

Pham 215740



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 215740 Report

This analysis was run 02/22/25 on database version 588.

Pham number 215740 has 331 members, 41 are drafts.

Phages represented in each track:

- Track 1 : Zimmer_19, Refuge_20
- Track 2 : Pharaoh_17
- Track 3 : DarthPhader_18
- Track 4 : Nebulosus_19, Nedarya_18, Remus_19, Epsocamisio_19, OKaNui_17, DekHockey33_19, KatherineG_19, ReMo_19, Iceman_17, Looper_20, MinecraftSteve_20, Switzerland_19, Battleship_20, LastResort_19, Soups_19, Strosahl_19, Oofda_20, JSwag_19, Waits_19, Boohoo_19, ShayRa_20, Anaysia_19, Warrior24_20, Rosalind_19
- Track 5 : 40AC_20
- Track 6 : Kimona_13
- Track 7 : Sknot_18, NaSiaTalie_17, KingCyrus_19, Centaur_19, Drake55_19, WideWale_19, SwirlSquare_19, Naji_20, Trixie_20, EvilGenius_19, ChipMunk_19, Tomathan_20, Superchunk_16, Lucyedi_18, Baehexic_18, Caraxes_16, PainterBoy_18, Duplo_20, EZMoney23_21, First_0017, Flare16_17, TarsusIV_17, Anon_17, LadyBird_17, Changeling_20, D29_18, StarStuff_20, D32_20, Adzzy_18, AnnaL29_20, WeiHuaDA_23, Ph8s_18, Travvers_20, MiculUcigas_17, EagleEye_19, Kalpine_20, Terrific_21, Trooper_17, BobSwaget_20, HarryHoudini_19, Updawg_19, Odin_16, BiancaTri92_19, Kerberos_20, Piro94_18, Pomar16_20, 20ES_17, Gratitude_18, DBQu4n_20, Equemioh13_19
- Track 8 : QueenBeesly_17, Leviathan_19, Benvolio_17, Power_17, SnapTap_17, Anselm_17, LionsBait_18, AN3_17, DudeLittle_17, Dalmatian_17, AbbyPaige_19, LilTurb_19, Retro23_17, SemperFi_19, Buggy_19, Georgie2_18, Agape74_19, Echild_17, Dignity_19, Smeagan_19, JoshKayV_19, Crucio_17, VA6_17, FiringLine_17, SweetiePie_17, Whabigail7_19, Turbido_19
- Track 9 : AN9_20, LittleGuy_16, Phontbonne_16, GaugeLDP_19, Florean_16, ANI8_20, Koreni_15, Camperdownii_15, Rosa24_15, C3_15, Nebs_16, VC3_20, Tinybot_15, Alberto7_17, Rachaly_20
- Track 10 : MissWhite_17
- Track 11 : IronMan_19
- Track 12 : Koduck_17
- Track 13 : Lokk_20, Leogania_19, Miko_20, Colin_21, Larenn_18, Malec_18
- Track 14 : Journey13_15
- Track 15 : ArcherNM_19, Loser_20, Miramae_16, NicoleTera_21, RedRock_20
- Track 16 : Bactobuster_18, Jaan_20, Tristan_18
- Track 17 : Iwokeuplikedis_18
- Track 18 : Che12_19
- Track 19 : L5_18

- Track 20 : Fameo_17, QueenB2_17
- Track 21 : Landor_18, Phaded_20
- Track 22 : Quokka_15, MajorMajor_16, Bradman_16
- Track 23 : BengiVuitton_18, Deloris_18
- Track 24 : BabyBack_19
- Track 25 : Pukovnik_19, XianYue_17, Serenity_16
- Track 26 : Acolyte_17
- Track 27 : Heffalump_19
- Track 28 : Jerm_19
- Track 29 : TipsytheTRex_16
- Track 30 : CRB1_17
- Track 31 : NothingSpecial_19
- Track 32 : Jsquared_16
- Track 33 : Kinmap_16
- Track 34 : Lambert1_17, Norbert_16, Popcicle_17, Hookmount_17, Noella_17, Margo_17, Texage_16, Caviar_17, Todacoro_17, QuinnKiro_16, ResDef_17, Pocahontas_17
- Track 35 : Manu_19, BlessJoy_20, Phranny_19, Calvinny_19, CloudWang3_20, PhishRPhriends_17, VohminGhazi_20, PurpleHaze_18, Indra_20, Chartreuse_20, Hexamo_20, Zulu_20, DaVinci_20, Wiks_20, Lilbunny_20, Blinn1_20, Kalb97_19, JeppNRM_19, Pawn_18, Yokurt_20, Hoot_20, EricB_20, Roksolana_20, ACFishhook_18, Kalnoky_19, Kipper29_20, Artemis2UCLA_20, OlanP_18, Kazan_20, Heliosoles_18, SmellyB_20, Groupthink_19, GreedyLawyer_20, WunderPhul_20, Marius_19, Zaka_20, McFly_20, Gemma_18, HaveUMetTed_19, Reba_19
- Track 36 : Methuselah_18, GtownJaz_18, KADY_19, Soshari_20, MoneyMay_18, BuzzBuzz_17, Marie_18, HashRod_19, Colbster_18, Anubis_20, DaHudson_18, MarQuardt_18, Taurus_18, AugsMagnumOpus_20, Misomonster_20, EpicPhail_18, Sabinator_18, LugYA_20, Bxz2_18, Beauxregard13_18, Penny1_18, LarryKay_18, Louie6_18, Lowa_18, Mainiac_18, Daishi_17, Cullens_18, Farber_18, Phoxy_18, Aglet_18, Wooldri_20, PGHhamlin_20, MuchMore_20, Microwolf_18, Fernando_18, P28Green_18, Grum1_18, Sabia_18, AgronaGT15_18, Bigflo_18, Lilith_18, Snickers_18, Watson_18, PotatoSplit_19, Hercules11_18, Vix_18, Spike509_18, Grub_18, SoYo_18, Dieselweasel_18, JHC117_18, Pembroke_18, Tiffany_18, LBerry_18, Stagni_18, MadMarie_18, TinyPebbles_18, Rummer_18, Phoebe_18, BreSam8_18, JenCasNa_18
- Track 37 : SoilDragon_18, Jobu08_18
- Track 38 : MA5_16
- Track 39 : Scamp_16, Citius_16, RhynO_17, Deano_16, Anthony_16, Chiqui_15, Roosevelt_16, Broseidon_16, Druantia_16, Rowdy_19, Shapes_19, Bartimeaus_16, Stasia_17, Kristoff_17, Blackmoor_16, Rebeuca_17, Twister_16, DustyMartin_19, NorthStar_16, BabyJohn_15, Edison31_16, Topanga_16, MeeZee_16, WalterMcMickey_16
- Track 40 : Neeharika16_20, Newrala_20, Jordennis_20, Candra_20, BABullseye_20, Polyphemus_19, Helmet_21, Cookiedough_20, Isiphiwo_20, SuperAwesome_20, Temprado_21, Priamo_20, Garak_21
- Track 41 : Hammer_20, Rifter_20, Jeffabunny_20, Gruunaga_20, Gladiator_20, Koko_20, SuperCallie99_20, Blue7_20, Tucker_20
- Track 42 : JewelBug_20, Dorothea_20
- Track 43 : Pmask_20
- Track 44 : PhailMary_12
- Track 45 : RGL3_6

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

The start number called the most often in the published annotations is 15, it was called in 285 of the 290 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES_17, 40AC_20, ACFishhook_18, AN3_17, AN9_20, ANI8_20, AbbyPaige_19, Acolyte_17, Adzzy_18, Agape74_19, Aglet_18, AgronaGT15_18, Alberto7_17, Anaysia_19, AnnaL29_20, Anon_17, Anselm_17, Anthony_16, Anubis_20, ArcherNM_19, Artemis2UCLA_20, AugsMagnumOpus_20, BABullseye_20, BabyBack_19, BabyJohn_15, Bactobuster_18, Baehexic_18, Bartimeaus_16, Battleship_20, Beauxregard13_18, BengiVuitton_18, Benvolio_17, BiancaTri92_19, Bigflo_18, Blackmoor_16, BlessJoy_20, Blinn1_20, Blue7_20, BobSwaget_20, Boohoo_19, Bradman_16, BreSam8_18, Broseidon_16, Buggy_19, BuzzBuzz_17, Bxz2_18, C3_15, CRB1_17, Calvinny_19, Camperdownii_15, Candra_20, Caraxes_16, Caviar_17, Centaur_19, Changeling_20, Chartreuse_20, Che12_19, ChipMunk_19, Chiqui_15, Citius_16, CloudWang3_20, Colbster_18, Colin_21, Cookiedough_20, Crucio_17, Cullens_18, D29_18, D32_20, DBQu4n_20, DaHudson_18, DaVinci_20, Daishi_17, Dalmatian_17, DarthPhader_18, Deano_16, DekHockey33_19, Deloris_18, Dieselweasel_18, Dignity_19, Dorothea_20, Drake55_19, Druantia_16, DudeLittle_17, Duplo_20, DustyMartin_19, EZMoney23_21, EagleEye_19, Echild_17, Edison31_16, EpicPhail_18, Epsocamisio_19, Equemioh13_19, EricB_20, EvilGenius_19, Fameo_17, Farber_18, Fernando_18, FiringLine_17, First_0017, Flare16_17, Floean_16, Garak_21, GaugeLDP_19, Gemma_18, Georgie2_18, Gladiator_20, Gratitude_18, GreedyLawyer_20, Groupthink_19, Grub_18, Grum1_18, Gruunaga_20, GtownJaz_18, Hammer_20, HarryHoudini_19, HashRod_19, HaveUMetTed_19, Heffalump_19, Heliosoles_18, Helmet_21, Hercules11_18, Hexamo_20, Hookmount_17, Hoot_20, Iceman_17, Indra_20, IronMan_19, Isiphiwo_20, Iwokeuplikedis_18, JHC117_18, JSwag_19, Jaan_20, Jeffabunny_20, JenCasNa_18, JeppNRM_19, JewelBug_20, Jobu08_18, Jordennis_20, JoshKayV_19, Journey13_15, Jsquared_16, KADY_19, Kalb97_19, Kalnoky_19, Kalpine_20, KatherineG_19, Kazan_20, Kerberos_20, Kimona_13, KingCyrus_19, Kinmap_16, Kipper29_20, Koduck_17, Koko_20, Koreni_15, Kristoff_17, LBerry_18, LadyBird_17, Lambert1_17, Larenn_18, LarryKay_18, LastResort_19, Leogania_19, Leviathan_19, LilTurb_19, Lilbunny_20, Lilith_18, LionsBait_18, LittleGuy_16, Lokk_20, Looper_20, Loser_20, Louie6_18, Lowa_18, Lucyedi_18, LugYA_20, MA5_16, MadMarie_18, Mainiac_18, MajorMajor_16, Malec_18, Manu_19, MarQuardt_18, Margo_17, Marie_18, Marius_19, McFly_20, MeeZee_16, Methuselah_18, Microwolf_18, MiculUcigas_17, Miko_20, MinecraftSteve_20, Miramae_16, Misomonster_20, MissWhite_17, MoneyMay_18, MuchMore_20, NaSiaTalie_17, Naji_20, Nebs_16, Nebulosus_19, Nedarya_18, Neeharika16_20, Newrala_20, NicoleTera_21, Noella_17, Norbert_16, NorthStar_16, NothingSpecial_19, OKaNui_17, Odin_16, OlanP_18, Oofda_20, P28Green_18, PGHhamlin_20, PainterBoy_18, Pawn_18, Pembroke_18, Penny1_18, Ph8s_18, Pharaoh_17, PhishRPhriends_17, Phoebe_18, Phontbonne_16, Phoxy_18, Phranny_19, Piro94_18, Pmask_20, Pocahontas_17, Polyphemos_19, Pomar16_20, Popcicle_17, PotatoSplit_19, Power_17, Priamo_20, Pukovnik_19, PurpleHaze_18, QueenB2_17, QueenBeesly_17, QuinnKiro_16, Quokka_15, RGL3_6, Rachaly_20, ReMo_19, Reba_19, Rebeuca_17, RedRock_20, Refuge_20, Remus_19, ResDef_17, Retro23_17, RhynO_17, Rifter_20,

Roksolana_20, Roosevelt_16, Rosa24_15, Rosalind_19, Rowdy_19, Rummer_18, Sabia_18, Sabinator_18, Scamp_16, SemperFi_19, Serenity_16, Shapes_19, ShayRa_20, Sknot_18, Smeagan_19, SmellyB_20, SnapTap_17, Snickers_18, SoYo_18, SoilDragon_18, Soshari_20, Soups_19, Spike509_18, Stagni_18, StarStuff_20, Stasia_17, Strosahl_19, SuperAwesome_20, SuperCallie99_20, Superchunk_16, SweetiePie_17, SwirlSquare_19, Switzerland_19, TarsusIV_17, Taurus_18, Temprado_21, Terrific_21, Texage_16, Tiffany_18, TinyPebbles_18, Tinybot_15, TopsytheTRex_16, Todacoro_17, Tomathan_20, Topanga_16, Travvers_20, Tristan_18, Trixie_20, Trooper_17, Tucker_20, Turbido_19, Twister_16, Updawg_19, VA6_17, VC3_20, Vix_18, VohminGhazi_20, Waits_19, WalterMcMickey_16, Warrior24_20, Watson_18, WeiHuaDA_23, Whabigail7_19, WideWale_19, Wiks_20, Wooldri_20, WunderPhul_20, XianYue_17, Yokurt_20, Zaka_20, Zimmer_19, Zulu_20,

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

- Jerm_19, L5_18, Landor_18, Phaded_20, PhailMary_12,

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

-

Summary by start number:

Start 4:

- Found in 30 of 331 (9.1%) of genes in pham
- Manual Annotations of this start: 1 of 290
- Called 3.3% of time when present
- Phage (with cluster) where this start called: Jerm_19 (A2),

Start 5:

- Found in 1 of 331 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 290
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PhailMary_12 (CA),

Start 11:

- Found in 2 of 331 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 290
- Called 50.0% of time when present
- Phage (with cluster) where this start called: L5_18 (A2),

Start 12:

- Found in 5 of 331 (1.5%) of genes in pham
- Manual Annotations of this start: 2 of 290
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Landor_18 (A2), Phaded_20 (A2),

Start 15:

- Found in 331 of 331 (100.0%) of genes in pham
- Manual Annotations of this start: 285 of 290
- Called 98.5% of time when present
- Phage (with cluster) where this start called: 20ES_17 (A2), 40AC_20 (A17), ACFishhook_18 (A3), AN3_17 (A2), AN9_20 (A2), ANI8_20 (A2), AbbyPaige_19 (A2), Acolyte_17 (A2), Adzzy_18 (A2), Agape74_19 (A2), Aglet_18 (A3), AgronaGT15_18

(A3), Alberto7_17 (A4), Anaysia_19 (A15), AnnaL29_20 (A2), Anon_17 (A15), Anselm_17 (A2), Anthony_16 (A20), Anubis_20 (A3), ArcherNM_19 (A2), Artemis2UCLA_20 (A6), AugsMagnumOpus_20 (A3), BABullseye_20 (A6), BabyBack_19 (A2), BabyJohn_15 (A3), Bactobuster_18 (A2), Baehexic_18 (A2), Bartimeaus_16 (A4), Battleship_20 (A15), Beauxregard13_18 (A3), BengiVuitton_18 (A2), Benvolio_17 (A2), BiancaTri92_19 (A2), Bigflo_18 (A3), Blackmoor_16 (A4), BlessJoy_20 (A6), Blinn1_20 (A6), Blue7_20 (A6), BobSwaget_20 (A2), Boohoo_19 (A15), Bradman_16 (A2), BreSam8_18 (A3), Broseidon_16 (A4), Buggy_19 (A2), BuzzBuzz_17 (A3), Bxz2_18 (A3), C3_15 (A2), CRB1_17 (A2), Calvinny_19 (A3), Camperdownii_15 (A4), Candra_20 (A6), Caraxes_16 (A2), Caviar_17 (A3), Centaur_19 (A2), Changeling_20 (A2), Chartreuse_20 (A6), Che12_19 (A2), ChipMunk_19 (A2), Chiqui_15 (A3), Citius_16 (A4), CloudWang3_20 (A6), Colbster_18 (A3), Colin_21 (A2), Cookiedough_20 (A6), Crucio_17 (A2), Cullens_18 (A3), D29_18 (A2), D32_20 (A2), DBQu4n_20 (A2), DaHudson_18 (A3), DaVinci_20 (A6), Daishi_17 (A3), Dalmatian_17 (A2), DarthPhader_18 (A12), Deano_16 (A4), DekHockey33_19 (A15), Deloris_18 (A2), Dieselweasel_18 (A3), Dignity_19 (A2), Dorothea_20 (A6), Drake55_19 (A2), Druantia_16 (A4), DudeLittle_17 (A2), Duplo_20 (A2), DustyMartin_19 (A10), EZMoney23_21 (A2), EagleEye_19 (A16), Echid_17 (A2), Edison31_16 (A10), EpicPhail_18 (A3), Epsocamisio_19 (A15), Equemioh13_19 (A2), EricB_20 (A6), EvilGenius_19 (A2), Fameo_17 (A2), Farber_18 (A3), Fernando_18 (A3), FiringLine_17 (A2), First_0017 (A2), Flare16_17 (A2), Florean_16 (A4), Garak_21 (A6), GaugeLDP_19 (A2), Gemma_18 (A3), Georgie2_18 (A2), Gladiator_20 (A6), Gratitude_18 (A2), GreedyLawyer_20 (A6), Groupthink_19 (A3), Grub_18 (A3), Grum1_18 (A3), Gruunaga_20 (A6), GtownJaz_18 (A3), Hammer_20 (A6), HarryHoudini_19 (A2), HashRod_19 (A3), HaveUMetTed_19 (A3), Heffalump_19 (A2), Heliosoles_18 (A3), Helmet_21 (A6), Hercules11_18 (A3), Hexamo_20 (A6), Hookmount_17 (A3), Hoot_20 (A6), Iceman_17 (A4), Indra_20 (A6), IronMan_19 (A2), Isiphiwo_20 (A6), Iwokeuplikedis_18 (A2), JHC117_18 (A3), JSwag_19 (A15), Jaan_20 (A2), Jeffabunny_20 (A6), JenCasNa_18 (A3), JeppNRM_19 (A3), JewelBug_20 (A6), Jobu08_18 (A3), Jordennis_20 (A6), JoshKayV_19 (A2), Journey13_15 (A2), Jsquared_16 (A2), KADY_19 (A3), Kalb97_19 (A3), Kalnoky_19 (A3), Kalpine_20 (A2), KatherineG_19 (A15), Kazan_20 (A6), Kerberos_20 (A2), Kimona_13 (A19), KingCyrus_19 (A2), Kinmap_16 (A21), Kipper29_20 (A6), Koduck_17 (A2), Koko_20 (A6), Koreni_15 (A4), Kristoff_17 (A10), LBerry_18 (A3), LadyBird_17 (A2), Lambert1_17 (A3), Larenn_18 (A2), LarryKay_18 (A3), LastResort_19 (A15), Leogania_19 (A2), Leviathan_19 (A2), LilTurb_19 (A2), Lilbunny_20 (A6), Lilith_18 (A3), LionsBait_18 (A2), LittleGuy_16 (A4), Lokk_20 (A2), Looper_20 (A15), Loser_20 (A2), Louie6_18 (A3), Iowa_18 (A3), Lucyedi_18 (A16), LugYA_20 (A3), MA5_16 (A3), MadMarie_18 (A3), Mainiac_18 (A3), MajorMajor_16 (A2), Malec_18 (A2), Manu_19 (A3), MarQuardt_18 (A3), Margo_17 (A3), Marie_18 (A3), Marius_19 (A3), McFly_20 (A6), MeeZee_16 (A4), Methuselah_18 (A3), Microwolf_18 (A3), MiculUcigas_17 (A2), Miko_20 (A2), MinecraftSteve_20 (A15), Miramae_16 (A4), Misomonster_20 (A3), MissWhite_17 (A2), MoneyMay_18 (A3), MuchMore_20 (A3), NaSiaTalie_17 (A2), Naji_20 (A2), Nebs_16 (A4), Nebulosus_19 (A15), Nedarya_18 (A15), Neeharika16_20 (A6), Newrala_20 (A6), NicoleTera_21 (A2), Noella_17 (A3), Norbert_16 (A3), NorthStar_16 (A4), NothingSpecial_19 (A2), OKaNui_17 (A4), Odin_16 (A2), OlanP_18 (A3), Oofda_20 (A15), P28Green_18 (A3), PGHhamlin_20 (A3), PainterBoy_18 (A16), Pawn_18 (A3), Pembroke_18 (A3), Penny1_18 (A3), Ph8s_18 (A2), Pharaoh_17 (A12), PhishRPhriends_17 (A3), Phoebe_18 (A3), Phontbonne_16 (A4), Phoxy_18 (A3), Phranny_19 (A3), Piro94_18 (A2), Pmask_20 (A6), Pocahontas_17 (A3), Polyphemus_19 (A6), Pomar16_20 (A2), Popcicle_17 (A3), PotatoSplit_19 (A3), Power_17 (A2), Priamo_20 (A6), Pukovnik_19 (A2), PurpleHaze_18 (A3), QueenB2_17 (A2), QueenBeesly_17 (A2), QuinnKiro_16

(A3), Quokka_15 (A2), RGL3_6 (CA), Rachaly_20 (A2), ReMo_19 (A15), Reba_19 (A3), Rebeuca_17 (A10), RedRock_20 (A2), Refuge_20 (A12), Remus_19 (A15), ResDef_17 (A3), Retro23_17 (A2), RhynO_17 (A10), Rifter_20 (A6), Roksolana_20 (A6), Roosevelt_16 (A4), Rosa24_15 (A4), Rosalind_19 (A15), Rowdy_19 (A10), Rummer_18 (A3), Sabia_18 (A3), Sabinator_18 (A3), Scamp_16 (A4), SemperFi_19 (A2), Serenity_16 (A2), Shapes_19 (A10), ShayRa_20 (A15), Sknot_18 (A2), Smeagan_19 (A2), SmellyB_20 (A6), SnapTap_17 (A2), Snickers_18 (A3), SoYo_18 (A3), SoilDragon_18 (A3), Soshari_20 (A3), Soups_19 (A15), Spike509_18 (A3), Stagni_18 (A3), StarStuff_20 (A2), Stasia_17 (A4), Strosahl_19 (A15), SuperAwesome_20 (A6), SuperCallie99_20 (A6), Superchunk_16 (A2), SweetiePie_17 (A2), SwirlSquare_19 (A2), Switzerland_19 (A15), TarsusIV_17 (A2), Taurus_18 (A3), Temprado_21 (A6), Terrific_21 (A2), Texage_16 (A3), Tiffany_18 (A3), TinyPebbles_18 (A3), Tinybot_15 (A4), TipsytheTRex_16 (A2), Todacoro_17 (A3), Tomathan_20 (A2), Topanga_16 (A10), Travvers_20 (A2), Tristan_18 (A2), Trixie_20 (A2), Trooper_17 (A2), Tucker_20 (A6), Turbido_19 (A2), Twister_16 (A10), Updawg_19 (A2), VA6_17 (A2), VC3_20 (A2), Vix_18 (A3), VohminGhazi_20 (A6), Waits_19 (A15), WalterMcMickey_16 (A10), Warrior24_20 (A15), Watson_18 (A3), WeiHuaDA_23 (A2), Whabigail7_19 (A2), WideWale_19 (A2), Wiks_20 (A6), Wooldri_20 (A3), WunderPhul_20 (A6), XianYue_17 (A2), Yokurt_20 (A6), Zaka_20 (A6), Zimmer_19 (A12), Zulu_20 (A6),

Summary by clusters:

There are 13 clusters represented in this pham: A15, A20, A17, A16, A10, A12, CA, A19, A21, A3, A2, A4, A6,

Info for manual annotations of cluster A10:

- Start number 15 was manually annotated 7 times for cluster A10.

Info for manual annotations of cluster A12:

- Start number 15 was manually annotated 4 times for cluster A12.

Info for manual annotations of cluster A15:

- Start number 15 was manually annotated 21 times for cluster A15.

Info for manual annotations of cluster A16:

- Start number 15 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A19:

- Start number 15 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 4 was manually annotated 1 time for cluster A2.
- Start number 11 was manually annotated 1 time for cluster A2.
- Start number 12 was manually annotated 2 times for cluster A2.
- Start number 15 was manually annotated 97 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 15 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:

- Start number 15 was manually annotated 88 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 15 was manually annotated 22 times for cluster A4.

Info for manual annotations of cluster A6:

- Start number 15 was manually annotated 41 times for cluster A6.

Info for manual annotations of cluster CA:

- Start number 5 was manually annotated 1 time for cluster CA.

Gene Information:

Gene: 20ES_17 Start: 13206, Stop: 13382, Start Num: 15

Candidate Starts for 20ES_17:

(Start: 15 @13206 has 285 MA's),

Gene: 40AC_20 Start: 15229, Stop: 15408, Start Num: 15

Candidate Starts for 40AC_20:

(Start: 15 @15229 has 285 MA's), (26, 15382),

Gene: ACFishhook_18 Start: 12760, Stop: 12942, Start Num: 15

Candidate Starts for ACFishhook_18:

(Start: 15 @12760 has 285 MA's),

Gene: AN3_17 Start: 13196, Stop: 13372, Start Num: 15

Candidate Starts for AN3_17:

(Start: 4 @13148 has 1 MA's), (Start: 15 @13196 has 285 MA's),

Gene: AN9_20 Start: 13198, Stop: 13377, Start Num: 15

Candidate Starts for AN9_20:

(Start: 15 @13198 has 285 MA's),

Gene: ANI8_20 Start: 13198, Stop: 13377, Start Num: 15

Candidate Starts for ANI8_20:

(Start: 15 @13198 has 285 MA's),

Gene: AbbyPaige_19 Start: 13651, Stop: 13833, Start Num: 15

Candidate Starts for AbbyPaige_19:

(Start: 4 @13603 has 1 MA's), (Start: 15 @13651 has 285 MA's),

Gene: Acolyte_17 Start: 13345, Stop: 13500, Start Num: 15

Candidate Starts for Acolyte_17:

(Start: 15 @13345 has 285 MA's), (18, 13384),

Gene: Adzzy_18 Start: 11960, Stop: 12115, Start Num: 15

Candidate Starts for Adzzy_18:

(Start: 15 @11960 has 285 MA's),

Gene: Agape74_19 Start: 13651, Stop: 13833, Start Num: 15

Candidate Starts for Agape74_19:

(Start: 4 @13603 has 1 MA's), (Start: 15 @13651 has 285 MA's),

Gene: Aglet_18 Start: 12603, Stop: 12788, Start Num: 15

Candidate Starts for Aglet_18:

(Start: 15 @12603 has 285 MA's), (19, 12666),

Gene: AgronaGT15_18 Start: 12510, Stop: 12695, Start Num: 15

Candidate Starts for AgronaGT15_18:

(Start: 15 @12510 has 285 MA's), (19, 12573),

Gene: Alberto7_17 Start: 12780, Stop: 12986, Start Num: 15

Candidate Starts for Alberto7_17:

(Start: 15 @12780 has 285 MA's),

Gene: Anaysia_19 Start: 12316, Stop: 12486, Start Num: 15

Candidate Starts for Anaysia_19:

(Start: 15 @12316 has 285 MA's),

Gene: AnnaL29_20 Start: 15039, Stop: 15221, Start Num: 15

Candidate Starts for AnnaL29_20:

(Start: 15 @15039 has 285 MA's),

Gene: Anon_17 Start: 12677, Stop: 12832, Start Num: 15

Candidate Starts for Anon_17:

(Start: 15 @12677 has 285 MA's),

Gene: Anselm_17 Start: 13298, Stop: 13480, Start Num: 15

Candidate Starts for Anselm_17:

(Start: 4 @13250 has 1 MA's), (Start: 15 @13298 has 285 MA's),

Gene: Anthony_16 Start: 11421, Stop: 11594, Start Num: 15

Candidate Starts for Anthony_16:

(Start: 15 @11421 has 285 MA's),

Gene: Anubis_20 Start: 12488, Stop: 12673, Start Num: 15

Candidate Starts for Anubis_20:

(Start: 15 @12488 has 285 MA's), (19, 12551),

Gene: ArcherNM_19 Start: 14988, Stop: 15173, Start Num: 15

Candidate Starts for ArcherNM_19:

(Start: 15 @14988 has 285 MA's),

Gene: Artemis2UCLA_20 Start: 13162, Stop: 13359, Start Num: 15

Candidate Starts for Artemis2UCLA_20:

(Start: 15 @13162 has 285 MA's),

Gene: AugsMagnumOpus_20 Start: 12594, Stop: 12779, Start Num: 15

Candidate Starts for AugsMagnumOpus_20:

(Start: 15 @12594 has 285 MA's), (19, 12657),

Gene: BABullseye_20 Start: 13275, Stop: 13472, Start Num: 15

Candidate Starts for BABullseye_20:

(2, 13209), (3, 13221), (10, 13254), (Start: 15 @13275 has 285 MA's),

Gene: BabyBack_19 Start: 14848, Stop: 15012, Start Num: 15
Candidate Starts for BabyBack_19:
(Start: 15 @14848 has 285 MA's), (25, 14947),

Gene: BabyJohn_15 Start: 12395, Stop: 12571, Start Num: 15
Candidate Starts for BabyJohn_15:
(Start: 15 @12395 has 285 MA's),

Gene: Bactobuster_18 Start: 14922, Stop: 15104, Start Num: 15
Candidate Starts for Bactobuster_18:
(Start: 12 @14904 has 2 MA's), (Start: 15 @14922 has 285 MA's),

Gene: Baehexic_18 Start: 13700, Stop: 13879, Start Num: 15
Candidate Starts for Baehexic_18:
(Start: 15 @13700 has 285 MA's),

Gene: Bartimeaus_16 Start: 12478, Stop: 12684, Start Num: 15
Candidate Starts for Bartimeaus_16:
(Start: 15 @12478 has 285 MA's),

Gene: Battleship_20 Start: 12431, Stop: 12601, Start Num: 15
Candidate Starts for Battleship_20:
(Start: 15 @12431 has 285 MA's),

Gene: Beauxregard13_18 Start: 12602, Stop: 12787, Start Num: 15
Candidate Starts for Beauxregard13_18:
(Start: 15 @12602 has 285 MA's), (19, 12665),

Gene: BengiVuitton_18 Start: 13613, Stop: 13795, Start Num: 15
Candidate Starts for BengiVuitton_18:
(Start: 15 @13613 has 285 MA's), (21, 13697),

Gene: Benvolio_17 Start: 13288, Stop: 13470, Start Num: 15
Candidate Starts for Benvolio_17:
(Start: 4 @13240 has 1 MA's), (Start: 15 @13288 has 285 MA's),

Gene: BiancaTri92_19 Start: 14972, Stop: 15157, Start Num: 15
Candidate Starts for BiancaTri92_19:
(Start: 15 @14972 has 285 MA's),

Gene: Bigflo_18 Start: 12600, Stop: 12785, Start Num: 15
Candidate Starts for Bigflo_18:
(Start: 15 @12600 has 285 MA's), (19, 12663),

Gene: Blackmoor_16 Start: 12478, Stop: 12684, Start Num: 15
Candidate Starts for Blackmoor_16:
(Start: 15 @12478 has 285 MA's),

Gene: BlessJoy_20 Start: 13260, Stop: 13457, Start Num: 15
Candidate Starts for BlessJoy_20:
(Start: 15 @13260 has 285 MA's),

Gene: Blinn1_20 Start: 13317, Stop: 13514, Start Num: 15
Candidate Starts for Blinn1_20:
(Start: 15 @13317 has 285 MA's),

Gene: Blue7_20 Start: 13252, Stop: 13449, Start Num: 15
Candidate Starts for Blue7_20:
(Start: 15 @13252 has 285 MA's), (23, 13342),

Gene: BobSwaget_20 Start: 14847, Stop: 15023, Start Num: 15
Candidate Starts for BobSwaget_20:
(Start: 15 @14847 has 285 MA's),

Gene: Boohoo_19 Start: 12316, Stop: 12486, Start Num: 15
Candidate Starts for Boohoo_19:
(Start: 15 @12316 has 285 MA's),

Gene: Bradman_16 Start: 12104, Stop: 12289, Start Num: 15
Candidate Starts for Bradman_16:
(Start: 15 @12104 has 285 MA's), (20, 12182),

Gene: BreSam8_18 Start: 12595, Stop: 12780, Start Num: 15
Candidate Starts for BreSam8_18:
(Start: 15 @12595 has 285 MA's), (19, 12658),

Gene: Broseidon_16 Start: 12478, Stop: 12684, Start Num: 15
Candidate Starts for Broseidon_16:
(Start: 15 @12478 has 285 MA's),

Gene: Buggy_19 Start: 13650, Stop: 13832, Start Num: 15
Candidate Starts for Buggy_19:
(Start: 4 @13602 has 1 MA's), (Start: 15 @13650 has 285 MA's),

Gene: BuzzBuzz_17 Start: 12686, Stop: 12871, Start Num: 15
Candidate Starts for BuzzBuzz_17:
(Start: 15 @12686 has 285 MA's), (19, 12749),

Gene: Bxz2_18 Start: 12696, Stop: 12881, Start Num: 15
Candidate Starts for Bxz2_18:
(Start: 15 @12696 has 285 MA's), (19, 12759),

Gene: C3_15 Start: 13198, Stop: 13377, Start Num: 15
Candidate Starts for C3_15:
(Start: 15 @13198 has 285 MA's),

Gene: CRB1_17 Start: 13172, Stop: 13351, Start Num: 15
Candidate Starts for CRB1_17:
(Start: 15 @13172 has 285 MA's), (23, 13262), (24, 13265),

Gene: Calvinny_19 Start: 12679, Stop: 12861, Start Num: 15
Candidate Starts for Calvinny_19:
(Start: 15 @12679 has 285 MA's),

Gene: Camperdownii_15 Start: 12097, Stop: 12303, Start Num: 15

Candidate Starts for Camperdownii_15:

(Start: 15 @12097 has 285 MA's),

Gene: Candra_20 Start: 13318, Stop: 13515, Start Num: 15

Candidate Starts for Candra_20:

(2, 13252), (3, 13264), (10, 13297), (Start: 15 @13318 has 285 MA's),

Gene: Caraxes_16 Start: 11860, Stop: 12015, Start Num: 15

Candidate Starts for Caraxes_16:

(Start: 15 @11860 has 285 MA's),

Gene: Caviar_17 Start: 12696, Stop: 12875, Start Num: 15

Candidate Starts for Caviar_17:

(13, 12681), (Start: 15 @12696 has 285 MA's),

Gene: Centaur_19 Start: 13678, Stop: 13857, Start Num: 15

Candidate Starts for Centaur_19:

(Start: 15 @13678 has 285 MA's),

Gene: Changeling_20 Start: 15040, Stop: 15222, Start Num: 15

Candidate Starts for Changeling_20:

(Start: 15 @15040 has 285 MA's),

Gene: Chartreuse_20 Start: 13231, Stop: 13428, Start Num: 15

Candidate Starts for Chartreuse_20:

(Start: 15 @13231 has 285 MA's),

Gene: Che12_19 Start: 12126, Stop: 12281, Start Num: 15

Candidate Starts for Che12_19:

(Start: 15 @12126 has 285 MA's),

Gene: ChipMunk_19 Start: 13586, Stop: 13768, Start Num: 15

Candidate Starts for ChipMunk_19:

(Start: 15 @13586 has 285 MA's),

Gene: Chiqui_15 Start: 12395, Stop: 12571, Start Num: 15

Candidate Starts for Chiqui_15:

(Start: 15 @12395 has 285 MA's),

Gene: Citius_16 Start: 12478, Stop: 12684, Start Num: 15

Candidate Starts for Citius_16:

(Start: 15 @12478 has 285 MA's),

Gene: CloudWang3_20 Start: 13262, Stop: 13459, Start Num: 15

Candidate Starts for CloudWang3_20:

(Start: 15 @13262 has 285 MA's),

Gene: Colbster_18 Start: 12602, Stop: 12787, Start Num: 15

Candidate Starts for Colbster_18:

(Start: 15 @12602 has 285 MA's), (19, 12665),

Gene: Colin_21 Start: 14879, Stop: 15061, Start Num: 15

Candidate Starts for Colin_21:

(Start: 15 @14879 has 285 MA's),

Gene: Cookie dough_20 Start: 13275, Stop: 13472, Start Num: 15
Candidate Starts for Cookie dough_20:
(2, 13209), (3, 13221), (10, 13254), (Start: 15 @13275 has 285 MA's),

Gene: Crucio_17 Start: 13133, Stop: 13315, Start Num: 15
Candidate Starts for Crucio_17:
(Start: 4 @13085 has 1 MA's), (Start: 15 @13133 has 285 MA's),

Gene: Cullens_18 Start: 12600, Stop: 12785, Start Num: 15
Candidate Starts for Cullens_18:
(Start: 15 @12600 has 285 MA's), (19, 12663),

Gene: D29_18 Start: 13113, Stop: 13268, Start Num: 15
Candidate Starts for D29_18:
(Start: 15 @13113 has 285 MA's),

Gene: D32_20 Start: 13113, Stop: 13268, Start Num: 15
Candidate Starts for D32_20:
(Start: 15 @13113 has 285 MA's),

Gene: DBQu4n_20 Start: 13113, Stop: 13268, Start Num: 15
Candidate Starts for DBQu4n_20:
(Start: 15 @13113 has 285 MA's),

Gene: DaHudson_18 Start: 12594, Stop: 12779, Start Num: 15
Candidate Starts for DaHudson_18:
(Start: 15 @12594 has 285 MA's), (19, 12657),

Gene: DaVinci_20 Start: 13285, Stop: 13482, Start Num: 15
Candidate Starts for DaVinci_20:
(Start: 15 @13285 has 285 MA's),

Gene: Daishi_17 Start: 11527, Stop: 11712, Start Num: 15
Candidate Starts for Daishi_17:
(Start: 15 @11527 has 285 MA's), (19, 11590),

Gene: Dalmatian_17 Start: 13283, Stop: 13465, Start Num: 15
Candidate Starts for Dalmatian_17:
(Start: 4 @13235 has 1 MA's), (Start: 15 @13283 has 285 MA's),

Gene: DarthPhader_18 Start: 14100, Stop: 14303, Start Num: 15
Candidate Starts for DarthPhader_18:
(7, 14076), (9, 14079), (Start: 15 @14100 has 285 MA's), (16, 14130),

Gene: Deano_16 Start: 12486, Stop: 12692, Start Num: 15
Candidate Starts for Deano_16:
(Start: 15 @12486 has 285 MA's),

Gene: DekHockey33_19 Start: 12438, Stop: 12608, Start Num: 15
Candidate Starts for DekHockey33_19:
(Start: 15 @12438 has 285 MA's),

Gene: Deloris_18 Start: 13613, Stop: 13795, Start Num: 15
Candidate Starts for Deloris_18:
(Start: 15 @13613 has 285 MA's), (21, 13697),

Gene: Dieselweasel_18 Start: 12603, Stop: 12788, Start Num: 15
Candidate Starts for Dieselweasel_18:
(Start: 15 @12603 has 285 MA's), (19, 12666),

Gene: Dignity_19 Start: 13595, Stop: 13777, Start Num: 15
Candidate Starts for Dignity_19:
(Start: 4 @13547 has 1 MA's), (Start: 15 @13595 has 285 MA's),

Gene: Dorothea_20 Start: 13286, Stop: 13483, Start Num: 15
Candidate Starts for Dorothea_20:
(Start: 15 @13286 has 285 MA's),

Gene: Drake55_19 Start: 13696, Stop: 13875, Start Num: 15
Candidate Starts for Drake55_19:
(Start: 15 @13696 has 285 MA's),

Gene: Druantia_16 Start: 12479, Stop: 12685, Start Num: 15
Candidate Starts for Druantia_16:
(Start: 15 @12479 has 285 MA's),

Gene: DudeLittle_17 Start: 13285, Stop: 13467, Start Num: 15
Candidate Starts for DudeLittle_17:
(Start: 4 @13237 has 1 MA's), (Start: 15 @13285 has 285 MA's),

Gene: Duplo_20 Start: 13154, Stop: 13309, Start Num: 15
Candidate Starts for Duplo_20:
(Start: 15 @13154 has 285 MA's),

Gene: DustyMartin_19 Start: 12326, Stop: 12511, Start Num: 15
Candidate Starts for DustyMartin_19:
(Start: 15 @12326 has 285 MA's),

Gene: EZMoney23_21 Start: 15171, Stop: 15350, Start Num: 15
Candidate Starts for EZMoney23_21:
(Start: 15 @15171 has 285 MA's),

Gene: EagleEye_19 Start: 13431, Stop: 13613, Start Num: 15
Candidate Starts for EagleEye_19:
(Start: 15 @13431 has 285 MA's),

Gene: Echild_17 Start: 13288, Stop: 13470, Start Num: 15
Candidate Starts for Echild_17:
(Start: 4 @13240 has 1 MA's), (Start: 15 @13288 has 285 MA's),

Gene: Edison31_16 Start: 12290, Stop: 12475, Start Num: 15
Candidate Starts for Edison31_16:
(Start: 15 @12290 has 285 MA's),

Gene: EpicPhail_18 Start: 12602, Stop: 12787, Start Num: 15
Candidate Starts for EpicPhail_18:
(Start: 15 @12602 has 285 MA's), (19, 12665),

Gene: Epsocamisio_19 Start: 12316, Stop: 12486, Start Num: 15
Candidate Starts for Epsocamisio_19:
(Start: 15 @12316 has 285 MA's),

Gene: Equemioh13_19 Start: 13681, Stop: 13860, Start Num: 15
Candidate Starts for Equemioh13_19:
(Start: 15 @13681 has 285 MA's),

Gene: EricB_20 Start: 13275, Stop: 13472, Start Num: 15
Candidate Starts for EricB_20:
(Start: 15 @13275 has 285 MA's),

Gene: EvilGenius_19 Start: 13596, Stop: 13778, Start Num: 15
Candidate Starts for EvilGenius_19:
(Start: 15 @13596 has 285 MA's),

Gene: Fameo_17 Start: 13210, Stop: 13392, Start Num: 15
Candidate Starts for Fameo_17:
(Start: 4 @13162 has 1 MA's), (Start: 15 @13210 has 285 MA's), (20, 13288),

Gene: Farber_18 Start: 12595, Stop: 12780, Start Num: 15
Candidate Starts for Farber_18:
(Start: 15 @12595 has 285 MA's), (19, 12658),

Gene: Fernando_18 Start: 12600, Stop: 12785, Start Num: 15
Candidate Starts for Fernando_18:
(Start: 15 @12600 has 285 MA's), (19, 12663),

Gene: FiringLine_17 Start: 13133, Stop: 13315, Start Num: 15
Candidate Starts for FiringLine_17:
(Start: 4 @13085 has 1 MA's), (Start: 15 @13133 has 285 MA's),

Gene: First_0017 Start: 13206, Stop: 13382, Start Num: 15
Candidate Starts for First_0017:
(Start: 15 @13206 has 285 MA's),

Gene: Flare16_17 Start: 13239, Stop: 13418, Start Num: 15
Candidate Starts for Flare16_17:
(Start: 15 @13239 has 285 MA's),

Gene: Florean_16 Start: 12475, Stop: 12681, Start Num: 15
Candidate Starts for Florean_16:
(Start: 15 @12475 has 285 MA's),

Gene: Garak_21 Start: 13280, Stop: 13477, Start Num: 15
Candidate Starts for Garak_21:
(2, 13214), (3, 13226), (10, 13259), (Start: 15 @13280 has 285 MA's),

Gene: GaugeLDP_19 Start: 14527, Stop: 14685, Start Num: 15

Candidate Starts for GaugeLDP_19:
(Start: 15 @14527 has 285 MA's),

Gene: Gemma_18 Start: 12679, Stop: 12861, Start Num: 15
Candidate Starts for Gemma_18:
(Start: 15 @12679 has 285 MA's),

Gene: Georgie2_18 Start: 13134, Stop: 13316, Start Num: 15
Candidate Starts for Georgie2_18:
(Start: 4 @13086 has 1 MA's), (Start: 15 @13134 has 285 MA's),

Gene: Gladiator_20 Start: 13252, Stop: 13449, Start Num: 15
Candidate Starts for Gladiator_20:
(Start: 15 @13252 has 285 MA's), (23, 13342),

Gene: Gratitude_18 Start: 13681, Stop: 13860, Start Num: 15
Candidate Starts for Gratitude_18:
(Start: 15 @13681 has 285 MA's),

Gene: GreedyLawyer_20 Start: 13284, Stop: 13481, Start Num: 15
Candidate Starts for GreedyLawyer_20:
(Start: 15 @13284 has 285 MA's),

Gene: Groupthink_19 Start: 12679, Stop: 12861, Start Num: 15
Candidate Starts for Groupthink_19:
(Start: 15 @12679 has 285 MA's),

Gene: Grub_18 Start: 12594, Stop: 12779, Start Num: 15
Candidate Starts for Grub_18:
(Start: 15 @12594 has 285 MA's), (19, 12657),

Gene: Grum1_18 Start: 12595, Stop: 12780, Start Num: 15
Candidate Starts for Grum1_18:
(Start: 15 @12595 has 285 MA's), (19, 12658),

Gene: Gruunaga_20 Start: 13252, Stop: 13449, Start Num: 15
Candidate Starts for Gruunaga_20:
(Start: 15 @13252 has 285 MA's), (23, 13342),

Gene: GtownJaz_18 Start: 12603, Stop: 12788, Start Num: 15
Candidate Starts for GtownJaz_18:
(Start: 15 @12603 has 285 MA's), (19, 12666),

Gene: Hammer_20 Start: 13267, Stop: 13464, Start Num: 15
Candidate Starts for Hammer_20:
(Start: 15 @13267 has 285 MA's), (23, 13357),

Gene: HarryHoudini_19 Start: 13696, Stop: 13875, Start Num: 15
Candidate Starts for HarryHoudini_19:
(Start: 15 @13696 has 285 MA's),

Gene: HashRod_19 Start: 12686, Stop: 12871, Start Num: 15
Candidate Starts for HashRod_19:

(Start: 15 @12686 has 285 MA's), (19, 12749),

Gene: HaveUMetTed_19 Start: 12673, Stop: 12855, Start Num: 15

Candidate Starts for HaveUMetTed_19:

(Start: 15 @12673 has 285 MA's),

Gene: Heffalump_19 Start: 15012, Stop: 15194, Start Num: 15

Candidate Starts for Heffalump_19:

(Start: 15 @15012 has 285 MA's), (20, 15090),

Gene: Heliosoles_18 Start: 12679, Stop: 12861, Start Num: 15

Candidate Starts for Heliosoles_18:

(Start: 15 @12679 has 285 MA's),

Gene: Helmet_21 Start: 13280, Stop: 13477, Start Num: 15

Candidate Starts for Helmet_21:

(2, 13214), (3, 13226), (10, 13259), (Start: 15 @13280 has 285 MA's),

Gene: Hercules11_18 Start: 12609, Stop: 12794, Start Num: 15

Candidate Starts for Hercules11_18:

(Start: 15 @12609 has 285 MA's), (19, 12672),

Gene: Hexamo_20 Start: 13234, Stop: 13431, Start Num: 15

Candidate Starts for Hexamo_20:

(Start: 15 @13234 has 285 MA's),

Gene: Hookmount_17 Start: 12696, Stop: 12875, Start Num: 15

Candidate Starts for Hookmount_17:

(13, 12681), (Start: 15 @12696 has 285 MA's),

Gene: Hoot_20 Start: 13263, Stop: 13460, Start Num: 15

Candidate Starts for Hoot_20:

(Start: 15 @13263 has 285 MA's),

Gene: Iceman_17 Start: 12767, Stop: 12973, Start Num: 15

Candidate Starts for Iceman_17:

(Start: 15 @12767 has 285 MA's),

Gene: Indra_20 Start: 13279, Stop: 13476, Start Num: 15

Candidate Starts for Indra_20:

(Start: 15 @13279 has 285 MA's),

Gene: IronMan_19 Start: 14887, Stop: 15060, Start Num: 15

Candidate Starts for IronMan_19:

(Start: 15 @14887 has 285 MA's), (19, 14950),

Gene: Isiphiwo_20 Start: 13275, Stop: 13472, Start Num: 15

Candidate Starts for Isiphiwo_20:

(2, 13209), (3, 13221), (10, 13254), (Start: 15 @13275 has 285 MA's),

Gene: Iwokeuplikedis_18 Start: 13175, Stop: 13345, Start Num: 15

Candidate Starts for Iwokeuplikedis_18:

(14, 13172), (Start: 15 @13175 has 285 MA's),

Gene: JHC117_18 Start: 12600, Stop: 12785, Start Num: 15
Candidate Starts for JHC117_18:
(Start: 15 @12600 has 285 MA's), (19, 12663),

Gene: JSwag_19 Start: 12302, Stop: 12472, Start Num: 15
Candidate Starts for JSwag_19:
(Start: 15 @12302 has 285 MA's),

Gene: Jaan_20 Start: 15276, Stop: 15458, Start Num: 15
Candidate Starts for Jaan_20:
(Start: 12 @15258 has 2 MA's), (Start: 15 @15276 has 285 MA's),

Gene: Jeffabunny_20 Start: 13286, Stop: 13483, Start Num: 15
Candidate Starts for Jeffabunny_20:
(Start: 15 @13286 has 285 MA's), (23, 13376),

Gene: JenCasNa_18 Start: 12600, Stop: 12785, Start Num: 15
Candidate Starts for JenCasNa_18:
(Start: 15 @12600 has 285 MA's), (19, 12663),

Gene: JeppNRM_19 Start: 12677, Stop: 12859, Start Num: 15
Candidate Starts for JeppNRM_19:
(Start: 15 @12677 has 285 MA's),

Gene: Jerm_19 Start: 13563, Stop: 13793, Start Num: 4
Candidate Starts for Jerm_19:
(Start: 4 @13563 has 1 MA's), (Start: 15 @13611 has 285 MA's),

Gene: JewelBug_20 Start: 13287, Stop: 13484, Start Num: 15
Candidate Starts for JewelBug_20:
(Start: 15 @13287 has 285 MA's),

Gene: Jobu08_18 Start: 12669, Stop: 12854, Start Num: 15
Candidate Starts for Jobu08_18:
(Start: 15 @12669 has 285 MA's), (19, 12732),

Gene: Jordennis_20 Start: 13275, Stop: 13472, Start Num: 15
Candidate Starts for Jordennis_20:
(2, 13209), (3, 13221), (10, 13254), (Start: 15 @13275 has 285 MA's),

Gene: JoshKayV_19 Start: 13615, Stop: 13797, Start Num: 15
Candidate Starts for JoshKayV_19:
(Start: 4 @13567 has 1 MA's), (Start: 15 @13615 has 285 MA's),

Gene: Journey13_15 Start: 12341, Stop: 12505, Start Num: 15
Candidate Starts for Journey13_15:
(Start: 15 @12341 has 285 MA's), (18, 12377),

Gene: Jsquared_16 Start: 12051, Stop: 12206, Start Num: 15
Candidate Starts for Jsquared_16:
(Start: 15 @12051 has 285 MA's), (19, 12114),

Gene: KADY_19 Start: 12686, Stop: 12871, Start Num: 15
Candidate Starts for KADY_19:
(Start: 15 @12686 has 285 MA's), (19, 12749),

Gene: Kalb97_19 Start: 12677, Stop: 12859, Start Num: 15
Candidate Starts for Kalb97_19:
(Start: 15 @12677 has 285 MA's),

Gene: Kalnoky_19 Start: 12679, Stop: 12861, Start Num: 15
Candidate Starts for Kalnoky_19:
(Start: 15 @12679 has 285 MA's),

Gene: Kalpine_20 Start: 14973, Stop: 15155, Start Num: 15
Candidate Starts for Kalpine_20:
(Start: 15 @14973 has 285 MA's),

Gene: KatherineG_19 Start: 12438, Stop: 12608, Start Num: 15
Candidate Starts for KatherineG_19:
(Start: 15 @12438 has 285 MA's),

Gene: Kazan_20 Start: 13290, Stop: 13487, Start Num: 15
Candidate Starts for Kazan_20:
(Start: 15 @13290 has 285 MA's),

Gene: Kerberos_20 Start: 13113, Stop: 13268, Start Num: 15
Candidate Starts for Kerberos_20:
(Start: 15 @13113 has 285 MA's),

Gene: Kimona_13 Start: 9941, Stop: 10147, Start Num: 15
Candidate Starts for Kimona_13:
(Start: 15 @9941 has 285 MA's), (19, 10004), (21, 10025), (28, 10127),

Gene: KingCyrus_19 Start: 13586, Stop: 13768, Start Num: 15
Candidate Starts for KingCyrus_19:
(Start: 15 @13586 has 285 MA's),

Gene: Kinmap_16 Start: 13042, Stop: 13212, Start Num: 15
Candidate Starts for Kinmap_16:
(6, 13003), (Start: 15 @13042 has 285 MA's),

Gene: Kipper29_20 Start: 13284, Stop: 13481, Start Num: 15
Candidate Starts for Kipper29_20:
(Start: 15 @13284 has 285 MA's),

Gene: Koduck_17 Start: 12395, Stop: 12547, Start Num: 15
Candidate Starts for Koduck_17:
(Start: 11 @12374 has 1 MA's), (Start: 15 @12395 has 285 MA's), (19, 12458), (22, 12482),

Gene: Koko_20 Start: 13278, Stop: 13475, Start Num: 15
Candidate Starts for Koko_20:
(Start: 15 @13278 has 285 MA's), (23, 13368),

Gene: Koreni_15 Start: 12124, Stop: 12330, Start Num: 15

Candidate Starts for Koreni_15:
(Start: 15 @12124 has 285 MA's),

Gene: Kristoff_17 Start: 12438, Stop: 12623, Start Num: 15
Candidate Starts for Kristoff_17:
(Start: 15 @12438 has 285 MA's),

Gene: L5_18 Start: 12382, Stop: 12555, Start Num: 11
Candidate Starts for L5_18:
(Start: 11 @12382 has 1 MA's), (Start: 15 @12403 has 285 MA's), (19, 12466), (22, 12490),

Gene: LBerry_18 Start: 12602, Stop: 12787, Start Num: 15
Candidate Starts for LBerry_18:
(Start: 15 @12602 has 285 MA's), (19, 12665),

Gene: LadyBird_17 Start: 13155, Stop: 13337, Start Num: 15
Candidate Starts for LadyBird_17:
(Start: 15 @13155 has 285 MA's),

Gene: Lambert1_17 Start: 12696, Stop: 12875, Start Num: 15
Candidate Starts for Lambert1_17:
(13, 12681), (Start: 15 @12696 has 285 MA's),

Gene: Landor_18 Start: 14910, Stop: 15110, Start Num: 12
Candidate Starts for Landor_18:
(Start: 12 @14910 has 2 MA's), (Start: 15 @14928 has 285 MA's),

Gene: Larenn_18 Start: 13470, Stop: 13649, Start Num: 15
Candidate Starts for Larenn_18:
(Start: 15 @13470 has 285 MA's),

Gene: LarryKay_18 Start: 12688, Stop: 12873, Start Num: 15
Candidate Starts for LarryKay_18:
(Start: 15 @12688 has 285 MA's), (19, 12751),

Gene: LastResort_19 Start: 12316, Stop: 12486, Start Num: 15
Candidate Starts for LastResort_19:
(Start: 15 @12316 has 285 MA's),

Gene: Leogania_19 Start: 15329, Stop: 15514, Start Num: 15
Candidate Starts for Leogania_19:
(Start: 15 @15329 has 285 MA's),

Gene: Leviathan_19 Start: 13643, Stop: 13825, Start Num: 15
Candidate Starts for Leviathan_19:
(Start: 4 @13595 has 1 MA's), (Start: 15 @13643 has 285 MA's),

Gene: LilTurb_19 Start: 13670, Stop: 13852, Start Num: 15
Candidate Starts for LilTurb_19:
(Start: 4 @13622 has 1 MA's), (Start: 15 @13670 has 285 MA's),

Gene: Lilbunny_20 Start: 13260, Stop: 13457, Start Num: 15
Candidate Starts for Lilbunny_20:

(Start: 15 @13260 has 285 MA's),

Gene: Lilith_18 Start: 12595, Stop: 12780, Start Num: 15

Candidate Starts for Lilith_18:

(Start: 15 @12595 has 285 MA's), (19, 12658),

Gene: LionsBait_18 Start: 14940, Stop: 15128, Start Num: 15

Candidate Starts for LionsBait_18:

(Start: 4 @14892 has 1 MA's), (Start: 15 @14940 has 285 MA's),

Gene: LittleGuy_16 Start: 12421, Stop: 12627, Start Num: 15

Candidate Starts for LittleGuy_16:

(Start: 15 @12421 has 285 MA's),

Gene: Lokk_20 Start: 14867, Stop: 15043, Start Num: 15

Candidate Starts for Lokk_20:

(Start: 15 @14867 has 285 MA's),

Gene: Looper_20 Start: 12316, Stop: 12486, Start Num: 15

Candidate Starts for Looper_20:

(Start: 15 @12316 has 285 MA's),

Gene: Loser_20 Start: 14963, Stop: 15145, Start Num: 15

Candidate Starts for Loser_20:

(Start: 15 @14963 has 285 MA's),

Gene: Louie6_18 Start: 12689, Stop: 12874, Start Num: 15

Candidate Starts for Louie6_18:

(Start: 15 @12689 has 285 MA's), (19, 12752),

Gene: Lowa_18 Start: 12594, Stop: 12779, Start Num: 15

Candidate Starts for Lowa_18:

(Start: 15 @12594 has 285 MA's), (19, 12657),

Gene: Lucyedi_18 Start: 13368, Stop: 13550, Start Num: 15

Candidate Starts for Lucyedi_18:

(Start: 15 @13368 has 285 MA's),

Gene: LugYA_20 Start: 12600, Stop: 12785, Start Num: 15

Candidate Starts for LugYA_20:

(Start: 15 @12600 has 285 MA's), (19, 12663),

Gene: MA5_16 Start: 11752, Stop: 11931, Start Num: 15

Candidate Starts for MA5_16:

(13, 11737), (Start: 15 @11752 has 285 MA's), (17, 11788), (18, 11791),

Gene: MadMarie_18 Start: 12604, Stop: 12789, Start Num: 15

Candidate Starts for MadMarie_18:

(Start: 15 @12604 has 285 MA's), (19, 12667),

Gene: Mainiac_18 Start: 12595, Stop: 12780, Start Num: 15

Candidate Starts for Mainiac_18:

(Start: 15 @12595 has 285 MA's), (19, 12658),

Gene: MajorMajor_16 Start: 12104, Stop: 12289, Start Num: 15
Candidate Starts for MajorMajor_16:
(Start: 15 @12104 has 285 MA's), (20, 12182),

Gene: Malec_18 Start: 13475, Stop: 13654, Start Num: 15
Candidate Starts for Malec_18:
(Start: 15 @13475 has 285 MA's),

Gene: Manu_19 Start: 12679, Stop: 12861, Start Num: 15
Candidate Starts for Manu_19:
(Start: 15 @12679 has 285 MA's),

Gene: MarQuardt_18 Start: 12603, Stop: 12788, Start Num: 15
Candidate Starts for MarQuardt_18:
(Start: 15 @12603 has 285 MA's), (19, 12666),

Gene: Margo_17 Start: 12721, Stop: 12900, Start Num: 15
Candidate Starts for Margo_17:
(13, 12706), (Start: 15 @12721 has 285 MA's),

Gene: Marie_18 Start: 12600, Stop: 12785, Start Num: 15
Candidate Starts for Marie_18:
(Start: 15 @12600 has 285 MA's), (19, 12663),

Gene: Marius_19 Start: 12679, Stop: 12861, Start Num: 15
Candidate Starts for Marius_19:
(Start: 15 @12679 has 285 MA's),

Gene: McFly_20 Start: 13284, Stop: 13481, Start Num: 15
Candidate Starts for McFly_20:
(Start: 15 @13284 has 285 MA's),

Gene: MeeZee_16 Start: 12478, Stop: 12684, Start Num: 15
Candidate Starts for MeeZee_16:
(Start: 15 @12478 has 285 MA's),

Gene: Methuselah_18 Start: 12685, Stop: 12870, Start Num: 15
Candidate Starts for Methuselah_18:
(Start: 15 @12685 has 285 MA's), (19, 12748),

Gene: Microwolf_18 Start: 12603, Stop: 12788, Start Num: 15
Candidate Starts for Microwolf_18:
(Start: 15 @12603 has 285 MA's), (19, 12666),

Gene: MiculUcigas_17 Start: 13239, Stop: 13418, Start Num: 15
Candidate Starts for MiculUcigas_17:
(Start: 15 @13239 has 285 MA's),

Gene: Miko_20 Start: 14836, Stop: 15012, Start Num: 15
Candidate Starts for Miko_20:
(Start: 15 @14836 has 285 MA's),

Gene: MinecraftSteve_20 Start: 12438, Stop: 12608, Start Num: 15
Candidate Starts for MinecraftSteve_20:
(Start: 15 @12438 has 285 MA's),

Gene: Miramae_16 Start: 12438, Stop: 12632, Start Num: 15
Candidate Starts for Miramae_16:
(Start: 15 @12438 has 285 MA's),

Gene: Misomonster_20 Start: 12685, Stop: 12870, Start Num: 15
Candidate Starts for Misomonster_20:
(Start: 15 @12685 has 285 MA's), (19, 12748),

Gene: MissWhite_17 Start: 12278, Stop: 12454, Start Num: 15
Candidate Starts for MissWhite_17:
(Start: 15 @12278 has 285 MA's), (19, 12341), (24, 12371),

Gene: MoneyMay_18 Start: 12600, Stop: 12785, Start Num: 15
Candidate Starts for MoneyMay_18:
(Start: 15 @12600 has 285 MA's), (19, 12663),

Gene: MuchMore_20 Start: 12594, Stop: 12779, Start Num: 15
Candidate Starts for MuchMore_20:
(Start: 15 @12594 has 285 MA's), (19, 12657),

Gene: NaSiaTalie_17 Start: 13236, Stop: 13415, Start Num: 15
Candidate Starts for NaSiaTalie_17:
(Start: 15 @13236 has 285 MA's),

Gene: Naji_20 Start: 13113, Stop: 13268, Start Num: 15
Candidate Starts for Naji_20:
(Start: 15 @13113 has 285 MA's),

Gene: Nebs_16 Start: 12475, Stop: 12681, Start Num: 15
Candidate Starts for Nebs_16:
(Start: 15 @12475 has 285 MA's),

Gene: Nebulosus_19 Start: 12316, Stop: 12486, Start Num: 15
Candidate Starts for Nebulosus_19:
(Start: 15 @12316 has 285 MA's),

Gene: Nedarya_18 Start: 12899, Stop: 13075, Start Num: 15
Candidate Starts for Nedarya_18:
(Start: 15 @12899 has 285 MA's),

Gene: Neeharika16_20 Start: 13275, Stop: 13472, Start Num: 15
Candidate Starts for Neeharika16_20:
(2, 13209), (3, 13221), (10, 13254), (Start: 15 @13275 has 285 MA's),

Gene: Newrala_20 Start: 13275, Stop: 13472, Start Num: 15
Candidate Starts for Newrala_20:
(2, 13209), (3, 13221), (10, 13254), (Start: 15 @13275 has 285 MA's),

Gene: NicoleTera_21 Start: 14947, Stop: 15129, Start Num: 15

Candidate Starts for NicoleTera_21:
(Start: 15 @14947 has 285 MA's),

Gene: Noella_17 Start: 12696, Stop: 12875, Start Num: 15
Candidate Starts for Noella_17:
(13, 12681), (Start: 15 @12696 has 285 MA's),

Gene: Norbert_16 Start: 12696, Stop: 12875, Start Num: 15
Candidate Starts for Norbert_16:
(13, 12681), (Start: 15 @12696 has 285 MA's),

Gene: NorthStar_16 Start: 12478, Stop: 12684, Start Num: 15
Candidate Starts for NorthStar_16:
(Start: 15 @12478 has 285 MA's),

Gene: NothingSpecial_19 Start: 15200, Stop: 15382, Start Num: 15
Candidate Starts for NothingSpecial_19:
(Start: 15 @15200 has 285 MA's),

Gene: OKaNui_17 Start: 12531, Stop: 12737, Start Num: 15
Candidate Starts for OKaNui_17:
(Start: 15 @12531 has 285 MA's),

Gene: Odin_16 Start: 12002, Stop: 12157, Start Num: 15
Candidate Starts for Odin_16:
(Start: 15 @12002 has 285 MA's),

Gene: OlanP_18 Start: 12859, Stop: 13041, Start Num: 15
Candidate Starts for OlanP_18:
(Start: 15 @12859 has 285 MA's),

Gene: Oofda_20 Start: 12287, Stop: 12457, Start Num: 15
Candidate Starts for Oofda_20:
(Start: 15 @12287 has 285 MA's),

Gene: P28Green_18 Start: 12601, Stop: 12786, Start Num: 15
Candidate Starts for P28Green_18:
(Start: 15 @12601 has 285 MA's), (19, 12664),

Gene: PGHhamlin_20 Start: 12594, Stop: 12779, Start Num: 15
Candidate Starts for PGHhamlin_20:
(Start: 15 @12594 has 285 MA's), (19, 12657),

Gene: PainterBoy_18 Start: 13368, Stop: 13550, Start Num: 15
Candidate Starts for PainterBoy_18:
(Start: 15 @13368 has 285 MA's),

Gene: Pawn_18 Start: 12679, Stop: 12861, Start Num: 15
Candidate Starts for Pawn_18:
(Start: 15 @12679 has 285 MA's),

Gene: Pembroke_18 Start: 12603, Stop: 12788, Start Num: 15
Candidate Starts for Pembroke_18:

(Start: 15 @12603 has 285 MA's), (19, 12666),

Gene: Penny1_18 Start: 12602, Stop: 12787, Start Num: 15

Candidate Starts for Penny1_18:

(Start: 15 @12602 has 285 MA's), (19, 12665),

Gene: Ph8s_18 Start: 11961, Stop: 12116, Start Num: 15

Candidate Starts for Ph8s_18:

(Start: 15 @11961 has 285 MA's),

Gene: Phaded_20 Start: 15257, Stop: 15457, Start Num: 12

Candidate Starts for Phaded_20:

(Start: 12 @15257 has 2 MA's), (Start: 15 @15275 has 285 MA's),

Gene: PhailMary_12 Start: 8693, Stop: 8923, Start Num: 5

Candidate Starts for PhailMary_12:

(Start: 5 @8693 has 1 MA's), (Start: 15 @8741 has 285 MA's),

Gene: Pharaoh_17 Start: 13693, Stop: 13884, Start Num: 15

Candidate Starts for Pharaoh_17:

(1, 13597), (9, 13666), (Start: 15 @13693 has 285 MA's), (16, 13723),

Gene: PhishRPhriends_17 Start: 11864, Stop: 12046, Start Num: 15

Candidate Starts for PhishRPhriends_17:

(Start: 15 @11864 has 285 MA's),

Gene: Phoebe_18 Start: 12600, Stop: 12785, Start Num: 15

Candidate Starts for Phoebe_18:

(Start: 15 @12600 has 285 MA's), (19, 12663),

Gene: Phontbonne_16 Start: 12422, Stop: 12628, Start Num: 15

Candidate Starts for Phontbonne_16:

(Start: 15 @12422 has 285 MA's),

Gene: Phoxy_18 Start: 12686, Stop: 12871, Start Num: 15

Candidate Starts for Phoxy_18:

(Start: 15 @12686 has 285 MA's), (19, 12749),

Gene: Phranny_19 Start: 12671, Stop: 12853, Start Num: 15

Candidate Starts for Phranny_19:

(Start: 15 @12671 has 285 MA's),

Gene: Piro94_18 Start: 13697, Stop: 13876, Start Num: 15

Candidate Starts for Piro94_18:

(Start: 15 @13697 has 285 MA's),

Gene: Pmask_20 Start: 13276, Stop: 13473, Start Num: 15

Candidate Starts for Pmask_20:

(10, 13255), (Start: 15 @13276 has 285 MA's),

Gene: Pocahontas_17 Start: 12693, Stop: 12872, Start Num: 15

Candidate Starts for Pocahontas_17:

(13, 12678), (Start: 15 @12693 has 285 MA's),

Gene: Polyphemus_19 Start: 13277, Stop: 13474, Start Num: 15
Candidate Starts for Polyphemus_19:
(2, 13211), (3, 13223), (10, 13256), (Start: 15 @13277 has 285 MA's),

Gene: Pomar16_20 Start: 13154, Stop: 13309, Start Num: 15
Candidate Starts for Pomar16_20:
(Start: 15 @13154 has 285 MA's),

Gene: Popcicle_17 Start: 12693, Stop: 12872, Start Num: 15
Candidate Starts for Popcicle_17:
(13, 12678), (Start: 15 @12693 has 285 MA's),

Gene: PotatoSplit_19 Start: 12602, Stop: 12787, Start Num: 15
Candidate Starts for PotatoSplit_19:
(Start: 15 @12602 has 285 MA's), (19, 12665),

Gene: Power_17 Start: 13133, Stop: 13315, Start Num: 15
Candidate Starts for Power_17:
(Start: 4 @13085 has 1 MA's), (Start: 15 @13133 has 285 MA's),

Gene: Priamo_20 Start: 13303, Stop: 13500, Start Num: 15
Candidate Starts for Priamo_20:
(2, 13237), (3, 13249), (10, 13282), (Start: 15 @13303 has 285 MA's),

Gene: Pukovnik_19 Start: 14843, Stop: 15010, Start Num: 15
Candidate Starts for Pukovnik_19:
(Start: 15 @14843 has 285 MA's),

Gene: PurpleHaze_18 Start: 12678, Stop: 12860, Start Num: 15
Candidate Starts for PurpleHaze_18:
(Start: 15 @12678 has 285 MA's),

Gene: QueenB2_17 Start: 13210, Stop: 13392, Start Num: 15
Candidate Starts for QueenB2_17:
(Start: 4 @13162 has 1 MA's), (Start: 15 @13210 has 285 MA's), (20, 13288),

Gene: QueenBeesly_17 Start: 13133, Stop: 13315, Start Num: 15
Candidate Starts for QueenBeesly_17:
(Start: 4 @13085 has 1 MA's), (Start: 15 @13133 has 285 MA's),

Gene: QuinnKiro_16 Start: 12696, Stop: 12875, Start Num: 15
Candidate Starts for QuinnKiro_16:
(13, 12681), (Start: 15 @12696 has 285 MA's),

Gene: Quokka_15 Start: 12104, Stop: 12289, Start Num: 15
Candidate Starts for Quokka_15:
(Start: 15 @12104 has 285 MA's), (20, 12182),

Gene: RGL3_6 Start: 5567, Stop: 5749, Start Num: 15
Candidate Starts for RGL3_6:
(Start: 15 @5567 has 285 MA's), (27, 5720),

Gene: Rachaly_20 Start: 14864, Stop: 15040, Start Num: 15
Candidate Starts for Rachaly_20:
(Start: 15 @14864 has 285 MA's),

Gene: ReMo_19 Start: 12316, Stop: 12486, Start Num: 15
Candidate Starts for ReMo_19:
(Start: 15 @12316 has 285 MA's),

Gene: Reba_19 Start: 12344, Stop: 12526, Start Num: 15
Candidate Starts for Reba_19:
(Start: 15 @12344 has 285 MA's),

Gene: Rebeuca_17 Start: 12439, Stop: 12624, Start Num: 15
Candidate Starts for Rebeuca_17:
(Start: 15 @12439 has 285 MA's),

Gene: RedRock_20 Start: 15120, Stop: 15302, Start Num: 15
Candidate Starts for RedRock_20:
(Start: 15 @15120 has 285 MA's),

Gene: Refuge_20 Start: 15497, Stop: 15685, Start Num: 15
Candidate Starts for Refuge_20:
(1, 15428), (8, 15473), (Start: 15 @15497 has 285 MA's), (16, 15527),

Gene: Remus_19 Start: 12277, Stop: 12447, Start Num: 15
Candidate Starts for Remus_19:
(Start: 15 @12277 has 285 MA's),

Gene: ResDef_17 Start: 12696, Stop: 12875, Start Num: 15
Candidate Starts for ResDef_17:
(13, 12681), (Start: 15 @12696 has 285 MA's),

Gene: Retro23_17 Start: 13284, Stop: 13466, Start Num: 15
Candidate Starts for Retro23_17:
(Start: 4 @13236 has 1 MA's), (Start: 15 @13284 has 285 MA's),

Gene: RhynO_17 Start: 12415, Stop: 12600, Start Num: 15
Candidate Starts for RhynO_17:
(Start: 15 @12415 has 285 MA's),

Gene: Rifter_20 Start: 13251, Stop: 13448, Start Num: 15
Candidate Starts for Rifter_20:
(Start: 15 @13251 has 285 MA's), (23, 13341),

Gene: Roksolana_20 Start: 13279, Stop: 13476, Start Num: 15
Candidate Starts for Roksolana_20:
(Start: 15 @13279 has 285 MA's),

Gene: Roosevelt_16 Start: 12478, Stop: 12684, Start Num: 15
Candidate Starts for Roosevelt_16:
(Start: 15 @12478 has 285 MA's),

Gene: Rosa24_15 Start: 12451, Stop: 12657, Start Num: 15

Candidate Starts for Rosa24_15:
(Start: 15 @12451 has 285 MA's),

Gene: Rosalind_19 Start: 12438, Stop: 12608, Start Num: 15
Candidate Starts for Rosalind_19:
(Start: 15 @12438 has 285 MA's),

Gene: Rowdy_19 Start: 12326, Stop: 12511, Start Num: 15
Candidate Starts for Rowdy_19:
(Start: 15 @12326 has 285 MA's),

Gene: Rummer_18 Start: 12686, Stop: 12871, Start Num: 15
Candidate Starts for Rummer_18:
(Start: 15 @12686 has 285 MA's), (19, 12749),

Gene: Sabia_18 Start: 12595, Stop: 12780, Start Num: 15
Candidate Starts for Sabia_18:
(Start: 15 @12595 has 285 MA's), (19, 12658),

Gene: Sabinator_18 Start: 12600, Stop: 12785, Start Num: 15
Candidate Starts for Sabinator_18:
(Start: 15 @12600 has 285 MA's), (19, 12663),

Gene: Scamp_16 Start: 12478, Stop: 12684, Start Num: 15
Candidate Starts for Scamp_16:
(Start: 15 @12478 has 285 MA's),

Gene: SemperFi_19 Start: 13561, Stop: 13743, Start Num: 15
Candidate Starts for SemperFi_19:
(Start: 4 @13513 has 1 MA's), (Start: 15 @13561 has 285 MA's),

Gene: Serenity_16 Start: 12104, Stop: 12289, Start Num: 15
Candidate Starts for Serenity_16:
(Start: 15 @12104 has 285 MA's),

Gene: Shapes_19 Start: 12326, Stop: 12511, Start Num: 15
Candidate Starts for Shapes_19:
(Start: 15 @12326 has 285 MA's),

Gene: ShayRa_20 Start: 12438, Stop: 12608, Start Num: 15
Candidate Starts for ShayRa_20:
(Start: 15 @12438 has 285 MA's),

Gene: Sknot_18 Start: 13239, Stop: 13418, Start Num: 15
Candidate Starts for Sknot_18:
(Start: 15 @13239 has 285 MA's),

Gene: Smeagan_19 Start: 13646, Stop: 13828, Start Num: 15
Candidate Starts for Smeagan_19:
(Start: 4 @13598 has 1 MA's), (Start: 15 @13646 has 285 MA's),

Gene: SmellyB_20 Start: 13284, Stop: 13481, Start Num: 15
Candidate Starts for SmellyB_20:

(Start: 15 @13284 has 285 MA's),

Gene: SnapTap_17 Start: 13133, Stop: 13315, Start Num: 15

Candidate Starts for SnapTap_17:

(Start: 4 @13085 has 1 MA's), (Start: 15 @13133 has 285 MA's),

Gene: Snickers_18 Start: 12576, Stop: 12761, Start Num: 15

Candidate Starts for Snickers_18:

(Start: 15 @12576 has 285 MA's), (19, 12639),

Gene: SoYo_18 Start: 12513, Stop: 12698, Start Num: 15

Candidate Starts for SoYo_18:

(Start: 15 @12513 has 285 MA's), (19, 12576),

Gene: SoilDragon_18 Start: 12285, Stop: 12470, Start Num: 15

Candidate Starts for SoilDragon_18:

(Start: 15 @12285 has 285 MA's), (19, 12348),

Gene: Soshari_20 Start: 12685, Stop: 12870, Start Num: 15

Candidate Starts for Soshari_20:

(Start: 15 @12685 has 285 MA's), (19, 12748),

Gene: Soups_19 Start: 12438, Stop: 12608, Start Num: 15

Candidate Starts for Soups_19:

(Start: 15 @12438 has 285 MA's),

Gene: Spike509_18 Start: 12686, Stop: 12871, Start Num: 15

Candidate Starts for Spike509_18:

(Start: 15 @12686 has 285 MA's), (19, 12749),

Gene: Stagni_18 Start: 12604, Stop: 12789, Start Num: 15

Candidate Starts for Stagni_18:

(Start: 15 @12604 has 285 MA's), (19, 12667),

Gene: StarStuff_20 Start: 13113, Stop: 13268, Start Num: 15

Candidate Starts for StarStuff_20:

(Start: 15 @13113 has 285 MA's),

Gene: Stasia_17 Start: 12932, Stop: 13120, Start Num: 15

Candidate Starts for Stasia_17:

(Start: 15 @12932 has 285 MA's),

Gene: Strosahl_19 Start: 12277, Stop: 12447, Start Num: 15

Candidate Starts for Strosahl_19:

(Start: 15 @12277 has 285 MA's),

Gene: SuperAwesome_20 Start: 13275, Stop: 13472, Start Num: 15

Candidate Starts for SuperAwesome_20:

(2, 13209), (3, 13221), (10, 13254), (Start: 15 @13275 has 285 MA's),

Gene: SuperCallie99_20 Start: 13274, Stop: 13471, Start Num: 15

Candidate Starts for SuperCallie99_20:

(Start: 15 @13274 has 285 MA's), (23, 13364),

Gene: Superchunk_16 Start: 11860, Stop: 12015, Start Num: 15
Candidate Starts for Superchunk_16:
(Start: 15 @11860 has 285 MA's),

Gene: SweetiePie_17 Start: 13133, Stop: 13315, Start Num: 15
Candidate Starts for SweetiePie_17:
(Start: 4 @13085 has 1 MA's), (Start: 15 @13133 has 285 MA's),

Gene: SwirlSquare_19 Start: 12039, Stop: 12194, Start Num: 15
Candidate Starts for SwirlSquare_19:
(Start: 15 @12039 has 285 MA's),

Gene: Switzerland_19 Start: 12431, Stop: 12601, Start Num: 15
Candidate Starts for Switzerland_19:
(Start: 15 @12431 has 285 MA's),

Gene: TarsusIV_17 Start: 13232, Stop: 13414, Start Num: 15
Candidate Starts for TarsusIV_17:
(Start: 15 @13232 has 285 MA's),

Gene: Taurus_18 Start: 12600, Stop: 12785, Start Num: 15
Candidate Starts for Taurus_18:
(Start: 15 @12600 has 285 MA's), (19, 12663),

Gene: Temprado_21 Start: 13280, Stop: 13477, Start Num: 15
Candidate Starts for Temprado_21:
(2, 13214), (3, 13226), (10, 13259), (Start: 15 @13280 has 285 MA's),

Gene: Terrific_21 Start: 13693, Stop: 13872, Start Num: 15
Candidate Starts for Terrific_21:
(Start: 15 @13693 has 285 MA's),

Gene: Texage_16 Start: 12696, Stop: 12875, Start Num: 15
Candidate Starts for Texage_16:
(13, 12681), (Start: 15 @12696 has 285 MA's),

Gene: Tiffany_18 Start: 12496, Stop: 12681, Start Num: 15
Candidate Starts for Tiffany_18:
(Start: 15 @12496 has 285 MA's), (19, 12559),

Gene: TinyPebbles_18 Start: 12685, Stop: 12870, Start Num: 15
Candidate Starts for TinyPebbles_18:
(Start: 15 @12685 has 285 MA's), (19, 12748),

Gene: Tinybot_15 Start: 12456, Stop: 12662, Start Num: 15
Candidate Starts for Tinybot_15:
(Start: 15 @12456 has 285 MA's),

Gene: TipsytheTRex_16 Start: 12263, Stop: 12424, Start Num: 15
Candidate Starts for TipsytheTRex_16:
(Start: 15 @12263 has 285 MA's), (18, 12302),

Gene: Todacoro_17 Start: 12696, Stop: 12875, Start Num: 15
Candidate Starts for Todacoro_17:
(13, 12681), (Start: 15 @12696 has 285 MA's),

Gene: Tomathan_20 Start: 13113, Stop: 13268, Start Num: 15
Candidate Starts for Tomathan_20:
(Start: 15 @13113 has 285 MA's),

Gene: Topanga_16 Start: 12392, Stop: 12577, Start Num: 15
Candidate Starts for Topanga_16:
(Start: 15 @12392 has 285 MA's),

Gene: Travvers_20 Start: 13113, Stop: 13268, Start Num: 15
Candidate Starts for Travvers_20:
(Start: 15 @13113 has 285 MA's),

Gene: Tristan_18 Start: 14947, Stop: 15129, Start Num: 15
Candidate Starts for Tristan_18:
(Start: 12 @14929 has 2 MA's), (Start: 15 @14947 has 285 MA's),

Gene: Trixie_20 Start: 14845, Stop: 15027, Start Num: 15
Candidate Starts for Trixie_20:
(Start: 15 @14845 has 285 MA's),

Gene: Trooper_17 Start: 13023, Stop: 13205, Start Num: 15
Candidate Starts for Trooper_17:
(Start: 15 @13023 has 285 MA's),

Gene: Tucker_20 Start: 13278, Stop: 13475, Start Num: 15
Candidate Starts for Tucker_20:
(Start: 15 @13278 has 285 MA's), (23, 13368),

Gene: Turbido_19 Start: 13673, Stop: 13855, Start Num: 15
Candidate Starts for Turbido_19:
(Start: 4 @13625 has 1 MA's), (Start: 15 @13673 has 285 MA's),

Gene: Twister_16 Start: 12291, Stop: 12476, Start Num: 15
Candidate Starts for Twister_16:
(Start: 15 @12291 has 285 MA's),

Gene: Updawg_19 Start: 13681, Stop: 13860, Start Num: 15
Candidate Starts for Updawg_19:
(Start: 15 @13681 has 285 MA's),

Gene: VA6_17 Start: 13196, Stop: 13372, Start Num: 15
Candidate Starts for VA6_17:
(Start: 4 @13148 has 1 MA's), (Start: 15 @13196 has 285 MA's),

Gene: VC3_20 Start: 13198, Stop: 13377, Start Num: 15
Candidate Starts for VC3_20:
(Start: 15 @13198 has 285 MA's),

Gene: Vix_18 Start: 12684, Stop: 12869, Start Num: 15

Candidate Starts for Vix_18:
(Start: 15 @12684 has 285 MA's), (19, 12747),

Gene: VohminGhazi_20 Start: 13284, Stop: 13481, Start Num: 15
Candidate Starts for VohminGhazi_20:
(Start: 15 @13284 has 285 MA's),

Gene: Waits_19 Start: 12283, Stop: 12453, Start Num: 15
Candidate Starts for Waits_19:
(Start: 15 @12283 has 285 MA's),

Gene: WalterMcMickey_16 Start: 12291, Stop: 12476, Start Num: 15
Candidate Starts for WalterMcMickey_16:
(Start: 15 @12291 has 285 MA's),

Gene: Warrior24_20 Start: 12287, Stop: 12457, Start Num: 15
Candidate Starts for Warrior24_20:
(Start: 15 @12287 has 285 MA's),

Gene: Watson_18 Start: 12594, Stop: 12779, Start Num: 15
Candidate Starts for Watson_18:
(Start: 15 @12594 has 285 MA's), (19, 12657),

Gene: WeiHuaDA_23 Start: 15447, Stop: 15629, Start Num: 15
Candidate Starts for WeiHuaDA_23:
(Start: 15 @15447 has 285 MA's),

Gene: Whabigail7_19 Start: 13661, Stop: 13843, Start Num: 15
Candidate Starts for Whabigail7_19:
(Start: 4 @13613 has 1 MA's), (Start: 15 @13661 has 285 MA's),

Gene: WideWale_19 Start: 13681, Stop: 13860, Start Num: 15
Candidate Starts for WideWale_19:
(Start: 15 @13681 has 285 MA's),

Gene: Wiks_20 Start: 13260, Stop: 13457, Start Num: 15
Candidate Starts for Wiks_20:
(Start: 15 @13260 has 285 MA's),

Gene: Wooldri_20 Start: 12513, Stop: 12698, Start Num: 15
Candidate Starts for Wooldri_20:
(Start: 15 @12513 has 285 MA's), (19, 12576),

Gene: WunderPhul_20 Start: 13260, Stop: 13457, Start Num: 15
Candidate Starts for WunderPhul_20:
(Start: 15 @13260 has 285 MA's),

Gene: XianYue_17 Start: 13149, Stop: 13334, Start Num: 15
Candidate Starts for XianYue_17:
(Start: 15 @13149 has 285 MA's),

Gene: Yokurt_20 Start: 13260, Stop: 13457, Start Num: 15
Candidate Starts for Yokurt_20:

(Start: 15 @13260 has 285 MA's),

Gene: Zaka_20 Start: 13260, Stop: 13457, Start Num: 15

Candidate Starts for Zaka_20:

(Start: 15 @13260 has 285 MA's),

Gene: Zimmer_19 Start: 14756, Stop: 14941, Start Num: 15

Candidate Starts for Zimmer_19:

(1, 14687), (8, 14732), (Start: 15 @14756 has 285 MA's), (16, 14786),

Gene: Zulu_20 Start: 13259, Stop: 13456, Start Num: 15

Candidate Starts for Zulu_20:

(Start: 15 @13259 has 285 MA's),