Pham 281863

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51: Pmask_20
52: FlyCatcher_20 + 2
53: PP_26
54: Espica_13 + 16
55: Krishelle_13 + 8
56: AngryOrchard_12 + 5
57: RGL3_6
58: Alpacados_12
59: PhaliMary_12
60: Shuman_13 + 1
61: Erik_13
62: Morkie_7 + 1
63: Lucky10_7
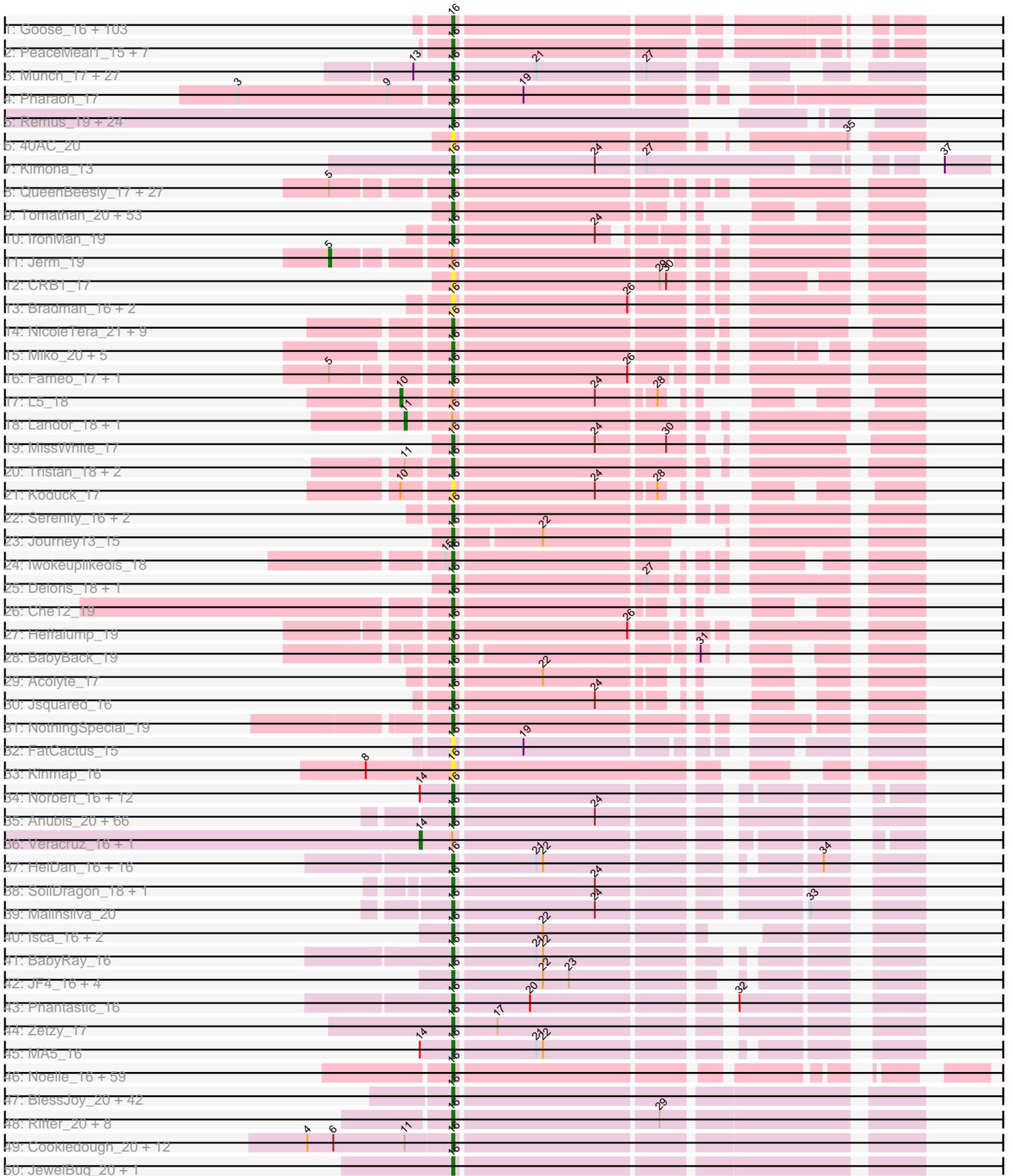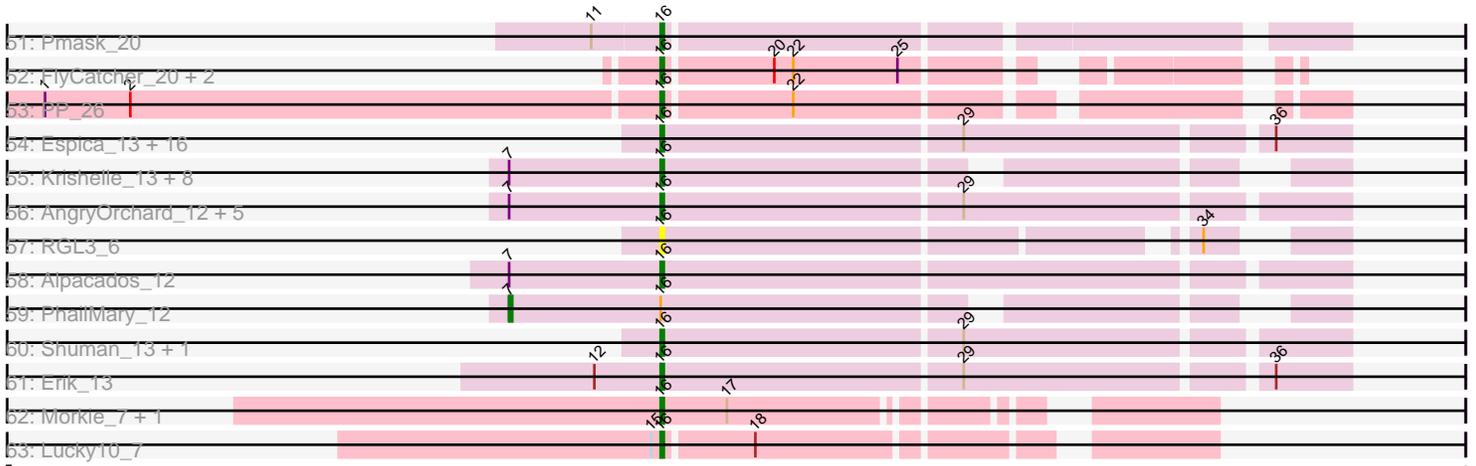
Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly 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 281863 Report

This analysis was run 02/23/26 on database version 636.

Pham number 281863 has 584 members, 65 are drafts.

Phages represented in each track:
• Track 1 : Goose_16, Eaglepride_17, Scamp_16, BubbleTrouble_16, Baby16_16, RhynO_17, Huxley_16, Spino_16, Chiqui_15, Roosevelt_16, Kremtemulon_16, Romney_16, Taquarus_16, Kyee_16, Rebeuca_17, Pipcraft_16, Maverick_16, Cocoaberry_16, Houdini22_16, NorthStar_16, Eagle_15, ChampagnePapi_16, Commander_16, Bombshell_16, Mayonnaise_16, Ulysses_15, SenorClean_16, Chaph_16, Connomayer_16, KFPoly_16, DontArgue_15, BangNhom_15, Obama12_16, Phacado_16, Koan_16, Funston_16, Chupacabra_16, OKCentral2016_16, Wizard007_16, Citius_16, Deano_16, LHTSCC_16, MeeZee_16, Cerulean_16, Gadost_16, NotAPhaseMom_16, Sultana_16, Dhanush_16, Medusa_16, DustyMartin_19, Pumbaa_16, Bartimeaus_16, Morrow_16, Blackmoor_16, Bruiser_16, Happiness_16, Shapes_19, Eros_16, Burger_15, Iracema64_16, SteMason_15, Albee_16, Flux_16, Anthony_16, Palestino_16, Annyong_16, Caelakin_16, Stasia_17, KekoraPapaka_15, Twister_16, JoongJeon_16, Melvin_16, LochMonster_16, Shaka_16, BabyJohn_15, RockieBear_15, Millski_16, Avle17_16, Phelipe_16, Mazhar510_16, Topanga_16, WalterMcMickey_16, Eris_16, Thanksgivukkah_16, Cintron_16, Broseidon_16, Druantia_16, Lorenzo_16, SheldonCooper_16, Kratark_16, Kristoff_17, Rowdy_19, Kingmustik0402_16, PeterPeter_16, CentreCat_16, Nemo27_16, LittleB_16, Edison31_16, Phighter1804_16, Wander_16, Trike_14, DirtyDunning_16, TroyPia_16, Wilbur_16
• Track 2 : PeaceMeal1_15, DroogsArmy_17, HINdeR_16, Severus_15, Drake94_15, KittenMittens_15, Poompha_15, Timshel_17
• Track 3 : Munch_17, Salz_17, Lucivia_17, Orange_17, MaCh_17, Insomnia_17, Jabith_17, TinyTimmy_17, Et2Brutus_16, Flaverint_17, Saskia_16, Wolpertinger_16, Sham4_17, Bachome_17, Petersenfast_16, Ebony_17, Fibonacci_17, Gilberta_17, Timothy_17, Joselito_17, Aneem_17, Mulciber_17, Kimba_17, Bud_17, Bowtie_17, Mabel_17, Hutc2_17, Snape_17
• Track 4 : Pharaoh_17
• Track 5 : Remus_19, Ravana_20, MinecraftSteve_20, Switzerland_19, Looper_20, LastResort_19, JSwag_19, ShayRa_20, Warrior24_19, Iceman_17, Rosalind_19, KatherineG_19, DekHockey33_19, Oofda_19, Waits_19, Nebulosus_19, ReMo_19, OKaNui_17, Anaysia_19, Battleship_20, Epsocamisio_19, Nedarya_18, Strosahl_19, Boohoo_19, Soups_19
• Track 6 : 40AC_20
• Track 7 : Kimona_13
• Track 8 : QueenBeesly_17, Anselm_17, AN3_17, SemperFi_19, Georgie2_18, Dignity_19, AbbyPaige_19, SweetiePie_17, Power_17, DudeLittle_17, Benvolio_17,

LionsBait_18, Retro23_17, Dalmatian_17, Smeagan_19, Bugsy_19, LilTurb_19, Whabigail7_19, VA6_17, HippoHollow_18, Agape74_19, JoshKayV_19, Leviathan_19, SnapTap_17, Echild_17, Crucio_17, FiringLine_17, Turbido_19
• Track 9 : Tomathan_20, First_0017, D29_18, PainterBoy_18, EvilGenius_19, Superchunk_16, Caraxes_16, Terrific_21, Anon_17, Travvers_20, Trooper_17, HarryHoudini_19, Updawg_19, BiancaTri92_19, ForesterFrank_18, DBQu4n_20, NaSiaTalie_17, Adzzy_18, Duplo_20, EZMoney23_21, Flare16_17, Equemioh13_19, AnnaL29_20, Prudy_19, SwirlSquare_19, Gratitude_18, Kerberos_20, 20ES_17, D32_20, Sknot_17, KingCyrus_19, Elle_17, Lucyedi_18, Baehexic_18, TarsusIV_17, Changeling_20, MiculUcigas_17, Pomar16_20, WideWale_19, Kalpine_20, StarStuff_20, Odin_16, Ph8s_18, Trixie_20, ChipMunk_19, Centaur_19, Drake55_19, Naji_20, LadyBird_17, Tailonex_14, WeiHuaDA_23, EagleEye_19, BobSwaget_20, Piro94_18
• Track 10 : IronMan_19
• Track 11 : Jerm_19
• Track 12 : CRB1_17
• Track 13 : Bradman_16, Quokka_15, MajorMajor_16
• Track 14 : NicoleTera_21, Mundrea_16, ArcherNM_19, Loser_20, RedRock_20, Stink_16, AvatarAhPeg_16, Miramae_16, Cindaradix_15, DeerParkTS_18
• Track 15 : Miko_20, Malec_18, Colin_21, Leogania_19, Lokk_20, Larenn_18
• Track 16 : Fameo_17, QueenB2_17
• Track 17 : L5_18
• Track 18 : Landor_18, Phaded_20
• Track 19 : MissWhite_17
• Track 20 : Tristan_18, Bactobuster_18, Jaan_20
• Track 21 : Koduck_17
• Track 22 : Serenity_16, XianYue_17, Pukovnik_19
• Track 23 : Journey13_15
• Track 24 : Iwokeuplikedis_18
• Track 25 : Deloris_18, BengiVuitton_18
• Track 26 : Che12_19
• Track 27 : Heffalump_19
• Track 28 : BabyBack_19
• Track 29 : Acolyte_17
• Track 30 : Jsquared_16
• Track 31 : NothingSpecial_19
• Track 32 : FatCactus_15
• Track 33 : Kinmap_16
• Track 34 : Norbert_16, Noella_17, ResDef_17, Caviar_17, Popcicle_17, Texage_16, Pocahontas_17, Todacoro_17, Hookmount_17, EtoileNova_17, Margo_17, Lambert1_17, QuinnKiro_16
• Track 35 : Anubis_20, LugYA_20, Misomonster_20, Taurus_18, JenCasNa_18, LarryKay_18, Louie6_18, Lowa_18, Wooldri_20, Mainiac_18, Hercules11_18, P28Green_18, Bigflo_18, Stagni_18, MadMarie_18, TinyPebbles_18, Rummer_18, Methuselah_18, KADY_19, MoneyMay_18, Marie_18, HashRod_19, SoYo_18, Sabinator_18, Bxz2_18, Beauxregard13_18, Gwennie_17, PGHhamlin_20, Croquant_19, Grub_18, Ollie_18, PotatoSplit_19, Farber_18, Microwolf_18, AgronaGT15_18, Dieselweasel_18, BreSam8_18, MuchMore_20, BuzzBuzz_17, Colbster_18, DaHudson_18, Fernando_18, GtownJaz_18, Spike509_18, Daishi_17, Lilith_18, Phoebe_18, Grum1_18, LBerry_18, Vix_18, JHC117_18, Soshari_20, Grif_18, Tiffany_18, AugsMagnumOpus_20, EpicPhail_18, Penny1_18, Montavir_17, Pembroke_18, Cullens_18, Phoxy_18, Aglet_18, MarQuardt_18, Watson_18, Sabia_18, GingkoMaracino_18, Snickers_18

• Track 36 : Veracruz_16, Panamaxus_17
• Track 37 : HelDan_16, Kachowdy_16, Giroux_17, Bugatti_16, Marchesa_16, Idleandcovert_16, Scout_16, Pistachio_17, Heathen_16, Puppy_17, Roimos_16, Zarafa_16, Clammy_16, TNguyen7_16, BlueBird_17, SaturnRing_16, DropBear_16
• Track 38 : SoilDragon_18, Jobu08_18
• Track 39 : Malinsilva_20
• Track 40 : Isca_16, TipsytheTRex_16, Rockstar_16
• Track 41 : BabyRay_16
• Track 42 : JF4_16, B1_14, MK4_16, Fred313_16, JF2_16
• Track 43 : Phantastic_16
• Track 44 : Zetzy_17
• Track 45 : MA5_16
• Track 46 : Noelle_16, Backyardigan_16, Eurydice_16, GaugeLDP_19, Rachaly_20, Perplexer_16, ANI8_20, Bumblebee11_16, Shygu2_16, Rosa24_15, BellusTerra_16, JetBlade_16, Peaches_16, Badger_16, LittleGuy_16, Ohfah_16, LeoAvram_16, Florean_16, ICleared_16, Polymorphads_16, Lunsford_17, Nebs_16, Xena_16, Datway_16, HamSlice_15, AN9_20, Arturo_15, PetiteSangsue_16, Clarenza_16, Wile_16, Katalie136_16, YoSam321_16, Phontbonne_16, Cici_16, Sparxx_16, TiroTheta9_16, Maxo_16, Morpher26_16, Ruin_16, Koreni_15, AbbysRanger_16, TygerBlood_16, Eapen_16, C3_15, Sabertooth_16, Tinybot_15, Alberto7_17, Camperdownii_15, Abdiel_16, LappelDuVide_16, Achebe_16, Holli_16, Relief_16, Kampy_16, TinaFeyge_16, Nyxis_16, Jaykayelowell_16, Lemur_16, VC3_20, Skipitt_16
• Track 47 : BlessJoy_20, DelvinSonDorr_19, Wiks_20, Heliosoles_18, Calvinny_19, CloudWang3_20, PhishRPhriends_17, VohminGhazi_20, ACFishhook_18, HaveUMetTed_19, OlanP_18, SmellyB_20, Gemma_18, Reba_19, Manu_19, Roksolana_20, Chartreuse_20, Pawn_18, DaVinci_20, Blinn1_20, Kalb97_19, Yokurt_20, Kalnoky_19, Kipper29_20, Artemis2UCLA_20, WunderPhul_20, EricB_20, Groupthink_19, Phranny_19, Kazan_20, PurpleHaze_18, Indra_20, Hexamo_20, Zulu_20, ClownCar_19, Lilbunny_20, JeppNRM_19, Hoot_20, BennyP_20, Marius_19, GreedyLawyer_20, Zaka_20, McFly_20
• Track 48 : Rifter_20, Koko_20, SuperCallie99_20, Tucker_20, Gladiator_20, Blue7_20, Hammer_20, Gruunaga_20, Jeffabunny_20
• Track 49 : Cookiedough_20, Isiphiwo_20, Jordennis_20, Neeharika16_20, Newrala_20, Helmet_20, Candra_20, Priamo_20, Temprado_20, BABullseye_20, Polyphemus_20, SuperAwesome_20, Garak_21
• Track 50 : JewelBug_20, Dorothea_20
• Track 51 : Pmask_20
• Track 52 : FlyCatcher_20, Sheen_18, Toro_19
• Track 53 : PP_26
• Track 54 : Espica_13, UhSalsa_13, Gollum_13, RER2_6, Naiad_13, Belenaria_13, Phrankenstein_13, CosmicSans_13, TWAMP_13, Swann_13, StCroix_13, Bradshaw_13, Lillie_13, Alatin_13, RexFury_13, Nancinator_13, Rhodalysa_13
• Track 55 : Krishelle_13, Hiro_13, Yoncess_13, AppleCloud_11, BobbyDazzler_13, Bonanza_13, Bryce_13, Yogi_13, Rasputin_13
• Track 56 : AngryOrchard_12, Dinger_13, Harlequin_13, Takoda_13, Partridge_13, Jester_13
• Track 57 : RGL3_6
• Track 58 : Alpacados_12
• Track 59 : PhailMary_12
• Track 60 : Shuman_13, Natosaleda_13
• Track 61 : Erik_13
• Track 62 : Morkie_7, PhorbesPhlower_7

• Track 63 : Lucky10_7

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

The start number called the most often in the published annotations is 16, it was called in 512 of the 519 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, AbbysRanger_16, Abdiel_16, Achebe_16, Acolyte_17, Adzzy_18, Agape74_19, Aglet_18, AgronaGT15_18, Alatin_13, Albee_16, Alberto7_17, Alpacados_12, Anaysia_19, Aneem_17, AngryOrchard_12, AnnaL29_20, Annyong_16, Anon_17, Anselm_17, Anthony_16, Anubis_20, AppleCloud_11, ArcherNM_19, Artemis2UCLA_20, Arturo_15, AugsMagnumOpus_20, AvatarAhPeg_16, Avle17_16, B1_14, BABullseye_20, Baby16_16, BabyBack_19, BabyJohn_15, BabyRay_16, Bachome_17, Backyardigan_16, Bactobuster_18, Badger_16, Baehexic_18, BangNhom_15, Bartimeaus_16, Battleship_20, Beauxregard13_18, Belenaria_13, BellusTerra_16, BengiVuitton_18, BennyP_20, Benvolio_17, BiancaTri92_19, Bigflo_18, Blackmoor_16, BlessJoy_20, Blinn1_20, Blue7_20, BlueBird_17, BobSwaget_20, BobbyDazzler_13, Bombshell_16, Bonanza_13, Boohoo_19, Bowtie_17, Bradman_16, Bradshaw_13, BreSam8_18, Broseidon_16, Bruiser_16, Bryce_13, BubbleTrouble_16, Bud_17, Bugatti_16, Bugsy_19, Bumblebee11_16, Burger_15, BuzzBuzz_17, Bxz2_18, C3_15, CRB1_17, Caelakin_16, Calvinny_19, Camperdownii_15, Candra_20, Caraxes_16, Caviar_17, Centaur_19, CentreCat_16, Cerulean_16, ChampagnePapi_16, Changeling_20, Chaph_16, Chartreuse_20, Che12_19, ChipMunk_19, Chiqui_15, Chupacabra_16, Cici_16, Cindaradix_15, Cintron_16, Citius_16, Clammy_16, Clarenza_16, CloudWang3_20, ClownCar_19, Cocoaberry_16, Colbster_18, Colin_21, Commander_16, Connomayer_16, Cookiedough_20, CosmicSans_13, Croquant_19, Crucio_17, Cullens_18, D29_18, D32_20, DBQu4n_20, DaHudson_18, DaVinci_20, Daishi_17, Dalmatian_17, Datway_16, Deano_16, DeerParkTS_18, DekHockey33_19, Deloris_18, DelvinSonDorr_19, Dhanush_16, Dieselweasel_18, Dignity_19, Dinger_13, DirtyDunning_16, DontArgue_15, Dorothea_20, Drake55_19, Drake94_15, DroogsArmy_17, DropBear_16, Druantia_16, DudeLittle_17, Duplo_20, DustyMartin_19, EZMoney23_21, EagleEye_19, Eagle_15, Eaglepride_17, Eapen_16, Ebony_17, Echild_17, Edison31_16, Elle_17, EpicPhail_18, Epsocamisio_19, Equemioh13_19, EricB_20, Erik_13, Eris_16, Eros_16, Espica_13, Et2Brutus_16, EtoileNova_17, Eurydice_16, EvilGenius_19, Fameo_17, Farber_18, FatCactus_15, Fernando_18, Fibonacci_17, FiringLine_17, First_0017, Flare16_17, Flaverint_17, Florean_16, Flux_16, FlyCatcher_20, ForesterFrank_18, Fred313_16, Funston_16, Gadost_16, Garak_21, GaugeLDP_19, Gemma_18, Georgie2_18, Gilberta_17, GingkoMaracino_18, Giroux_17, Gladiator_20, Gollum_13, Goose_16, Gratitude_18, GreedyLawyer_20, Grif_18, Groupthink_19, Grub_18, Grum1_18, Gruunaga_20, GtownJaz_18, Gwennie_17, HINdeR_16, HamSlice_15, Hammer_20, Happiness_16, Harlequin_13, HarryHoudini_19, HashRod_19, HaveUMetTed_19, Heathen_16, Heffalump_19, HelDan_16, Heliosoles_18, Helmet_20, Hercules11_18, Hexamo_20, HippoHollow_18, Hiro_13, Holli_16, Hookmount_17, Hoot_20, Houdini22_16, Hutc2_17, Huxley_16, ICleared_16, Iceman_17, Idleandcovert_16, Indra_20, Insomnia_17, Iracema64_16, IronMan_19, Isca_16, Isiphiwo_20, Iwokeuplikedis_18, JF2_16, JF4_16, JHC117_18, JSwag_19, Jaan_20, Jabith_17,

Jaykayelowell_16, Jeffabunny_20, JenCasNa_18, JeppNRM_19, Jester_13, JetBlade_16, JewelBug_20, Jobu08_18, JoongJeon_16, Jordennis_20, Joselito_17, JoshKayV_19, Journey13_15, Jsquared_16, KADY_19, KFPoly_16, Kachowdy_16, Kalb97_19, Kalnoky_19, Kalpine_20, Kampy_16, Katalie136_16, KatherineG_19, Kazan_20, KekoraPapaka_15, Kerberos_20, Kimba_17, Kimona_13, KingCyrus_19, Kingmustik0402_16, Kinmap_16, Kipper29_20, KittenMittens_15, Koan_16, Koduck_17, Koko_20, Koreni_15, Kratark_16, Kremtemulon_16, Krishelle_13, Kristoff_17, Kyee_16, LBerry_18, LHTSCC_16, LadyBird_17, Lambert1_17, LappelDuVide_16, Larenn_18, LarryKay_18, LastResort_19, Lemur_16, LeoAvram_16, Leogania_19, Leviathan_19, LilTurb_19, Lilbunny_20, Lilith_18, Lillie_13, LionsBait_18, LittleB_16, LittleGuy_16, LochMonster_16, Lokk_20, Looper_20, Lorenzo_16, Loser_20, Louie6_18, Lowa_18, Lucivia_17, Lucky10_7, Lucyedi_18, LugYA_20, Lunsford_17, MA5_16, MK4_16, MaCh_17, Mabel_17, MadMarie_18, Mainiac_18, MajorMajor_16, Malec_18, Malinsilva_20, Manu_19, MarQuardt_18, Marchesa_16, Margo_17, Marie_18, Marius_19, Maverick_16, Maxo_16, Mayonnaise_16, Mazhar510_16, McFly_20, Medusa_16, MeeZee_16, Melvin_16, Methuselah_18, Microwolf_18, MiculUcigas_17, Miko_20, Millski_16, MinecraftSteve_20, Miramae_16, Misomonster_20, MissWhite_17, MoneyMay_18, Montavir_17, Morkie_7, Morpher26_16, Morrow_16, MuchMore_20, Mulciber_17, Munch_17, Mundrea_16, NaSiaTalie_17, Naiad_13, Naji_20, Nancinator_13, Natosaleda_13, Nebs_16, Nebulosus_19, Nedarya_18, Neeharika16_20, Nemo27_16, Newrala_20, NicoleTera_21, Noella_17, Noelle_16, Norbert_16, NorthStar_16, NotAPhaseMom_16, NothingSpecial_19, Nyxis_16, OKCentral2016_16, OKaNui_17, Obama12_16, Odin_16, Ohfah_16, OlanP_18, Ollie_18, Oofda_19, Orange_17, P28Green_18, PGHhamlin_20, PP_26, PainterBoy_18, Palestino_16, Partridge_13, Pawn_18, PeaceMeal1_15, Peaches_16, Pembroke_18, Penny1_18, Perplexer_16, PeterPeter_16, Petersenfast_16, PetiteSangsue_16, Ph8s_18, Phacado_16, Phantastic_16, Pharaoh_17, Phelipe_16, Phighter1804_16, PhishRPhriends_17, Phoebe_18, Phontbonne_16, PhorbesPhlower_7, Phoxy_18, Phrankenstein_13, Phranny_19, Pipcraft_16, Piro94_18, Pistachio_17, Pmask_20, Pocahontas_17, Polymorphads_16, Polyphemus_20, Pomar16_20, Poompha_15, Popcicle_17, PotatoSplit_19, Power_17, Priamo_20, Prudy_19, Pukovnik_19, Pumbaa_16, Puppy_17, PurpleHaze_18, QueenB2_17, QueenBeesly_17, QuinnKiro_16, Quokka_15, RER2_6, RGL3_6, Rachaly_20, Rasputin_13, Ravana_20, ReMo_19, Reba_19, Rebeuca_17, RedRock_20, Relief_16, Remus_19, ResDef_17, Retro23_17, RexFury_13, Rhodalysa_13, RhynO_17, Rifter_20, RockieBear_15, Rockstar_16, Roimos_16, Roksolana_20, Romney_16, Roosevelt_16, Rosa24_15, Rosalind_19, Rowdy_19, Ruin_16, Rummer_18, Sabertooth_16, Sabia_18, Sabinator_18, Salz_17, Saskia_16, SaturnRing_16, Scamp_16, Scout_16, SemperFi_19, SenorClean_16, Serenity_16, Severus_15, Shaka_16, Sham4_17, Shapes_19, ShayRa_20, Sheen_18, SheldonCooper_16, Shuman_13, Shygu2_16, Skipitt_16, Sknot_17, Smeagan_19, SmellyB_20, SnapTap_17, Snape_17, Snickers_18, SoYo_18, SoilDragon_18, Soshari_20, Soups_19, Sparxx_16, Spike509_18, Spino_16, StCroix_13, Stagni_18, StarStuff_20, Stasia_17, SteMason_15, Stink_16, Strosahl_19, Sultana_16, SuperAwesome_20, SuperCallie99_20, Superchunk_16, Swann_13, SweetiePie_17, SwirlSquare_19, Switzerland_19, TNguyen7_16, TWAMP_13, Tailonex_14, Takoda_13, Taquarus_16, TarsusIV_17, Taurus_18, Temprado_20, Terrific_21, Texage_16, Thanksgivukkah_16, Tiffany_18, Timothy_17, Timshel_17, TinaFeyge_16, TinyPebbles_18, TinyTimmy_17, Tinybot_15, TipsytheTRex_16, TiroTheta9_16, Todacoro_17, Tomathan_20, Topanga_16, Toro_19, Travvers_20, Trike_14, Tristan_18, Trixie_20, Trooper_17, TroyPia_16, Tucker_20, Turbido_19, Twister_16,

TygerBlood_16, UhSalsa_13, Ulysses_15, Updawg_19, VA6_17, VC3_20, Vix_18, VohminGhazi_20, Waits_19, WalterMcMickey_16, Wander_16, Warrior24_19, Watson_18, WeiHuaDA_23, Whabigail7_19, WideWale_19, Wiks_20, Wilbur_16, Wile_16, Wizard007_16, Wolpertinger_16, Wooldri_20, WunderPhul_20, Xena_16, XianYue_17, YoSam321_16, Yogi_13, Yokurt_20, Yoncess_13, Zaka_20, Zarafa_16, Zetzy_17, Zulu_20,

Genes that have the "Most Annotated" start but do not call it:
• Jerm_19, L5_18, Landor_18, Panamaxus_17, Phaded_20, PhailMary_12, Veracruz_16,

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

Summary by start number:

Start 5:
• Found in 31 of 584 (5.3%) of genes in pham
• Manual Annotations of this start: 1 of 519
• Called 3.2% of time when present
• Phage (with cluster) where this start called: Jerm_19 (A2),

Start 7:
• Found in 17 of 584 (2.9%) of genes in pham
• Manual Annotations of this start: 1 of 519
• Called 5.9% of time when present
• Phage (with cluster) where this start called: PhailMary_12 (CA),

Start 10:
• Found in 2 of 584 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 519
• Called 50.0% of time when present
• Phage (with cluster) where this start called: L5_18 (A2),

Start 11:
• Found in 19 of 584 (3.3%) of genes in pham
• Manual Annotations of this start: 2 of 519
• Called 10.5% of time when present
• Phage (with cluster) where this start called: Landor_18 (A2), Phaded_20 (A2),

Start 14:
• Found in 16 of 584 (2.7%) of genes in pham
• Manual Annotations of this start: 2 of 519
• Called 12.5% of time when present
• Phage (with cluster) where this start called: Panamaxus_17 (A3), Veracruz_16 (A3),

Start 16:
• Found in 584 of 584 (100.0%) of genes in pham
• Manual Annotations of this start: 512 of 519
• Called 98.8% 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), AbbysRanger_16 (A4), Abdiel_16 (A4), Achebe_16 (A4), Acolyte_17 (A2), Adzzy_18

(A2), Agape74_19 (A2), Aglet_18 (A3), AgronaGT15_18 (A3), Alatin_13 (CA), Albee_16 (A4), Alberto7_17 (A4), Alpacados_12 (CA), Anaysia_19 (A15), Aneem_17 (A11), AngryOrchard_12 (CA), AnnaL29_20 (A2), Annyong_16 (A4), Anon_17 (A15), Anselm_17 (A2), Anthony_16 (A20), Anubis_20 (A3), AppleCloud_11 (CA), ArcherNM_19 (A2), Artemis2UCLA_20 (A6), Arturo_15 (A4), AugsMagnumOpus_20 (A3), AvatarAhPeg_16 (A4), Avle17_16 (A4), B1_14 (A3), BABullseye_20 (A6), Baby16_16 (A4), BabyBack_19 (A2), BabyJohn_15 (A3), BabyRay_16 (A3), Bachome_17 (A11), Backyardigan_16 (A4), Bactobuster_18 (A2), Badger_16 (A4), Baehexic_18 (A2), BangNhom_15 (A4), Bartimeaus_16 (A4), Battleship_20 (A15), Beauxregard13_18 (A3), Belenaria_13 (CA), BellusTerra_16 (A4), BengiVuitton_18 (A2), BennyP_20 (A6), Benvolio_17 (A2), BiancaTri92_19 (A2), Bigflo_18 (A3), Blackmoor_16 (A4), BlessJoy_20 (A6), Blinn1_20 (A6), Blue7_20 (A6), BlueBird_17 (A3), BobSwaget_20 (A2), BobbyDazzler_13 (CA), Bombshell_16 (A4), Bonanza_13 (CA), Boohoo_19 (A15), Bowtie_17 (A11), Bradman_16 (A2), Bradshaw_13 (CA), BreSam8_18 (A3), Broseidon_16 (A4), Bruiser_16 (A4), Bryce_13 (CA), BubbleTrouble_16 (A4), Bud_17 (A11), Bugatti_16 (A3), Bugsy_19 (A2), Bumblebee11_16 (A4), Burger_15 (A4), BuzzBuzz_17 (A3), Bxz2_18 (A3), C3_15 (A2), CRB1_17 (A2), Caelakin_16 (A4), Calvinny_19 (A3), Camperdownii_15 (A4), Candra_20 (A6), Caraxes_16 (A2), Caviar_17 (A3), Centaur_19 (A2), CentreCat_16 (A4), Cerulean_16 (A4), ChampagnePapi_16 (A4), Changeling_20 (A2), Chaph_16 (A4), Chartreuse_20 (A6), Che12_19 (A2), ChipMunk_19 (A2), Chiqui_15 (A3), Chupacabra_16 (A10), Cici_16 (A4), Cindaradix_15 (A4), Cintron_16 (A4), Citius_16 (A4), Clammy_16 (A3), Clarenza_16 (A4), CloudWang3_20 (A6), ClownCar_19 (A3), Cocoaberry_16 (A4), Colbster_18 (A3), Colin_21 (A2), Commander_16 (A4), Connomayer_16 (A4), Cookiedough_20 (A6), CosmicSans_13 (CA), Croquant_19 (A3), 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), Datway_16 (A4), Deano_16 (A4), DeerParkTS_18 (A2), DekHockey33_19 (A15), Deloris_18 (A2), DelvinSonDorr_19 (A6), Dhanush_16 (A4), Dieselweasel_18 (A3), Dignity_19 (A2), Dinger_13 (CA), DirtyDunning_16 (A4), DontArgue_15 (A10), Dorothea_20 (A6), Drake55_19 (A2), Drake94_15 (A10), DroogsArmy_17 (A7), DropBear_16 (A3), Druantia_16 (A4), DudeLittle_17 (A2), Duplo_20 (A2), DustyMartin_19 (A10), EZMoney23_21 (A2), EagleEye_19 (A16), Eagle_15 (A4), Eaglepride_17 (A10), Eapen_16 (A4), Ebony_17 (A11), Echild_17 (A2), Edison31_16 (A10), Elle_17 (A15), EpicPhail_18 (A3), Epsocamisio_19 (A15), Equemioh13_19 (A2), EricB_20 (A6), Erik_13 (CA), Eris_16 (A4), Eros_16 (A4), Espica_13 (CA), Et2Brutus_16 (A11), EtoileNova_17 (A3), Eurydice_16 (A4), EvilGenius_19 (A2), Fameo_17 (A2), Farber_18 (A3), FatCactus_15 (A20), Fernando_18 (A3), Fibonacci_17 (A11), FiringLine_17 (A2), First_0017 (A2), Flare16_17 (A2), Flaverint_17 (A11), Florean_16 (A4), Flux_16 (A4), FlyCatcher_20 (A7), ForesterFrank_18 (A2), Fred313_16 (A3), Funston_16 (A4), Gadost_16 (A4), Garak_21 (A6), GaugeLDP_19 (A2), Gemma_18 (A3), Georgie2_18 (A2), Gilberta_17 (A11), GingkoMaracino_18 (A3), Giroux_17 (A3), Gladiator_20 (A6), Gollum_13 (CA), Goose_16 (A10), Gratitude_18 (A2), GreedyLawyer_20 (A6), Grif_18 (A3), Groupthink_19 (A3), Grub_18 (A3), Grum1_18 (A3), Gruunaga_20 (A6), GtownJaz_18 (A3), Gwennie_17 (A3), HINdeR_16 (A7), HamSlice_15 (A4), Hammer_20 (A6), Happiness_16 (A4), Harlequin_13 (CA), HarryHoudini_19 (A2), HashRod_19 (A3), HaveUMetTed_19 (A3), Heathen_16 (A3), Heffalump_19 (A2), HelDan_16 (A3), Heliosoles_18 (A3), Helmet_20 (A6), Hercules11_18 (A3), Hexamo_20 (A6), HippoHollow_18 (A2), Hiro_13 (CA), Holli_16 (A4), Hookmount_17 (A3), Hoot_20 (A6), Houdini22_16 (A4), Hutc2_17 (A11), Huxley_16 (A4), ICleared_16 (A4), Iceman_17 (A4), Idleandcovert_16 (A3), Indra_20 (A6), Insomnia_17 (A11), Iracema64_16 (A4), IronMan_19 (A2), Isca_16 (A3), Isiphiwo_20 (A6), Iwokeuplikedis_18 (A2), JF2_16 (A3), JF4_16 (A3), JHC117_18

(A3), JSwag_19 (A15), Jaan_20 (A2), Jabith_17 (A11), Jaykayelowell_16 (A4), Jeffabunny_20 (A6), JenCasNa_18 (A3), JeppNRM_19 (A3), Jester_13 (CA), JetBlade_16 (A4), JewelBug_20 (A6), Jobu08_18 (A3), JoongJeon_16 (A4), Jordennis_20 (A6), Joselito_17 (A11), JoshKayV_19 (A2), Journey13_15 (A2), Jsquared_16 (A2), KADY_19 (A3), KFPoly_16 (A4), Kachowdy_16 (A3), Kalb97_19 (A3), Kalnoky_19 (A3), Kalpine_20 (A2), Kampy_16 (A4), Katalie136_16 (A4), KatherineG_19 (A15), Kazan_20 (A6), KekoraPapaka_15 (A4), Kerberos_20 (A2), Kimba_17 (A11), Kimona_13 (A19), KingCyrus_19 (A2), Kingmustik0402_16 (A4), Kinmap_16 (A21), Kipper29_20 (A6), KittenMittens_15 (A10), Koan_16 (A4), Koduck_17 (A2), Koko_20 (A6), Koreni_15 (A4), Kratark_16 (A4), Kremtemulon_16 (A4), Krishelle_13 (CA), Kristoff_17 (A10), Kyee_16 (A4), LBerry_18 (A3), LHTSCC_16 (A4), LadyBird_17 (A2), Lambert1_17 (A3), LappelDuVide_16 (A4), Larenn_18 (A2), LarryKay_18 (A3), LastResort_19 (A15), Lemur_16 (A4), LeoAvram_16 (A4), Leogania_19 (A2), Leviathan_19 (A2), LilTurb_19 (A2), Lilbunny_20 (A6), Lilith_18 (A3), Lillie_13 (CA), LionsBait_18 (A2), LittleB_16 (A4), LittleGuy_16 (A4), LochMonster_16 (A4), Lokk_20 (A2), Looper_20 (A15), Lorenzo_16 (A4), Loser_20 (A2), Louie6_18 (A3), Lowa_18 (A3), Lucivia_17 (A11), Lucky10_7 (DH), Lucyedi_18 (A16), LugYA_20 (A3), Lunsford_17 (A4), MA5_16 (A3), MK4_16 (A3), MaCh_17 (A11), Mabel_17 (A11), MadMarie_18 (A3), Mainiac_18 (A3), MajorMajor_16 (A2), Malec_18 (A2), Malinsilva_20 (A3), Manu_19 (A3), MarQuardt_18 (A3), Marchesa_16 (A3), Margo_17 (A3), Marie_18 (A3), Marius_19 (A3), Maverick_16 (A4), Maxo_16 (A4), Mayonnaise_16 (A4), Mazhar510_16 (A4), McFly_20 (A6), Medusa_16 (A4), MeeZee_16 (A4), Melvin_16 (A4), Methuselah_18 (A3), Microwolf_18 (A3), MiculUcigas_17 (A2), Miko_20 (A2), Millski_16 (A4), MinecraftSteve_20 (A15), Miramae_16 (A4), Misomonster_20 (A3), MissWhite_17 (A2), MoneyMay_18 (A3), Montavir_17 (A3), Morkie_7 (DH), Morpher26_16 (A4), Morrow_16 (A4), MuchMore_20 (A3), Mulciber_17 (A11), Munch_17 (A11), Mundrea_16 (A4), NaSiaTalie_17 (A2), Naiad_13 (CA), Naji_20 (A2), Nancinator_13 (CA), Natosaleda_13 (CA), Nebs_16 (A4), Nebulosus_19 (A15), Nedarya_18 (A15), Neeharika16_20 (A6), Nemo27_16 (A4), Newrala_20 (A6), NicoleTera_21 (A2), Noella_17 (A3), Noelle_16 (A4), Norbert_16 (A3), NorthStar_16 (A4), NotAPhaseMom_16 (A4), NothingSpecial_19 (A2), Nyxis_16 (A4), OKCentral2016_16 (A10), OKaNui_17 (A4), Obama12_16 (A4), Odin_16 (A2), Ohfah_16 (A4), OlanP_18 (A3), Ollie_18 (A3), Oofda_19 (A15), Orange_17 (A11), P28Green_18 (A3), PGHhamlin_20 (A3), PP_26 (A7), PainterBoy_18 (A16), Palestino_16 (A4), Partridge_13 (CA), Pawn_18 (A3), PeaceMeal1_15 (A10), Peaches_16 (A4), Pembroke_18 (A3), Penny1_18 (A3), Perplexer_16 (A4), PeterPeter_16 (A4), Petersenfast_16 (A11), PetiteSangsue_16 (A4), Ph8s_18 (A2), Phacado_16 (A4), Phantastic_16 (A3), Pharaoh_17 (A12), Phelipe_16 (A4), Phighter1804_16 (A4), PhishRPhriends_17 (A3), Phoebe_18 (A3), Phontbonne_16 (A4), PhorbesPhlower_7 (DH), Phoxy_18 (A3), Phrankenstein_13 (CA), Phranny_19 (A3), Pipcraft_16 (A4), Piro94_18 (A2), Pistachio_17 (A3), Pmask_20 (A6), Pocahontas_17 (A3), Polymorphads_16 (A4), Polyphemus_20 (A6), Pomar16_20 (A2), Poompha_15 (A10), Popcicle_17 (A3), PotatoSplit_19 (A3), Power_17 (A2), Priamo_20 (A6), Prudy_19 (A2), Pukovnik_19 (A2), Pumbaa_16 (A4), Puppy_17 (A3), PurpleHaze_18 (A3), QueenB2_17 (A2), QueenBeesly_17 (A2), QuinnKiro_16 (A3), Quokka_15 (A2), RER2_6 (CA), RGL3_6 (CA), Rachaly_20 (A2), Rasputin_13 (CA), Ravana_20 (A15), ReMo_19 (A15), Reba_19 (A3), Rebeuca_17 (A10), RedRock_20 (A2), Relief_16 (A4), Remus_19 (A15), ResDef_17 (A3), Retro23_17 (A2), RexFury_13 (CA), Rhodalysa_13 (CA), RhynO_17 (A10), Rifter_20 (A6), RockieBear_15 (A4), Rockstar_16 (A3), Roimos_16 (A3), Roksolana_20 (A6), Romney_16 (A4), Roosevelt_16 (A4), Rosa24_15 (A4), Rosalind_19 (A15), Rowdy_19 (A10), Ruin_16 (A4), Rummer_18 (A3), Sabertooth_16 (A4), Sabia_18

(A3), Sabinator_18 (A3), Salz_17 (A11), Saskia_16 (A11), SaturnRing_16 (A3), Scamp_16 (A4), Scout_16 (A3), SemperFi_19 (A2), SenorClean_16 (A4), Serenity_16 (A2), Severus_15 (A10), Shaka_16 (A4), Sham4_17 (A11), Shapes_19 (A10), ShayRa_20 (A15), Sheen_18 (A7), SheldonCooper_16 (A4), Shuman_13 (CA), Shygu2_16 (A4), Skipitt_16 (A4), Sknot_17 (A2), Smeagan_19 (A2), SmellyB_20 (A6), SnapTap_17 (A2), Snape_17 (A11), Snickers_18 (A3), SoYo_18 (A3), SoilDragon_18 (A3), Soshari_20 (A3), Soups_19 (A15), Sparxx_16 (A4), Spike509_18 (A3), Spino_16 (A4), StCroix_13 (CA), Stagni_18 (A3), StarStuff_20 (A2), Stasia_17 (A4), SteMason_15 (A4), Stink_16 (A4), Strosahl_19 (A15), Sultana_16 (A4), SuperAwesome_20 (A6), SuperCallie99_20 (A6), Superchunk_16 (A2), Swann_13 (CA), SweetiePie_17 (A2), SwirlSquare_19 (A2), Switzerland_19 (A15), TNguyen7_16 (A3), TWAMP_13 (CA), Tailonex_14 (singleton), Takoda_13 (CA), Taquarus_16 (A4), TarsusIV_17 (A2), Taurus_18 (A3), Temprado_20 (A6), Terrific_21 (A2), Texage_16 (A3), Thanksgivukkah_16 (A4), Tiffany_18 (A3), Timothy_17 (A11), Timshel_17 (A7), TinaFeyge_16 (A4), TinyPebbles_18 (A3), TinyTimmy_17 (A11), Tinybot_15 (A4), TipsytheTRex_16 (A2), TiroTheta9_16 (A4), Todacoro_17 (A3), Tomathan_20 (A2), Topanga_16 (A10), Toro_19 (A7), Travvers_20 (A2), Trike_14 (A10), Tristan_18 (A2), Trixie_20 (A2), Trooper_17 (A2), TroyPia_16 (A4), Tucker_20 (A6), Turbido_19 (A2), Twister_16 (A10), TygerBlood_16 (A4), UhSalsa_13 (CA), Ulysses_15 (A4), Updawg_19 (A2), VA6_17 (A2), VC3_20 (A2), Vix_18 (A3), VohminGhazi_20 (A6), Waits_19 (A15), WalterMcMickey_16 (A10), Wander_16 (A4), Warrior24_19 (A15), Watson_18 (A3), WeiHuaDA_23 (A2), Whabigail7_19 (A2), WideWale_19 (A2), Wiks_20 (A6), Wilbur_16 (A4), Wile_16 (A4), Wizard007_16 (A4), Wolpertinger_16 (A11), Wooldri_20 (A3), WunderPhul_20 (A6), Xena_16 (A4), XianYue_17 (A2), YoSam321_16 (A4), Yogi_13 (CA), Yokurt_20 (A6), Yoncess_13 (CA), Zaka_20 (A6), Zarafa_16 (A3), Zetzy_17 (A3), Zulu_20 (A6),

Summary by clusters:

There are 17 clusters represented in this pham: A20, A15, A17, A16, A11, A10, DH, A21, CA, A12, A19, singleton, A3, A2, A4, A7, A6,

Info for manual annotations of cluster A10:
•Start number 16 was manually annotated 17 times for cluster A10.

Info for manual annotations of cluster A11:
•Start number 16 was manually annotated 24 times for cluster A11.

Info for manual annotations of cluster A12:
•Start number 16 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A15:
•Start number 16 was manually annotated 23 times for cluster A15.

Info for manual annotations of cluster A16:
•Start number 16 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A19:
•Start number 16 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:
•Start number 5 was manually annotated 1 time for cluster A2.

•Start number 10 was manually annotated 1 time for cluster A2.
•Start number 11 was manually annotated 2 times for cluster A2.
•Start number 16 was manually annotated 99 times for cluster A2.

Info for manual annotations of cluster A20:
•Start number 16 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:
•Start number 14 was manually annotated 2 times for cluster A3.
•Start number 16 was manually annotated 113 times for cluster A3.

Info for manual annotations of cluster A4:
•Start number 16 was manually annotated 141 times for cluster A4.

Info for manual annotations of cluster A6:
•Start number 16 was manually annotated 46 times for cluster A6.

Info for manual annotations of cluster A7:
•Start number 16 was manually annotated 5 times for cluster A7.

Info for manual annotations of cluster CA:
•Start number 7 was manually annotated 1 time for cluster CA.
•Start number 16 was manually annotated 35 times for cluster CA.

Info for manual annotations of cluster DH:
•Start number 16 was manually annotated 3 times for cluster DH.

Gene Information:
Gene: 20ES_17 Start: 13206, Stop: 13382, Start Num: 16
Candidate Starts for 20ES_17:
(Start: 16 @13206 has 512 MA's),

Gene: 40AC_20 Start: 15229, Stop: 15408, Start Num: 16
Candidate Starts for 40AC_20:
(Start: 16 @15229 has 512 MA's), (35, 15382),

Gene: ACFishhook_18 Start: 12760, Stop: 12942, Start Num: 16
Candidate Starts for ACFishhook_18:
(Start: 16 @12760 has 512 MA's),

Gene: AN3_17 Start: 13196, Stop: 13372, Start Num: 16
Candidate Starts for AN3_17:
(Start: 5 @13148 has 1 MA's), (Start: 16 @13196 has 512 MA's),

Gene: AN9_20 Start: 13198, Stop: 13377, Start Num: 16
Candidate Starts for AN9_20:
(Start: 16 @13198 has 512 MA's),

Gene: ANI8_20 Start: 13198, Stop: 13377, Start Num: 16

Candidate Starts for ANI8_20:
(Start: 16 @13198 has 512 MA's),

Gene: AbbyPaige_19 Start: 13651, Stop: 13833, Start Num: 16
Candidate Starts for AbbyPaige_19:
(Start: 5 @13603 has 1 MA's), (Start: 16 @13651 has 512 MA's),

Gene: AbbysRanger_16 Start: 12505, Stop: 12702, Start Num: 16
Candidate Starts for AbbysRanger_16:
(Start: 16 @12505 has 512 MA's),

Gene: Abdiel_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for Abdiel_16:
(Start: 16 @12475 has 512 MA's),

Gene: Achebe_16 Start: 12484, Stop: 12681, Start Num: 16
Candidate Starts for Achebe_16:
(Start: 16 @12484 has 512 MA's),

Gene: Acolyte_17 Start: 13345, Stop: 13500, Start Num: 16
Candidate Starts for Acolyte_17:
(Start: 16 @13345 has 512 MA's), (22, 13384),

Gene: Adzzy_18 Start: 11960, Stop: 12115, Start Num: 16
Candidate Starts for Adzzy_18:
(Start: 16 @11960 has 512 MA's),

Gene: Agape74_19 Start: 13651, Stop: 13833, Start Num: 16
Candidate Starts for Agape74_19:
(Start: 5 @13603 has 1 MA's), (Start: 16 @13651 has 512 MA's),

Gene: Aglet_18 Start: 12603, Stop: 12788, Start Num: 16
Candidate Starts for Aglet_18:
(Start: 16 @12603 has 512 MA's), (24, 12666),

Gene: AgronaGT15_18 Start: 12510, Stop: 12695, Start Num: 16
Candidate Starts for AgronaGT15_18:
(Start: 16 @12510 has 512 MA's), (24, 12573),

Gene: Alatin_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for Alatin_13:
(Start: 16 @8707 has 512 MA's), (29, 8800), (36, 8890),

Gene: Albee_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Albee_16:
(Start: 16 @12478 has 512 MA's),

Gene: Alberto7_17 Start: 12780, Stop: 12986, Start Num: 16
Candidate Starts for Alberto7_17:
(Start: 16 @12780 has 512 MA's),

Gene: Alpacados_12 Start: 8637, Stop: 8843, Start Num: 16
Candidate Starts for Alpacados_12:

(Start: 7 @8589 has 1 MA's), (Start: 16 @8637 has 512 MA's),

Gene: Anaysia_19 Start: 12316, Stop: 12486, Start Num: 16
Candidate Starts for Anaysia_19:
(Start: 16 @12316 has 512 MA's),

Gene: Aneem_17 Start: 13757, Stop: 13924, Start Num: 16
Candidate Starts for Aneem_17:
(13, 13739), (Start: 16 @13757 has 512 MA's), (21, 13793), (27, 13841),

Gene: AngryOrchard_12 Start: 8620, Stop: 8826, Start Num: 16
Candidate Starts for AngryOrchard_12:
(Start: 7 @8572 has 1 MA's), (Start: 16 @8620 has 512 MA's), (29, 8713),

Gene: AnnaL29_20 Start: 15039, Stop: 15221, Start Num: 16
Candidate Starts for AnnaL29_20:
(Start: 16 @15039 has 512 MA's),

Gene: Annyong_16 Start: 12479, Stop: 12685, Start Num: 16
Candidate Starts for Annyong_16:
(Start: 16 @12479 has 512 MA's),

Gene: Anon_17 Start: 12677, Stop: 12832, Start Num: 16
Candidate Starts for Anon_17:
(Start: 16 @12677 has 512 MA's),

Gene: Anselm_17 Start: 13298, Stop: 13480, Start Num: 16
Candidate Starts for Anselm_17:
(Start: 5 @13250 has 1 MA's), (Start: 16 @13298 has 512 MA's),

Gene: Anthony_16 Start: 11421, Stop: 11594, Start Num: 16
Candidate Starts for Anthony_16:
(Start: 16 @11421 has 512 MA's),

Gene: Anubis_20 Start: 12488, Stop: 12673, Start Num: 16
Candidate Starts for Anubis_20:
(Start: 16 @12488 has 512 MA's), (24, 12551),

Gene: AppleCloud_11 Start: 8384, Stop: 8566, Start Num: 16
Candidate Starts for AppleCloud_11:
(Start: 7 @8336 has 1 MA's), (Start: 16 @8384 has 512 MA's),

Gene: ArcherNM_19 Start: 14988, Stop: 15173, Start Num: 16
Candidate Starts for ArcherNM_19:
(Start: 16 @14988 has 512 MA's),

Gene: Artemis2UCLA_20 Start: 13162, Stop: 13359, Start Num: 16
Candidate Starts for Artemis2UCLA_20:
(Start: 16 @13162 has 512 MA's),

Gene: Arturo_15 Start: 12589, Stop: 12795, Start Num: 16
Candidate Starts for Arturo_15:
(Start: 16 @12589 has 512 MA's),

Gene: AugsMagnumOpus_20 Start: 12594, Stop: 12779, Start Num: 16
Candidate Starts for AugsMagnumOpus_20:
(Start: 16 @12594 has 512 MA's), (24, 12657),

Gene: AvatarAhPeg_16 Start: 12446, Stop: 12640, Start Num: 16
Candidate Starts for AvatarAhPeg_16:
(Start: 16 @12446 has 512 MA's),

Gene: Avle17_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Avle17_16:
(Start: 16 @12478 has 512 MA's),

Gene: B1_14 Start: 11811, Stop: 11987, Start Num: 16
Candidate Starts for B1_14:
(Start: 16 @11811 has 512 MA's), (22, 11850), (23, 11862),

Gene: BABullseye_20 Start: 13275, Stop: 13472, Start Num: 16
Candidate Starts for BABullseye_20:
(4, 13209), (6, 13221), (Start: 11 @13254 has 2 MA's), (Start: 16 @13275 has 512 MA's),

Gene: Baby16_16 Start: 12487, Stop: 12693, Start Num: 16
Candidate Starts for Baby16_16:
(Start: 16 @12487 has 512 MA's),

Gene: BabyBack_19 Start: 14848, Stop: 15012, Start Num: 16
Candidate Starts for BabyBack_19:
(Start: 16 @14848 has 512 MA's), (31, 14947),

Gene: BabyJohn_15 Start: 12395, Stop: 12571, Start Num: 16
Candidate Starts for BabyJohn_15:
(Start: 16 @12395 has 512 MA's),

Gene: BabyRay_16 Start: 12381, Stop: 12560, Start Num: 16
Candidate Starts for BabyRay_16:
(Start: 16 @12381 has 512 MA's), (21, 12417), (22, 12420),

Gene: Bachome_17 Start: 13754, Stop: 13921, Start Num: 16
Candidate Starts for Bachome_17:
(13, 13736), (Start: 16 @13754 has 512 MA's), (21, 13790), (27, 13838),

Gene: Backyardigan_16 Start: 12496, Stop: 12693, Start Num: 16
Candidate Starts for Backyardigan_16:
(Start: 16 @12496 has 512 MA's),

Gene: Bactobuster_18 Start: 14922, Stop: 15104, Start Num: 16
Candidate Starts for Bactobuster_18:
(Start: 11 @14904 has 2 MA's), (Start: 16 @14922 has 512 MA's),

Gene: Badger_16 Start: 12485, Stop: 12682, Start Num: 16
Candidate Starts for Badger_16:
(Start: 16 @12485 has 512 MA's),

Gene: Baehexic_18 Start: 13700, Stop: 13879, Start Num: 16
Candidate Starts for Baehexic_18:
(Start: 16 @13700 has 512 MA's),

Gene: BangNhom_15 Start: 12456, Stop: 12668, Start Num: 16
Candidate Starts for BangNhom_15:
(Start: 16 @12456 has 512 MA's),

Gene: Bartimeaus_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Bartimeaus_16:
(Start: 16 @12478 has 512 MA's),

Gene: Battleship_20 Start: 12431, Stop: 12601, Start Num: 16
Candidate Starts for Battleship_20:
(Start: 16 @12431 has 512 MA's),

Gene: Beauxregard13_18 Start: 12602, Stop: 12787, Start Num: 16
Candidate Starts for Beauxregard13_18:
(Start: 16 @12602 has 512 MA's), (24, 12665),

Gene: Belenaria_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for Belenaria_13:
(Start: 16 @8707 has 512 MA's), (29, 8800), (36, 8890),

Gene: BellusTerra_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for BellusTerra_16:
(Start: 16 @12475 has 512 MA's),

Gene: BengiVuitton_18 Start: 13613, Stop: 13795, Start Num: 16
Candidate Starts for BengiVuitton_18:
(Start: 16 @13613 has 512 MA's), (27, 13697),

Gene: BennyP_20 Start: 13284, Stop: 13481, Start Num: 16
Candidate Starts for BennyP_20:
(Start: 16 @13284 has 512 MA's),

Gene: Benvolio_17 Start: 13288, Stop: 13470, Start Num: 16
Candidate Starts for Benvolio_17:
(Start: 5 @13240 has 1 MA's), (Start: 16 @13288 has 512 MA's),

Gene: BiancaTri92_19 Start: 14972, Stop: 15157, Start Num: 16
Candidate Starts for BiancaTri92_19:
(Start: 16 @14972 has 512 MA's),

Gene: Bigflo_18 Start: 12600, Stop: 12785, Start Num: 16
Candidate Starts for Bigflo_18:
(Start: 16 @12600 has 512 MA's), (24, 12663),

Gene: Blackmoor_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Blackmoor_16:
(Start: 16 @12478 has 512 MA's),

Gene: BlessJoy_20 Start: 13260, Stop: 13457, Start Num: 16

Candidate Starts for BlessJoy_20:
(Start: 16 @13260 has 512 MA's),

Gene: Blinn1_20 Start: 13317, Stop: 13514, Start Num: 16
Candidate Starts for Blinn1_20:
(Start: 16 @13317 has 512 MA's),

Gene: Blue7_20 Start: 13252, Stop: 13449, Start Num: 16
Candidate Starts for Blue7_20:
(Start: 16 @13252 has 512 MA's), (29, 13342),

Gene: BlueBird_17 Start: 12155, Stop: 12334, Start Num: 16
Candidate Starts for BlueBird_17:
(Start: 16 @12155 has 512 MA's), (21, 12191), (22, 12194), (34, 12299),

Gene: BobSwaget_20 Start: 14847, Stop: 15023, Start Num: 16
Candidate Starts for BobSwaget_20:
(Start: 16 @14847 has 512 MA's),

Gene: BobbyDazzler_13 Start: 8746, Stop: 8952, Start Num: 16
Candidate Starts for BobbyDazzler_13:
(Start: 7 @8698 has 1 MA's), (Start: 16 @8746 has 512 MA's),

Gene: Bombshell_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Bombshell_16:
(Start: 16 @12478 has 512 MA's),

Gene: Bonanza_13 Start: 8675, Stop: 8881, Start Num: 16
Candidate Starts for Bonanza_13:
(Start: 7 @8627 has 1 MA's), (Start: 16 @8675 has 512 MA's),

Gene: Boohoo_19 Start: 12316, Stop: 12486, Start Num: 16
Candidate Starts for Boohoo_19:
(Start: 16 @12316 has 512 MA's),

Gene: Bowtie_17 Start: 13757, Stop: 13924, Start Num: 16
Candidate Starts for Bowtie_17:
(13, 13739), (Start: 16 @13757 has 512 MA's), (21, 13793), (27, 13841),

Gene: Bradman_16 Start: 12104, Stop: 12289, Start Num: 16
Candidate Starts for Bradman_16:
(Start: 16 @12104 has 512 MA's), (26, 12182),

Gene: Bradshaw_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for Bradshaw_13:
(Start: 16 @8707 has 512 MA's), (29, 8800), (36, 8890),

Gene: BreSam8_18 Start: 12595, Stop: 12780, Start Num: 16
Candidate Starts for BreSam8_18:
(Start: 16 @12595 has 512 MA's), (24, 12658),

Gene: Broseidon_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Broseidon_16:

(Start: 16 @12478 has 512 MA's),

Gene: Bruiser_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Bruiser_16:
(Start: 16 @12478 has 512 MA's),

Gene: Bryce_13 Start: 8675, Stop: 8881, Start Num: 16
Candidate Starts for Bryce_13:
(Start: 7 @8627 has 1 MA's), (Start: 16 @8675 has 512 MA's),

Gene: BubbleTrouble_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for BubbleTrouble_16:
(Start: 16 @12478 has 512 MA's),

Gene: Bud_17 Start: 13763, Stop: 13930, Start Num: 16
Candidate Starts for Bud_17:
(13, 13745), (Start: 16 @13763 has 512 MA's), (21, 13799), (27, 13847),

Gene: Bugatti_16 Start: 12155, Stop: 12334, Start Num: 16
Candidate Starts for Bugatti_16:
(Start: 16 @12155 has 512 MA's), (21, 12191), (22, 12194), (34, 12299),

Gene: Bugsy_19 Start: 13650, Stop: 13832, Start Num: 16
Candidate Starts for Bugsy_19:
(Start: 5 @13602 has 1 MA's), (Start: 16 @13650 has 512 MA's),

Gene: Bumblebee11_16 Start: 12487, Stop: 12684, Start Num: 16
Candidate Starts for Bumblebee11_16:
(Start: 16 @12487 has 512 MA's),

Gene: Burger_15 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Burger_15:
(Start: 16 @12478 has 512 MA's),

Gene: BuzzBuzz_17 Start: 12686, Stop: 12871, Start Num: 16
Candidate Starts for BuzzBuzz_17:
(Start: 16 @12686 has 512 MA's), (24, 12749),

Gene: Bxz2_18 Start: 12696, Stop: 12881, Start Num: 16
Candidate Starts for Bxz2_18:
(Start: 16 @12696 has 512 MA's), (24, 12759),

Gene: C3_15 Start: 13198, Stop: 13377, Start Num: 16
Candidate Starts for C3_15:
(Start: 16 @13198 has 512 MA's),

Gene: CRB1_17 Start: 13172, Stop: 13351, Start Num: 16
Candidate Starts for CRB1_17:
(Start: 16 @13172 has 512 MA's), (29, 13262), (30, 13265),

Gene: Caelakin_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Caelakin_16:
(Start: 16 @12478 has 512 MA's),

Gene: Calvinny_19 Start: 12679, Stop: 12861, Start Num: 16
Candidate Starts for Calvinny_19:
(Start: 16 @12679 has 512 MA's),

Gene: Camperdownii_15 Start: 12097, Stop: 12303, Start Num: 16
Candidate Starts for Camperdownii_15:
(Start: 16 @12097 has 512 MA's),

Gene: Candra_20 Start: 13318, Stop: 13515, Start Num: 16
Candidate Starts for Candra_20:
(4, 13252), (6, 13264), (Start: 11 @13297 has 2 MA's), (Start: 16 @13318 has 512 MA's),

Gene: Caraxes_16 Start: 11860, Stop: 12015, Start Num: 16
Candidate Starts for Caraxes_16:
(Start: 16 @11860 has 512 MA's),

Gene: Caviar_17 Start: 12696, Stop: 12875, Start Num: 16
Candidate Starts for Caviar_17:
(Start: 14 @12681 has 2 MA's), (Start: 16 @12696 has 512 MA's),

Gene: Centaur_19 Start: 13678, Stop: 13857, Start Num: 16
Candidate Starts for Centaur_19:
(Start: 16 @13678 has 512 MA's),

Gene: CentreCat_16 Start: 12479, Stop: 12685, Start Num: 16
Candidate Starts for CentreCat_16:
(Start: 16 @12479 has 512 MA's),

Gene: Cerulean_16 Start: 12457, Stop: 12669, Start Num: 16
Candidate Starts for Cerulean_16:
(Start: 16 @12457 has 512 MA's),

Gene: ChampagnePapi_16 Start: 12456, Stop: 12668, Start Num: 16
Candidate Starts for ChampagnePapi_16:
(Start: 16 @12456 has 512 MA's),

Gene: Changeling_20 Start: 15040, Stop: 15222, Start Num: 16
Candidate Starts for Changeling_20:
(Start: 16 @15040 has 512 MA's),

Gene: Chaph_16 Start: 12487, Stop: 12693, Start Num: 16
Candidate Starts for Chaph_16:
(Start: 16 @12487 has 512 MA's),

Gene: Chartreuse_20 Start: 13231, Stop: 13428, Start Num: 16
Candidate Starts for Chartreuse_20:
(Start: 16 @13231 has 512 MA's),

Gene: Che12_19 Start: 12126, Stop: 12281, Start Num: 16
Candidate Starts for Che12_19:
(Start: 16 @12126 has 512 MA's),

Gene: ChipMunk_19 Start: 13586, Stop: 13768, Start Num: 16
Candidate Starts for ChipMunk_19:
(Start: 16 @13586 has 512 MA's),

Gene: Chiqui_15 Start: 12395, Stop: 12571, Start Num: 16
Candidate Starts for Chiqui_15:
(Start: 16 @12395 has 512 MA's),

Gene: Chupacabra_16 Start: 12256, Stop: 12441, Start Num: 16
Candidate Starts for Chupacabra_16:
(Start: 16 @12256 has 512 MA's),

Gene: Cici_16 Start: 12478, Stop: 12675, Start Num: 16
Candidate Starts for Cici_16:
(Start: 16 @12478 has 512 MA's),

Gene: Cindaradix_15 Start: 12200, Stop: 12409, Start Num: 16
Candidate Starts for Cindaradix_15:
(Start: 16 @12200 has 512 MA's),

Gene: Cintron_16 Start: 12526, Stop: 12732, Start Num: 16
Candidate Starts for Cintron_16:
(Start: 16 @12526 has 512 MA's),

Gene: Citius_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Citius_16:
(Start: 16 @12478 has 512 MA's),

Gene: Clammy_16 Start: 12155, Stop: 12334, Start Num: 16
Candidate Starts for Clammy_16:
(Start: 16 @12155 has 512 MA's), (21, 12191), (22, 12194), (34, 12299),

Gene: Clarenza_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for Clarenza_16:
(Start: 16 @12475 has 512 MA's),

Gene: CloudWang3_20 Start: 13262, Stop: 13459, Start Num: 16
Candidate Starts for CloudWang3_20:
(Start: 16 @13262 has 512 MA's),

Gene: ClownCar_19 Start: 12671, Stop: 12853, Start Num: 16
Candidate Starts for ClownCar_19:
(Start: 16 @12671 has 512 MA's),

Gene: Cocoaberry_16 Start: 12482, Stop: 12688, Start Num: 16
Candidate Starts for Cocoaberry_16:
(Start: 16 @12482 has 512 MA's),

Gene: Colbster_18 Start: 12602, Stop: 12787, Start Num: 16
Candidate Starts for Colbster_18:
(Start: 16 @12602 has 512 MA's), (24, 12665),

Gene: Colin_21 Start: 14879, Stop: 15061, Start Num: 16

Candidate Starts for Colin_21:
(Start: 16 @14879 has 512 MA's),

Gene: Commander_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Commander_16:
(Start: 16 @12478 has 512 MA's),

Gene: Connomayer_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Connomayer_16:
(Start: 16 @12478 has 512 MA's),

Gene: Cookiedough_20 Start: 13275, Stop: 13472, Start Num: 16
Candidate Starts for Cookiedough_20:
(4, 13209), (6, 13221), (Start: 11 @13254 has 2 MA's), (Start: 16 @13275 has 512 MA's),

Gene: CosmicSans_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for CosmicSans_13:
(Start: 16 @8707 has 512 MA's), (29, 8800), (36, 8890),

Gene: Croquant_19 Start: 12600, Stop: 12785, Start Num: 16
Candidate Starts for Croquant_19:
(Start: 16 @12600 has 512 MA's), (24, 12663),

Gene: Crucio_17 Start: 13133, Stop: 13315, Start Num: 16
Candidate Starts for Crucio_17:
(Start: 5 @13085 has 1 MA's), (Start: 16 @13133 has 512 MA's),

Gene: Cullens_18 Start: 12600, Stop: 12785, Start Num: 16
Candidate Starts for Cullens_18:
(Start: 16 @12600 has 512 MA's), (24, 12663),

Gene: D29_18 Start: 13113, Stop: 13268, Start Num: 16
Candidate Starts for D29_18:
(Start: 16 @13113 has 512 MA's),

Gene: D32_20 Start: 13113, Stop: 13268, Start Num: 16
Candidate Starts for D32_20:
(Start: 16 @13113 has 512 MA's),

Gene: DBQu4n_20 Start: 13113, Stop: 13268, Start Num: 16
Candidate Starts for DBQu4n_20:
(Start: 16 @13113 has 512 MA's),

Gene: DaHudson_18 Start: 12594, Stop: 12779, Start Num: 16
Candidate Starts for DaHudson_18:
(Start: 16 @12594 has 512 MA's), (24, 12657),

Gene: DaVinci_20 Start: 13285, Stop: 13482, Start Num: 16
Candidate Starts for DaVinci_20:
(Start: 16 @13285 has 512 MA's),

Gene: Daishi_17 Start: 11527, Stop: 11712, Start Num: 16
Candidate Starts for Daishi_17:

(Start: 16 @11527 has 512 MA's), (24, 11590),

Gene: Dalmatian_17 Start: 13283, Stop: 13465, Start Num: 16
Candidate Starts for Dalmatian_17:
(Start: 5 @13235 has 1 MA's), (Start: 16 @13283 has 512 MA's),

Gene: Datway_16 Start: 12496, Stop: 12693, Start Num: 16
Candidate Starts for Datway_16:
(Start: 16 @12496 has 512 MA's),

Gene: Deano_16 Start: 12486, Stop: 12692, Start Num: 16
Candidate Starts for Deano_16:
(Start: 16 @12486 has 512 MA's),

Gene: DeerParkTS_18 Start: 13243, Stop: 13428, Start Num: 16
Candidate Starts for DeerParkTS_18:
(Start: 16 @13243 has 512 MA's),

Gene: DekHockey33_19 Start: 12438, Stop: 12608, Start Num: 16
Candidate Starts for DekHockey33_19:
(Start: 16 @12438 has 512 MA's),

Gene: Deloris_18 Start: 13613, Stop: 13795, Start Num: 16
Candidate Starts for Deloris_18:
(Start: 16 @13613 has 512 MA's), (27, 13697),

Gene: DelvinSonDorr_19 Start: 13275, Stop: 13472, Start Num: 16
Candidate Starts for DelvinSonDorr_19:
(Start: 16 @13275 has 512 MA's),

Gene: Dhanush_16 Start: 12481, Stop: 12687, Start Num: 16
Candidate Starts for Dhanush_16:
(Start: 16 @12481 has 512 MA's),

Gene: Dieselweasel_18 Start: 12603, Stop: 12788, Start Num: 16
Candidate Starts for Dieselweasel_18:
(Start: 16 @12603 has 512 MA's), (24, 12666),

Gene: Dignity_19 Start: 13595, Stop: 13777, Start Num: 16
Candidate Starts for Dignity_19:
(Start: 5 @13547 has 1 MA's), (Start: 16 @13595 has 512 MA's),

Gene: Dinger_13 Start: 8671, Stop: 8877, Start Num: 16
Candidate Starts for Dinger_13:
(Start: 7 @8623 has 1 MA's), (Start: 16 @8671 has 512 MA's), (29, 8764),

Gene: DirtyDunning_16 Start: 12474, Stop: 12680, Start Num: 16
Candidate Starts for DirtyDunning_16:
(Start: 16 @12474 has 512 MA's),

Gene: DontArgue_15 Start: 10509, Stop: 10697, Start Num: 16
Candidate Starts for DontArgue_15:
(Start: 16 @10509 has 512 MA's),

Gene: Dorothea_20 Start: 13286, Stop: 13483, Start Num: 16
Candidate Starts for Dorothea_20:
(Start: 16 @13286 has 512 MA's),

Gene: Drake55_19 Start: 13696, Stop: 13875, Start Num: 16
Candidate Starts for Drake55_19:
(Start: 16 @13696 has 512 MA's),

Gene: Drake94_15 Start: 10353, Stop: 10532, Start Num: 16
Candidate Starts for Drake94_15:
(Start: 16 @10353 has 512 MA's),

Gene: DroogsArmy_17 Start: 13841, Stop: 14029, Start Num: 16
Candidate Starts for DroogsArmy_17:
(Start: 16 @13841 has 512 MA's),

Gene: DropBear_16 Start: 12215, Stop: 12394, Start Num: 16
Candidate Starts for DropBear_16:
(Start: 16 @12215 has 512 MA's), (21, 12251), (22, 12254), (34, 12359),

Gene: Druantia_16 Start: 12479, Stop: 12685, Start Num: 16
Candidate Starts for Druantia_16:
(Start: 16 @12479 has 512 MA's),

Gene: DudeLittle_17 Start: 13285, Stop: 13467, Start Num: 16
Candidate Starts for DudeLittle_17:
(Start: 5 @13237 has 1 MA's), (Start: 16 @13285 has 512 MA's),

Gene: Duplo_20 Start: 13154, Stop: 13309, Start Num: 16
Candidate Starts for Duplo_20:
(Start: 16 @13154 has 512 MA's),

Gene: DustyMartin_19 Start: 12326, Stop: 12511, Start Num: 16
Candidate Starts for DustyMartin_19:
(Start: 16 @12326 has 512 MA's),

Gene: EZMoney23_21 Start: 15171, Stop: 15350, Start Num: 16
Candidate Starts for EZMoney23_21:
(Start: 16 @15171 has 512 MA's),

Gene: Eagle_15 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Eagle_15:
(Start: 16 @12478 has 512 MA's),

Gene: EagleEye_19 Start: 13431, Stop: 13613, Start Num: 16
Candidate Starts for EagleEye_19:
(Start: 16 @13431 has 512 MA's),

Gene: Eaglepride_17 Start: 12258, Stop: 12449, Start Num: 16
Candidate Starts for Eaglepride_17:
(Start: 16 @12258 has 512 MA's),

Gene: Eapen_16 Start: 12477, Stop: 12683, Start Num: 16
Candidate Starts for Eapen_16:
(Start: 16 @12477 has 512 MA's),

Gene: Ebony_17 Start: 13806, Stop: 13973, Start Num: 16
Candidate Starts for Ebony_17:
(13, 13788), (Start: 16 @13806 has 512 MA's), (21, 13842), (27, 13890),

Gene: Echild_17 Start: 13288, Stop: 13470, Start Num: 16
Candidate Starts for Echild_17:
(Start: 5 @13240 has 1 MA's), (Start: 16 @13288 has 512 MA's),

Gene: Edison31_16 Start: 12290, Stop: 12475, Start Num: 16
Candidate Starts for Edison31_16:
(Start: 16 @12290 has 512 MA's),

Gene: Elle_17 Start: 12045, Stop: 12200, Start Num: 16
Candidate Starts for Elle_17:
(Start: 16 @12045 has 512 MA's),

Gene: EpicPhail_18 Start: 12602, Stop: 12787, Start Num: 16
Candidate Starts for EpicPhail_18:
(Start: 16 @12602 has 512 MA's), (24, 12665),

Gene: Epsocamisio_19 Start: 12316, Stop: 12486, Start Num: 16
Candidate Starts for Epsocamisio_19:
(Start: 16 @12316 has 512 MA's),

Gene: Equemioh13_19 Start: 13681, Stop: 13860, Start Num: 16
Candidate Starts for Equemioh13_19:
(Start: 16 @13681 has 512 MA's),

Gene: EricB_20 Start: 13275, Stop: 13472, Start Num: 16
Candidate Starts for EricB_20:
(Start: 16 @13275 has 512 MA's),

Gene: Erik_13 Start: 8706, Stop: 8912, Start Num: 16
Candidate Starts for Erik_13:
(12, 8685), (Start: 16 @8706 has 512 MA's), (29, 8799), (36, 8889),

Gene: Eris_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Eris_16:
(Start: 16 @12478 has 512 MA's),

Gene: Eros_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Eros_16:
(Start: 16 @12478 has 512 MA's),

Gene: Espica_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for Espica_13:
(Start: 16 @8707 has 512 MA's), (29, 8800), (36, 8890),

Gene: Et2Brutus_16 Start: 13760, Stop: 13927, Start Num: 16

Candidate Starts for Et2Brutus_16:
(13, 13742), (Start: 16 @13760 has 512 MA's), (21, 13796), (27, 13844),

Gene: EtoileNova_17 Start: 12699, Stop: 12878, Start Num: 16
Candidate Starts for EtoileNova_17:
(Start: 14 @12684 has 2 MA's), (Start: 16 @12699 has 512 MA's),

Gene: Eurydice_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for Eurydice_16:
(Start: 16 @12475 has 512 MA's),

Gene: EvilGenius_19 Start: 13596, Stop: 13778, Start Num: 16
Candidate Starts for EvilGenius_19:
(Start: 16 @13596 has 512 MA's),

Gene: Fameo_17 Start: 13210, Stop: 13392, Start Num: 16
Candidate Starts for Fameo_17:
(Start: 5 @13162 has 1 MA's), (Start: 16 @13210 has 512 MA's), (26, 13288),

Gene: Farber_18 Start: 12595, Stop: 12780, Start Num: 16
Candidate Starts for Farber_18:
(Start: 16 @12595 has 512 MA's), (24, 12658),

Gene: FatCactus_15 Start: 11349, Stop: 11525, Start Num: 16
Candidate Starts for FatCactus_15:
(Start: 16 @11349 has 512 MA's), (19, 11379),

Gene: Fernando_18 Start: 12600, Stop: 12785, Start Num: 16
Candidate Starts for Fernando_18:
(Start: 16 @12600 has 512 MA's), (24, 12663),

Gene: Fibonacci_17 Start: 13760, Stop: 13927, Start Num: 16
Candidate Starts for Fibonacci_17:
(13, 13742), (Start: 16 @13760 has 512 MA's), (21, 13796), (27, 13844),

Gene: FiringLine_17 Start: 13133, Stop: 13315, Start Num: 16
Candidate Starts for FiringLine_17:
(Start: 5 @13085 has 1 MA's), (Start: 16 @13133 has 512 MA's),

Gene: First_0017 Start: 13206, Stop: 13382, Start Num: 16
Candidate Starts for First_0017:
(Start: 16 @13206 has 512 MA's),

Gene: Flare16_17 Start: 13239, Stop: 13418, Start Num: 16
Candidate Starts for Flare16_17:
(Start: 16 @13239 has 512 MA's),

Gene: Flaverint_17 Start: 13757, Stop: 13924, Start Num: 16
Candidate Starts for Flaverint_17:
(13, 13739), (Start: 16 @13757 has 512 MA's), (21, 13793), (27, 13841),

Gene: Florean_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for Florean_16:

(Start: 16 @12475 has 512 MA's),

Gene: Flux_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Flux_16:
(Start: 16 @12478 has 512 MA's),

Gene: FlyCatcher_20 Start: 14171, Stop: 14332, Start Num: 16
Candidate Starts for FlyCatcher_20:
(Start: 16 @14171 has 512 MA's), (20, 14204), (22, 14210), (25, 14243),

Gene: ForesterFrank_18 Start: 14707, Stop: 14889, Start Num: 16
Candidate Starts for ForesterFrank_18:
(Start: 16 @14707 has 512 MA's),

Gene: Fred313_16 Start: 11876, Stop: 12052, Start Num: 16
Candidate Starts for Fred313_16:
(Start: 16 @11876 has 512 MA's), (22, 11915), (23, 11927),

Gene: Funston_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Funston_16:
(Start: 16 @12478 has 512 MA's),

Gene: Gadost_16 Start: 12482, Stop: 12688, Start Num: 16
Candidate Starts for Gadost_16:
(Start: 16 @12482 has 512 MA's),

Gene: Garak_21 Start: 13280, Stop: 13477, Start Num: 16
Candidate Starts for Garak_21:
(4, 13214), (6, 13226), (Start: 11 @13259 has 2 MA's), (Start: 16 @13280 has 512 MA's),

Gene: GaugeLDP_19 Start: 14527, Stop: 14685, Start Num: 16
Candidate Starts for GaugeLDP_19:
(Start: 16 @14527 has 512 MA's),

Gene: Gemma_18 Start: 12679, Stop: 12861, Start Num: 16
Candidate Starts for Gemma_18:
(Start: 16 @12679 has 512 MA's),

Gene: Georgie2_18 Start: 13134, Stop: 13316, Start Num: 16
Candidate Starts for Georgie2_18:
(Start: 5 @13086 has 1 MA's), (Start: 16 @13134 has 512 MA's),

Gene: Gilberta_17 Start: 13754, Stop: 13921, Start Num: 16
Candidate Starts for Gilberta_17:
(13, 13736), (Start: 16 @13754 has 512 MA's), (21, 13790), (27, 13838),

Gene: GingkoMaracino_18 Start: 12488, Stop: 12673, Start Num: 16
Candidate Starts for GingkoMaracino_18:
(Start: 16 @12488 has 512 MA's), (24, 12551),

Gene: Giroux_17 Start: 12155, Stop: 12334, Start Num: 16
Candidate Starts for Giroux_17:
(Start: 16 @12155 has 512 MA's), (21, 12191), (22, 12194), (34, 12299),

Gene: Gladiator_20 Start: 13252, Stop: 13449, Start Num: 16
Candidate Starts for Gladiator_20:
(Start: 16 @13252 has 512 MA's), (29, 13342),

Gene: Gollum_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for Gollum_13:
(Start: 16 @8707 has 512 MA's), (29, 8800), (36, 8890),

Gene: Goose_16 Start: 12257, Stop: 12442, Start Num: 16
Candidate Starts for Goose_16:
(Start: 16 @12257 has 512 MA's),

Gene: Gratitude_18 Start: 13681, Stop: 13860, Start Num: 16
Candidate Starts for Gratitude_18:
(Start: 16 @13681 has 512 MA's),

Gene: GreedyLawyer_20 Start: 13284, Stop: 13481, Start Num: 16
Candidate Starts for GreedyLawyer_20:
(Start: 16 @13284 has 512 MA's),

Gene: Grif_18 Start: 12685, Stop: 12870, Start Num: 16
Candidate Starts for Grif_18:
(Start: 16 @12685 has 512 MA's), (24, 12748),

Gene: Groupthink_19 Start: 12679, Stop: 12861, Start Num: 16
Candidate Starts for Groupthink_19:
(Start: 16 @12679 has 512 MA's),

Gene: Grub_18 Start: 12594, Stop: 12779, Start Num: 16
Candidate Starts for Grub_18:
(Start: 16 @12594 has 512 MA's), (24, 12657),

Gene: Grum1_18 Start: 12595, Stop: 12780, Start Num: 16
Candidate Starts for Grum1_18:
(Start: 16 @12595 has 512 MA's), (24, 12658),

Gene: Gruunaga_20 Start: 13252, Stop: 13449, Start Num: 16
Candidate Starts for Gruunaga_20:
(Start: 16 @13252 has 512 MA's), (29, 13342),

Gene: GtownJaz_18 Start: 12603, Stop: 12788, Start Num: 16
Candidate Starts for GtownJaz_18:
(Start: 16 @12603 has 512 MA's), (24, 12666),

Gene: Gwennie_17 Start: 12602, Stop: 12787, Start Num: 16
Candidate Starts for Gwennie_17:
(Start: 16 @12602 has 512 MA's), (24, 12665),

Gene: HINdeR_16 Start: 13946, Stop: 14134, Start Num: 16
Candidate Starts for HINdeR_16:
(Start: 16 @13946 has 512 MA's),

Gene: HamSlice_15 Start: 12476, Stop: 12682, Start Num: 16
Candidate Starts for HamSlice_15:
(Start: 16 @12476 has 512 MA's),

Gene: Hammer_20 Start: 13267, Stop: 13464, Start Num: 16
Candidate Starts for Hammer_20:
(Start: 16 @13267 has 512 MA's), (29, 13357),

Gene: Happiness_16 Start: 12484, Stop: 12690, Start Num: 16
Candidate Starts for Happiness_16:
(Start: 16 @12484 has 512 MA's),

Gene: Harlequin_13 Start: 8675, Stop: 8857, Start Num: 16
Candidate Starts for Harlequin_13:
(Start: 7 @8627 has 1 MA's), (Start: 16 @8675 has 512 MA's), (29, 8768),

Gene: HarryHoudini_19 Start: 13696, Stop: 13875, Start Num: 16
Candidate Starts for HarryHoudini_19:
(Start: 16 @13696 has 512 MA's),

Gene: HashRod_19 Start: 12686, Stop: 12871, Start Num: 16
Candidate Starts for HashRod_19:
(Start: 16 @12686 has 512 MA's), (24, 12749),

Gene: HaveUMetTed_19 Start: 12673, Stop: 12855, Start Num: 16
Candidate Starts for HaveUMetTed_19:
(Start: 16 @12673 has 512 MA's),

Gene: Heathen_16 Start: 11956, Stop: 12135, Start Num: 16
Candidate Starts for Heathen_16:
(Start: 16 @11956 has 512 MA's), (21, 11992), (22, 11995), (34, 12100),

Gene: Heffalump_19 Start: 15012, Stop: 15194, Start Num: 16
Candidate Starts for Heffalump_19:
(Start: 16 @15012 has 512 MA's), (26, 15090),

Gene: HelDan_16 Start: 12208, Stop: 12387, Start Num: 16
Candidate Starts for HelDan_16:
(Start: 16 @12208 has 512 MA's), (21, 12244), (22, 12247), (34, 12352),

Gene: Heliosoles_18 Start: 12679, Stop: 12861, Start Num: 16
Candidate Starts for Heliosoles_18:
(Start: 16 @12679 has 512 MA's),

Gene: Helmet_20 Start: 13280, Stop: 13477, Start Num: 16
Candidate Starts for Helmet_20:
(4, 13214), (6, 13226), (Start: 11 @13259 has 2 MA's), (Start: 16 @13280 has 512 MA's),

Gene: Hercules11_18 Start: 12609, Stop: 12794, Start Num: 16
Candidate Starts for Hercules11_18:
(Start: 16 @12609 has 512 MA's), (24, 12672),

Gene: Hexamo_20 Start: 13234, Stop: 13431, Start Num: 16

Candidate Starts for Hexamo_20:
(Start: 16 @13234 has 512 MA's),

Gene: HippoHollow_18 Start: 14946, Stop: 15134, Start Num: 16
Candidate Starts for HippoHollow_18:
(Start: 5 @14898 has 1 MA's), (Start: 16 @14946 has 512 MA's),

Gene: Hiro_13 Start: 8675, Stop: 8857, Start Num: 16
Candidate Starts for Hiro_13:
(Start: 7 @8627 has 1 MA's), (Start: 16 @8675 has 512 MA's),

Gene: Holli_16 Start: 12268, Stop: 12474, Start Num: 16
Candidate Starts for Holli_16:
(Start: 16 @12268 has 512 MA's),

Gene: Hookmount_17 Start: 12696, Stop: 12875, Start Num: 16
Candidate Starts for Hookmount_17:
(Start: 14 @12681 has 2 MA's), (Start: 16 @12696 has 512 MA's),

Gene: Hoot_20 Start: 13263, Stop: 13460, Start Num: 16
Candidate Starts for Hoot_20:
(Start: 16 @13263 has 512 MA's),

Gene: Houdini22_16 Start: 12482, Stop: 12688, Start Num: 16
Candidate Starts for Houdini22_16:
(Start: 16 @12482 has 512 MA's),

Gene: Hutc2_17 Start: 13760, Stop: 13927, Start Num: 16
Candidate Starts for Hutc2_17:
(13, 13742), (Start: 16 @13760 has 512 MA's), (21, 13796), (27, 13844),

Gene: Huxley_16 Start: 12542, Stop: 12748, Start Num: 16
Candidate Starts for Huxley_16:
(Start: 16 @12542 has 512 MA's),

Gene: ICleared_16 Start: 12476, Stop: 12682, Start Num: 16
Candidate Starts for ICleared_16:
(Start: 16 @12476 has 512 MA's),

Gene: Iceman_17 Start: 12767, Stop: 12973, Start Num: 16
Candidate Starts for Iceman_17:
(Start: 16 @12767 has 512 MA's),

Gene: Idleandcovert_16 Start: 12155, Stop: 12334, Start Num: 16
Candidate Starts for Idleandcovert_16:
(Start: 16 @12155 has 512 MA's), (21, 12191), (22, 12194), (34, 12299),

Gene: Indra_20 Start: 13279, Stop: 13476, Start Num: 16
Candidate Starts for Indra_20:
(Start: 16 @13279 has 512 MA's),

Gene: Insomnia_17 Start: 13809, Stop: 13976, Start Num: 16
Candidate Starts for Insomnia_17:

(13, 13791), (Start: 16 @13809 has 512 MA's), (21, 13845), (27, 13893),

Gene: Iracema64_16 Start: 12456, Stop: 12668, Start Num: 16
Candidate Starts for Iracema64_16:
(Start: 16 @12456 has 512 MA's),

Gene: IronMan_19 Start: 14887, Stop: 15060, Start Num: 16
Candidate Starts for IronMan_19:
(Start: 16 @14887 has 512 MA's), (24, 14950),

Gene: Isca_16 Start: 12055, Stop: 12222, Start Num: 16
Candidate Starts for Isca_16:
(Start: 16 @12055 has 512 MA's), (22, 12094),

Gene: Isiphiwo_20 Start: 13275, Stop: 13472, Start Num: 16
Candidate Starts for Isiphiwo_20:
(4, 13209), (6, 13221), (Start: 11 @13254 has 2 MA's), (Start: 16 @13275 has 512 MA's),

Gene: Iwokeuplikedis_18 Start: 13175, Stop: 13345, Start Num: 16
Candidate Starts for Iwokeuplikedis_18:
(15, 13172), (Start: 16 @13175 has 512 MA's),

Gene: JF2_16 Start: 11811, Stop: 11987, Start Num: 16
Candidate Starts for JF2_16:
(Start: 16 @11811 has 512 MA's), (22, 11850), (23, 11862),

Gene: JF4_16 Start: 11811, Stop: 11987, Start Num: 16
Candidate Starts for JF4_16:
(Start: 16 @11811 has 512 MA's), (22, 11850), (23, 11862),

Gene: JHC117_18 Start: 12600, Stop: 12785, Start Num: 16
Candidate Starts for JHC117_18:
(Start: 16 @12600 has 512 MA's), (24, 12663),

Gene: JSwag_19 Start: 12302, Stop: 12472, Start Num: 16
Candidate Starts for JSwag_19:
(Start: 16 @12302 has 512 MA's),

Gene: Jaan_20 Start: 15276, Stop: 15458, Start Num: 16
Candidate Starts for Jaan_20:
(Start: 11 @15258 has 2 MA's), (Start: 16 @15276 has 512 MA's),

Gene: Jabith_17 Start: 13809, Stop: 13976, Start Num: 16
Candidate Starts for Jabith_17:
(13, 13791), (Start: 16 @13809 has 512 MA's), (21, 13845), (27, 13893),

Gene: Jaykayelowell_16 Start: 12474, Stop: 12680, Start Num: 16
Candidate Starts for Jaykayelowell_16:
(Start: 16 @12474 has 512 MA's),

Gene: Jeffabunny_20 Start: 13286, Stop: 13483, Start Num: 16
Candidate Starts for Jeffabunny_20:
(Start: 16 @13286 has 512 MA's), (29, 13376),

Gene: JenCasNa_18 Start: 12600, Stop: 12785, Start Num: 16
Candidate Starts for JenCasNa_18:
(Start: 16 @12600 has 512 MA's), (24, 12663),

Gene: JeppNRM_19 Start: 12677, Stop: 12859, Start Num: 16
Candidate Starts for JeppNRM_19:
(Start: 16 @12677 has 512 MA's),

Gene: Jerm_19 Start: 13563, Stop: 13793, Start Num: 5
Candidate Starts for Jerm_19:
(Start: 5 @13563 has 1 MA's), (Start: 16 @13611 has 512 MA's),

Gene: Jester_13 Start: 8675, Stop: 8857, Start Num: 16
Candidate Starts for Jester_13:
(Start: 7 @8627 has 1 MA's), (Start: 16 @8675 has 512 MA's), (29, 8768),

Gene: JetBlade_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for JetBlade_16:
(Start: 16 @12475 has 512 MA's),

Gene: JewelBug_20 Start: 13287, Stop: 13484, Start Num: 16
Candidate Starts for JewelBug_20:
(Start: 16 @13287 has 512 MA's),

Gene: Jobu08_18 Start: 12669, Stop: 12854, Start Num: 16
Candidate Starts for Jobu08_18:
(Start: 16 @12669 has 512 MA's), (24, 12732),

Gene: JoongJeon_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for JoongJeon_16:
(Start: 16 @12478 has 512 MA's),

Gene: Jordennis_20 Start: 13275, Stop: 13472, Start Num: 16
Candidate Starts for Jordennis_20:
(4, 13209), (6, 13221), (Start: 11 @13254 has 2 MA's), (Start: 16 @13275 has 512 MA's),

Gene: Joselito_17 Start: 13757, Stop: 13924, Start Num: 16
Candidate Starts for Joselito_17:
(13, 13739), (Start: 16 @13757 has 512 MA's), (21, 13793), (27, 13841),

Gene: JoshKayV_19 Start: 13615, Stop: 13797, Start Num: 16
Candidate Starts for JoshKayV_19:
(Start: 5 @13567 has 1 MA's), (Start: 16 @13615 has 512 MA's),

Gene: Journey13_15 Start: 12341, Stop: 12505, Start Num: 16
Candidate Starts for Journey13_15:
(Start: 16 @12341 has 512 MA's), (22, 12377),

Gene: Jsquared_16 Start: 12051, Stop: 12206, Start Num: 16
Candidate Starts for Jsquared_16:
(Start: 16 @12051 has 512 MA's), (24, 12114),

Gene: KADY_19 Start: 12686, Stop: 12871, Start Num: 16
Candidate Starts for KADY_19:
(Start: 16 @12686 has 512 MA's), (24, 12749),

Gene: KFPoly_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for KFPoly_16:
(Start: 16 @12478 has 512 MA's),

Gene: Kachowdy_16 Start: 12208, Stop: 12387, Start Num: 16
Candidate Starts for Kachowdy_16:
(Start: 16 @12208 has 512 MA's), (21, 12244), (22, 12247), (34, 12352),

Gene: Kalb97_19 Start: 12677, Stop: 12859, Start Num: 16
Candidate Starts for Kalb97_19:
(Start: 16 @12677 has 512 MA's),

Gene: Kalnoky_19 Start: 12679, Stop: 12861, Start Num: 16
Candidate Starts for Kalnoky_19:
(Start: 16 @12679 has 512 MA's),

Gene: Kalpine_20 Start: 14973, Stop: 15155, Start Num: 16
Candidate Starts for Kalpine_20:
(Start: 16 @14973 has 512 MA's),

Gene: Kampy_16 Start: 12476, Stop: 12682, Start Num: 16
Candidate Starts for Kampy_16:
(Start: 16 @12476 has 512 MA's),

Gene: Katalie136_16 Start: 12487, Stop: 12684, Start Num: 16
Candidate Starts for Katalie136_16:
(Start: 16 @12487 has 512 MA's),

Gene: KatherineG_19 Start: 12438, Stop: 12608, Start Num: 16
Candidate Starts for KatherineG_19:
(Start: 16 @12438 has 512 MA's),

Gene: Kazan_20 Start: 13290, Stop: 13487, Start Num: 16
Candidate Starts for Kazan_20:
(Start: 16 @13290 has 512 MA's),

Gene: KekoraPapaka_15 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for KekoraPapaka_15:
(Start: 16 @12478 has 512 MA's),

Gene: Kerberos_20 Start: 13113, Stop: 13268, Start Num: 16
Candidate Starts for Kerberos_20:
(Start: 16 @13113 has 512 MA's),

Gene: Kimba_17 Start: 13809, Stop: 13976, Start Num: 16
Candidate Starts for Kimba_17:
(13, 13791), (Start: 16 @13809 has 512 MA's), (21, 13845), (27, 13893),

Gene: Kimona_13 Start: 9941, Stop: 10147, Start Num: 16

Candidate Starts for Kimona_13:
(Start: 16 @9941 has 512 MA's), (24, 10004), (27, 10025), (37, 10127),

Gene: KingCyrus_19 Start: 13586, Stop: 13768, Start Num: 16
Candidate Starts for KingCyrus_19:
(Start: 16 @13586 has 512 MA's),

Gene: Kingmustik0402_16 Start: 12470, Stop: 12676, Start Num: 16
Candidate Starts for Kingmustik0402_16:
(Start: 16 @12470 has 512 MA's),

Gene: Kinmap_16 Start: 13042, Stop: 13212, Start Num: 16
Candidate Starts for Kinmap_16:
(8, 13003), (Start: 16 @13042 has 512 MA's),

Gene: Kipper29_20 Start: 13284, Stop: 13481, Start Num: 16
Candidate Starts for Kipper29_20:
(Start: 16 @13284 has 512 MA's),

Gene: KittenMittens_15 Start: 10361, Stop: 10540, Start Num: 16
Candidate Starts for KittenMittens_15:
(Start: 16 @10361 has 512 MA's),

Gene: Koan_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Koan_16:
(Start: 16 @12478 has 512 MA's),

Gene: Koduck_17 Start: 12395, Stop: 12547, Start Num: 16
Candidate Starts for Koduck_17:
(Start: 10 @12374 has 1 MA's), (Start: 16 @12395 has 512 MA's), (24, 12458), (28, 12482),

Gene: Koko_20 Start: 13278, Stop: 13475, Start Num: 16
Candidate Starts for Koko_20:
(Start: 16 @13278 has 512 MA's), (29, 13368),

Gene: Koreni_15 Start: 12124, Stop: 12330, Start Num: 16
Candidate Starts for Koreni_15:
(Start: 16 @12124 has 512 MA's),

Gene: Kratark_16 Start: 12473, Stop: 12679, Start Num: 16
Candidate Starts for Kratark_16:
(Start: 16 @12473 has 512 MA's),

Gene: Kremtemulon_16 Start: 12526, Stop: 12732, Start Num: 16
Candidate Starts for Kremtemulon_16:
(Start: 16 @12526 has 512 MA's),

Gene: Krishelle_13 Start: 8690, Stop: 8872, Start Num: 16
Candidate Starts for Krishelle_13:
(Start: 7 @8642 has 1 MA's), (Start: 16 @8690 has 512 MA's),

Gene: Kristoff_17 Start: 12438, Stop: 12623, Start Num: 16
Candidate Starts for Kristoff_17:

(Start: 16 @12438 has 512 MA's),

Gene: Kyee_16 Start: 12479, Stop: 12685, Start Num: 16
Candidate Starts for Kyee_16:
(Start: 16 @12479 has 512 MA's),

Gene: L5_18 Start: 12382, Stop: 12555, Start Num: 10
Candidate Starts for L5_18:
(Start: 10 @12382 has 1 MA's), (Start: 16 @12403 has 512 MA's), (24, 12466), (28, 12490),

Gene: LBerry_18 Start: 12602, Stop: 12787, Start Num: 16
Candidate Starts for LBerry_18:
(Start: 16 @12602 has 512 MA's), (24, 12665),

Gene: LHTSCC_16 Start: 12456, Stop: 12668, Start Num: 16
Candidate Starts for LHTSCC_16:
(Start: 16 @12456 has 512 MA's),

Gene: LadyBird_17 Start: 13155, Stop: 13337, Start Num: 16
Candidate Starts for LadyBird_17:
(Start: 16 @13155 has 512 MA's),

Gene: Lambert1_17 Start: 12696, Stop: 12875, Start Num: 16
Candidate Starts for Lambert1_17:
(Start: 14 @12681 has 2 MA's), (Start: 16 @12696 has 512 MA's),

Gene: Landor_18 Start: 14910, Stop: 15110, Start Num: 11
Candidate Starts for Landor_18:
(Start: 11 @14910 has 2 MA's), (Start: 16 @14928 has 512 MA's),

Gene: LappelDuVide_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for LappelDuVide_16:
(Start: 16 @12475 has 512 MA's),

Gene: Larenn_18 Start: 13470, Stop: 13649, Start Num: 16
Candidate Starts for Larenn_18:
(Start: 16 @13470 has 512 MA's),

Gene: LarryKay_18 Start: 12688, Stop: 12873, Start Num: 16
Candidate Starts for LarryKay_18:
(Start: 16 @12688 has 512 MA's), (24, 12751),

Gene: LastResort_19 Start: 12316, Stop: 12486, Start Num: 16
Candidate Starts for LastResort_19:
(Start: 16 @12316 has 512 MA's),

Gene: Lemur_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for Lemur_16:
(Start: 16 @12475 has 512 MA's),

Gene: LeoAvram_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for LeoAvram_16:
(Start: 16 @12475 has 512 MA's),

Gene: Leogania_19 Start: 15329, Stop: 15514, Start Num: 16
Candidate Starts for Leogania_19:
(Start: 16 @15329 has 512 MA's),

Gene: Leviathan_19 Start: 13643, Stop: 13825, Start Num: 16
Candidate Starts for Leviathan_19:
(Start: 5 @13595 has 1 MA's), (Start: 16 @13643 has 512 MA's),

Gene: LilTurb_19 Start: 13670, Stop: 13852, Start Num: 16
Candidate Starts for LilTurb_19:
(Start: 5 @13622 has 1 MA's), (Start: 16 @13670 has 512 MA's),

Gene: Lilbunny_20 Start: 13260, Stop: 13457, Start Num: 16
Candidate Starts for Lilbunny_20:
(Start: 16 @13260 has 512 MA's),

Gene: Lilith_18 Start: 12595, Stop: 12780, Start Num: 16
Candidate Starts for Lilith_18:
(Start: 16 @12595 has 512 MA's), (24, 12658),

Gene: Lillie_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for Lillie_13:
(Start: 16 @8707 has 512 MA's), (29, 8800), (36, 8890),

Gene: LionsBait_18 Start: 14940, Stop: 15128, Start Num: 16
Candidate Starts for LionsBait_18:
(Start: 5 @14892 has 1 MA's), (Start: 16 @14940 has 512 MA's),

Gene: LittleB_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for LittleB_16:
(Start: 16 @12478 has 512 MA's),

Gene: LittleGuy_16 Start: 12421, Stop: 12627, Start Num: 16
Candidate Starts for LittleGuy_16:
(Start: 16 @12421 has 512 MA's),

Gene: LochMonster_16 Start: 12453, Stop: 12659, Start Num: 16
Candidate Starts for LochMonster_16:
(Start: 16 @12453 has 512 MA's),

Gene: Lokk_20 Start: 14867, Stop: 15043, Start Num: 16
Candidate Starts for Lokk_20:
(Start: 16 @14867 has 512 MA's),

Gene: Looper_20 Start: 12316, Stop: 12486, Start Num: 16
Candidate Starts for Looper_20:
(Start: 16 @12316 has 512 MA's),

Gene: Lorenzo_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Lorenzo_16:
(Start: 16 @12478 has 512 MA's),

Gene: Loser_20 Start: 14963, Stop: 15145, Start Num: 16
Candidate Starts for Loser_20:
(Start: 16 @14963 has 512 MA's),

Gene: Louie6_18 Start: 12689, Stop: 12874, Start Num: 16
Candidate Starts for Louie6_18:
(Start: 16 @12689 has 512 MA's), (24, 12752),

Gene: Lowa_18 Start: 12594, Stop: 12779, Start Num: 16
Candidate Starts for Lowa_18:
(Start: 16 @12594 has 512 MA's), (24, 12657),

Gene: Lucivia_17 Start: 13806, Stop: 13973, Start Num: 16
Candidate Starts for Lucivia_17:
(13, 13788), (Start: 16 @13806 has 512 MA's), (21, 13842), (27, 13890),

Gene: Lucky10_7 Start: 5390, Stop: 5542, Start Num: 16
Candidate Starts for Lucky10_7:
(15, 5387), (Start: 16 @5390 has 512 MA's), (18, 5417),

Gene: Lucyedi_18 Start: 13368, Stop: 13550, Start Num: 16
Candidate Starts for Lucyedi_18:
(Start: 16 @13368 has 512 MA's),

Gene: LugYA_20 Start: 12600, Stop: 12785, Start Num: 16
Candidate Starts for LugYA_20:
(Start: 16 @12600 has 512 MA's), (24, 12663),

Gene: Lunsford_17 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for Lunsford_17:
(Start: 16 @12475 has 512 MA's),

Gene: MA5_16 Start: 11752, Stop: 11931, Start Num: 16
Candidate Starts for MA5_16:
(Start: 14 @11737 has 2 MA's), (Start: 16 @11752 has 512 MA's), (21, 11788), (22, 11791),

Gene: MK4_16 Start: 12045, Stop: 12221, Start Num: 16
Candidate Starts for MK4_16:
(Start: 16 @12045 has 512 MA's), (22, 12084), (23, 12096),

Gene: MaCh_17 Start: 13754, Stop: 13921, Start Num: 16
Candidate Starts for MaCh_17:
(13, 13736), (Start: 16 @13754 has 512 MA's), (21, 13790), (27, 13838),

Gene: Mabel_17 Start: 13821, Stop: 13988, Start Num: 16
Candidate Starts for Mabel_17:
(13, 13803), (Start: 16 @13821 has 512 MA's), (21, 13857), (27, 13905),

Gene: MadMarie_18 Start: 12604, Stop: 12789, Start Num: 16
Candidate Starts for MadMarie_18:
(Start: 16 @12604 has 512 MA's), (24, 12667),

Gene: Mainiac_18 Start: 12595, Stop: 12780, Start Num: 16

Candidate Starts for Mainiac_18:
(Start: 16 @12595 has 512 MA's), (24, 12658),

Gene: MajorMajor_16 Start: 12104, Stop: 12289, Start Num: 16
Candidate Starts for MajorMajor_16:
(Start: 16 @12104 has 512 MA's), (26, 12182),

Gene: Malec_18 Start: 13475, Stop: 13654, Start Num: 16
Candidate Starts for Malec_18:
(Start: 16 @13475 has 512 MA's),

Gene: Malinsilva_20 Start: 12594, Stop: 12779, Start Num: 16
Candidate Starts for Malinsilva_20:
(Start: 16 @12594 has 512 MA's), (24, 12657), (33, 12738),

Gene: Manu_19 Start: 12679, Stop: 12861, Start Num: 16
Candidate Starts for Manu_19:
(Start: 16 @12679 has 512 MA's),

Gene: MarQuardt_18 Start: 12603, Stop: 12788, Start Num: 16
Candidate Starts for MarQuardt_18:
(Start: 16 @12603 has 512 MA's), (24, 12666),

Gene: Marchesa_16 Start: 12206, Stop: 12385, Start Num: 16
Candidate Starts for Marchesa_16:
(Start: 16 @12206 has 512 MA's), (21, 12242), (22, 12245), (34, 12350),

Gene: Margo_17 Start: 12721, Stop: 12900, Start Num: 16
Candidate Starts for Margo_17:
(Start: 14 @12706 has 2 MA's), (Start: 16 @12721 has 512 MA's),

Gene: Marie_18 Start: 12600, Stop: 12785, Start Num: 16
Candidate Starts for Marie_18:
(Start: 16 @12600 has 512 MA's), (24, 12663),

Gene: Marius_19 Start: 12679, Stop: 12861, Start Num: 16
Candidate Starts for Marius_19:
(Start: 16 @12679 has 512 MA's),

Gene: Maverick_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Maverick_16:
(Start: 16 @12478 has 512 MA's),

Gene: Maxo_16 Start: 12476, Stop: 12682, Start Num: 16
Candidate Starts for Maxo_16:
(Start: 16 @12476 has 512 MA's),

Gene: Mayonnaise_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Mayonnaise_16:
(Start: 16 @12478 has 512 MA's),

Gene: Mazhar510_16 Start: 12479, Stop: 12685, Start Num: 16
Candidate Starts for Mazhar510_16:

(Start: 16 @12479 has 512 MA's),

Gene: McFly_20 Start: 13284, Stop: 13481, Start Num: 16
Candidate Starts for McFly_20:
(Start: 16 @13284 has 512 MA's),

Gene: Medusa_16 Start: 12479, Stop: 12685, Start Num: 16
Candidate Starts for Medusa_16:
(Start: 16 @12479 has 512 MA's),

Gene: MeeZee_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for MeeZee_16:
(Start: 16 @12478 has 512 MA's),

Gene: Melvin_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Melvin_16:
(Start: 16 @12478 has 512 MA's),

Gene: Methuselah_18 Start: 12685, Stop: 12870, Start Num: 16
Candidate Starts for Methuselah_18:
(Start: 16 @12685 has 512 MA's), (24, 12748),

Gene: Microwolf_18 Start: 12603, Stop: 12788, Start Num: 16
Candidate Starts for Microwolf_18:
(Start: 16 @12603 has 512 MA's), (24, 12666),

Gene: MiculUcigas_17 Start: 13239, Stop: 13418, Start Num: 16
Candidate Starts for MiculUcigas_17:
(Start: 16 @13239 has 512 MA's),

Gene: Miko_20 Start: 14836, Stop: 15012, Start Num: 16
Candidate Starts for Miko_20:
(Start: 16 @14836 has 512 MA's),

Gene: Millski_16 Start: 12481, Stop: 12687, Start Num: 16
Candidate Starts for Millski_16:
(Start: 16 @12481 has 512 MA's),

Gene: MinecraftSteve_20 Start: 12438, Stop: 12608, Start Num: 16
Candidate Starts for MinecraftSteve_20:
(Start: 16 @12438 has 512 MA's),

Gene: Miramae_16 Start: 12438, Stop: 12632, Start Num: 16
Candidate Starts for Miramae_16:
(Start: 16 @12438 has 512 MA's),

Gene: Misomonster_20 Start: 12685, Stop: 12870, Start Num: 16
Candidate Starts for Misomonster_20:
(Start: 16 @12685 has 512 MA's), (24, 12748),

Gene: MissWhite_17 Start: 12278, Stop: 12454, Start Num: 16
Candidate Starts for MissWhite_17:
(Start: 16 @12278 has 512 MA's), (24, 12341), (30, 12371),

Gene: MoneyMay_18 Start: 12600, Stop: 12785, Start Num: 16
Candidate Starts for MoneyMay_18:
(Start: 16 @12600 has 512 MA's), (24, 12663),

Gene: Montavir_17 Start: 12602, Stop: 12787, Start Num: 16
Candidate Starts for Montavir_17:
(Start: 16 @12602 has 512 MA's), (24, 12665),

Gene: Morkie_7 Start: 5358, Stop: 5504, Start Num: 16
Candidate Starts for Morkie_7:
(Start: 16 @5358 has 512 MA's), (17, 5379),

Gene: Morpher26_16 Start: 12487, Stop: 12684, Start Num: 16
Candidate Starts for Morpher26_16:
(Start: 16 @12487 has 512 MA's),

Gene: Morrow_16 Start: 12481, Stop: 12687, Start Num: 16
Candidate Starts for Morrow_16:
(Start: 16 @12481 has 512 MA's),

Gene: MuchMore_20 Start: 12594, Stop: 12779, Start Num: 16
Candidate Starts for MuchMore_20:
(Start: 16 @12594 has 512 MA's), (24, 12657),

Gene: Mulciber_17 Start: 13757, Stop: 13924, Start Num: 16
Candidate Starts for Mulciber_17:
(13, 13739), (Start: 16 @13757 has 512 MA's), (21, 13793), (27, 13841),

Gene: Munch_17 Start: 13757, Stop: 13924, Start Num: 16
Candidate Starts for Munch_17:
(13, 13739), (Start: 16 @13757 has 512 MA's), (21, 13793), (27, 13841),

Gene: Mundrea_16 Start: 12441, Stop: 12650, Start Num: 16
Candidate Starts for Mundrea_16:
(Start: 16 @12441 has 512 MA's),

Gene: NaSiaTalie_17 Start: 13236, Stop: 13415, Start Num: 16
Candidate Starts for NaSiaTalie_17:
(Start: 16 @13236 has 512 MA's),

Gene: Naiad_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for Naiad_13:
(Start: 16 @8707 has 512 MA's), (29, 8800), (36, 8890),

Gene: Naji_20 Start: 13113, Stop: 13268, Start Num: 16
Candidate Starts for Naji_20:
(Start: 16 @13113 has 512 MA's),

Gene: Nancinator_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for Nancinator_13:
(Start: 16 @8707 has 512 MA's), (29, 8800), (36, 8890),

Gene: Natosaleda_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for Natosaleda_13:
(Start: 16 @8707 has 512 MA's), (29, 8800),

Gene: Nebs_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for Nebs_16:
(Start: 16 @12475 has 512 MA's),

Gene: Nebulosus_19 Start: 12316, Stop: 12486, Start Num: 16
Candidate Starts for Nebulosus_19:
(Start: 16 @12316 has 512 MA's),

Gene: Nedarya_18 Start: 12899, Stop: 13075, Start Num: 16
Candidate Starts for Nedarya_18:
(Start: 16 @12899 has 512 MA's),

Gene: Neeharika16_20 Start: 13275, Stop: 13472, Start Num: 16
Candidate Starts for Neeharika16_20:
(4, 13209), (6, 13221), (Start: 11 @13254 has 2 MA's), (Start: 16 @13275 has 512 MA's),

Gene: Nemo27_16 Start: 12477, Stop: 12683, Start Num: 16
Candidate Starts for Nemo27_16:
(Start: 16 @12477 has 512 MA's),

Gene: Newrala_20 Start: 13275, Stop: 13472, Start Num: 16
Candidate Starts for Newrala_20:
(4, 13209), (6, 13221), (Start: 11 @13254 has 2 MA's), (Start: 16 @13275 has 512 MA's),

Gene: NicoleTera_21 Start: 14947, Stop: 15129, Start Num: 16
Candidate Starts for NicoleTera_21:
(Start: 16 @14947 has 512 MA's),

Gene: Noella_17 Start: 12696, Stop: 12875, Start Num: 16
Candidate Starts for Noella_17:
(Start: 14 @12681 has 2 MA's), (Start: 16 @12696 has 512 MA's),

Gene: Noelle_16 Start: 12541, Stop: 12738, Start Num: 16
Candidate Starts for Noelle_16:
(Start: 16 @12541 has 512 MA's),

Gene: Norbert_16 Start: 12696, Stop: 12875, Start Num: 16
Candidate Starts for Norbert_16:
(Start: 14 @12681 has 2 MA's), (Start: 16 @12696 has 512 MA's),

Gene: NorthStar_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for NorthStar_16:
(Start: 16 @12478 has 512 MA's),

Gene: NotAPhaseMom_16 Start: 12482, Stop: 12688, Start Num: 16
Candidate Starts for NotAPhaseMom_16:
(Start: 16 @12482 has 512 MA's),

Gene: NothingSpecial_19 Start: 15200, Stop: 15382, Start Num: 16

Candidate Starts for NothingSpecial_19:
(Start: 16 @15200 has 512 MA's),

Gene: Nyxis_16 Start: 12421, Stop: 12627, Start Num: 16
Candidate Starts for Nyxis_16:
(Start: 16 @12421 has 512 MA's),

Gene: OKCentral2016_16 Start: 11957, Stop: 12142, Start Num: 16
Candidate Starts for OKCentral2016_16:
(Start: 16 @11957 has 512 MA's),

Gene: OKaNui_17 Start: 12531, Stop: 12737, Start Num: 16
Candidate Starts for OKaNui_17:
(Start: 16 @12531 has 512 MA's),

Gene: Obama12_16 Start: 12458, Stop: 12670, Start Num: 16
Candidate Starts for Obama12_16:
(Start: 16 @12458 has 512 MA's),

Gene: Odin_16 Start: 12002, Stop: 12157, Start Num: 16
Candidate Starts for Odin_16:
(Start: 16 @12002 has 512 MA's),

Gene: Ohfah_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for Ohfah_16:
(Start: 16 @12475 has 512 MA's),

Gene: OlanP_18 Start: 12859, Stop: 13041, Start Num: 16
Candidate Starts for OlanP_18:
(Start: 16 @12859 has 512 MA's),

Gene: Ollie_18 Start: 12473, Stop: 12658, Start Num: 16
Candidate Starts for Ollie_18:
(Start: 16 @12473 has 512 MA's), (24, 12536),

Gene: Oofda_19 Start: 12287, Stop: 12457, Start Num: 16
Candidate Starts for Oofda_19:
(Start: 16 @12287 has 512 MA's),

Gene: Orange_17 Start: 13757, Stop: 13924, Start Num: 16
Candidate Starts for Orange_17:
(13, 13739), (Start: 16 @13757 has 512 MA's), (21, 13793), (27, 13841),

Gene: P28Green_18 Start: 12601, Stop: 12786, Start Num: 16
Candidate Starts for P28Green_18:
(Start: 16 @12601 has 512 MA's), (24, 12664),

Gene: PGHhamlin_20 Start: 12594, Stop: 12779, Start Num: 16
Candidate Starts for PGHhamlin_20:
(Start: 16 @12594 has 512 MA's), (24, 12657),

Gene: PP_26 Start: 18359, Stop: 18544, Start Num: 16
Candidate Starts for PP_26:

(1, 18167), (2, 18194), (Start: 16 @18359 has 512 MA's), (22, 18398),

Gene: PainterBoy_18 Start: 13368, Stop: 13550, Start Num: 16
Candidate Starts for PainterBoy_18:
(Start: 16 @13368 has 512 MA's),

Gene: Palestino_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Palestino_16:
(Start: 16 @12478 has 512 MA's),

Gene: Panamaxus_17 Start: 12681, Stop: 12875, Start Num: 14
Candidate Starts for Panamaxus_17:
(Start: 14 @12681 has 2 MA's), (Start: 16 @12696 has 512 MA's),

Gene: Partridge_13 Start: 8734, Stop: 8940, Start Num: 16
Candidate Starts for Partridge_13:
(Start: 7 @8686 has 1 MA's), (Start: 16 @8734 has 512 MA's), (29, 8827),

Gene: Pawn_18 Start: 12679, Stop: 12861, Start Num: 16
Candidate Starts for Pawn_18:
(Start: 16 @12679 has 512 MA's),

Gene: PeaceMeal1_15 Start: 10362, Stop: 10541, Start Num: 16
Candidate Starts for PeaceMeal1_15:
(Start: 16 @10362 has 512 MA's),

Gene: Peaches_16 Start: 12477, Stop: 12683, Start Num: 16
Candidate Starts for Peaches_16:
(Start: 16 @12477 has 512 MA's),

Gene: Pembroke_18 Start: 12603, Stop: 12788, Start Num: 16
Candidate Starts for Pembroke_18:
(Start: 16 @12603 has 512 MA's), (24, 12666),

Gene: Penny1_18 Start: 12602, Stop: 12787, Start Num: 16
Candidate Starts for Penny1_18:
(Start: 16 @12602 has 512 MA's), (24, 12665),

Gene: Perplexer_16 Start: 12481, Stop: 12678, Start Num: 16
Candidate Starts for Perplexer_16:
(Start: 16 @12481 has 512 MA's),

Gene: PeterPeter_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for PeterPeter_16:
(Start: 16 @12478 has 512 MA's),

Gene: Petersenfast_16 Start: 13760, Stop: 13927, Start Num: 16
Candidate Starts for Petersenfast_16:
(13, 13742), (Start: 16 @13760 has 512 MA's), (21, 13796), (27, 13844),

Gene: PetiteSangsue_16 Start: 12487, Stop: 12684, Start Num: 16
Candidate Starts for PetiteSangsue_16:
(Start: 16 @12487 has 512 MA's),

Gene: Ph8s_18 Start: 11961, Stop: 12116, Start Num: 16
Candidate Starts for Ph8s_18:
(Start: 16 @11961 has 512 MA's),

Gene: Phacado_16 Start: 12477, Stop: 12683, Start Num: 16
Candidate Starts for Phacado_16:
(Start: 16 @12477 has 512 MA's),

Gene: Phaded_20 Start: 15257, Stop: 15457, Start Num: 11
Candidate Starts for Phaded_20:
(Start: 11 @15257 has 2 MA's), (Start: 16 @15275 has 512 MA's),

Gene: PhailMary_12 Start: 8693, Stop: 8923, Start Num: 7
Candidate Starts for PhailMary_12:
(Start: 7 @8693 has 1 MA's), (Start: 16 @8741 has 512 MA's),

Gene: Phantastic_16 Start: 12115, Stop: 12300, Start Num: 16
Candidate Starts for Phantastic_16:
(Start: 16 @12115 has 512 MA's), (20, 12148), (32, 12229),

Gene: Pharaoh_17 Start: 13693, Stop: 13884, Start Num: 16
Candidate Starts for Pharaoh_17:
(3, 13597), (9, 13666), (Start: 16 @13693 has 512 MA's), (19, 13723),

Gene: Phelipe_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Phelipe_16:
(Start: 16 @12478 has 512 MA's),

Gene: Phighter1804_16 Start: 12456, Stop: 12662, Start Num: 16
Candidate Starts for Phighter1804_16:
(Start: 16 @12456 has 512 MA's),

Gene: PhishRPhriends_17 Start: 11864, Stop: 12046, Start Num: 16
Candidate Starts for PhishRPhriends_17:
(Start: 16 @11864 has 512 MA's),

Gene: Phoebe_18 Start: 12600, Stop: 12785, Start Num: 16
Candidate Starts for Phoebe_18:
(Start: 16 @12600 has 512 MA's), (24, 12663),

Gene: Phontbonne_16 Start: 12422, Stop: 12628, Start Num: 16
Candidate Starts for Phontbonne_16:
(Start: 16 @12422 has 512 MA's),

Gene: PhorbesPhlower_7 Start: 5358, Stop: 5504, Start Num: 16
Candidate Starts for PhorbesPhlower_7:
(Start: 16 @5358 has 512 MA's), (17, 5379),

Gene: Phoxy_18 Start: 12686, Stop: 12871, Start Num: 16
Candidate Starts for Phoxy_18:
(Start: 16 @12686 has 512 MA's), (24, 12749),

Gene: Phrankenstein_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for Phrankenstein_13:
(Start: 16 @8707 has 512 MA's), (29, 8800), (36, 8890),

Gene: Phranny_19 Start: 12671, Stop: 12853, Start Num: 16
Candidate Starts for Phranny_19:
(Start: 16 @12671 has 512 MA's),

Gene: Pipcraft_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Pipcraft_16:
(Start: 16 @12478 has 512 MA's),

Gene: Piro94_18 Start: 13697, Stop: 13876, Start Num: 16
Candidate Starts for Piro94_18:
(Start: 16 @13697 has 512 MA's),

Gene: Pistachio_17 Start: 11702, Stop: 11881, Start Num: 16
Candidate Starts for Pistachio_17:
(Start: 16 @11702 has 512 MA's), (21, 11738), (22, 11741), (34, 11846),

Gene: Pmask_20 Start: 13276, Stop: 13473, Start Num: 16
Candidate Starts for Pmask_20:
(Start: 11 @13255 has 2 MA's), (Start: 16 @13276 has 512 MA's),

Gene: Pocahontas_17 Start: 12693, Stop: 12872, Start Num: 16
Candidate Starts for Pocahontas_17:
(Start: 14 @12678 has 2 MA's), (Start: 16 @12693 has 512 MA's),

Gene: Polymorphads_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for Polymorphads_16:
(Start: 16 @12475 has 512 MA's),

Gene: Polyphemus_20 Start: 13277, Stop: 13474, Start Num: 16
Candidate Starts for Polyphemus_20:
(4, 13211), (6, 13223), (Start: 11 @13256 has 2 MA's), (Start: 16 @13277 has 512 MA's),

Gene: Pomar16_20 Start: 13154, Stop: 13309, Start Num: 16
Candidate Starts for Pomar16_20:
(Start: 16 @13154 has 512 MA's),

Gene: Poompha_15 Start: 10360, Stop: 10539, Start Num: 16
Candidate Starts for Poompha_15:
(Start: 16 @10360 has 512 MA's),

Gene: Popcicle_17 Start: 12693, Stop: 12872, Start Num: 16
Candidate Starts for Popcicle_17:
(Start: 14 @12678 has 2 MA's), (Start: 16 @12693 has 512 MA's),

Gene: PotatoSplit_19 Start: 12602, Stop: 12787, Start Num: 16
Candidate Starts for PotatoSplit_19:
(Start: 16 @12602 has 512 MA's), (24, 12665),

Gene: Power_17 Start: 13133, Stop: 13315, Start Num: 16

Candidate Starts for Power_17:
(Start: 5 @13085 has 1 MA's), (Start: 16 @13133 has 512 MA's),

Gene: Priamo_20 Start: 13303, Stop: 13500, Start Num: 16
Candidate Starts for Priamo_20:
(4, 13237), (6, 13249), (Start: 11 @13282 has 2 MA's), (Start: 16 @13303 has 512 MA's),

Gene: Prudy_19 Start: 14994, Stop: 15179, Start Num: 16
Candidate Starts for Prudy_19:
(Start: 16 @14994 has 512 MA's),

Gene: Pukovnik_19 Start: 14843, Stop: 15010, Start Num: 16
Candidate Starts for Pukovnik_19:
(Start: 16 @14843 has 512 MA's),

Gene: Pumbaa_16 Start: 12453, Stop: 12659, Start Num: 16
Candidate Starts for Pumbaa_16:
(Start: 16 @12453 has 512 MA's),

Gene: Puppy_17 Start: 11774, Stop: 11953, Start Num: 16
Candidate Starts for Puppy_17:
(Start: 16 @11774 has 512 MA's), (21, 11810), (22, 11813), (34, 11918),

Gene: PurpleHaze_18 Start: 12678, Stop: 12860, Start Num: 16
Candidate Starts for PurpleHaze_18:
(Start: 16 @12678 has 512 MA's),

Gene: QueenB2_17 Start: 13210, Stop: 13392, Start Num: 16
Candidate Starts for QueenB2_17:
(Start: 5 @13162 has 1 MA's), (Start: 16 @13210 has 512 MA's), (26, 13288),

Gene: QueenBeesly_17 Start: 13133, Stop: 13315, Start Num: 16
Candidate Starts for QueenBeesly_17:
(Start: 5 @13085 has 1 MA's), (Start: 16 @13133 has 512 MA's),

Gene: QuinnKiro_16 Start: 12696, Stop: 12875, Start Num: 16
Candidate Starts for QuinnKiro_16:
(Start: 14 @12681 has 2 MA's), (Start: 16 @12696 has 512 MA's),

Gene: Quokka_15 Start: 12104, Stop: 12289, Start Num: 16
Candidate Starts for Quokka_15:
(Start: 16 @12104 has 512 MA's), (26, 12182),

Gene: RER2_6 Start: 5579, Stop: 5785, Start Num: 16
Candidate Starts for RER2_6:
(Start: 16 @5579 has 512 MA's), (29, 5672), (36, 5762),

Gene: RGL3_6 Start: 5567, Stop: 5749, Start Num: 16
Candidate Starts for RGL3_6:
(Start: 16 @5567 has 512 MA's), (34, 5720),

Gene: Rachaly_20 Start: 14864, Stop: 15040, Start Num: 16
Candidate Starts for Rachaly_20:

(Start: 16 @14864 has 512 MA's),

Gene: Rasputin_13 Start: 8675, Stop: 8881, Start Num: 16
Candidate Starts for Rasputin_13:
(Start: 7 @8627 has 1 MA's), (Start: 16 @8675 has 512 MA's),

Gene: Ravana_20 Start: 12277, Stop: 12447, Start Num: 16
Candidate Starts for Ravana_20:
(Start: 16 @12277 has 512 MA's),

Gene: ReMo_19 Start: 12316, Stop: 12486, Start Num: 16
Candidate Starts for ReMo_19:
(Start: 16 @12316 has 512 MA's),

Gene: Reba_19 Start: 12344, Stop: 12526, Start Num: 16
Candidate Starts for Reba_19:
(Start: 16 @12344 has 512 MA's),

Gene: Rebeuca_17 Start: 12439, Stop: 12624, Start Num: 16
Candidate Starts for Rebeuca_17:
(Start: 16 @12439 has 512 MA's),

Gene: RedRock_20 Start: 15120, Stop: 15302, Start Num: 16
Candidate Starts for RedRock_20:
(Start: 16 @15120 has 512 MA's),

Gene: Relief_16 Start: 12476, Stop: 12682, Start Num: 16
Candidate Starts for Relief_16:
(Start: 16 @12476 has 512 MA's),

Gene: Remus_19 Start: 12277, Stop: 12447, Start Num: 16
Candidate Starts for Remus_19:
(Start: 16 @12277 has 512 MA's),

Gene: ResDef_17 Start: 12696, Stop: 12875, Start Num: 16
Candidate Starts for ResDef_17:
(Start: 14 @12681 has 2 MA's), (Start: 16 @12696 has 512 MA's),

Gene: Retro23_17 Start: 13284, Stop: 13466, Start Num: 16
Candidate Starts for Retro23_17:
(Start: 5 @13236 has 1 MA's), (Start: 16 @13284 has 512 MA's),

Gene: RexFury_13 Start: 8738, Stop: 8944, Start Num: 16
Candidate Starts for RexFury_13:
(Start: 16 @8738 has 512 MA's), (29, 8831), (36, 8921),

Gene: Rhodalysa_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for Rhodalysa_13:
(Start: 16 @8707 has 512 MA's), (29, 8800), (36, 8890),

Gene: RhynO_17 Start: 12415, Stop: 12600, Start Num: 16
Candidate Starts for RhynO_17:
(Start: 16 @12415 has 512 MA's),

Gene: Rifter_20 Start: 13251, Stop: 13448, Start Num: 16
Candidate Starts for Rifter_20:
(Start: 16 @13251 has 512 MA's), (29, 13341),

Gene: RockieBear_15 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for RockieBear_15:
(Start: 16 @12478 has 512 MA's),

Gene: Rockstar_16 Start: 12051, Stop: 12227, Start Num: 16
Candidate Starts for Rockstar_16:
(Start: 16 @12051 has 512 MA's), (22, 12090),

Gene: Roimos_16 Start: 12124, Stop: 12303, Start Num: 16
Candidate Starts for Roimos_16:
(Start: 16 @12124 has 512 MA's), (21, 12160), (22, 12163), (34, 12268),

Gene: Roksolana_20 Start: 13279, Stop: 13476, Start Num: 16
Candidate Starts for Roksolana_20:
(Start: 16 @13279 has 512 MA's),

Gene: Romney_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Romney_16:
(Start: 16 @12478 has 512 MA's),

Gene: Roosevelt_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Roosevelt_16:
(Start: 16 @12478 has 512 MA's),

Gene: Rosa24_15 Start: 12451, Stop: 12657, Start Num: 16
Candidate Starts for Rosa24_15:
(Start: 16 @12451 has 512 MA's),

Gene: Rosalind_19 Start: 12438, Stop: 12608, Start Num: 16
Candidate Starts for Rosalind_19:
(Start: 16 @12438 has 512 MA's),

Gene: Rowdy_19 Start: 12326, Stop: 12511, Start Num: 16
Candidate Starts for Rowdy_19:
(Start: 16 @12326 has 512 MA's),

Gene: Ruin_16 Start: 12474, Stop: 12680, Start Num: 16
Candidate Starts for Ruin_16:
(Start: 16 @12474 has 512 MA's),

Gene: Rummer_18 Start: 12686, Stop: 12871, Start Num: 16
Candidate Starts for Rummer_18:
(Start: 16 @12686 has 512 MA's), (24, 12749),

Gene: Sabertooth_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for Sabertooth_16:
(Start: 16 @12475 has 512 MA's),

Gene: Sabia_18 Start: 12595, Stop: 12780, Start Num: 16
Candidate Starts for Sabia_18:
(Start: 16 @12595 has 512 MA's), (24, 12658),

Gene: Sabinator_18 Start: 12600, Stop: 12785, Start Num: 16
Candidate Starts for Sabinator_18:
(Start: 16 @12600 has 512 MA's), (24, 12663),

Gene: Salz_17 Start: 13754, Stop: 13921, Start Num: 16
Candidate Starts for Salz_17:
(13, 13736), (Start: 16 @13754 has 512 MA's), (21, 13790), (27, 13838),

Gene: Saskia_16 Start: 13757, Stop: 13924, Start Num: 16
Candidate Starts for Saskia_16:
(13, 13739), (Start: 16 @13757 has 512 MA's), (21, 13793), (27, 13841),

Gene: SaturnRing_16 Start: 12155, Stop: 12334, Start Num: 16
Candidate Starts for SaturnRing_16:
(Start: 16 @12155 has 512 MA's), (21, 12191), (22, 12194), (34, 12299),

Gene: Scamp_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Scamp_16:
(Start: 16 @12478 has 512 MA's),

Gene: Scout_16 Start: 11455, Stop: 11634, Start Num: 16
Candidate Starts for Scout_16:
(Start: 16 @11455 has 512 MA's), (21, 11491), (22, 11494), (34, 11599),

Gene: SemperFi_19 Start: 13561, Stop: 13743, Start Num: 16
Candidate Starts for SemperFi_19:
(Start: 5 @13513 has 1 MA's), (Start: 16 @13561 has 512 MA's),

Gene: SenorClean_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for SenorClean_16:
(Start: 16 @12478 has 512 MA's),

Gene: Serenity_16 Start: 12104, Stop: 12289, Start Num: 16
Candidate Starts for Serenity_16:
(Start: 16 @12104 has 512 MA's),

Gene: Severus_15 Start: 10360, Stop: 10539, Start Num: 16
Candidate Starts for Severus_15:
(Start: 16 @10360 has 512 MA's),

Gene: Shaka_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Shaka_16:
(Start: 16 @12478 has 512 MA's),

Gene: Sham4_17 Start: 13760, Stop: 13927, Start Num: 16
Candidate Starts for Sham4_17:
(13, 13742), (Start: 16 @13760 has 512 MA's), (21, 13796), (27, 13844),

Gene: Shapes_19 Start: 12326, Stop: 12511, Start Num: 16

Candidate Starts for Shapes_19:
(Start: 16 @12326 has 512 MA's),

Gene: ShayRa_20 Start: 12438, Stop: 12608, Start Num: 16
Candidate Starts for ShayRa_20:
(Start: 16 @12438 has 512 MA's),

Gene: Sheen_18 Start: 14229, Stop: 14390, Start Num: 16
Candidate Starts for Sheen_18:
(Start: 16 @14229 has 512 MA's), (20, 14262), (22, 14268), (25, 14301),

Gene: SheldonCooper_16 Start: 12457, Stop: 12669, Start Num: 16
Candidate Starts for SheldonCooper_16:
(Start: 16 @12457 has 512 MA's),

Gene: Shuman_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for Shuman_13:
(Start: 16 @8707 has 512 MA's), (29, 8800),

Gene: Shygu2_16 Start: 12482, Stop: 12679, Start Num: 16
Candidate Starts for Shygu2_16:
(Start: 16 @12482 has 512 MA's),

Gene: Skipitt_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for Skipitt_16:
(Start: 16 @12475 has 512 MA's),

Gene: Sknot_17 Start: 13239, Stop: 13418, Start Num: 16
Candidate Starts for Sknot_17:
(Start: 16 @13239 has 512 MA's),

Gene: Smeagan_19 Start: 13646, Stop: 13828, Start Num: 16
Candidate Starts for Smeagan_19:
(Start: 5 @13598 has 1 MA's), (Start: 16 @13646 has 512 MA's),

Gene: SmellyB_20 Start: 13284, Stop: 13481, Start Num: 16
Candidate Starts for SmellyB_20:
(Start: 16 @13284 has 512 MA's),

Gene: SnapTap_17 Start: 13133, Stop: 13315, Start Num: 16
Candidate Starts for SnapTap_17:
(Start: 5 @13085 has 1 MA's), (Start: 16 @13133 has 512 MA's),

Gene: Snape_17 Start: 13760, Stop: 13927, Start Num: 16
Candidate Starts for Snape_17:
(13, 13742), (Start: 16 @13760 has 512 MA's), (21, 13796), (27, 13844),

Gene: Snickers_18 Start: 12576, Stop: 12761, Start Num: 16
Candidate Starts for Snickers_18:
(Start: 16 @12576 has 512 MA's), (24, 12639),

Gene: SoYo_18 Start: 12513, Stop: 12698, Start Num: 16
Candidate Starts for SoYo_18:

(Start: 16 @12513 has 512 MA's), (24, 12576),

Gene: SoilDragon_18 Start: 12285, Stop: 12470, Start Num: 16
Candidate Starts for SoilDragon_18:
(Start: 16 @12285 has 512 MA's), (24, 12348),

Gene: Soshari_20 Start: 12685, Stop: 12870, Start Num: 16
Candidate Starts for Soshari_20:
(Start: 16 @12685 has 512 MA's), (24, 12748),

Gene: Soups_19 Start: 12438, Stop: 12608, Start Num: 16
Candidate Starts for Soups_19:
(Start: 16 @12438 has 512 MA's),

Gene: Sparxx_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for Sparxx_16:
(Start: 16 @12475 has 512 MA's),

Gene: Spike509_18 Start: 12686, Stop: 12871, Start Num: 16
Candidate Starts for Spike509_18:
(Start: 16 @12686 has 512 MA's), (24, 12749),

Gene: Spino_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Spino_16:
(Start: 16 @12478 has 512 MA's),

Gene: StCroix_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for StCroix_13:
(Start: 16 @8707 has 512 MA's), (29, 8800), (36, 8890),

Gene: Stagni_18 Start: 12604, Stop: 12789, Start Num: 16
Candidate Starts for Stagni_18:
(Start: 16 @12604 has 512 MA's), (24, 12667),

Gene: StarStuff_20 Start: 13113, Stop: 13268, Start Num: 16
Candidate Starts for StarStuff_20:
(Start: 16 @13113 has 512 MA's),

Gene: Stasia_17 Start: 12932, Stop: 13120, Start Num: 16
Candidate Starts for Stasia_17:
(Start: 16 @12932 has 512 MA's),

Gene: SteMason_15 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for SteMason_15:
(Start: 16 @12478 has 512 MA's),

Gene: Stink_16 Start: 12447, Stop: 12641, Start Num: 16
Candidate Starts for Stink_16:
(Start: 16 @12447 has 512 MA's),

Gene: Strosahl_19 Start: 12277, Stop: 12447, Start Num: 16
Candidate Starts for Strosahl_19:
(Start: 16 @12277 has 512 MA's),

Gene: Sultana_16 Start: 12479, Stop: 12685, Start Num: 16
Candidate Starts for Sultana_16:
(Start: 16 @12479 has 512 MA's),

Gene: SuperAwesome_20 Start: 13275, Stop: 13472, Start Num: 16
Candidate Starts for SuperAwesome_20:
(4, 13209), (6, 13221), (Start: 11 @13254 has 2 MA's), (Start: 16 @13275 has 512 MA's),

Gene: SuperCallie99_20 Start: 13274, Stop: 13471, Start Num: 16
Candidate Starts for SuperCallie99_20:
(Start: 16 @13274 has 512 MA's), (29, 13364),

Gene: Superchunk_16 Start: 11860, Stop: 12015, Start Num: 16
Candidate Starts for Superchunk_16:
(Start: 16 @11860 has 512 MA's),

Gene: Swann_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for Swann_13:
(Start: 16 @8707 has 512 MA's), (29, 8800), (36, 8890),

Gene: SweetiePie_17 Start: 13133, Stop: 13315, Start Num: 16
Candidate Starts for SweetiePie_17:
(Start: 5 @13085 has 1 MA's), (Start: 16 @13133 has 512 MA's),

Gene: SwirlSquare_19 Start: 12039, Stop: 12194, Start Num: 16
Candidate Starts for SwirlSquare_19:
(Start: 16 @12039 has 512 MA's),

Gene: Switzerland_19 Start: 12431, Stop: 12601, Start Num: 16
Candidate Starts for Switzerland_19:
(Start: 16 @12431 has 512 MA's),

Gene: TNguyen7_16 Start: 12125, Stop: 12304, Start Num: 16
Candidate Starts for TNguyen7_16:
(Start: 16 @12125 has 512 MA's), (21, 12161), (22, 12164), (34, 12269),

Gene: TWAMP_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for TWAMP_13:
(Start: 16 @8707 has 512 MA's), (29, 8800), (36, 8890),

Gene: Tailonex_14 Start: 11950, Stop: 12099, Start Num: 16
Candidate Starts for Tailonex_14:
(Start: 16 @11950 has 512 MA's),

Gene: Takoda_13 Start: 8667, Stop: 8873, Start Num: 16
Candidate Starts for Takoda_13:
(Start: 7 @8619 has 1 MA's), (Start: 16 @8667 has 512 MA's), (29, 8760),

Gene: Taquarus_16 Start: 12481, Stop: 12687, Start Num: 16
Candidate Starts for Taquarus_16:
(Start: 16 @12481 has 512 MA's),

Gene: TarsusIV_17 Start: 13232, Stop: 13414, Start Num: 16
Candidate Starts for TarsusIV_17:
(Start: 16 @13232 has 512 MA's),

Gene: Taurus_18 Start: 12600, Stop: 12785, Start Num: 16
Candidate Starts for Taurus_18:
(Start: 16 @12600 has 512 MA's), (24, 12663),

Gene: Temprado_20 Start: 13280, Stop: 13477, Start Num: 16
Candidate Starts for Temprado_20:
(4, 13214), (6, 13226), (Start: 11 @13259 has 2 MA's), (Start: 16 @13280 has 512 MA's),

Gene: Terrific_21 Start: 13693, Stop: 13872, Start Num: 16
Candidate Starts for Terrific_21:
(Start: 16 @13693 has 512 MA's),

Gene: Texage_16 Start: 12696, Stop: 12875, Start Num: 16
Candidate Starts for Texage_16:
(Start: 14 @12681 has 2 MA's), (Start: 16 @12696 has 512 MA's),

Gene: Thanksgivukkah_16 Start: 12482, Stop: 12688, Start Num: 16
Candidate Starts for Thanksgivukkah_16:
(Start: 16 @12482 has 512 MA's),

Gene: Tiffany_18 Start: 12496, Stop: 12681, Start Num: 16
Candidate Starts for Tiffany_18:
(Start: 16 @12496 has 512 MA's), (24, 12559),

Gene: Timothy_17 Start: 13757, Stop: 13924, Start Num: 16
Candidate Starts for Timothy_17:
(13, 13739), (Start: 16 @13757 has 512 MA's), (21, 13793), (27, 13841),

Gene: Timshel_17 Start: 14080, Stop: 14268, Start Num: 16
Candidate Starts for Timshel_17:
(Start: 16 @14080 has 512 MA's),

Gene: TinaFeyge_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for TinaFeyge_16:
(Start: 16 @12475 has 512 MA's),

Gene: TinyPebbles_18 Start: 12685, Stop: 12870, Start Num: 16
Candidate Starts for TinyPebbles_18:
(Start: 16 @12685 has 512 MA's), (24, 12748),

Gene: TinyTimmy_17 Start: 13800, Stop: 13967, Start Num: 16
Candidate Starts for TinyTimmy_17:
(13, 13782), (Start: 16 @13800 has 512 MA's), (21, 13836), (27, 13884),

Gene: Tinybot_15 Start: 12456, Stop: 12662, Start Num: 16
Candidate Starts for Tinybot_15:
(Start: 16 @12456 has 512 MA's),

Gene: TipsytheTRex_16 Start: 12263, Stop: 12424, Start Num: 16

Candidate Starts for TipsytheTRex_16:
(Start: 16 @12263 has 512 MA's), (22, 12302),

Gene: TiroTheta9_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for TiroTheta9_16:
(Start: 16 @12475 has 512 MA's),

Gene: Todacoro_17 Start: 12696, Stop: 12875, Start Num: 16
Candidate Starts for Todacoro_17:
(Start: 14 @12681 has 2 MA's), (Start: 16 @12696 has 512 MA's),

Gene: Tomathan_20 Start: 13113, Stop: 13268, Start Num: 16
Candidate Starts for Tomathan_20:
(Start: 16 @13113 has 512 MA's),

Gene: Topanga_16 Start: 12392, Stop: 12577, Start Num: 16
Candidate Starts for Topanga_16:
(Start: 16 @12392 has 512 MA's),

Gene: Toro_19 Start: 14171, Stop: 14332, Start Num: 16
Candidate Starts for Toro_19:
(Start: 16 @14171 has 512 MA's), (20, 14204), (22, 14210), (25, 14243),

Gene: Travvers_20 Start: 13113, Stop: 13268, Start Num: 16
Candidate Starts for Travvers_20:
(Start: 16 @13113 has 512 MA's),

Gene: Trike_14 Start: 10362, Stop: 10547, Start Num: 16
Candidate Starts for Trike_14:
(Start: 16 @10362 has 512 MA's),

Gene: Tristan_18 Start: 14947, Stop: 15129, Start Num: 16
Candidate Starts for Tristan_18:
(Start: 11 @14929 has 2 MA's), (Start: 16 @14947 has 512 MA's),

Gene: Trixie_20 Start: 14845, Stop: 15027, Start Num: 16
Candidate Starts for Trixie_20:
(Start: 16 @14845 has 512 MA's),

Gene: Trooper_17 Start: 13023, Stop: 13205, Start Num: 16
Candidate Starts for Trooper_17:
(Start: 16 @13023 has 512 MA's),

Gene: TroyPia_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for TroyPia_16:
(Start: 16 @12478 has 512 MA's),

Gene: Tucker_20 Start: 13278, Stop: 13475, Start Num: 16
Candidate Starts for Tucker_20:
(Start: 16 @13278 has 512 MA's), (29, 13368),

Gene: Turbido_19 Start: 13673, Stop: 13855, Start Num: 16
Candidate Starts for Turbido_19:

(Start: 5 @13625 has 1 MA's), (Start: 16 @13673 has 512 MA's),

Gene: Twister_16 Start: 12291, Stop: 12476, Start Num: 16
Candidate Starts for Twister_16:
(Start: 16 @12291 has 512 MA's),

Gene: TygerBlood_16 Start: 12477, Stop: 12683, Start Num: 16
Candidate Starts for TygerBlood_16:
(Start: 16 @12477 has 512 MA's),

Gene: UhSalsa_13 Start: 8707, Stop: 8913, Start Num: 16
Candidate Starts for UhSalsa_13:
(Start: 16 @8707 has 512 MA's), (29, 8800), (36, 8890),

Gene: Ulysses_15 Start: 12199, Stop: 12405, Start Num: 16
Candidate Starts for Ulysses_15:
(Start: 16 @12199 has 512 MA's),

Gene: Updawg_19 Start: 13681, Stop: 13860, Start Num: 16
Candidate Starts for Updawg_19:
(Start: 16 @13681 has 512 MA's),

Gene: VA6_17 Start: 13196, Stop: 13372, Start Num: 16
Candidate Starts for VA6_17:
(Start: 5 @13148 has 1 MA's), (Start: 16 @13196 has 512 MA's),

Gene: VC3_20 Start: 13198, Stop: 13377, Start Num: 16
Candidate Starts for VC3_20:
(Start: 16 @13198 has 512 MA's),

Gene: Veracruz_16 Start: 12681, Stop: 12875, Start Num: 14
Candidate Starts for Veracruz_16:
(Start: 14 @12681 has 2 MA's), (Start: 16 @12696 has 512 MA's),

Gene: Vix_18 Start: 12684, Stop: 12869, Start Num: 16
Candidate Starts for Vix_18:
(Start: 16 @12684 has 512 MA's), (24, 12747),

Gene: VohminGhazi_20 Start: 13284, Stop: 13481, Start Num: 16
Candidate Starts for VohminGhazi_20:
(Start: 16 @13284 has 512 MA's),

Gene: Waits_19 Start: 12283, Stop: 12453, Start Num: 16
Candidate Starts for Waits_19:
(Start: 16 @12283 has 512 MA's),

Gene: WalterMcMickey_16 Start: 12291, Stop: 12476, Start Num: 16
Candidate Starts for WalterMcMickey_16:
(Start: 16 @12291 has 512 MA's),

Gene: Wander_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Wander_16:
(Start: 16 @12478 has 512 MA's),

Gene: Warrior24_19 Start: 12287, Stop: 12457, Start Num: 16
Candidate Starts for Warrior24_19:
(Start: 16 @12287 has 512 MA's),

Gene: Watson_18 Start: 12594, Stop: 12779, Start Num: 16
Candidate Starts for Watson_18:
(Start: 16 @12594 has 512 MA's), (24, 12657),

Gene: WeiHuaDA_23 Start: 15447, Stop: 15629, Start Num: 16
Candidate Starts for WeiHuaDA_23:
(Start: 16 @15447 has 512 MA's),

Gene: Whabigail7_19 Start: 13661, Stop: 13843, Start Num: 16
Candidate Starts for Whabigail7_19:
(Start: 5 @13613 has 1 MA's), (Start: 16 @13661 has 512 MA's),

Gene: WideWale_19 Start: 13681, Stop: 13860, Start Num: 16
Candidate Starts for WideWale_19:
(Start: 16 @13681 has 512 MA's),

Gene: Wiks_20 Start: 13260, Stop: 13457, Start Num: 16
Candidate Starts for Wiks_20:
(Start: 16 @13260 has 512 MA's),

Gene: Wilbur_16 Start: 12478, Stop: 12684, Start Num: 16
Candidate Starts for Wilbur_16:
(Start: 16 @12478 has 512 MA's),

Gene: Wile_16 Start: 12497, Stop: 12694, Start Num: 16
Candidate Starts for Wile_16:
(Start: 16 @12497 has 512 MA's),

Gene: Wizard007_16 Start: 12480, Stop: 12686, Start Num: 16
Candidate Starts for Wizard007_16:
(Start: 16 @12480 has 512 MA's),

Gene: Wolpertinger_16 Start: 13760, Stop: 13927, Start Num: 16
Candidate Starts for Wolpertinger_16:
(13, 13742), (Start: 16 @13760 has 512 MA's), (21, 13796), (27, 13844),

Gene: Wooldri_20 Start: 12513, Stop: 12698, Start Num: 16
Candidate Starts for Wooldri_20:
(Start: 16 @12513 has 512 MA's), (24, 12576),

Gene: WunderPhul_20 Start: 13260, Stop: 13457, Start Num: 16
Candidate Starts for WunderPhul_20:
(Start: 16 @13260 has 512 MA's),

Gene: Xena_16 Start: 12484, Stop: 12681, Start Num: 16
Candidate Starts for Xena_16:
(Start: 16 @12484 has 512 MA's),

Gene: XianYue_17 Start: 13149, Stop: 13334, Start Num: 16
Candidate Starts for XianYue_17:
(Start: 16 @13149 has 512 MA's),

Gene: YoSam321_16 Start: 12475, Stop: 12681, Start Num: 16
Candidate Starts for YoSam321_16:
(Start: 16 @12475 has 512 MA's),

Gene: Yogi_13 Start: 8675, Stop: 8881, Start Num: 16
Candidate Starts for Yogi_13:
(Start: 7 @8627 has 1 MA's), (Start: 16 @8675 has 512 MA's),

Gene: Yokurt_20 Start: 13260, Stop: 13457, Start Num: 16
Candidate Starts for Yokurt_20:
(Start: 16 @13260 has 512 MA's),

Gene: Yoncess_13 Start: 8675, Stop: 8881, Start Num: 16
Candidate Starts for Yoncess_13:
(Start: 7 @8627 has 1 MA's), (Start: 16 @8675 has 512 MA's),

Gene: Zaka_20 Start: 13260, Stop: 13457, Start Num: 16
Candidate Starts for Zaka_20:
(Start: 16 @13260 has 512 MA's),

Gene: Zarafa_16 Start: 12217, Stop: 12396, Start Num: 16
Candidate Starts for Zarafa_16:
(Start: 16 @12217 has 512 MA's), (21, 12253), (22, 12256), (34, 12361),

Gene: Zetzy_17 Start: 12134, Stop: 12319, Start Num: 16
Candidate Starts for Zetzy_17:
(Start: 16 @12134 has 512 MA's), (17, 12152),

Gene: Zulu_20 Start: 13259, Stop: 13456, Start Num: 16
Candidate Starts for Zulu_20:
(Start: 16 @13259 has 512 MA's),