for ChipMunk_39:

(11, 29725), (Start: 37 @29644 has 87 MA's), (47, 29599), (63, 29494),

Gene: Chuckly_41 Start: 31551, Stop: 31357, Start Num: 30

Candidate Starts for Chuckly_41:

(Start: 30 @31551 has 24 MA's), (50, 31464), (60, 31404), (63, 31383),

Gene: Colbster_38 Start: 27904, Stop: 27722, Start Num: 35

Candidate Starts for Colbster_38:

(Start: 35 @27904 has 69 MA's), (47, 27853), (62, 27751), (63, 27748),

Gene: Colin_40 Start: 28947, Stop: 28777, Start Num: 37

Candidate Starts for Colin_40:

(Start: 37 @28947 has 87 MA's), (63, 28797),

Gene: Commander_35 Start: 27323, Stop: 27150, Start Num: 36

Candidate Starts for Commander_35:

(Start: 36 @27323 has 42 MA's), (47, 27275), (63, 27170),

Gene: Copper_22 Start: 13886, Stop: 14119, Start Num: 20

Candidate Starts for Copper_22:

(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: Corgi_20 Start: 13530, Stop: 13718, Start Num: 35

Candidate Starts for Corgi_20:

(Start: 35 @13530 has 69 MA's), (49, 13599), (51, 13611),

Gene: Courtney3_22 Start: 13886, Stop: 14119, Start Num: 20
Candidate Starts for Courtney3_22:
(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: Crucio_37 Start: 27910, Stop: 27740, Start Num: 37
Candidate Starts for Crucio_37:
(Start: 37 @27910 has 87 MA's), (63, 27760),

Gene: Cullens_38 Start: 27903, Stop: 27721, Start Num: 35
Candidate Starts for Cullens_38:
(Start: 35 @27903 has 69 MA's), (47, 27852), (62, 27750), (63, 27747),

Gene: D29_36 Start: 27596, Stop: 27426, Start Num: 37
Candidate Starts for D29_36:
(Start: 37 @27596 has 87 MA's), (47, 27551), (49, 27536), (54, 27500), (63, 27446),

Gene: D32_39 Start: 27596, Stop: 27426, Start Num: 37
Candidate Starts for D32_39:
(Start: 37 @27596 has 87 MA's), (47, 27551), (49, 27536), (54, 27500), (63, 27446),

Gene: DBQu4n_39 Start: 27596, Stop: 27426, Start Num: 37
Candidate Starts for DBQu4n_39:
(Start: 37 @27596 has 87 MA's), (47, 27551), (49, 27536), (54, 27500), (63, 27446),

Gene: DaHudson_38 Start: 27896, Stop: 27714, Start Num: 35
Candidate Starts for DaHudson_38:
(Start: 35 @27896 has 69 MA's), (47, 27845), (62, 27743), (63, 27740),

Gene: Daegal_52 Start: 37533, Stop: 37730, Start Num: 24
Candidate Starts for Daegal_52:
(Start: 24 @37533 has 16 MA's), (45, 37596),

Gene: Daenerys_39 Start: 31164, Stop: 30970, Start Num: 30
Candidate Starts for Daenerys_39:
(Start: 30 @31164 has 24 MA's), (50, 31077), (60, 31017), (63, 30996),

Gene: Dalmatian_38 Start: 28293, Stop: 28123, Start Num: 37
Candidate Starts for Dalmatian_38:
(11, 28374), (Start: 37 @28293 has 87 MA's), (63, 28143),

Gene: Dante_40 Start: 31281, Stop: 31087, Start Num: 30
Candidate Starts for Dante_40:
(Start: 30 @31281 has 24 MA's), (50, 31194), (60, 31134), (63, 31113),

Gene: Decurro_22 Start: 13881, Stop: 14087, Start Num: 31
Candidate Starts for Decurro_22:
(Start: 20 @13854 has 38 MA's), (Start: 31 @13881 has 2 MA's), (49, 13962), (62, 14049), (65, 14076),

Gene: DeepSoil15_50 Start: 36949, Stop: 37146, Start Num: 24
Candidate Starts for DeepSoil15_50:

(Start: 24 @36949 has 16 MA's), (45, 37012),

Gene: Dewayne_22 Start: 13886, Stop: 14119, Start Num: 20

Candidate Starts for Dewayne_22:

(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: Dieselweasel_38 Start: 27906, Stop: 27724, Start Num: 35

Candidate Starts for Dieselweasel_38:

(Start: 35 @27906 has 69 MA's), (47, 27855), (62, 27753), (63, 27750),

Gene: Dignity_38 Start: 28279, Stop: 28109, Start Num: 37

Candidate Starts for Dignity_38:

(11, 28360), (Start: 37 @28279 has 87 MA's), (47, 28234), (59, 28156), (63, 28129),

Gene: Dori_80 Start: 57490, Stop: 57729, Start Num: 23

Candidate Starts for Dori_80:

(Start: 23 @57490 has 1 MA's), (Start: 36 @57523 has 42 MA's), (62, 57673),

Gene: Drake55_40 Start: 28546, Stop: 28376, Start Num: 37

Candidate Starts for Drake55_40:

(Start: 37 @28546 has 87 MA's), (54, 28450), (59, 28423), (63, 28396),

Gene: DudeLittle_36 Start: 27959, Stop: 27789, Start Num: 37

Candidate Starts for DudeLittle_36:

(11, 28040), (Start: 37 @27959 has 87 MA's), (63, 27809),

Gene: Duplo_39 Start: 27634, Stop: 27464, Start Num: 37

Candidate Starts for Duplo_39:

(Start: 37 @27634 has 87 MA's), (47, 27589), (49, 27574), (54, 27538), (63, 27484),

Gene: Eagle_34 Start: 27346, Stop: 27173, Start Num: 36

Candidate Starts for Eagle_34:

(Start: 36 @27346 has 42 MA's), (47, 27298), (63, 27193),

Gene: Ein37_50 Start: 36949, Stop: 37146, Start Num: 24

Candidate Starts for Ein37_50:

(Start: 24 @36949 has 16 MA's), (45, 37012),

Gene: Eish_41 Start: 31869, Stop: 31675, Start Num: 30

Candidate Starts for Eish_41:

(Start: 30 @31869 has 24 MA's), (50, 31782), (60, 31722), (63, 31701),

Gene: Elkhorn_22 Start: 13883, Stop: 14116, Start Num: 20

Candidate Starts for Elkhorn_22:

(Start: 20 @13883 has 38 MA's), (Start: 31 @13910 has 2 MA's), (44, 13964), (46, 13970), (49, 13991), (62, 14078),

Gene: Empress_41 Start: 32577, Stop: 32383, Start Num: 30

Candidate Starts for Empress_41:

(Start: 30 @32577 has 24 MA's), (50, 32490), (60, 32430), (63, 32409),

Gene: EpicPhail_38 Start: 27904, Stop: 27722, Start Num: 35

Candidate Starts for EpicPhail_38:

(Start: 35 @27904 has 69 MA's), (47, 27853), (62, 27751), (63, 27748),

Gene: Equemioh13_39 Start: 28486, Stop: 28316, Start Num: 37

Candidate Starts for Equemioh13_39:

(Start: 37 @28486 has 87 MA's), (54, 28390), (59, 28363), (63, 28336),

Gene: Eurydice_35 Start: 27321, Stop: 27148, Start Num: 36

Candidate Starts for Eurydice_35:

(Start: 36 @27321 has 42 MA's), (47, 27273), (63, 27168),

Gene: Evanesce_49 Start: 36949, Stop: 37146, Start Num: 24

Candidate Starts for Evanesce_49:

(Start: 24 @36949 has 16 MA's), (45, 37012),

Gene: EvilGenius_39 Start: 29648, Stop: 29478, Start Num: 37

Candidate Starts for EvilGenius_39:

(11, 29729), (Start: 37 @29648 has 87 MA's), (47, 29603), (63, 29498),

Gene: Fameo_37 Start: 28087, Stop: 27917, Start Num: 37

Candidate Starts for Fameo_37:

(11, 28168), (Start: 37 @28087 has 87 MA's), (63, 27937),

Gene: Farber_38 Start: 27897, Stop: 27715, Start Num: 35

Candidate Starts for Farber_38:

(Start: 35 @27897 has 69 MA's), (47, 27846), (62, 27744), (63, 27741),

Gene: Fernando_38 Start: 27903, Stop: 27721, Start Num: 35

Candidate Starts for Fernando_38:

(Start: 35 @27903 has 69 MA's), (47, 27852), (62, 27750), (63, 27747),

Gene: FiringLine_37 Start: 27891, Stop: 27721, Start Num: 37

Candidate Starts for FiringLine_37:

(Start: 37 @27891 has 87 MA's), (63, 27741),

Gene: Flare16_38 Start: 28158, Stop: 27988, Start Num: 37

Candidate Starts for Flare16_38:

(Start: 37 @28158 has 87 MA's), (54, 28062), (57, 28044), (63, 28008),

Gene: Forge_48 Start: 36949, Stop: 37146, Start Num: 24

Candidate Starts for Forge_48:

(Start: 24 @36949 has 16 MA's), (45, 37012),

Gene: Forza_191 Start: 109282, Stop: 109476, Start Num: 42

Candidate Starts for Forza_191:

(Start: 37 @109270 has 87 MA's), (Start: 42 @109282 has 2 MA's), (49, 109330), (56, 109375),

Gene: Fred313_35 Start: 27164, Stop: 26985, Start Num: 36

Candidate Starts for Fred313_35:

(Start: 36 @27164 has 42 MA's), (47, 27116), (63, 27011),

Gene: GMA2_95 Start: 87367, Stop: 87170, Start Num: 35

Candidate Starts for GMA2_95:

(Start: 35 @87367 has 69 MA's), (Start: 42 @87349 has 2 MA's),

Gene: GUmbie_40 Start: 31183, Stop: 30989, Start Num: 30

Candidate Starts for GUmbie_40:

(Start: 30 @31183 has 24 MA's), (50, 31096), (60, 31036), (63, 31015),

Gene: Gancho_49 Start: 36672, Stop: 36869, Start Num: 24

Candidate Starts for Gancho_49:

(Start: 24 @36672 has 16 MA's), (45, 36735),

Gene: GaugeLDP_38 Start: 28708, Stop: 28538, Start Num: 37

Candidate Starts for GaugeLDP_38:

(Start: 37 @28708 has 87 MA's), (53, 28621), (63, 28558),

Gene: Gemma_37 Start: 27728, Stop: 27546, Start Num: 35

Candidate Starts for Gemma_37:

(Start: 35 @27728 has 69 MA's), (47, 27677), (62, 27575), (63, 27572),

Gene: Georgie2_38 Start: 27936, Stop: 27766, Start Num: 37

Candidate Starts for Georgie2_38:

(7, 28050), (Start: 37 @27936 has 87 MA's), (63, 27786),

Gene: GingkoMaracino_38 Start: 27790, Stop: 27608, Start Num: 35

Candidate Starts for GingkoMaracino_38:

(Start: 35 @27790 has 69 MA's), (47, 27739), (62, 27637), (63, 27634),

Gene: Giroux_35 Start: 27411, Stop: 27232, Start Num: 36

Candidate Starts for Giroux_35:

(Start: 36 @27411 has 42 MA's), (47, 27363), (63, 27258),

Gene: Grif_38 Start: 27978, Stop: 27796, Start Num: 35

Candidate Starts for Grif_38:

(Start: 35 @27978 has 69 MA's), (47, 27927), (62, 27825), (63, 27822),

Gene: Groupthink_38 Start: 27732, Stop: 27550, Start Num: 35

Candidate Starts for Groupthink_38:

(Start: 35 @27732 has 69 MA's), (47, 27681), (62, 27579), (63, 27576),

Gene: Grub_38 Start: 27896, Stop: 27714, Start Num: 35

Candidate Starts for Grub_38:

(Start: 35 @27896 has 69 MA's), (47, 27845), (62, 27743), (63, 27740),

Gene: Grum1_38 Start: 27903, Stop: 27721, Start Num: 35

Candidate Starts for Grum1_38:

(Start: 35 @27903 has 69 MA's), (47, 27852), (62, 27750), (63, 27747),

Gene: GtownJaz_38 Start: 27905, Stop: 27723, Start Num: 35

Candidate Starts for GtownJaz_38:

(Start: 35 @27905 has 69 MA's), (47, 27854), (62, 27752), (63, 27749),

Gene: Guntur_22 Start: 13886, Stop: 14119, Start Num: 20

Candidate Starts for Guntur_22:

(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: Hadrien_50 Start: 36949, Stop: 37146, Start Num: 24
Candidate Starts for Hadrien_50:
(Start: 24 @36949 has 16 MA's), (45, 37012),

Gene: HarryHoudini_39 Start: 28432, Stop: 28262, Start Num: 37
Candidate Starts for HarryHoudini_39:
(Start: 37 @28432 has 87 MA's),

Gene: HaveUMetTed_38 Start: 27725, Stop: 27543, Start Num: 35
Candidate Starts for HaveUMetTed_38:
(Start: 35 @27725 has 69 MA's), (47, 27674), (49, 27659), (62, 27572), (63, 27569),

Gene: Heathen_35 Start: 27220, Stop: 27041, Start Num: 36
Candidate Starts for Heathen_35:
(Start: 36 @27220 has 42 MA's), (47, 27172), (63, 27067),

Gene: Heffalump_37 Start: 28819, Stop: 28649, Start Num: 37
Candidate Starts for Heffalump_37:
(11, 28900), (Start: 37 @28819 has 87 MA's), (54, 28723), (63, 28669),

Gene: HelDan_35 Start: 27472, Stop: 27293, Start Num: 36
Candidate Starts for HelDan_35:
(Start: 36 @27472 has 42 MA's), (47, 27424), (63, 27319),

Gene: Heliosoles_37 Start: 27732, Stop: 27550, Start Num: 35
Candidate Starts for Heliosoles_37:
(Start: 35 @27732 has 69 MA's), (47, 27681), (62, 27579), (63, 27576),

Gene: Hercules11_38 Start: 27912, Stop: 27730, Start Num: 35
Candidate Starts for Hercules11_38:
(Start: 35 @27912 has 69 MA's), (47, 27861), (62, 27759), (63, 27756),

Gene: Hum25_40 Start: 27639, Stop: 27827, Start Num: 37
Candidate Starts for Hum25_40:
(Start: 37 @27639 has 87 MA's),

Gene: Hunnie_22 Start: 13886, Stop: 14119, Start Num: 20
Candidate Starts for Hunnie_22:
(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: IbOuu_43 Start: 31738, Stop: 31544, Start Num: 30
Candidate Starts for IbOuu_43:
(Start: 30 @31738 has 24 MA's), (50, 31651), (60, 31591), (63, 31570),

Gene: Idaho_18 Start: 13771, Stop: 13965, Start Num: 35
Candidate Starts for Idaho_18:
(Start: 35 @13771 has 69 MA's), (39, 13786), (58, 13897),

Gene: Idleandcovert_35 Start: 27412, Stop: 27233, Start Num: 36

Candidate Starts for Idleandcovert_35:
(Start: 36 @27412 has 42 MA's), (47, 27364), (63, 27259),

Gene: Inspire2_22 Start: 13886, Stop: 14119, Start Num: 20
Candidate Starts for Inspire2_22:
(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: Inventum_39 Start: 31844, Stop: 31650, Start Num: 30
Candidate Starts for Inventum_39:
(Start: 30 @31844 has 24 MA's), (50, 31757), (60, 31697), (63, 31676),

Gene: IronMan_38 Start: 29131, Stop: 28961, Start Num: 37
Candidate Starts for IronMan_38:
(Start: 37 @29131 has 87 MA's), (47, 29086), (59, 29008), (63, 28981),

Gene: Isca_35 Start: 27181, Stop: 27002, Start Num: 36
Candidate Starts for Isca_35:
(Start: 36 @27181 has 42 MA's), (47, 27133), (63, 27028),

Gene: Iwokeuplikedis_37 Start: 27530, Stop: 27360, Start Num: 37
Candidate Starts for Iwokeuplikedis_37:
(1, 27749), (Start: 28 @27554 has 3 MA's), (Start: 37 @27530 has 87 MA's), (63, 27380),

Gene: JF2_35 Start: 26932, Stop: 26753, Start Num: 36
Candidate Starts for JF2_35:
(Start: 36 @26932 has 42 MA's), (47, 26884), (63, 26779),

Gene: JF4_35 Start: 26932, Stop: 26753, Start Num: 36
Candidate Starts for JF4_35:
(Start: 36 @26932 has 42 MA's), (47, 26884), (63, 26779),

Gene: JHC117_38 Start: 27902, Stop: 27720, Start Num: 35
Candidate Starts for JHC117_38:
(Start: 35 @27902 has 69 MA's), (47, 27851), (62, 27749), (63, 27746),

Gene: Jaan_40 Start: 29710, Stop: 29540, Start Num: 37
Candidate Starts for Jaan_40:
(Start: 37 @29710 has 87 MA's), (47, 29665), (59, 29587), (63, 29560),

Gene: JenCasNa_38 Start: 27903, Stop: 27721, Start Num: 35
Candidate Starts for JenCasNa_38:
(Start: 35 @27903 has 69 MA's), (47, 27852), (62, 27750), (63, 27747),

Gene: JeppNRM_38 Start: 27730, Stop: 27548, Start Num: 35
Candidate Starts for JeppNRM_38:
(Start: 35 @27730 has 69 MA's), (47, 27679), (62, 27577), (63, 27574),

Gene: Jerm_38 Start: 28272, Stop: 28102, Start Num: 37
Candidate Starts for Jerm_38:
(11, 28353), (Start: 37 @28272 has 87 MA's), (47, 28227), (59, 28149), (63, 28122),

Gene: Jessica_23 Start: 13913, Stop: 14119, Start Num: 31

Candidate Starts for Jessica_23:

(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: Job42_43 Start: 33160, Stop: 32966, Start Num: 30

Candidate Starts for Job42_43:

(Start: 30 @33160 has 24 MA's), (50, 33073), (60, 33013), (63, 32992),

Gene: Jobu08_37 Start: 27733, Stop: 27551, Start Num: 35

Candidate Starts for Jobu08_37:

(Start: 35 @27733 has 69 MA's), (47, 27682), (62, 27580), (63, 27577),

Gene: JoeyJr_40 Start: 31332, Stop: 31138, Start Num: 30

Candidate Starts for JoeyJr_40:

(Start: 30 @31332 has 24 MA's), (50, 31245), (60, 31185), (63, 31164),

Gene: JoshKayV_38 Start: 28235, Stop: 28065, Start Num: 37

Candidate Starts for JoshKayV_38:

(11, 28316), (Start: 37 @28235 has 87 MA's), (63, 28085),

Gene: Journey13_34 Start: 26962, Stop: 26771, Start Num: 28

Candidate Starts for Journey13_34:

(Start: 28 @26962 has 3 MA's), (Start: 37 @26941 has 87 MA's), (62, 26794), (63, 26791),

Gene: Jsquared_36 Start: 26790, Stop: 26620, Start Num: 37

Candidate Starts for Jsquared_36:

(Start: 28 @26811 has 3 MA's), (Start: 37 @26790 has 87 MA's), (62, 26643), (63, 26640),

Gene: Kalb97_38 Start: 27731, Stop: 27549, Start Num: 35

Candidate Starts for Kalb97_38:

(Start: 35 @27731 has 69 MA's), (47, 27680), (62, 27578), (63, 27575),

Gene: Kalnoky_38 Start: 27732, Stop: 27550, Start Num: 35

Candidate Starts for Kalnoky_38:

(Start: 35 @27732 has 69 MA's), (47, 27681), (62, 27579), (63, 27576),

Gene: Kalpine_37 Start: 28631, Stop: 28461, Start Num: 37

Candidate Starts for Kalpine_37:

(Start: 37 @28631 has 87 MA's), (63, 28481),

Gene: Kamy_35 Start: 27323, Stop: 27150, Start Num: 36

Candidate Starts for Kamy_35:

(Start: 36 @27323 has 42 MA's), (47, 27275), (63, 27170),

Gene: Kels_19 Start: 13001, Stop: 13219, Start Num: 20

Candidate Starts for Kels_19:

(Start: 20 @13001 has 38 MA's), (Start: 31 @13028 has 2 MA's), (47, 13091), (64, 13202),

Gene: Kerberos_39 Start: 27596, Stop: 27426, Start Num: 37

Candidate Starts for Kerberos_39:

(Start: 37 @27596 has 87 MA's), (47, 27551), (49, 27536), (54, 27500), (63, 27446),

Gene: Kimona_32 Start: 25489, Stop: 25322, Start Num: 40

Candidate Starts for Kimona_32:
(Start: 40 @25489 has 1 MA's), (49, 25438), (63, 25348),

Gene: Kinbote_50 Start: 36949, Stop: 37146, Start Num: 24
Candidate Starts for Kinbote_50:
(Start: 24 @36949 has 16 MA's), (45, 37012),

Gene: KingCyrus_39 Start: 29643, Stop: 29473, Start Num: 37
Candidate Starts for KingCyrus_39:
(11, 29724), (Start: 37 @29643 has 87 MA's), (47, 29598), (63, 29493),

Gene: Koduck_36 Start: 26767, Stop: 26597, Start Num: 37
Candidate Starts for Koduck_36:
(Start: 37 @26767 has 87 MA's), (59, 26644),

Gene: KylieMac_23 Start: 13870, Stop: 14103, Start Num: 20
Candidate Starts for KylieMac_23:
(Start: 20 @13870 has 38 MA's), (Start: 31 @13897 has 2 MA's), (44, 13951), (46, 13957), (49, 13978), (62, 14065),

Gene: L5_36 Start: 26727, Stop: 26557, Start Num: 37
Candidate Starts for L5_36:
(Start: 37 @26727 has 87 MA's), (59, 26604), (63, 26577),

Gene: LBerry_38 Start: 27904, Stop: 27722, Start Num: 35
Candidate Starts for LBerry_38:
(Start: 35 @27904 has 69 MA's), (47, 27853), (62, 27751), (63, 27748),

Gene: LHTSCC_36 Start: 27659, Stop: 27486, Start Num: 36
Candidate Starts for LHTSCC_36:
(Start: 36 @27659 has 42 MA's), (47, 27611), (63, 27506),

Gene: Laila_24 Start: 13883, Stop: 14116, Start Num: 20
Candidate Starts for Laila_24:
(Start: 20 @13883 has 38 MA's), (Start: 31 @13910 has 2 MA's), (44, 13964), (46, 13970), (49, 13991), (62, 14078),

Gene: Landor_38 Start: 29245, Stop: 29075, Start Num: 37
Candidate Starts for Landor_38:
(Start: 37 @29245 has 87 MA's), (47, 29200), (63, 29095),

Gene: Larenn_38 Start: 28329, Stop: 28159, Start Num: 37
Candidate Starts for Larenn_38:
(Start: 37 @28329 has 87 MA's), (47, 28284), (54, 28233), (59, 28206), (63, 28179),

Gene: LeoAvram_35 Start: 27321, Stop: 27148, Start Num: 36
Candidate Starts for LeoAvram_35:
(Start: 36 @27321 has 42 MA's), (47, 27273), (63, 27168),

Gene: Leogania_37 Start: 29148, Stop: 28978, Start Num: 37
Candidate Starts for Leogania_37:
(Start: 37 @29148 has 87 MA's), (63, 28998),

Gene: Leozinho_42 Start: 31585, Stop: 31391, Start Num: 30
Candidate Starts for Leozinho_42:
(Start: 30 @31585 has 24 MA's), (50, 31498), (60, 31438), (63, 31417),

Gene: Leviathan_38 Start: 28328, Stop: 28158, Start Num: 37
Candidate Starts for Leviathan_38:
(11, 28409), (Start: 37 @28328 has 87 MA's), (47, 28283), (59, 28205), (63, 28178),

Gene: LilHazelnut_50 Start: 36949, Stop: 37146, Start Num: 24
Candidate Starts for LilHazelnut_50:
(Start: 24 @36949 has 16 MA's), (45, 37012),

Gene: LilTurb_37 Start: 28161, Stop: 27991, Start Num: 37
Candidate Starts for LilTurb_37:
(11, 28242), (Start: 37 @28161 has 87 MA's), (47, 28116), (59, 28038), (63, 28011),

Gene: Lilith_38 Start: 27897, Stop: 27715, Start Num: 35
Candidate Starts for Lilith_38:
(Start: 35 @27897 has 69 MA's), (47, 27846), (62, 27744), (63, 27741),

Gene: Link_22 Start: 13851, Stop: 14084, Start Num: 20
Candidate Starts for Link_22:
(Start: 20 @13851 has 38 MA's), (Start: 31 @13878 has 2 MA's), (49, 13959), (62, 14046), (65, 14073),

Gene: Lore_22 Start: 13883, Stop: 14116, Start Num: 20
Candidate Starts for Lore_22:
(Start: 20 @13883 has 38 MA's), (Start: 31 @13910 has 2 MA's), (44, 13964), (46, 13970), (49, 13991), (62, 14078),

Gene: LouisXIV_22 Start: 13886, Stop: 14119, Start Num: 20
Candidate Starts for LouisXIV_22:
(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: LugYA_40 Start: 27904, Stop: 27722, Start Num: 35
Candidate Starts for LugYA_40:
(Start: 35 @27904 has 69 MA's), (47, 27853), (62, 27751), (63, 27748),

Gene: Luke_50 Start: 36904, Stop: 37101, Start Num: 24
Candidate Starts for Luke_50:
(Start: 24 @36904 has 16 MA's), (45, 36967),

Gene: MA5_35 Start: 27064, Stop: 26885, Start Num: 36
Candidate Starts for MA5_35:
(Start: 36 @27064 has 42 MA's), (47, 27016), (63, 26911),

Gene: MK4_35 Start: 27166, Stop: 26987, Start Num: 36
Candidate Starts for MK4_35:
(Start: 36 @27166 has 42 MA's), (47, 27118), (63, 27013),

Gene: MadMarie_38 Start: 27906, Stop: 27724, Start Num: 35
Candidate Starts for MadMarie_38:

(Start: 35 @27906 has 69 MA's), (47, 27855), (62, 27753), (63, 27750),

Gene: Maggie_22 Start: 13886, Stop: 14119, Start Num: 20

Candidate Starts for Maggie_22:

(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: Mainiac_38 Start: 27897, Stop: 27715, Start Num: 35

Candidate Starts for Mainiac_38:

(Start: 35 @27897 has 69 MA's), (47, 27846), (62, 27744), (63, 27741),

Gene: Malec_39 Start: 28893, Stop: 28723, Start Num: 37

Candidate Starts for Malec_39:

(Start: 37 @28893 has 87 MA's), (63, 28743),

Gene: Malinsilva_40 Start: 27896, Stop: 27714, Start Num: 35

Candidate Starts for Malinsilva_40:

(Start: 35 @27896 has 69 MA's), (47, 27845), (62, 27743), (63, 27740),

Gene: Manu_38 Start: 27732, Stop: 27550, Start Num: 35

Candidate Starts for Manu_38:

(Start: 35 @27732 has 69 MA's), (47, 27681), (62, 27579), (63, 27576),

Gene: Mao1_84 Start: 56412, Stop: 56618, Start Num: 36

Candidate Starts for Mao1_84:

(Start: 23 @56379 has 1 MA's), (Start: 36 @56412 has 42 MA's), (62, 56562),

Gene: MarQuardt_38 Start: 27905, Stop: 27723, Start Num: 35

Candidate Starts for MarQuardt_38:

(Start: 35 @27905 has 69 MA's), (47, 27854), (62, 27752), (63, 27749),

Gene: Mareelih_188 Start: 108788, Stop: 108994, Start Num: 37

Candidate Starts for Mareelih_188:

(Start: 37 @108788 has 87 MA's), (Start: 42 @108800 has 2 MA's), (49, 108848), (56, 108893),

Gene: Marie_38 Start: 27903, Stop: 27721, Start Num: 35

Candidate Starts for Marie_38:

(Start: 35 @27903 has 69 MA's), (47, 27852), (62, 27750), (63, 27747),

Gene: Mariposa_22 Start: 13886, Stop: 14119, Start Num: 20

Candidate Starts for Mariposa_22:

(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: Marius_38 Start: 27732, Stop: 27550, Start Num: 35

Candidate Starts for Marius_38:

(Start: 35 @27732 has 69 MA's), (47, 27681), (62, 27579), (63, 27576),

Gene: Mask_83 Start: 58809, Stop: 59012, Start Num: 32

Candidate Starts for Mask_83:

(9, 58722), (Start: 32 @58809 has 1 MA's), (62, 58974),

Gene: Massimo_22 Start: 13886, Stop: 14119, Start Num: 20

Candidate Starts for Massimo_22:

(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: Maxo_35 Start: 27323, Stop: 27150, Start Num: 36

Candidate Starts for Maxo_35:

(Start: 36 @27323 has 42 MA's), (47, 27275), (63, 27170),

Gene: Medusa_35 Start: 27323, Stop: 27150, Start Num: 36

Candidate Starts for Medusa_35:

(Start: 36 @27323 has 42 MA's), (47, 27275), (63, 27170),

Gene: Melvin_36 Start: 27322, Stop: 27149, Start Num: 36

Candidate Starts for Melvin_36:

(Start: 36 @27322 has 42 MA's), (47, 27274), (63, 27169),

Gene: Microwolf_38 Start: 27905, Stop: 27723, Start Num: 35

Candidate Starts for Microwolf_38:

(Start: 35 @27905 has 69 MA's), (47, 27854), (62, 27752), (63, 27749),

Gene: MiculUcigas_38 Start: 28157, Stop: 27987, Start Num: 37

Candidate Starts for MiculUcigas_38:

(Start: 37 @28157 has 87 MA's), (54, 28061), (57, 28043), (63, 28007),

Gene: MissWhite_34 Start: 26128, Stop: 25958, Start Num: 37

Candidate Starts for MissWhite_34:

(33, 26140), (Start: 37 @26128 has 87 MA's), (63, 25978),

Gene: MoRicky_22 Start: 14364, Stop: 14573, Start Num: 27

Candidate Starts for MoRicky_22:

(12, 14313), (19, 14343), (Start: 27 @14364 has 2 MA's), (47, 14439),

Gene: Moloch_22 Start: 13960, Stop: 14193, Start Num: 20

Candidate Starts for Moloch_22:

(Start: 20 @13960 has 38 MA's), (Start: 31 @13987 has 2 MA's), (49, 14068), (62, 14155), (65, 14182),

Gene: MoneyMay_38 Start: 27903, Stop: 27721, Start Num: 35

Candidate Starts for MoneyMay_38:

(Start: 35 @27903 has 69 MA's), (47, 27852), (62, 27750), (63, 27747),

Gene: Morrow_35 Start: 27327, Stop: 27154, Start Num: 36

Candidate Starts for Morrow_35:

(Start: 36 @27327 has 42 MA's), (47, 27279), (63, 27174),

Gene: MrSmee_43 Start: 28469, Stop: 28657, Start Num: 37

Candidate Starts for MrSmee_43:

(Start: 37 @28469 has 87 MA's),

Gene: MuchMore_40 Start: 27896, Stop: 27714, Start Num: 35

Candidate Starts for MuchMore_40:

(Start: 35 @27896 has 69 MA's), (47, 27845), (62, 27743), (63, 27740),

Gene: Muttlie_22 Start: 13854, Stop: 14087, Start Num: 20
Candidate Starts for Muttlie_22:
(Start: 20 @13854 has 38 MA's), (Start: 31 @13881 has 2 MA's), (49, 13962), (62, 14049), (65, 14076),

Gene: NaSiaTalie_38 Start: 28155, Stop: 27985, Start Num: 37
Candidate Starts for NaSiaTalie_38:
(Start: 37 @28155 has 87 MA's), (54, 28059), (57, 28041), (63, 28005),

Gene: Naji_39 Start: 27596, Stop: 27426, Start Num: 37
Candidate Starts for Naji_39:
(Start: 37 @27596 has 87 MA's), (47, 27551), (49, 27536), (54, 27500), (63, 27446),

Gene: Nebs_35 Start: 27321, Stop: 27148, Start Num: 36
Candidate Starts for Nebs_35:
(Start: 36 @27321 has 42 MA's), (47, 27273), (63, 27168),

Gene: NicoleTera_39 Start: 28870, Stop: 28700, Start Num: 37
Candidate Starts for NicoleTera_39:
(Start: 37 @28870 has 87 MA's), (54, 28774), (63, 28720),

Gene: Noely_18 Start: 12900, Stop: 13088, Start Num: 35
Candidate Starts for Noely_18:
(Start: 35 @12900 has 69 MA's), (47, 12954), (49, 12969), (51, 12981), (58, 13026),

Gene: NothingSpecial_38 Start: 29153, Stop: 28983, Start Num: 37
Candidate Starts for NothingSpecial_38:
(10, 29249), (17, 29201), (Start: 37 @29153 has 87 MA's), (47, 29108), (49, 29093), (53, 29066), (63, 29003),

Gene: OBUpride_50 Start: 36945, Stop: 37142, Start Num: 24
Candidate Starts for OBUpride_50:
(Start: 24 @36945 has 16 MA's), (45, 37008), (47, 37017), (49, 37032),

Gene: Obama12_36 Start: 27661, Stop: 27488, Start Num: 36
Candidate Starts for Obama12_36:
(Start: 36 @27661 has 42 MA's), (47, 27613), (63, 27508),

Gene: Oblivate_39 Start: 31330, Stop: 31524, Start Num: 26
Candidate Starts for Oblivate_39:
(Start: 26 @31330 has 3 MA's),

Gene: Odin_36 Start: 26579, Stop: 26409, Start Num: 37
Candidate Starts for Odin_36:
(Start: 37 @26579 has 87 MA's), (59, 26456), (63, 26429),

Gene: Ogopogo_43 Start: 31095, Stop: 30901, Start Num: 30
Candidate Starts for Ogopogo_43:
(Start: 30 @31095 has 24 MA's), (50, 31008), (60, 30948), (63, 30927),

Gene: Ohfah_35 Start: 27321, Stop: 27148, Start Num: 36
Candidate Starts for Ohfah_35:
(Start: 36 @27321 has 42 MA's), (47, 27273), (63, 27168),

Gene: OlanP_37 Start: 27913, Stop: 27731, Start Num: 35

Candidate Starts for OlanP_37:

(Start: 35 @27913 has 69 MA's), (47, 27862), (49, 27847), (62, 27760), (63, 27757),

Gene: Ollie_38 Start: 27775, Stop: 27593, Start Num: 35

Candidate Starts for Ollie_38:

(Start: 35 @27775 has 69 MA's), (47, 27724), (62, 27622), (63, 27619),

Gene: OlympiaSaint_40 Start: 31613, Stop: 31419, Start Num: 30

Candidate Starts for OlympiaSaint_40:

(Start: 30 @31613 has 24 MA's), (50, 31526), (60, 31466), (63, 31445),

Gene: OwlsT2W_40 Start: 31588, Stop: 31394, Start Num: 30

Candidate Starts for OwlsT2W_40:

(Start: 30 @31588 has 24 MA's), (50, 31501), (60, 31441), (63, 31420),

Gene: P28Green_38 Start: 27906, Stop: 27724, Start Num: 35

Candidate Starts for P28Green_38:

(Start: 35 @27906 has 69 MA's), (47, 27855), (62, 27753), (63, 27750),

Gene: PGHhamlin_40 Start: 27896, Stop: 27714, Start Num: 35

Candidate Starts for PGHhamlin_40:

(Start: 35 @27896 has 69 MA's), (47, 27845), (62, 27743), (63, 27740),

Gene: Pawn_38 Start: 27733, Stop: 27551, Start Num: 35

Candidate Starts for Pawn_38:

(Start: 35 @27733 has 69 MA's), (47, 27682), (62, 27580), (63, 27577),

Gene: Pembroke_38 Start: 27905, Stop: 27723, Start Num: 35

Candidate Starts for Pembroke_38:

(Start: 35 @27905 has 69 MA's), (47, 27854), (62, 27752), (63, 27749),

Gene: Penny1_38 Start: 27904, Stop: 27722, Start Num: 35

Candidate Starts for Penny1_38:

(Start: 35 @27904 has 69 MA's), (47, 27853), (62, 27751), (63, 27748),

Gene: Petra_40 Start: 31689, Stop: 31883, Start Num: 26

Candidate Starts for Petra_40:

(Start: 26 @31689 has 3 MA's),

Gene: Ph8s_38 Start: 26829, Stop: 26659, Start Num: 37

Candidate Starts for Ph8s_38:

(18, 26871), (Start: 37 @26829 has 87 MA's), (59, 26706), (63, 26679),

Gene: Phaded_41 Start: 29586, Stop: 29416, Start Num: 37

Candidate Starts for Phaded_41:

(Start: 37 @29586 has 87 MA's), (63, 29436),

Gene: Phantastic_35 Start: 27197, Stop: 27018, Start Num: 36

Candidate Starts for Phantastic_35:

(Start: 36 @27197 has 42 MA's), (47, 27149), (63, 27044),

Gene: Pharaoh_35 Start: 28307, Stop: 28137, Start Num: 37
Candidate Starts for Pharaoh_35:
(Start: 37 @28307 has 87 MA's), (54, 28211), (63, 28157),

Gene: Phelipe_35 Start: 27324, Stop: 27151, Start Num: 36
Candidate Starts for Phelipe_35:
(Start: 36 @27324 has 42 MA's), (47, 27276), (63, 27171),

Gene: PhishRPhriends_36 Start: 26910, Stop: 26728, Start Num: 35
Candidate Starts for PhishRPhriends_36:
(Start: 35 @26910 has 69 MA's), (47, 26859), (62, 26757), (63, 26754),

Gene: Phoebe_38 Start: 27896, Stop: 27714, Start Num: 35
Candidate Starts for Phoebe_38:
(Start: 35 @27896 has 69 MA's), (47, 27845), (62, 27743), (63, 27740),

Gene: Phranny_38 Start: 27718, Stop: 27536, Start Num: 35
Candidate Starts for Phranny_38:
(Start: 35 @27718 has 69 MA's), (47, 27667), (62, 27565), (63, 27562),

Gene: Piku_17 Start: 12712, Stop: 12912, Start Num: 38
Candidate Starts for Piku_17:
(38, 12712), (Start: 43 @12727 has 2 MA's), (66, 12898),

Gene: Piro94_37 Start: 28335, Stop: 28165, Start Num: 37
Candidate Starts for Piro94_37:
(Start: 37 @28335 has 87 MA's), (49, 28275), (54, 28239), (63, 28185),

Gene: Pistachio_36 Start: 26959, Stop: 26780, Start Num: 36
Candidate Starts for Pistachio_36:
(Start: 36 @26959 has 42 MA's), (47, 26911), (63, 26806),

Gene: Pitbull_42 Start: 26865, Stop: 27053, Start Num: 37
Candidate Starts for Pitbull_42:
(Start: 37 @26865 has 87 MA's),

Gene: Polka14_41 Start: 31785, Stop: 31591, Start Num: 30
Candidate Starts for Polka14_41:
(Start: 30 @31785 has 24 MA's), (50, 31698), (60, 31638), (63, 31617),

Gene: Pollywog_41 Start: 31707, Stop: 31513, Start Num: 30
Candidate Starts for Pollywog_41:
(Start: 30 @31707 has 24 MA's), (50, 31620), (60, 31560), (63, 31539),

Gene: Polymorphads_35 Start: 27320, Stop: 27147, Start Num: 36
Candidate Starts for Polymorphads_35:
(Start: 36 @27320 has 42 MA's), (47, 27272), (63, 27167),

Gene: Pomar16_39 Start: 27637, Stop: 27467, Start Num: 37
Candidate Starts for Pomar16_39:
(Start: 37 @27637 has 87 MA's), (47, 27592), (49, 27577), (54, 27541), (63, 27487),

Gene: PotatoSplit_39 Start: 27904, Stop: 27722, Start Num: 35

Candidate Starts for PotatoSplit_39:
(Start: 35 @27904 has 69 MA's), (47, 27853), (62, 27751), (63, 27748),

Gene: Power_36 Start: 27944, Stop: 27774, Start Num: 37
Candidate Starts for Power_36:
(Start: 37 @27944 has 87 MA's), (63, 27794),

Gene: Prospero_22 Start: 13886, Stop: 14119, Start Num: 20
Candidate Starts for Prospero_22:
(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: Pukovnik_37 Start: 28796, Stop: 28626, Start Num: 37
Candidate Starts for Pukovnik_37:
(Start: 37 @28796 has 87 MA's), (47, 28751), (63, 28646),

Gene: Puppy_36 Start: 27029, Stop: 26850, Start Num: 36
Candidate Starts for Puppy_36:
(Start: 36 @27029 has 42 MA's), (47, 26981), (63, 26876),

Gene: PurpleHaze_37 Start: 27731, Stop: 27549, Start Num: 35
Candidate Starts for PurpleHaze_37:
(Start: 35 @27731 has 69 MA's), (47, 27680), (62, 27578), (63, 27575),

Gene: QueenB2_37 Start: 28005, Stop: 27835, Start Num: 37
Candidate Starts for QueenB2_37:
(11, 28086), (Start: 37 @28005 has 87 MA's), (63, 27855),

Gene: QueenBeesly_37 Start: 27891, Stop: 27721, Start Num: 37
Candidate Starts for QueenBeesly_37:
(Start: 37 @27891 has 87 MA's), (63, 27741),

Gene: Radiance_41 Start: 31335, Stop: 31141, Start Num: 30
Candidate Starts for Radiance_41:
(Start: 30 @31335 has 24 MA's), (50, 31248), (60, 31188), (63, 31167),

Gene: Reba_38 Start: 27391, Stop: 27209, Start Num: 35
Candidate Starts for Reba_38:
(Start: 35 @27391 has 69 MA's), (47, 27340), (62, 27238), (63, 27235),

Gene: Retro23_38 Start: 28289, Stop: 28119, Start Num: 37
Candidate Starts for Retro23_38:
(11, 28370), (Start: 37 @28289 has 87 MA's), (63, 28139),

Gene: Rockstar_35 Start: 27173, Stop: 26994, Start Num: 36
Candidate Starts for Rockstar_35:
(Start: 36 @27173 has 42 MA's), (47, 27125), (63, 27020),

Gene: Ronnie_22 Start: 13886, Stop: 14119, Start Num: 20
Candidate Starts for Ronnie_22:
(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: Royals2015_42 Start: 31621, Stop: 31427, Start Num: 30
Candidate Starts for Royals2015_42:
(Start: 30 @31621 has 24 MA's), (50, 31534), (60, 31474), (63, 31453),

Gene: SPB78_44 Start: 32113, Stop: 32337, Start Num: 22
Candidate Starts for SPB78_44:
(22, 32113), (52, 32239),

Gene: Sabia_38 Start: 27897, Stop: 27715, Start Num: 35
Candidate Starts for Sabia_38:
(Start: 35 @27897 has 69 MA's), (47, 27846), (62, 27744), (63, 27741),

Gene: Sabinator_37 Start: 27902, Stop: 27720, Start Num: 35
Candidate Starts for Sabinator_37:
(Start: 35 @27902 has 69 MA's), (47, 27851), (62, 27749), (63, 27746),

Gene: Sandalphon_44 Start: 32523, Stop: 32329, Start Num: 30
Candidate Starts for Sandalphon_44:
(Start: 30 @32523 has 24 MA's), (50, 32436), (60, 32376), (63, 32355),

Gene: Sandman_22 Start: 13960, Stop: 14193, Start Num: 20
Candidate Starts for Sandman_22:
(Start: 20 @13960 has 38 MA's), (Start: 31 @13987 has 2 MA's), (49, 14068), (62, 14155), (65, 14182),

Gene: Saphira_23 Start: 13885, Stop: 14118, Start Num: 20
Candidate Starts for Saphira_23:
(Start: 20 @13885 has 38 MA's), (Start: 31 @13912 has 2 MA's), (44, 13966), (49, 13993), (62, 14080),

Gene: Sassafras_41 Start: 31844, Stop: 31650, Start Num: 30
Candidate Starts for Sassafras_41:
(Start: 30 @31844 has 24 MA's), (50, 31757), (60, 31697), (63, 31676),

Gene: SaturnRing_35 Start: 27412, Stop: 27233, Start Num: 36
Candidate Starts for SaturnRing_35:
(Start: 36 @27412 has 42 MA's), (47, 27364), (63, 27259),

Gene: Scottish_41 Start: 32465, Stop: 32271, Start Num: 30
Candidate Starts for Scottish_41:
(Start: 30 @32465 has 24 MA's), (50, 32378), (60, 32318), (63, 32297),

Gene: Scout_35 Start: 26719, Stop: 26540, Start Num: 36
Candidate Starts for Scout_35:
(Start: 36 @26719 has 42 MA's), (47, 26671), (63, 26566),

Gene: Sejanus_84 Start: 57638, Stop: 57847, Start Num: 21
Candidate Starts for Sejanus_84:
(5, 57539), (9, 57578), (Start: 21 @57638 has 1 MA's), (62, 57815),

Gene: SemperFi_38 Start: 28159, Stop: 27989, Start Num: 37
Candidate Starts for SemperFi_38:
(Start: 37 @28159 has 87 MA's), (63, 28009),

Gene: Serenity_37 Start: 26863, Stop: 26672, Start Num: 28
Candidate Starts for Serenity_37:
(4, 26986), (Start: 28 @26863 has 3 MA's), (Start: 37 @26842 has 87 MA's), (62, 26695), (63, 26692),

Gene: SerialPhiller_19 Start: 13063, Stop: 13281, Start Num: 20
Candidate Starts for SerialPhiller_19:
(Start: 20 @13063 has 38 MA's), (Start: 31 @13090 has 2 MA's), (48, 13159),

Gene: Seume_22 Start: 13649, Stop: 13882, Start Num: 20
Candidate Starts for Seume_22:
(Start: 20 @13649 has 38 MA's), (Start: 31 @13676 has 2 MA's), (49, 13757), (62, 13844), (65, 13871),

Gene: SheldonCooper_36 Start: 27660, Stop: 27487, Start Num: 36
Candidate Starts for SheldonCooper_36:
(Start: 36 @27660 has 42 MA's), (47, 27612), (63, 27507),

Gene: Smeagan_39 Start: 28415, Stop: 28245, Start Num: 37
Candidate Starts for Smeagan_39:
(11, 28496), (Start: 37 @28415 has 87 MA's), (47, 28370), (59, 28292), (63, 28265),

Gene: Smilerella_21 Start: 14454, Stop: 14663, Start Num: 27
Candidate Starts for Smilerella_21:
(12, 14403), (19, 14433), (Start: 27 @14454 has 2 MA's), (47, 14529),

Gene: SnapTap_37 Start: 27970, Stop: 27800, Start Num: 37
Candidate Starts for SnapTap_37:
(Start: 37 @27970 has 87 MA's), (63, 27820),

Gene: Snickers_38 Start: 27877, Stop: 27695, Start Num: 35
Candidate Starts for Snickers_38:
(Start: 35 @27877 has 69 MA's), (47, 27826), (62, 27724), (63, 27721),

Gene: SoYo_38 Start: 27815, Stop: 27633, Start Num: 35
Candidate Starts for SoYo_38:
(Start: 35 @27815 has 69 MA's), (47, 27764), (62, 27662), (63, 27659),

Gene: SoilDragon_37 Start: 27349, Stop: 27167, Start Num: 35
Candidate Starts for SoilDragon_37:
(Start: 35 @27349 has 69 MA's), (47, 27298), (62, 27196), (63, 27193),

Gene: Sourignavong_23 Start: 13955, Stop: 14188, Start Num: 20
Candidate Starts for Sourignavong_23:
(Start: 20 @13955 has 38 MA's), (Start: 31 @13982 has 2 MA's), (49, 14063), (62, 14150), (65, 14177),

Gene: Sparxx_35 Start: 27322, Stop: 27149, Start Num: 36
Candidate Starts for Sparxx_35:
(Start: 36 @27322 has 42 MA's), (47, 27274), (63, 27169),

Gene: Spoonbill_40 Start: 31424, Stop: 31230, Start Num: 30
Candidate Starts for Spoonbill_40:

(Start: 30 @31424 has 24 MA's), (50, 31337), (60, 31277), (63, 31256),

Gene: Stagni_38 Start: 27906, Stop: 27724, Start Num: 35

Candidate Starts for Stagni_38:

(Start: 35 @27906 has 69 MA's), (47, 27855), (62, 27753), (63, 27750),

Gene: StarStuff_39 Start: 27599, Stop: 27429, Start Num: 37

Candidate Starts for StarStuff_39:

(Start: 37 @27599 has 87 MA's), (47, 27554), (49, 27539), (54, 27503), (63, 27449),

Gene: StepMih_38 Start: 27897, Stop: 27715, Start Num: 35

Candidate Starts for StepMih_38:

(Start: 35 @27897 has 69 MA's), (47, 27846), (62, 27744), (63, 27741),

Gene: StewieGriff_22 Start: 13883, Stop: 14116, Start Num: 20

Candidate Starts for StewieGriff_22:

(Start: 20 @13883 has 38 MA's), (Start: 31 @13910 has 2 MA's), (44, 13964), (46, 13970), (49, 13991), (62, 14078),

Gene: Stratus_22 Start: 13960, Stop: 14193, Start Num: 20

Candidate Starts for Stratus_22:

(Start: 20 @13960 has 38 MA's), (Start: 31 @13987 has 2 MA's), (49, 14068), (62, 14155), (65, 14182),

Gene: Superchunk_36 Start: 26412, Stop: 26242, Start Num: 37

Candidate Starts for Superchunk_36:

(Start: 37 @26412 has 87 MA's), (59, 26289), (63, 26262),

Gene: SweetiePie_37 Start: 27970, Stop: 27800, Start Num: 37

Candidate Starts for SweetiePie_37:

(Start: 37 @27970 has 87 MA's), (63, 27820),

Gene: Swenson_22 Start: 14007, Stop: 14240, Start Num: 20

Candidate Starts for Swenson_22:

(Start: 20 @14007 has 38 MA's), (Start: 31 @14034 has 2 MA's), (44, 14088), (49, 14115), (62, 14202),

Gene: SwirlSquare_39 Start: 26439, Stop: 26269, Start Num: 37

Candidate Starts for SwirlSquare_39:

(Start: 37 @26439 has 87 MA's), (54, 26343),

Gene: TNguyen7_35 Start: 27376, Stop: 27197, Start Num: 36

Candidate Starts for TNguyen7_35:

(Start: 36 @27376 has 42 MA's), (47, 27328), (63, 27223),

Gene: Taj14_22 Start: 13882, Stop: 14115, Start Num: 20

Candidate Starts for Taj14_22:

(Start: 20 @13882 has 38 MA's), (Start: 31 @13909 has 2 MA's), (44, 13963), (49, 13990), (62, 14077),

Gene: TarsusIV_37 Start: 28077, Stop: 27907, Start Num: 37

Candidate Starts for TarsusIV_37:

(Start: 37 @28077 has 87 MA's), (55, 27975), (63, 27927),

Gene: Taurus_38 Start: 27903, Stop: 27721, Start Num: 35
Candidate Starts for Taurus_38:
(Start: 35 @27903 has 69 MA's), (47, 27852), (62, 27750), (63, 27747),

Gene: Tiffany_38 Start: 27789, Stop: 27607, Start Num: 35
Candidate Starts for Tiffany_38:
(Start: 35 @27789 has 69 MA's), (47, 27738), (62, 27636), (63, 27633),

Gene: TinaFeyge_35 Start: 27319, Stop: 27146, Start Num: 36
Candidate Starts for TinaFeyge_35:
(Start: 36 @27319 has 42 MA's), (47, 27271), (63, 27166),

Gene: TinoCrisci_22 Start: 13886, Stop: 14119, Start Num: 20
Candidate Starts for TinoCrisci_22:
(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: TopsytheTRex_35 Start: 27089, Stop: 26898, Start Num: 28
Candidate Starts for TopsytheTRex_35:
(4, 27212), (Start: 28 @27089 has 3 MA's), (Start: 37 @27068 has 87 MA's), (49, 27008), (63, 26918),

Gene: Tomathan_39 Start: 27596, Stop: 27426, Start Num: 37
Candidate Starts for Tomathan_39:
(Start: 37 @27596 has 87 MA's), (47, 27551), (49, 27536), (54, 27500), (63, 27446),

Gene: Tootsieroll_44 Start: 31573, Stop: 31379, Start Num: 30
Candidate Starts for Tootsieroll_44:
(Start: 30 @31573 has 24 MA's), (50, 31486), (60, 31426), (63, 31405),

Gene: Toulouse_21 Start: 13649, Stop: 13882, Start Num: 20
Candidate Starts for Toulouse_21:
(Start: 20 @13649 has 38 MA's), (Start: 31 @13676 has 2 MA's), (49, 13757), (62, 13844), (65, 13871),

Gene: Trixie_37 Start: 28496, Stop: 28326, Start Num: 37
Candidate Starts for Trixie_37:
(Start: 37 @28496 has 87 MA's), (63, 28346),

Gene: Trooper_39 Start: 28311, Stop: 28141, Start Num: 37
Candidate Starts for Trooper_39:
(Start: 37 @28311 has 87 MA's), (63, 28161),

Gene: TroyPia_35 Start: 27322, Stop: 27149, Start Num: 36
Candidate Starts for TroyPia_35:
(Start: 36 @27322 has 42 MA's), (47, 27274), (63, 27169),

Gene: Turbido_37 Start: 28155, Stop: 27985, Start Num: 37
Candidate Starts for Turbido_37:
(11, 28236), (Start: 37 @28155 has 87 MA's), (47, 28110), (55, 28053), (59, 28032), (63, 28005),

Gene: TymAbreu_22 Start: 13886, Stop: 14119, Start Num: 20
Candidate Starts for TymAbreu_22:

(Start: 20 @13886 has 38 MA's), (Start: 31 @13913 has 2 MA's), (49, 13994), (62, 14081), (65, 14108),

Gene: Ubuntu_50 Start: 36949, Stop: 37146, Start Num: 24

Candidate Starts for Ubuntu_50:

(Start: 24 @36949 has 16 MA's), (45, 37012),

Gene: UmaThurman_37 Start: 31748, Stop: 31954, Start Num: 24

Candidate Starts for UmaThurman_37:

(2, 31565), (6, 31640), (8, 31670), (13, 31712), (Start: 24 @31748 has 16 MA's), (29, 31760), (46, 31826), (62, 31934), (63, 31937),

Gene: Updawg_39 Start: 28486, Stop: 28316, Start Num: 37

Candidate Starts for Updawg_39:

(Start: 37 @28486 has 87 MA's), (54, 28390), (59, 28363), (63, 28336),

Gene: VA6_36 Start: 27677, Stop: 27507, Start Num: 37

Candidate Starts for VA6_36:

(Start: 37 @27677 has 87 MA's), (47, 27632), (49, 27617), (54, 27581), (63, 27527),

Gene: VC3_39 Start: 27665, Stop: 27495, Start Num: 37

Candidate Starts for VC3_39:

(Start: 37 @27665 has 87 MA's), (47, 27620), (49, 27605), (54, 27569), (63, 27515),

Gene: Veteran_40 Start: 31183, Stop: 30989, Start Num: 30

Candidate Starts for Veteran_40:

(Start: 30 @31183 has 24 MA's), (50, 31096), (60, 31036), (63, 31015),

Gene: Vix_38 Start: 27986, Stop: 27804, Start Num: 35

Candidate Starts for Vix_38:

(Start: 35 @27986 has 69 MA's), (47, 27935), (62, 27833), (63, 27830),

Gene: Watson_38 Start: 27896, Stop: 27714, Start Num: 35

Candidate Starts for Watson_38:

(Start: 35 @27896 has 69 MA's), (47, 27845), (62, 27743), (63, 27740),

Gene: Webster2_50 Start: 36949, Stop: 37146, Start Num: 24

Candidate Starts for Webster2_50:

(Start: 24 @36949 has 16 MA's), (45, 37012),

Gene: WeiHuaDA_42 Start: 29572, Stop: 29402, Start Num: 37

Candidate Starts for WeiHuaDA_42:

(Start: 37 @29572 has 87 MA's), (54, 29476), (63, 29422),

Gene: Whabigail7_37 Start: 28143, Stop: 27973, Start Num: 37

Candidate Starts for Whabigail7_37:

(11, 28224), (Start: 37 @28143 has 87 MA's), (47, 28098), (59, 28020), (63, 27993),

Gene: Whytu_16 Start: 12793, Stop: 12978, Start Num: 43

Candidate Starts for Whytu_16:

(Start: 32 @12757 has 1 MA's), (38, 12778), (Start: 43 @12793 has 2 MA's), (66, 12964),

Gene: WideWale_39 Start: 28486, Stop: 28316, Start Num: 37

Candidate Starts for WideWale_39:
(Start: 37 @28486 has 87 MA's), (54, 28390), (59, 28363), (63, 28336),

Gene: Wooldri_40 Start: 27815, Stop: 27633, Start Num: 35
Candidate Starts for Wooldri_40:
(Start: 35 @27815 has 69 MA's), (47, 27764), (62, 27662), (63, 27659),

Gene: XianYue_37 Start: 27771, Stop: 27601, Start Num: 37
Candidate Starts for XianYue_37:
(Start: 37 @27771 has 87 MA's), (63, 27621),

Gene: Yank_22 Start: 13854, Stop: 14087, Start Num: 20
Candidate Starts for Yank_22:
(Start: 20 @13854 has 38 MA's), (Start: 31 @13881 has 2 MA's), (49, 13962), (62, 14049), (65, 14076),

Gene: Yavru_16 Start: 12688, Stop: 12873, Start Num: 43
Candidate Starts for Yavru_16:
(38, 12673), (Start: 43 @12688 has 2 MA's), (66, 12859),

Gene: Yecey3_38 Start: 27629, Stop: 27459, Start Num: 37
Candidate Starts for Yecey3_38:
(Start: 37 @27629 has 87 MA's), (62, 27482), (63, 27479),

Gene: ZAYM_43 Start: 32247, Stop: 32456, Start Num: 27
Candidate Starts for ZAYM_43:
(15, 32220), (Start: 27 @32247 has 2 MA's),

Gene: Zaheer_44 Start: 31390, Stop: 31605, Start Num: 24
Candidate Starts for Zaheer_44:
(Start: 24 @31390 has 16 MA's),

Gene: Zarbodnamra_42 Start: 32451, Stop: 32645, Start Num: 26
Candidate Starts for Zarbodnamra_42:
(Start: 26 @32451 has 3 MA's),

Gene: Zetzy_37 Start: 27467, Stop: 27285, Start Num: 35
Candidate Starts for Zetzy_37:
(Start: 35 @27467 has 69 MA's), (47, 27416), (62, 27314), (63, 27311),

Gene: Zimmer_38 Start: 29474, Stop: 29304, Start Num: 37
Candidate Starts for Zimmer_38:
(Start: 31 @29492 has 2 MA's), (Start: 37 @29474 has 87 MA's), (59, 29351), (61, 29336), (63, 29324),