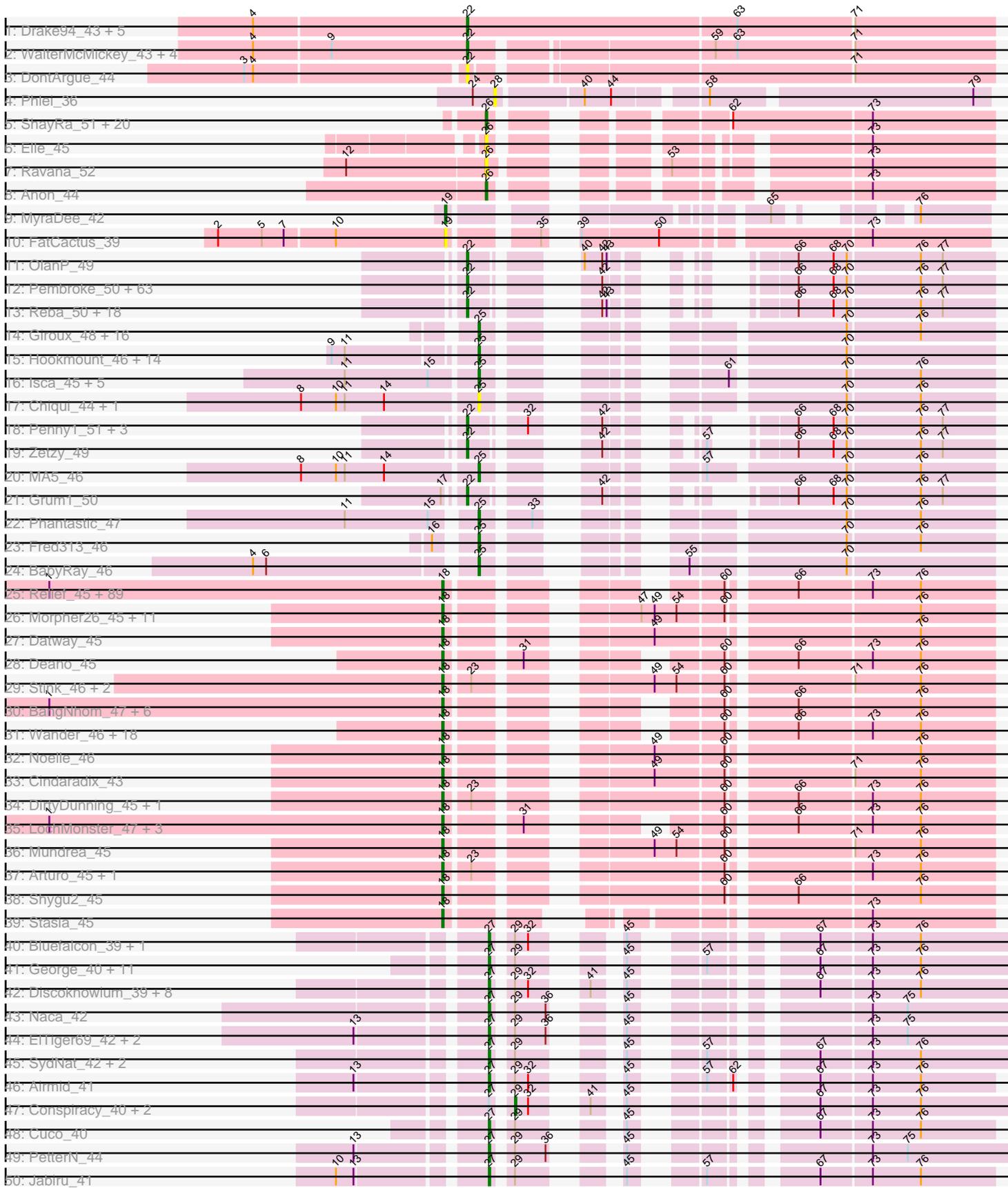
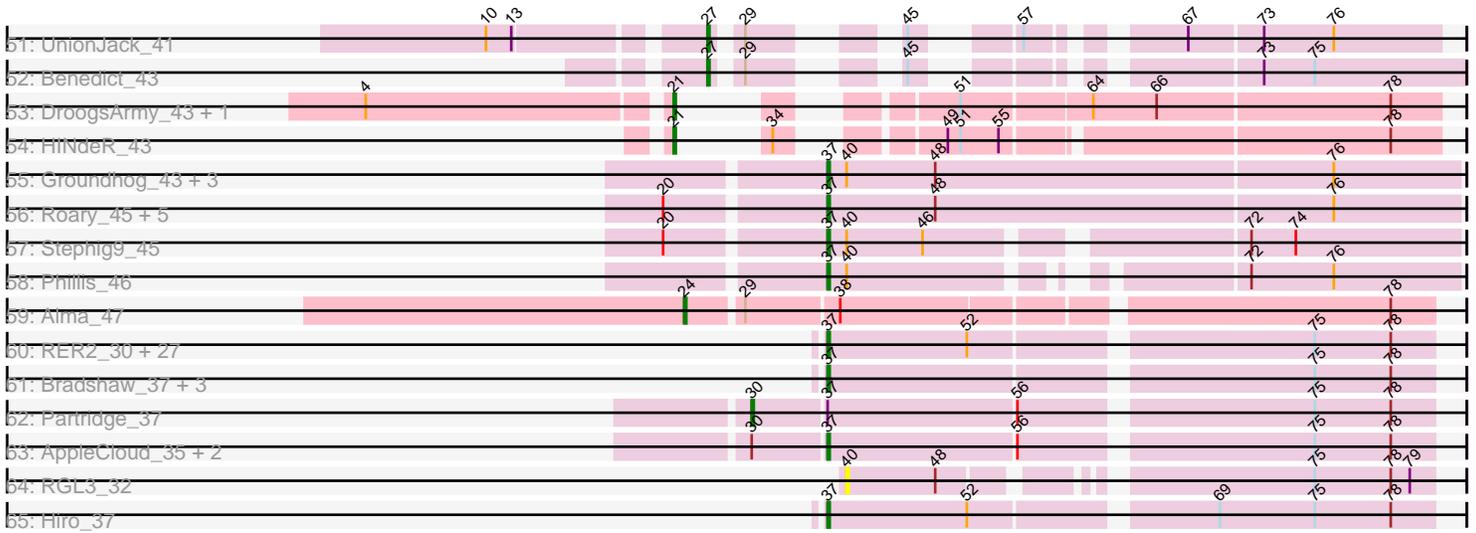


Pham 283383



Pham 283383



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 283383 Report

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

Pham number 283383 has 412 members, 34 are drafts.

Phages represented in each track:

- Track 1 : Drake94_43, Trike_43, Poompha_44, Severus_43, PeaceMeal1_43, KittenMittens_42
- Track 2 : WalterMcMickey_43, Rebeuca_45, Topanga_43, Kristoff_45, Twister_43
- Track 3 : DontArgue_44
- Track 4 : Phlei_36
- Track 5 : ShayRa_51, Soups_50, Warrior24_50, Nebulosus_49, KatherineG_51, Switzerland_49, Anaysia_50, LastResort_49, Epsocamisio_48, Remus_49, Looper_50, ReMo_49, Battleship_50, Strosahl_49, Boohoo_50, DekHockey33_50, Oofda_49, Waits_49, MinecraftSteve_50, Rosalind_48, JSwag_48
- Track 6 : Elle_45
- Track 7 : Ravana_52
- Track 8 : Anon_44
- Track 9 : MyraDee_42
- Track 10 : FatCactus_39
- Track 11 : OlanP_49
- Track 12 : Pembroke_50, Aglet_51, MarQuardt_50, SoYo_50, DaHudson_50, MadMarie_50, StepMih_50, BreSam8_50, PotatoSplit_52, Methuselah_47, Marie_50, BuzzBuzz_48, Soshari_52, LugYA_53, Tiffany_50, Misomonster_51, Daishi_49, MuchMore_53, Farber_50, Anubis_53, Iowa_50, Bigflo_50, JHC117_50, Hercules11_50, Microwolf_50, Taurus_51, Fernando_50, Grif_50, Colbster_50, TinyPebbles_49, JenCasNa_51, Sabinator_49, Ollie_50, LBerry_51, P28Green_51, AgronaGT15_49, GtownJaz_50, Vix_50, Rummer_49, Sabia_50, Stagni_50, KADY_50, MoneyMay_50, GingkoMaracino_50, HashRod_51, Louie6_49, Montavir_49, Mainiac_50, Cullens_50, Malinsilva_52, Phoxy_50, Wooldri_52, Spike509_50, Croquant_51, Lilith_51, AugsMagnumOpus_53, Watson_50, Snickers_50, Phoebe_51, Grub_50, Dieselweasel_51, Bxz2_46, LarryKay_50, PGHhamlin_52
- Track 13 : Reba_50, Calvinny_50, Marius_51, HaveUMetTed_51, Groupthink_51, ClownCar_50, PurpleHaze_50, Kalb97_51, JeppNRM_51, Kalnoky_51, Pawn_50, Heliosoles_49, Phranny_51, Manu_50, PhishRPhriends_48, SoilDragon_50, Jobu08_49, ACFishhook_49, Gemma_49
- Track 14 : Giroux_48, Zarafa_46, Heathen_46, Idleandcovert_47, SaturnRing_47, DropBear_46, Pistachio_48, Puppy_48, Scout_46, BlueBird_48, Kachowdy_46, Roimos_46, Bugatti_47, Marchesa_46, Clammy_47, TNguyen7_47, HelDan_46
- Track 15 : Hookmount_46, EtoileNova_47, Texage_45, Pocahontas_46, Popcicle_46, Noella_46, ResDef_46, Margo_46, QuinnKiro_45, Norbert_45, Veracruz_45, Panamaxus_44, Lambert1_46, Caviar_46, Todacoro_46

- Track 16 : Isca_45, JF4_46, JF2_46, MK4_46, Rockstar_46, B1_43
- Track 17 : Chiqui_44, BabyJohn_44
- Track 18 : Penny1_51, Gwennie_49, Beauxregard13_50, EpicPhail_51
- Track 19 : Zetzy_49
- Track 20 : MA5_46
- Track 21 : Grum1_50
- Track 22 : Phantastic_47
- Track 23 : Fred313_46
- Track 24 : BabyRay_46
- Track 25 : Relief_45, KekoraPapaka_46, Jaykayelowell_44, Sultana_46, Melvin_48, HamSlice_45, JetBlade_46, Eapen_46, RockieBear_45, Phelipe_47, Blackmoor_46, Shaka_46, Clarenza_45, Ohfah_47, Annyong_46, Thanksgivukkah_45, Baby16_46, LappelDuVide_46, Tinybot_45, Abdiel_46, Broseidon_46, Polymorphads_47, Kamy_46, Nebs_47, CentreCat_46, Nyxis_46, Lemur_46, Morrow_47, SteMason_45, Iracema64_47, Koreni_45, Iceman_46, Sparxx_47, Pumbaa_46, BubbleTrouble_45, Kingmustik0402_46, TinaFeyge_46, LeoAvram_46, Florean_46, Roosevelt_45, PeterPeter_46, Spino_45, Dhanush_46, Bombshell_46, Pipcraft_44, NorthStar_45, Ruin_46, Cintron_45, Alberto7_47, Connomayer_46, KFPoly_45, Scamp_46, Koan_44, Druantia_46, Eros_46, LittleGuy_46, Holli_45, Citius_46, Palestino_45, Phontbonne_46, OKaNui_46, ICleared_46, Ulysses_45, Chaph_46, TygerBlood_46, TroyPia_47, Millski_45, Caelakin_46, LittleB_46, Medusa_46, Sabertooth_46, Wizard007_46, Bartimeaus_46, Skipitt_45, Lunsford_47, Peaches_46, Eurydice_47, Burger_44, Happiness_45, MeeZee_46, Albee_46, Maxo_47, Flux_46, Eris_45, Eagle_46, Commander_46, TiroTheta9_46, Lorenzo_46, YoSam321_46, Taquarus_46
- Track 26 : Morpher26_45, Cici_45, Xena_44, Perplexer_45, Achebe_44, Badger_44, Bumblebee11_44, AbbysRanger_45, Backyardigan_44, PetiteSangsue_45, Wile_45, Katalie136_45
- Track 27 : Datway_45
- Track 28 : Deano_45
- Track 29 : Stink_46, AvatarAhPeg_45, Miramae_45
- Track 30 : BangNhom_47, SheldonCooper_48, Kremtemulon_46, LHTSCC_48, Obama12_47, ChampagnePapi_48, Cerulean_47
- Track 31 : Wander_46, Huxley_46, Cocoaberry_46, Gadost_46, Avle17_46, Bruiser_45, Houdini22_46, Nemo27_46, NotAPhaseMom_46, BellusTerra_47, Mazhar510_46, Camperdownii_44, Kyee_46, Funston_45, SenorClean_46, JoongJeon_45, Mayonnaise_45, Phacado_46, Maverick_46
- Track 32 : Noelle_46
- Track 33 : Cindaradix_43
- Track 34 : DirtyDunning_45, Phighter1804_46
- Track 35 : LochMonster_47, Rosa24_45, Romney_46, Wilbur_46
- Track 36 : Mundrea_45
- Track 37 : Arturo_45, Kratak_46
- Track 38 : Shygu2_45
- Track 39 : Stasia_45
- Track 40 : Bluefalcon_39, MarysWell_39
- Track 41 : George_40, Florence4_40, Prinash11_41, Florence1_39, HuhtaEnerson15_41, Milcery_41, Micasa_42, LittleCherry_41, Tarynearal_39, Bonamassa_41, Dublin_39, Swirley_43
- Track 42 : Discoknowium_39, Lev2_40, Aragog_39, AgentM_39, Archetta_40, Phlorence_39, ForGetIt_40, Jovo_40, PickleBack_40
- Track 43 : Naca_42
- Track 44 : EITiger69_42, Scorpia_44, Chadwick_44

- Track 45 : SydNat_42, Ghoulboy_42, Zolita_41
- Track 46 : Airmid_41
- Track 47 : Conspiracy_40, Tiger_39, Theia_38
- Track 48 : Cuco_40
- Track 49 : PetterN_44
- Track 50 : Jabiru_41
- Track 51 : UnionJack_41
- Track 52 : Benedict_43
- Track 53 : DroogsArmy_43, Timshel_45
- Track 54 : HINdeR_43
- Track 55 : Groundhog_43, Saintus_39, Astro_44, NearlyHeadless_44
- Track 56 : Roary_45, Smeadley_45, Dixon_44, Expelliarmus_44, Danforth_44, Caitlin_43
- Track 57 : Stephig9_45
- Track 58 : Phillis_46
- Track 59 : Alma_47
- Track 60 : RER2_30, BobbyDazzler_37, PhailMary_36, Lillie_37, UhSalsa_37, Shuman_37, Bryce_37, Natosaleda_37, Erik_37, Nancinator_37, Yogi_37, Jester_37, RexFury_37, Harlequin_37, Rhodalysa_37, Rasputin_37, Espica_37, Phrankenstien_37, Belenaria_37, Gollum_37, Swann_37, CosmicSans_37, TWAMP_37, Alpacados_36, Takoda_37, Yoncess_37, AngryOrchard_35, Bonanza_37
- Track 61 : Bradshaw_37, Naiad_37, StCroix_37, Alatin_37
- Track 62 : Partridge_37
- Track 63 : AppleCloud_35, Krishelle_37, Dinger_37
- Track 64 : RGL3_32
- Track 65 : Hiro_37

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

The start number called the most often in the published annotations is 18, it was called in 141 of the 378 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbysRanger_45, Abdiel_46, Achebe_44, Albee_46, Alberto7_47, Annyong_46, Arturo_45, AvatarAhPeg_45, Avle17_46, Baby16_46, Backyardigan_44, Badger_44, BangNhom_47, Bartimeaus_46, BellusTerra_47, Blackmoor_46, Bombshell_46, Broseidon_46, Bruiser_45, BubbleTrouble_45, Bumblebee11_44, Burger_44, Caelakin_46, Camperdownii_44, CentreCat_46, Cerulean_47, ChampagnePapi_48, Chaph_46, Cici_45, Cindaradix_43, Cintron_45, Citius_46, Clarenza_45, Cocoaberry_46, Commander_46, Connomayer_46, Datway_45, Deano_45, Dhanush_46, DirtyDunning_45, Druantia_46, Eagle_46, Eapen_46, Eris_45, Eros_46, Eurydice_47, Floean_46, Flux_46, Funston_45, Gadost_46, HamSlice_45, Happiness_45, Holli_45, Houdini22_46, Huxley_46, ICleared_46, Iceman_46, Iracema64_47, Jaykayelowell_44, JetBlade_46, JoongJeon_45, KFPoly_45, Kampy_46, Katalie136_45, KekoraPapaka_46, Kingmustik0402_46, Koan_44, Koreni_45, Kratak_46, Kremtemulon_46, Kyee_46, LHTSCC_48, LappelDuVide_46, Lemur_46, LeoAvram_46, LittleB_46, LittleGuy_46, LochMonster_47, Lorenzo_46, Lunsford_47, Maverick_46, Maxo_47, Mayonnaise_45, Mazhar510_46, Medusa_46, MeeZee_46, Melvin_48, Millski_45, Miramae_45, Morpher26_45, Morrow_47,

Mundrea_45, Nebs_47, Nemo27_46, Noelle_46, NorthStar_45, NotAPhaseMom_46, Nyxis_46, OKaNui_46, Obama12_47, Ohfah_47, Palestino_45, Peaches_46, Perplexer_45, PeterPeter_46, PetiteSangsue_45, Phacado_46, Phelipe_47, Phighter1804_46, Phontbonne_46, Pipcraft_44, Polymorphads_47, Pumbaa_46, Relief_45, RockieBear_45, Romney_46, Roosevelt_45, Rosa24_45, Ruin_46, Sabertooth_46, Scamp_46, SenorClean_46, Shaka_46, SheldonCooper_48, Shygu2_45, Skipitt_45, Sparxx_47, Spino_45, Stasia_45, SteMason_45, Stink_46, Sultana_46, Taquarus_46, Thanksgivukkah_45, TinaFeyge_46, Tinybot_45, TiroTheta9_46, TroyPia_47, TygerBlood_46, Ulysses_45, Wander_46, Wilbur_46, Wile_45, Wizard007_46, Xena_44, YoSam321_46,

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

-

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

- ACFishhook_49, AgentM_39, Aglet_51, AgronaGT15_49, Airmid_41, Alatin_37, Alma_47, Alpacados_36, Anaysia_50, AngryOrchard_35, Anon_44, Anubis_53, AppleCloud_35, Aragog_39, Archetta_40, Astro_44, AugsMagnumOpus_53, B1_43, BabyJohn_44, BabyRay_46, Battleship_50, Beauxregard13_50, Belenaria_37, Benedict_43, Bigflo_50, BlueBird_48, Bluefalcon_39, BobbyDazzler_37, Bonamassa_41, Bonanza_37, Boohoo_50, Bradshaw_37, BreSam8_50, Bryce_37, Bugatti_47, BuzzBuzz_48, Bxz2_46, Caitlin_43, Calvinny_50, Caviar_46, Chadwick_44, Chiqui_44, Clammy_47, ClownCar_50, Colbster_50, Conspiracy_40, CosmicSans_37, Croquant_51, Cuco_40, Cullens_50, DaHudson_50, Daishi_49, Danforth_44, DekHockey33_50, Dieselweasel_51, Dinger_37, Discoknowium_39, Dixon_44, DontArgue_44, Drake94_43, DroogsArmy_43, DropBear_46, Dublin_39, EITiger69_42, Elle_45, EpicPhail_51, Epsocamisio_48, Erik_37, Espica_37, EtoileNova_47, Expelliarmus_44, Farber_50, FatCactus_39, Fernando_50, Florence1_39, Florence4_40, ForGetIt_40, Fred313_46, Gemma_49, George_40, Ghoulboy_42, GingkoMaracino_50, Giroux_48, Gollum_37, Grif_50, Groundhog_43, Groupthink_51, Grub_50, Grum1_50, GtownJaz_50, Gwennie_49, HINdeR_43, Harlequin_37, HashRod_51, HaveUMetTed_51, Heathen_46, HelDan_46, Heliosoles_49, Hercules11_50, Hiro_37, Hookmount_46, HuhtaEnerson15_41, Idleandcovert_47, Isca_45, JF2_46, JF4_46, JHC117_50, JSwag_48, Jabiru_41, JenCasNa_51, JeppNRM_51, Jester_37, Jobu08_49, Jovo_40, KADY_50, Kachowdy_46, Kalb97_51, Kalnoky_51, KatherineG_51, KittenMittens_42, Krishelle_37, Kristoff_45, LBerry_51, Lambert1_46, LarryKay_50, LastResort_49, Lev2_40, Lilith_51, Lillie_37, LittleCherry_41, Looper_50, Louie6_49, Iowa_50, LugYA_53, MA5_46, MK4_46, MadMarie_50, Mainiac_50, Malinsilva_52, Manu_50, MarQuardt_50, Marchesa_46, Margo_46, Marie_50, Marius_51, MarysWell_39, Methuselah_47, Micasa_42, Microwolf_50, Milcery_41, MinecraftSteve_50, Misomonster_51, MoneyMay_50, Montavir_49, MuchMore_53, MyraDee_42, Naca_42, Naiad_37, Nancinator_37, Natosaleda_37, NearlyHeadless_44, Nebulosus_49, Noella_46, Norbert_45, OlanP_49, Ollie_50, Oofda_49, P28Green_51, PGHhamlin_52, Panamaxus_44, Partridge_37, Pawn_50, PeaceMeal1_43, Pembroke_50, Penny1_51, PetterN_44, PhailMary_36, Phantastic_47, Phillis_46, PhishRPhriends_48, Phlei_36, Phlorence_39, Phoebe_51, Phoxy_50, Phrankenstein_37, Phranny_51, PickleBack_40, Pistachio_48, Pocahontas_46, Poompha_44, Popcicle_46, PotatoSplit_52, Prinasha11_41, Puppy_48, PurpleHaze_50, QuinnKiro_45, RER2_30, RGL3_32, Rasputin_37, Ravana_52, ReMo_49, Reba_50, Rebeuca_45, Remus_49, ResDef_46, RexFury_37, Rhodalysa_37, Roary_45, Rockstar_46, Roimos_46, Rosalind_48, Rummer_49, Sabia_50, Sabinator_49, Saintus_39, SaturnRing_47, Scorpia_44,

Scout_46, Severus_43, ShayRa_51, Shuman_37, Smeadley_45, Snickers_50, SoYo_50, SoilDragon_50, Soshari_52, Soups_50, Spike509_50, StCroix_37, Stagni_50, StepMih_50, Stephig9_45, Strosahl_49, Swann_37, Swirley_43, Switzerland_49, SydNat_42, TNguyen7_47, TWAMP_37, Takoda_37, Tarynearal_39, Taurus_51, Texage_45, Theia_38, Tiffany_50, Tiger_39, Timshel_45, TinyPebbles_49, Todacoro_46, Topanga_43, Trike_43, Twister_43, UhSalsa_37, UnionJack_41, Veracruz_45, Vix_50, Waits_49, WalterMcMickey_43, Warrior24_50, Watson_50, Wooldri_52, Yogi_37, Yoncess_37, Zarafa_46, Zetzy_49, Zolita_41,

Summary by start number:

Start 18:

- Found in 146 of 412 (35.4%) of genes in pham
- Manual Annotations of this start: 141 of 378
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbysRanger_45 (A4), Abdiel_46 (A4), Achebe_44 (A4), Albee_46 (A4), Alberto7_47 (A4), Annyong_46 (A4), Arturo_45 (A4), AvatarAhPeg_45 (A4), Avle17_46 (A4), Baby16_46 (A4), Backyardigan_44 (A4), Badger_44 (A4), BangNhom_47 (A4), Bartimeaus_46 (A4), BellusTerra_47 (A4), Blackmoor_46 (A4), Bombshell_46 (A4), Broseidon_46 (A4), Bruiser_45 (A4), BubbleTrouble_45 (A4), Bumblebee11_44 (A4), Burger_44 (A4), Caelakin_46 (A4), Camperdownii_44 (A4), CentreCat_46 (A4), Cerulean_47 (A4), ChampagnePapi_48 (A4), Chaph_46 (A4), Cici_45 (A4), Cindaradix_43 (A4), Cintron_45 (A4), Citius_46 (A4), Clarenza_45 (A4), Cocoaberry_46 (A4), Commander_46 (A4), Connomayer_46 (A4), Datway_45 (A4), Deano_45 (A4), Dhanush_46 (A4), DirtyDunning_45 (A4), Druantia_46 (A4), Eagle_46 (A4), Eapen_46 (A4), Eris_45 (A4), Eros_46 (A4), Eurydice_47 (A4), Florean_46 (A4), Flux_46 (A4), Funston_45 (A4), Gadost_46 (A4), HamSlice_45 (A4), Happiness_45 (A4), Holli_45 (A4), Houdini22_46 (A4), Huxley_46 (A4), ICleared_46 (A4), Iceman_46 (A4), Iracema64_47 (A4), Jaykayelowell_44 (A4), JetBlade_46 (A4), JoongJeon_45 (A4), KFPoly_45 (A4), Kampsy_46 (A4), Katalie136_45 (A4), KekoraPapaka_46 (A4), Kingmustik0402_46 (A4), Koan_44 (A4), Koreni_45 (A4), Kratak_46 (A4), Kremtemulon_46 (A4), Kyee_46 (A4), LHTSCC_48 (A4), LappelDuVide_46 (A4), Lemur_46 (A4), LeoAvram_46 (A4), LittleB_46 (A4), LittleGuy_46 (A4), LochMonster_47 (A4), Lorenzo_46 (A4), Lunsford_47 (A4), Maverick_46 (A4), Maxo_47 (A4), Mayonnaise_45 (A4), Mazhar510_46 (A4), Medusa_46 (A4), MeeZee_46 (A4), Melvin_48 (A4), Millski_45 (A4), Miramae_45 (A4), Morpher26_45 (A4), Morrow_47 (A4), Mundrea_45 (A4), Nebs_47 (A4), Nemo27_46 (A4), Noelle_46 (A4), NorthStar_45 (A4), NotAPhaseMom_46 (A4), Nyxis_46 (A4), OKaNui_46 (A4), Obama12_47 (A4), Ohfah_47 (A4), Palestino_45 (A4), Peaches_46 (A4), Perplexer_45 (A4), PeterPeter_46 (A4), PetiteSangsue_45 (A4), Phacado_46 (A4), Phelipe_47 (A4), Phighter1804_46 (A4), Phontbonne_46 (A4), Pipcraft_44 (A4), Polymorphads_47 (A4), Pumbaa_46 (A4), Relief_45 (A4), RockieBear_45 (A4), Romney_46 (A4), Roosevelt_45 (A4), Rosa24_45 (A4), Ruin_46 (A4), Sabertooth_46 (A4), Scamp_46 (A4), SeniorClean_46 (A4), Shaka_46 (A4), SheldonCooper_48 (A4), Shygu2_45 (A4), Skipitt_45 (A4), Sparxx_47 (A4), Spino_45 (A4), Stasia_45 (A4), SteMason_45 (A4), Stink_46 (A4), Sultana_46 (A4), Taquarus_46 (A4), Thanksgivukkah_45 (A4), TinaFeyge_46 (A4), Tinybot_45 (A4), TiroTheta9_46 (A4), TroyPia_47 (A4), TygerBlood_46 (A4), Ulysses_45 (A4), Wander_46 (A4), Wilbur_46 (A4), Wile_45 (A4), Wizard007_46 (A4), Xena_44 (A4), YoSam321_46 (A4),

Start 19:

- Found in 2 of 412 (0.5%) of genes in pham

- Manual Annotations of this start: 1 of 378
- Called 100.0% of time when present
- Phage (with cluster) where this start called: FatCactus_39 (A20), MyraDee_42 (A18),

Start 21:

- Found in 3 of 412 (0.7%) of genes in pham
- Manual Annotations of this start: 3 of 378
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DroogsArmy_43 (A7), HINdeR_43 (A7), Timshel_45 (A7),

Start 22:

- Found in 102 of 412 (24.8%) of genes in pham
- Manual Annotations of this start: 94 of 378
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ACFishhook_49 (A3), Aglet_51 (A3), AgronaGT15_49 (A3), Anubis_53 (A3), AugsMagnumOpus_53 (A3), Beauxregard13_50 (A3), Bigflo_50 (A3), BreSam8_50 (A3), BuzzBuzz_48 (A3), Bxz2_46 (A3), Calvinny_50 (A3), ClownCar_50 (A3), Colbster_50 (A3), Croquant_51 (A3), Cullens_50 (A3), DaHudson_50 (A3), Daishi_49 (A3), Dieselweasel_51 (A3), DontArgue_44 (A10), Drake94_43 (A10), EpicPhail_51 (A3), Farber_50 (A3), Fernando_50 (A3), Gemma_49 (A3), GingkoMaracino_50 (A3), Grif_50 (A3), Groupthink_51 (A3), Grub_50 (A3), Grum1_50 (A3), GtownJaz_50 (A3), Gwennie_49 (A3), HashRod_51 (A3), HaveUMetTed_51 (A3), Heliosoles_49 (A3), Hercules11_50 (A3), JHC117_50 (A3), JenCasNa_51 (A3), JeppNRM_51 (A3), Jobu08_49 (A3), KADY_50 (A3), Kalb97_51 (A3), Kalnoky_51 (A3), KittenMittens_42 (A10), Kristoff_45 (A10), LBerry_51 (A3), LarryKay_50 (A3), Lilith_51 (A3), Louie6_49 (A3), Iowa_50 (A3), LugYA_53 (A3), MadMarie_50 (A3), Mainiac_50 (A3), Malinsilva_52 (A3), Manu_50 (A3), MarQuardt_50 (A3), Marie_50 (A3), Marius_51 (A3), Methuselah_47 (A3), Microwolf_50 (A3), Misomonster_51 (A3), MoneyMay_50 (A3), Montavir_49 (A3), MuchMore_53 (A3), OlanP_49 (A3), Ollie_50 (A3), P28Green_51 (A3), PGHhamlin_52 (A3), Pawn_50 (A3), PeaceMeal1_43 (A10), Pembroke_50 (A3), Penny1_51 (A3), PhishRPhriends_48 (A3), Phoebe_51 (A3), Phoxy_50 (A3), Phranny_51 (A3), Poompha_44 (A10), PotatoSplit_52 (A3), PurpleHaze_50 (A3), Reba_50 (A3), Rebeuca_45 (A10), Rummer_49 (A3), Sabia_50 (A3), Sabinator_49 (A3), Severus_43 (A10), Snickers_50 (A3), SoYo_50 (A3), SoilDragon_50 (A3), Soshari_52 (A3), Spike509_50 (A3), Stagni_50 (A3), StepMih_50 (A3), Taurus_51 (A3), Tiffany_50 (A3), TinyPebbles_49 (A3), Topanga_43 (A10), Trike_43 (A10), Twister_43 (A10), Vix_50 (A3), WalterMcMickey_43 (A10), Watson_50 (A3), Wooldri_52 (A3), Zetzy_49 (A3),

Start 24:

- Found in 2 of 412 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 378
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Alma_47 (A9),

Start 25:

- Found in 44 of 412 (10.7%) of genes in pham
- Manual Annotations of this start: 33 of 378
- Called 100.0% of time when present

- Phage (with cluster) where this start called: B1_43 (A3), BabyJohn_44 (A3), BabyRay_46 (A3), BlueBird_48 (A3), Bugatti_47 (A3), Caviar_46 (A3), Chiqui_44 (A3), Clammy_47 (A3), DropBear_46 (A3), EtoileNova_47 (A3), Fred313_46 (A3), Giroux_48 (A3), Heathen_46 (A3), HelDan_46 (A3), Hookmount_46 (A3), Idleandcovert_47 (A3), Isca_45 (A3), JF2_46 (A3), JF4_46 (A3), Kachowdy_46 (A3), Lambert1_46 (A3), MA5_46 (A3), MK4_46 (A3), Marchesa_46 (A3), Margo_46 (A3), Noella_46 (A3), Norbert_45 (A3), Panamaxus_44 (A3), Phantastic_47 (A3), Pistachio_48 (A3), Pocahontas_46 (A3), Popcicle_46 (A3), Puppy_48 (A3), QuinnKiro_45 (A3), ResDef_46 (A3), Rockstar_46 (A3), Roimos_46 (A3), SaturnRing_47 (A3), Scout_46 (A3), TNguyen7_47 (A3), Texage_45 (A3), Todacoro_46 (A3), Veracruz_45 (A3), Zarafa_46 (A3),

Start 26:

- Found in 24 of 412 (5.8%) of genes in pham
- Manual Annotations of this start: 22 of 378
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anaysia_50 (A15), Anon_44 (A15), Battleship_50 (A15), Boohoo_50 (A15), DekHockey33_50 (A15), Elle_45 (A15), Epsocamisio_48 (A15), JSwag_48 (A15), KatherineG_51 (A15), LastResort_49 (A15), Looper_50 (A15), MinecraftSteve_50 (A15), Nebulosus_49 (A15), Oofda_49 (A15), Ravana_52 (A15), ReMo_49 (A15), Remus_49 (A15), Rosalind_48 (A15), ShayRa_51 (A15), Soups_50 (A15), Strosahl_49 (A15), Switzerland_49 (A15), Waits_49 (A15), Warrior24_50 (A15),

Start 27:

- Found in 39 of 412 (9.5%) of genes in pham
- Manual Annotations of this start: 33 of 378
- Called 92.3% of time when present
- Phage (with cluster) where this start called: AgentM_39 (A5), Airmid_41 (A5), Aragog_39 (A5), Archetta_40 (A5), Benedict_43 (A5), Bluefalcon_39 (A5), Bonamassa_41 (A5), Chadwick_44 (A5), Cuco_40 (A5), Discoknowium_39 (A5), Dublin_39 (A5), ElTiger69_42 (A5), Florence1_39 (A5), Florence4_40 (A5), ForGetIt_40 (A5), George_40 (A5), Ghoulyboy_42 (A5), HuhtaEnerson15_41 (A5), Jabiru_41 (A5), Jovo_40 (A5), Lev2_40 (A5), LittleCherry_41 (A5), MarysWell_39 (A5), Micasa_42 (A5), Milcery_41 (A5), Naca_42 (A5), PetterN_44 (A5), Phlorence_39 (A5), PickleBack_40 (A5), Prinasha11_41 (A5), Scorpia_44 (A5), Swirley_43 (A5), SydNat_42 (A5), Tarynearal_39 (A5), UnionJack_41 (A5), Zolita_41 (A5),

Start 28:

- Found in 1 of 412 (0.2%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phlei_36 (A13),

Start 29:

- Found in 40 of 412 (9.7%) of genes in pham
- Manual Annotations of this start: 3 of 378
- Called 7.5% of time when present
- Phage (with cluster) where this start called: Conspiracy_40 (A5), Theia_38 (A5), Tiger_39 (A5),

Start 30:

- Found in 4 of 412 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 378
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Partridge_37 (CA),

Start 37:

- Found in 49 of 412 (11.9%) of genes in pham
- Manual Annotations of this start: 46 of 378
- Called 98.0% of time when present
- Phage (with cluster) where this start called: Alatin_37 (CA), Alpacados_36 (CA), AngryOrchard_35 (CA), AppleCloud_35 (CA), Astro_44 (A8), Belenaria_37 (CA), BobbyDazzler_37 (CA), Bonanza_37 (CA), Bradshaw_37 (CA), Bryce_37 (CA), Caitlin_43 (A8), CosmicSans_37 (CA), Danforth_44 (A8), Dinger_37 (CA), Dixon_44 (A8), Erik_37 (CA), Espica_37 (CA), Expelliarmus_44 (A8), Gollum_37 (CA), Groundhog_43 (A8), Harlequin_37 (CA), Hiro_37 (CA), Jester_37 (CA), Krishelle_37 (CA), Lillie_37 (CA), Naiad_37 (CA), Nancinator_37 (CA), Natosaleda_37 (CA), NearlyHeadless_44 (A8), PhailMary_36 (CA), Phillis_46 (A8), Phrankenstein_37 (CA), RER2_30 (CA), Rasputin_37 (CA), RexFury_37 (CA), Rhodalysa_37 (CA), Roary_45 (A8), Saintus_39 (A8), Shuman_37 (CA), Smeadley_45 (A8), StCroix_37 (CA), Stephig9_45 (A8), Swann_37 (CA), TWAMP_37 (CA), Takoda_37 (CA), UhSalsa_37 (CA), Yogi_37 (CA), Yoncess_37 (CA),

Start 40:

- Found in 9 of 412 (2.2%) of genes in pham
- No Manual Annotations of this start.
- Called 11.1% of time when present
- Phage (with cluster) where this start called: RGL3_32 (CA),

Summary by clusters:

There are 12 clusters represented in this pham: A15, A20, A10, A13, CA, A18, A3, A5, A4, A7, A9, A8,

Info for manual annotations of cluster A10:

- Start number 22 was manually annotated 11 times for cluster A10.

Info for manual annotations of cluster A15:

- Start number 26 was manually annotated 22 times for cluster A15.

Info for manual annotations of cluster A18:

- Start number 19 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A3:

- Start number 22 was manually annotated 83 times for cluster A3.
- Start number 25 was manually annotated 33 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 18 was manually annotated 141 times for cluster A4.

Info for manual annotations of cluster A5:

- Start number 27 was manually annotated 33 times for cluster A5.

- Start number 29 was manually annotated 3 times for cluster A5.

Info for manual annotations of cluster A7:

- Start number 21 was manually annotated 3 times for cluster A7.

Info for manual annotations of cluster A8:

- Start number 37 was manually annotated 11 times for cluster A8.

Info for manual annotations of cluster A9:

- Start number 24 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster CA:

- Start number 30 was manually annotated 1 time for cluster CA.
- Start number 37 was manually annotated 35 times for cluster CA.

Gene Information:

Gene: ACFishhook_49 Start: 32280, Stop: 32032, Start Num: 22

Candidate Starts for ACFishhook_49:

(Start: 22 @32280 has 94 MA's), (42, 32226), (43, 32223), (66, 32163), (68, 32139), (70, 32130), (76, 32082), (77, 32067),

Gene: AbbysRanger_45 Start: 31867, Stop: 31544, Start Num: 18

Candidate Starts for AbbysRanger_45:

(Start: 18 @31867 has 141 MA's), (47, 31768), (49, 31759), (54, 31744), (60, 31714), (76, 31594),

Gene: Abdiel_46 Start: 31881, Stop: 31579, Start Num: 18

Candidate Starts for Abdiel_46:

(1, 32151), (Start: 18 @31881 has 141 MA's), (60, 31749), (66, 31710), (73, 31662), (76, 31629),

Gene: Achebe_44 Start: 31850, Stop: 31527, Start Num: 18

Candidate Starts for Achebe_44:

(Start: 18 @31850 has 141 MA's), (47, 31751), (49, 31742), (54, 31727), (60, 31697), (76, 31577),

Gene: AgentM_39 Start: 30764, Stop: 30501, Start Num: 27

Candidate Starts for AgentM_39:

(Start: 27 @30764 has 33 MA's), (Start: 29 @30755 has 3 MA's), (32, 30746), (41, 30725), (45, 30713), (67, 30629), (73, 30596), (76, 30563),

Gene: Aglet_51 Start: 32309, Stop: 32061, Start Num: 22

Candidate Starts for Aglet_51:

(Start: 22 @32309 has 94 MA's), (42, 32255), (66, 32192), (68, 32168), (70, 32159), (76, 32111), (77, 32096),

Gene: AgronaGT15_49 Start: 32160, Stop: 31912, Start Num: 22

Candidate Starts for AgronaGT15_49:

(Start: 22 @32160 has 94 MA's), (42, 32106), (66, 32043), (68, 32019), (70, 32010), (76, 31962), (77, 31947),

Gene: Airmid_41 Start: 30823, Stop: 30572, Start Num: 27

Candidate Starts for Airmid_41:

(13, 30901), (Start: 27 @30823 has 33 MA's), (Start: 29 @30814 has 3 MA's), (32, 30805), (45, 30772), (57, 30742), (62, 30727), (67, 30688), (73, 30655), (76, 30622),

Gene: Alatin_37 Start: 28461, Stop: 28189, Start Num: 37
Candidate Starts for Alatin_37:
(Start: 37 @28461 has 46 MA's), (75, 28245), (78, 28209),

Gene: Albee_46 Start: 31880, Stop: 31578, Start Num: 18
Candidate Starts for Albee_46:
(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Alberto7_47 Start: 32217, Stop: 31915, Start Num: 18
Candidate Starts for Alberto7_47:
(1, 32487), (Start: 18 @32217 has 141 MA's), (60, 32085), (66, 32046), (73, 31998), (76, 31965),

Gene: Alma_47 Start: 32160, Stop: 31834, Start Num: 24
Candidate Starts for Alma_47:
(Start: 24 @32160 has 1 MA's), (Start: 29 @32136 has 3 MA's), (38, 32094), (78, 31854),

Gene: Alpacados_36 Start: 28366, Stop: 28094, Start Num: 37
Candidate Starts for Alpacados_36:
(Start: 37 @28366 has 46 MA's), (52, 28300), (75, 28150), (78, 28114),

Gene: Anaysia_50 Start: 30853, Stop: 30560, Start Num: 26
Candidate Starts for Anaysia_50:
(Start: 26 @30853 has 22 MA's), (62, 30736), (73, 30643),

Gene: AngryOrchard_35 Start: 28325, Stop: 28053, Start Num: 37
Candidate Starts for AngryOrchard_35:
(Start: 37 @28325 has 46 MA's), (52, 28259), (75, 28109), (78, 28073),

Gene: Annyong_46 Start: 31925, Stop: 31623, Start Num: 18
Candidate Starts for Annyong_46:
(1, 32195), (Start: 18 @31925 has 141 MA's), (60, 31793), (66, 31754), (73, 31706), (76, 31673),

Gene: Anon_44 Start: 29643, Stop: 29365, Start Num: 26
Candidate Starts for Anon_44:
(Start: 26 @29643 has 22 MA's), (73, 29448),

Gene: Anubis_53 Start: 32195, Stop: 31947, Start Num: 22
Candidate Starts for Anubis_53:
(Start: 22 @32195 has 94 MA's), (42, 32141), (66, 32078), (68, 32054), (70, 32045), (76, 31997), (77, 31982),

Gene: AppleCloud_35 Start: 28336, Stop: 28064, Start Num: 37
Candidate Starts for AppleCloud_35:
(Start: 30 @28369 has 1 MA's), (Start: 37 @28336 has 46 MA's), (56, 28249), (75, 28120), (78, 28084),

Gene: Aragog_39 Start: 30794, Stop: 30531, Start Num: 27
Candidate Starts for Aragog_39:
(Start: 27 @30794 has 33 MA's), (Start: 29 @30785 has 3 MA's), (32, 30776), (41, 30755), (45, 30743), (67, 30659), (73, 30626), (76, 30593),

Gene: Archetta_40 Start: 31324, Stop: 31061, Start Num: 27
Candidate Starts for Archetta_40:
(Start: 27 @31324 has 33 MA's), (Start: 29 @31315 has 3 MA's), (32, 31306), (41, 31285), (45, 31273),
(67, 31189), (73, 31156), (76, 31123),

Gene: Arturo_45 Start: 32157, Stop: 31834, Start Num: 18
Candidate Starts for Arturo_45:
(Start: 18 @32157 has 141 MA's), (23, 32142), (60, 32004), (73, 31917), (76, 31884),

Gene: Astro_44 Start: 31145, Stop: 30849, Start Num: 37
Candidate Starts for Astro_44:
(Start: 37 @31145 has 46 MA's), (40, 31136), (48, 31094), (76, 30908),

Gene: AugsMagnumOpus_53 Start: 32300, Stop: 32052, Start Num: 22
Candidate Starts for AugsMagnumOpus_53:
(Start: 22 @32300 has 94 MA's), (42, 32246), (66, 32183), (68, 32159), (70, 32150), (76, 32102), (77,
32087),

Gene: AvatarAhPeg_45 Start: 32379, Stop: 32056, Start Num: 18
Candidate Starts for AvatarAhPeg_45:
(Start: 18 @32379 has 141 MA's), (23, 32364), (49, 32271), (54, 32256), (60, 32226), (71, 32151), (76,
32106),

Gene: Avle17_46 Start: 31877, Stop: 31575, Start Num: 18
Candidate Starts for Avle17_46:
(Start: 18 @31877 has 141 MA's), (60, 31745), (66, 31706), (73, 31658), (76, 31625),

Gene: B1_43 Start: 31013, Stop: 30738, Start Num: 25
Candidate Starts for B1_43:
(11, 31100), (15, 31043), (Start: 25 @31013 has 33 MA's), (61, 30908), (70, 30836), (76, 30788),

Gene: Baby16_46 Start: 31891, Stop: 31589, Start Num: 18
Candidate Starts for Baby16_46:
(1, 32161), (Start: 18 @31891 has 141 MA's), (60, 31759), (66, 31720), (73, 31672), (76, 31639),

Gene: BabyJohn_44 Start: 31805, Stop: 31530, Start Num: 25
Candidate Starts for BabyJohn_44:
(8, 31922), (10, 31898), (11, 31892), (14, 31865), (Start: 25 @31805 has 33 MA's), (70, 31628), (76,
31580),

Gene: BabyRay_46 Start: 31749, Stop: 31474, Start Num: 25
Candidate Starts for BabyRay_46:
(4, 31890), (6, 31881), (Start: 25 @31749 has 33 MA's), (55, 31668), (70, 31572),

Gene: Backyardigan_44 Start: 31883, Stop: 31560, Start Num: 18
Candidate Starts for Backyardigan_44:
(Start: 18 @31883 has 141 MA's), (47, 31784), (49, 31775), (54, 31760), (60, 31730), (76, 31610),

Gene: Badger_44 Start: 31851, Stop: 31528, Start Num: 18
Candidate Starts for Badger_44:
(Start: 18 @31851 has 141 MA's), (47, 31752), (49, 31743), (54, 31728), (60, 31698), (76, 31578),

Gene: BangNhom_47 Start: 32302, Stop: 32000, Start Num: 18

Candidate Starts for BangNhom_47:

(1, 32572), (Start: 18 @32302 has 141 MA's), (60, 32170), (66, 32131), (76, 32050),

Gene: Bartimeaus_46 Start: 31882, Stop: 31580, Start Num: 18

Candidate Starts for Bartimeaus_46:

(1, 32152), (Start: 18 @31882 has 141 MA's), (60, 31750), (66, 31711), (73, 31663), (76, 31630),

Gene: Battleship_50 Start: 30586, Stop: 30293, Start Num: 26

Candidate Starts for Battleship_50:

(Start: 26 @30586 has 22 MA's), (62, 30469), (73, 30376),

Gene: Beauxregard13_50 Start: 32312, Stop: 32064, Start Num: 22

Candidate Starts for Beauxregard13_50:

(Start: 22 @32312 has 94 MA's), (32, 32282), (42, 32258), (66, 32195), (68, 32171), (70, 32162), (76, 32114), (77, 32099),

Gene: Belenaria_37 Start: 28395, Stop: 28123, Start Num: 37

Candidate Starts for Belenaria_37:

(Start: 37 @28395 has 46 MA's), (52, 28329), (75, 28179), (78, 28143),

Gene: BellusTerra_47 Start: 31881, Stop: 31579, Start Num: 18

Candidate Starts for BellusTerra_47:

(Start: 18 @31881 has 141 MA's), (60, 31749), (66, 31710), (73, 31662), (76, 31629),

Gene: Benedict_43 Start: 30995, Stop: 30732, Start Num: 27

Candidate Starts for Benedict_43:

(Start: 27 @30995 has 33 MA's), (Start: 29 @30986 has 3 MA's), (45, 30944), (73, 30827), (75, 30803),

Gene: Bigflo_50 Start: 32308, Stop: 32060, Start Num: 22

Candidate Starts for Bigflo_50:

(Start: 22 @32308 has 94 MA's), (42, 32254), (66, 32191), (68, 32167), (70, 32158), (76, 32110), (77, 32095),

Gene: Blackmoor_46 Start: 31882, Stop: 31580, Start Num: 18

Candidate Starts for Blackmoor_46:

(1, 32152), (Start: 18 @31882 has 141 MA's), (60, 31750), (66, 31711), (73, 31663), (76, 31630),

Gene: BlueBird_48 Start: 31838, Stop: 31563, Start Num: 25

Candidate Starts for BlueBird_48:

(Start: 25 @31838 has 33 MA's), (70, 31661), (76, 31613),

Gene: Bluefalcon_39 Start: 31282, Stop: 31019, Start Num: 27

Candidate Starts for Bluefalcon_39:

(Start: 27 @31282 has 33 MA's), (Start: 29 @31273 has 3 MA's), (32, 31264), (45, 31231), (67, 31147), (73, 31114), (76, 31081),

Gene: BobbyDazzler_37 Start: 28440, Stop: 28168, Start Num: 37

Candidate Starts for BobbyDazzler_37:

(Start: 37 @28440 has 46 MA's), (52, 28374), (75, 28224), (78, 28188),

Gene: Bombshell_46 Start: 31877, Stop: 31575, Start Num: 18

Candidate Starts for Bombshell_46:

(1, 32147), (Start: 18 @31877 has 141 MA's), (60, 31745), (66, 31706), (73, 31658), (76, 31625),

Gene: Bonamassa_41 Start: 31313, Stop: 31050, Start Num: 27

Candidate Starts for Bonamassa_41:

(Start: 27 @31313 has 33 MA's), (Start: 29 @31304 has 3 MA's), (45, 31262), (57, 31232), (67, 31178), (73, 31145), (76, 31112),

Gene: Bonanza_37 Start: 28368, Stop: 28096, Start Num: 37

Candidate Starts for Bonanza_37:

(Start: 37 @28368 has 46 MA's), (52, 28302), (75, 28152), (78, 28116),

Gene: Boohoo_50 Start: 30853, Stop: 30560, Start Num: 26

Candidate Starts for Boohoo_50:

(Start: 26 @30853 has 22 MA's), (62, 30736), (73, 30643),

Gene: Bradshaw_37 Start: 28394, Stop: 28122, Start Num: 37

Candidate Starts for Bradshaw_37:

(Start: 37 @28394 has 46 MA's), (75, 28178), (78, 28142),

Gene: BreSam8_50 Start: 32302, Stop: 32054, Start Num: 22

Candidate Starts for BreSam8_50:

(Start: 22 @32302 has 94 MA's), (42, 32248), (66, 32185), (68, 32161), (70, 32152), (76, 32104), (77, 32089),

Gene: Broseidon_46 Start: 31882, Stop: 31580, Start Num: 18

Candidate Starts for Broseidon_46:

(1, 32152), (Start: 18 @31882 has 141 MA's), (60, 31750), (66, 31711), (73, 31663), (76, 31630),

Gene: Bruiser_45 Start: 31880, Stop: 31578, Start Num: 18

Candidate Starts for Bruiser_45:

(Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Bryce_37 Start: 28369, Stop: 28097, Start Num: 37

Candidate Starts for Bryce_37:

(Start: 37 @28369 has 46 MA's), (52, 28303), (75, 28153), (78, 28117),

Gene: BubbleTrouble_45 Start: 31880, Stop: 31578, Start Num: 18

Candidate Starts for BubbleTrouble_45:

(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Bugatti_47 Start: 31838, Stop: 31563, Start Num: 25

Candidate Starts for Bugatti_47:

(Start: 25 @31838 has 33 MA's), (70, 31661), (76, 31613),

Gene: Bumblebee11_44 Start: 31853, Stop: 31530, Start Num: 18

Candidate Starts for Bumblebee11_44:

(Start: 18 @31853 has 141 MA's), (47, 31754), (49, 31745), (54, 31730), (60, 31700), (76, 31580),

Gene: Burger_44 Start: 31880, Stop: 31578, Start Num: 18

Candidate Starts for Burger_44:

(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: BuzzBuzz_48 Start: 32339, Stop: 32091, Start Num: 22

Candidate Starts for BuzzBuzz_48:

(Start: 22 @32339 has 94 MA's), (42, 32285), (66, 32222), (68, 32198), (70, 32189), (76, 32141), (77, 32126),

Gene: Bxz2_46 Start: 32346, Stop: 32098, Start Num: 22

Candidate Starts for Bxz2_46:

(Start: 22 @32346 has 94 MA's), (42, 32292), (66, 32229), (68, 32205), (70, 32196), (76, 32148), (77, 32133),

Gene: Caelakin_46 Start: 31880, Stop: 31578, Start Num: 18

Candidate Starts for Caelakin_46:

(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Caitlin_43 Start: 31138, Stop: 30842, Start Num: 37

Candidate Starts for Caitlin_43:

(20, 31204), (Start: 37 @31138 has 46 MA's), (48, 31087), (76, 30901),

Gene: Calvinny_50 Start: 32208, Stop: 31960, Start Num: 22

Candidate Starts for Calvinny_50:

(Start: 22 @32208 has 94 MA's), (42, 32154), (43, 32151), (66, 32091), (68, 32067), (70, 32058), (76, 32010), (77, 31995),

Gene: Camperdownii_44 Start: 31553, Stop: 31251, Start Num: 18

Candidate Starts for Camperdownii_44:

(Start: 18 @31553 has 141 MA's), (60, 31421), (66, 31382), (73, 31334), (76, 31301),

Gene: Caviar_46 Start: 32081, Stop: 31806, Start Num: 25

Candidate Starts for Caviar_46:

(9, 32171), (11, 32162), (Start: 25 @32081 has 33 MA's), (70, 31904),

Gene: CentreCat_46 Start: 31883, Stop: 31581, Start Num: 18

Candidate Starts for CentreCat_46:

(1, 32153), (Start: 18 @31883 has 141 MA's), (60, 31751), (66, 31712), (73, 31664), (76, 31631),

Gene: Cerulean_47 Start: 32303, Stop: 32001, Start Num: 18

Candidate Starts for Cerulean_47:

(1, 32573), (Start: 18 @32303 has 141 MA's), (60, 32171), (66, 32132), (76, 32051),

Gene: Chadwick_44 Start: 30975, Stop: 30712, Start Num: 27

Candidate Starts for Chadwick_44:

(13, 31053), (Start: 27 @30975 has 33 MA's), (Start: 29 @30966 has 3 MA's), (36, 30945), (45, 30924), (73, 30807), (75, 30783),

Gene: ChampagnePapi_48 Start: 32302, Stop: 32000, Start Num: 18

Candidate Starts for ChampagnePapi_48:

(1, 32572), (Start: 18 @32302 has 141 MA's), (60, 32170), (66, 32131), (76, 32050),

Gene: Chaph_46 Start: 31891, Stop: 31589, Start Num: 18

Candidate Starts for Chaph_46:

(1, 32161), (Start: 18 @31891 has 141 MA's), (60, 31759), (66, 31720), (73, 31672), (76, 31639),

Gene: Chiqui_44 Start: 31814, Stop: 31539, Start Num: 25

Candidate Starts for Chiqui_44:

(8, 31931), (10, 31907), (11, 31901), (14, 31874), (Start: 25 @31814 has 33 MA's), (70, 31637), (76, 31589),

Gene: Cici_45 Start: 31868, Stop: 31545, Start Num: 18

Candidate Starts for Cici_45:

(Start: 18 @31868 has 141 MA's), (47, 31769), (49, 31760), (54, 31745), (60, 31715), (76, 31595),

Gene: Cindaradix_43 Start: 31493, Stop: 31170, Start Num: 18

Candidate Starts for Cindaradix_43:

(Start: 18 @31493 has 141 MA's), (49, 31385), (60, 31340), (71, 31265), (76, 31220),

Gene: Cintron_45 Start: 31860, Stop: 31558, Start Num: 18

Candidate Starts for Cintron_45:

(1, 32130), (Start: 18 @31860 has 141 MA's), (60, 31728), (66, 31689), (73, 31641), (76, 31608),

Gene: Citius_46 Start: 31901, Stop: 31599, Start Num: 18

Candidate Starts for Citius_46:

(1, 32171), (Start: 18 @31901 has 141 MA's), (60, 31769), (66, 31730), (73, 31682), (76, 31649),

Gene: Clammy_47 Start: 31838, Stop: 31563, Start Num: 25

Candidate Starts for Clammy_47:

(Start: 25 @31838 has 33 MA's), (70, 31661), (76, 31613),

Gene: Clarenza_45 Start: 31877, Stop: 31575, Start Num: 18

Candidate Starts for Clarenza_45:

(1, 32147), (Start: 18 @31877 has 141 MA's), (60, 31745), (66, 31706), (73, 31658), (76, 31625),

Gene: ClownCar_50 Start: 32201, Stop: 31953, Start Num: 22

Candidate Starts for ClownCar_50:

(Start: 22 @32201 has 94 MA's), (42, 32147), (43, 32144), (66, 32084), (68, 32060), (70, 32051), (76, 32003), (77, 31988),

Gene: Cocoaberry_46 Start: 31884, Stop: 31582, Start Num: 18

Candidate Starts for Cocoaberry_46:

(Start: 18 @31884 has 141 MA's), (60, 31752), (66, 31713), (73, 31665), (76, 31632),

Gene: Colbster_50 Start: 32312, Stop: 32064, Start Num: 22

Candidate Starts for Colbster_50:

(Start: 22 @32312 has 94 MA's), (42, 32258), (66, 32195), (68, 32171), (70, 32162), (76, 32114), (77, 32099),

Gene: Commander_46 Start: 31879, Stop: 31577, Start Num: 18

Candidate Starts for Commander_46:

(1, 32149), (Start: 18 @31879 has 141 MA's), (60, 31747), (66, 31708), (73, 31660), (76, 31627),

Gene: Connomayer_46 Start: 31880, Stop: 31578, Start Num: 18

Candidate Starts for Connomayer_46:

(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Conspiracy_40 Start: 30997, Stop: 30743, Start Num: 29

Candidate Starts for Conspiracy_40:

(Start: 27 @31006 has 33 MA's), (Start: 29 @30997 has 3 MA's), (32, 30988), (41, 30967), (45, 30955), (67, 30871), (73, 30838), (76, 30805),

Gene: CosmicSans_37 Start: 28394, Stop: 28122, Start Num: 37
Candidate Starts for CosmicSans_37:
(Start: 37 @28394 has 46 MA's), (52, 28328), (75, 28178), (78, 28142),

Gene: Croquant_51 Start: 32307, Stop: 32059, Start Num: 22
Candidate Starts for Croquant_51:
(Start: 22 @32307 has 94 MA's), (42, 32253), (66, 32190), (68, 32166), (70, 32157), (76, 32109), (77, 32094),

Gene: Cuco_40 Start: 31061, Stop: 30810, Start Num: 27
Candidate Starts for Cuco_40:
(Start: 27 @31061 has 33 MA's), (Start: 29 @31052 has 3 MA's), (45, 31010), (67, 30926), (73, 30893), (76, 30860),

Gene: Cullens_50 Start: 32308, Stop: 32060, Start Num: 22
Candidate Starts for Cullens_50:
(Start: 22 @32308 has 94 MA's), (42, 32254), (66, 32191), (68, 32167), (70, 32158), (76, 32110), (77, 32095),

Gene: DaHudson_50 Start: 32301, Stop: 32053, Start Num: 22
Candidate Starts for DaHudson_50:
(Start: 22 @32301 has 94 MA's), (42, 32247), (66, 32184), (68, 32160), (70, 32151), (76, 32103), (77, 32088),

Gene: Daishi_49 Start: 31180, Stop: 30932, Start Num: 22
Candidate Starts for Daishi_49:
(Start: 22 @31180 has 94 MA's), (42, 31126), (66, 31063), (68, 31039), (70, 31030), (76, 30982), (77, 30967),

Gene: Danforth_44 Start: 31174, Stop: 30878, Start Num: 37
Candidate Starts for Danforth_44:
(20, 31240), (Start: 37 @31174 has 46 MA's), (48, 31123), (76, 30937),

Gene: Datway_45 Start: 31839, Stop: 31516, Start Num: 18
Candidate Starts for Datway_45:
(Start: 18 @31839 has 141 MA's), (49, 31731), (76, 31566),

Gene: Deano_45 Start: 31888, Stop: 31586, Start Num: 18
Candidate Starts for Deano_45:
(Start: 18 @31888 has 141 MA's), (31, 31846), (60, 31756), (66, 31717), (73, 31669), (76, 31636),

Gene: DekHockey33_50 Start: 31068, Stop: 30775, Start Num: 26
Candidate Starts for DekHockey33_50:
(Start: 26 @31068 has 22 MA's), (62, 30951), (73, 30858),

Gene: Dhanush_46 Start: 31883, Stop: 31581, Start Num: 18
Candidate Starts for Dhanush_46:
(1, 32153), (Start: 18 @31883 has 141 MA's), (60, 31751), (66, 31712), (73, 31664), (76, 31631),

Gene: Dieselweasel_51 Start: 32311, Stop: 32063, Start Num: 22
Candidate Starts for Dieselweasel_51:

(Start: 22 @32311 has 94 MA's), (42, 32257), (66, 32194), (68, 32170), (70, 32161), (76, 32113), (77, 32098),

Gene: Dinger_37 Start: 28378, Stop: 28106, Start Num: 37

Candidate Starts for Dinger_37:

(Start: 30 @28411 has 1 MA's), (Start: 37 @28378 has 46 MA's), (56, 28291), (75, 28162), (78, 28126),

Gene: DirtyDunning_45 Start: 31898, Stop: 31575, Start Num: 18

Candidate Starts for DirtyDunning_45:

(Start: 18 @31898 has 141 MA's), (23, 31883), (60, 31745), (66, 31706), (73, 31658), (76, 31625),

Gene: Discoknowium_39 Start: 30803, Stop: 30540, Start Num: 27

Candidate Starts for Discoknowium_39:

(Start: 27 @30803 has 33 MA's), (Start: 29 @30794 has 3 MA's), (32, 30785), (41, 30764), (45, 30752), (67, 30668), (73, 30635), (76, 30602),

Gene: Dixon_44 Start: 31047, Stop: 30760, Start Num: 37

Candidate Starts for Dixon_44:

(20, 31113), (Start: 37 @31047 has 46 MA's), (48, 30996), (76, 30810),

Gene: DontArgue_44 Start: 30703, Stop: 30368, Start Num: 22

Candidate Starts for DontArgue_44:

(3, 30847), (4, 30841), (Start: 22 @30703 has 94 MA's), (71, 30463),

Gene: Drake94_43 Start: 30743, Stop: 30387, Start Num: 22

Candidate Starts for Drake94_43:

(4, 30887), (Start: 22 @30743 has 94 MA's), (63, 30560), (71, 30482),

Gene: DroogsArmy_43 Start: 33565, Stop: 33284, Start Num: 21

Candidate Starts for DroogsArmy_43:

(4, 33700), (Start: 21 @33565 has 3 MA's), (51, 33502), (64, 33445), (66, 33415), (78, 33307),

Gene: DropBear_46 Start: 31726, Stop: 31451, Start Num: 25

Candidate Starts for DropBear_46:

(Start: 25 @31726 has 33 MA's), (70, 31549), (76, 31501),

Gene: Druantia_46 Start: 31883, Stop: 31581, Start Num: 18

Candidate Starts for Druantia_46:

(1, 32153), (Start: 18 @31883 has 141 MA's), (60, 31751), (66, 31712), (73, 31664), (76, 31631),

Gene: Dublin_39 Start: 30825, Stop: 30562, Start Num: 27

Candidate Starts for Dublin_39:

(Start: 27 @30825 has 33 MA's), (Start: 29 @30816 has 3 MA's), (45, 30774), (57, 30744), (67, 30690), (73, 30657), (76, 30624),

Gene: Eagle_46 Start: 31905, Stop: 31603, Start Num: 18

Candidate Starts for Eagle_46:

(1, 32175), (Start: 18 @31905 has 141 MA's), (60, 31773), (66, 31734), (73, 31686), (76, 31653),

Gene: Eapen_46 Start: 31875, Stop: 31573, Start Num: 18

Candidate Starts for Eapen_46:

(1, 32145), (Start: 18 @31875 has 141 MA's), (60, 31743), (66, 31704), (73, 31656), (76, 31623),

Gene: EITiger69_42 Start: 30992, Stop: 30729, Start Num: 27
Candidate Starts for EITiger69_42:
(13, 31070), (Start: 27 @30992 has 33 MA's), (Start: 29 @30983 has 3 MA's), (36, 30962), (45, 30941),
(73, 30824), (75, 30800),

Gene: Elle_45 Start: 29059, Stop: 28784, Start Num: 26
Candidate Starts for Elle_45:
(Start: 26 @29059 has 22 MA's), (73, 28867),

Gene: EpicPhail_51 Start: 32312, Stop: 32064, Start Num: 22
Candidate Starts for EpicPhail_51:
(Start: 22 @32312 has 94 MA's), (32, 32282), (42, 32258), (66, 32195), (68, 32171), (70, 32162), (76,
32114), (77, 32099),

Gene: Epsocamisio_48 Start: 30391, Stop: 30098, Start Num: 26
Candidate Starts for Epsocamisio_48:
(Start: 26 @30391 has 22 MA's), (62, 30274), (73, 30181),

Gene: Erik_37 Start: 28392, Stop: 28120, Start Num: 37
Candidate Starts for Erik_37:
(Start: 37 @28392 has 46 MA's), (52, 28326), (75, 28176), (78, 28140),

Gene: Eris_45 Start: 31880, Stop: 31578, Start Num: 18
Candidate Starts for Eris_45:
(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Eros_46 Start: 31882, Stop: 31580, Start Num: 18
Candidate Starts for Eros_46:
(1, 32152), (Start: 18 @31882 has 141 MA's), (60, 31750), (66, 31711), (73, 31663), (76, 31630),

Gene: Espica_37 Start: 28395, Stop: 28123, Start Num: 37
Candidate Starts for Espica_37:
(Start: 37 @28395 has 46 MA's), (52, 28329), (75, 28179), (78, 28143),

Gene: EtoileNova_47 Start: 32085, Stop: 31810, Start Num: 25
Candidate Starts for EtoileNova_47:
(9, 32175), (11, 32166), (Start: 25 @32085 has 33 MA's), (70, 31908),

Gene: Eurydice_47 Start: 31877, Stop: 31575, Start Num: 18
Candidate Starts for Eurydice_47:
(1, 32147), (Start: 18 @31877 has 141 MA's), (60, 31745), (66, 31706), (73, 31658), (76, 31625),

Gene: Expelliarmus_44 Start: 31203, Stop: 30907, Start Num: 37
Candidate Starts for Expelliarmus_44:
(20, 31269), (Start: 37 @31203 has 46 MA's), (48, 31152), (76, 30966),

Gene: Farber_50 Start: 32301, Stop: 32053, Start Num: 22
Candidate Starts for Farber_50:
(Start: 22 @32301 has 94 MA's), (42, 32247), (66, 32184), (68, 32160), (70, 32151), (76, 32103), (77,
32088),

Gene: FatCactus_39 Start: 29455, Stop: 29141, Start Num: 19
Candidate Starts for FatCactus_39:

(2, 29608), (5, 29578), (7, 29563), (10, 29530), (Start: 19 @29455 has 1 MA's), (35, 29407), (39, 29401), (50, 29350), (73, 29221),

Gene: Fernando_50 Start: 32308, Stop: 32060, Start Num: 22

Candidate Starts for Fernando_50:

(Start: 22 @32308 has 94 MA's), (42, 32254), (66, 32191), (68, 32167), (70, 32158), (76, 32110), (77, 32095),

Gene: Florean_46 Start: 31879, Stop: 31577, Start Num: 18

Candidate Starts for Florean_46:

(1, 32149), (Start: 18 @31879 has 141 MA's), (60, 31747), (66, 31708), (73, 31660), (76, 31627),

Gene: Florence1_39 Start: 30678, Stop: 30415, Start Num: 27

Candidate Starts for Florence1_39:

(Start: 27 @30678 has 33 MA's), (Start: 29 @30669 has 3 MA's), (45, 30627), (57, 30597), (67, 30543), (73, 30510), (76, 30477),

Gene: Florence4_40 Start: 30678, Stop: 30415, Start Num: 27

Candidate Starts for Florence4_40:

(Start: 27 @30678 has 33 MA's), (Start: 29 @30669 has 3 MA's), (45, 30627), (57, 30597), (67, 30543), (73, 30510), (76, 30477),

Gene: Flux_46 Start: 31879, Stop: 31577, Start Num: 18

Candidate Starts for Flux_46:

(1, 32149), (Start: 18 @31879 has 141 MA's), (60, 31747), (66, 31708), (73, 31660), (76, 31627),

Gene: ForGetIt_40 Start: 31031, Stop: 30768, Start Num: 27

Candidate Starts for ForGetIt_40:

(Start: 27 @31031 has 33 MA's), (Start: 29 @31022 has 3 MA's), (32, 31013), (41, 30992), (45, 30980), (67, 30896), (73, 30863), (76, 30830),

Gene: Fred313_46 Start: 31411, Stop: 31136, Start Num: 25

Candidate Starts for Fred313_46:

(16, 31432), (Start: 25 @31411 has 33 MA's), (70, 31234), (76, 31186),

Gene: Funston_45 Start: 31880, Stop: 31578, Start Num: 18

Candidate Starts for Funston_45:

(Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Gadost_46 Start: 31884, Stop: 31582, Start Num: 18

Candidate Starts for Gadost_46:

(Start: 18 @31884 has 141 MA's), (60, 31752), (66, 31713), (73, 31665), (76, 31632),

Gene: Gemma_49 Start: 32204, Stop: 31956, Start Num: 22

Candidate Starts for Gemma_49:

(Start: 22 @32204 has 94 MA's), (42, 32150), (43, 32147), (66, 32087), (68, 32063), (70, 32054), (76, 32006), (77, 31991),

Gene: George_40 Start: 31255, Stop: 30992, Start Num: 27

Candidate Starts for George_40:

(Start: 27 @31255 has 33 MA's), (Start: 29 @31246 has 3 MA's), (45, 31204), (57, 31174), (67, 31120), (73, 31087), (76, 31054),

Gene: Ghouboy_42 Start: 31768, Stop: 31505, Start Num: 27
Candidate Starts for Ghouboy_42:
(Start: 27 @31768 has 33 MA's), (Start: 29 @31759 has 3 MA's), (45, 31717), (57, 31687), (67, 31633),
(73, 31600), (76, 31567),

Gene: GingkoMaracino_50 Start: 32194, Stop: 31946, Start Num: 22
Candidate Starts for GingkoMaracino_50:
(Start: 22 @32194 has 94 MA's), (42, 32140), (66, 32077), (68, 32053), (70, 32044), (76, 31996), (77,
31981),

Gene: Giroux_48 Start: 31837, Stop: 31562, Start Num: 25
Candidate Starts for Giroux_48:
(Start: 25 @31837 has 33 MA's), (70, 31660), (76, 31612),

Gene: Gollum_37 Start: 28394, Stop: 28122, Start Num: 37
Candidate Starts for Gollum_37:
(Start: 37 @28394 has 46 MA's), (52, 28328), (75, 28178), (78, 28142),

Gene: Grif_50 Start: 32383, Stop: 32135, Start Num: 22
Candidate Starts for Grif_50:
(Start: 22 @32383 has 94 MA's), (42, 32329), (66, 32266), (68, 32242), (70, 32233), (76, 32185), (77,
32170),

Gene: Groundhog_43 Start: 31110, Stop: 30814, Start Num: 37
Candidate Starts for Groundhog_43:
(Start: 37 @31110 has 46 MA's), (40, 31101), (48, 31059), (76, 30873),

Gene: Groupthink_51 Start: 32208, Stop: 31960, Start Num: 22
Candidate Starts for Groupthink_51:
(Start: 22 @32208 has 94 MA's), (42, 32154), (43, 32151), (66, 32091), (68, 32067), (70, 32058), (76,
32010), (77, 31995),

Gene: Grub_50 Start: 32300, Stop: 32052, Start Num: 22
Candidate Starts for Grub_50:
(Start: 22 @32300 has 94 MA's), (42, 32246), (66, 32183), (68, 32159), (70, 32150), (76, 32102), (77,
32087),

Gene: Grum1_50 Start: 32308, Stop: 32060, Start Num: 22
Candidate Starts for Grum1_50:
(17, 32317), (Start: 22 @32308 has 94 MA's), (42, 32254), (66, 32191), (68, 32167), (70, 32158), (76,
32110), (77, 32095),

Gene: GtownJaz_50 Start: 32310, Stop: 32062, Start Num: 22
Candidate Starts for GtownJaz_50:
(Start: 22 @32310 has 94 MA's), (42, 32256), (66, 32193), (68, 32169), (70, 32160), (76, 32112), (77,
32097),

Gene: Gwennie_49 Start: 32312, Stop: 32064, Start Num: 22
Candidate Starts for Gwennie_49:
(Start: 22 @32312 has 94 MA's), (32, 32282), (42, 32258), (66, 32195), (68, 32171), (70, 32162), (76,
32114), (77, 32099),

Gene: HINdeR_43 Start: 33388, Stop: 33113, Start Num: 21

Candidate Starts for HINdeR_43:

(Start: 21 @33388 has 3 MA's), (34, 33382), (49, 33331), (51, 33325), (55, 33307), (78, 33136),

Gene: HamSlice_45 Start: 31878, Stop: 31576, Start Num: 18

Candidate Starts for HamSlice_45:

(1, 32148), (Start: 18 @31878 has 141 MA's), (60, 31746), (66, 31707), (73, 31659), (76, 31626),

Gene: Happiness_45 Start: 31885, Stop: 31583, Start Num: 18

Candidate Starts for Happiness_45:

(1, 32155), (Start: 18 @31885 has 141 MA's), (60, 31753), (66, 31714), (73, 31666), (76, 31633),

Gene: Harlequin_37 Start: 28399, Stop: 28127, Start Num: 37

Candidate Starts for Harlequin_37:

(Start: 37 @28399 has 46 MA's), (52, 28333), (75, 28183), (78, 28147),

Gene: HashRod_51 Start: 32339, Stop: 32091, Start Num: 22

Candidate Starts for HashRod_51:

(Start: 22 @32339 has 94 MA's), (42, 32285), (66, 32222), (68, 32198), (70, 32189), (76, 32141), (77, 32126),

Gene: HaveUMetTed_51 Start: 32190, Stop: 31942, Start Num: 22

Candidate Starts for HaveUMetTed_51:

(Start: 22 @32190 has 94 MA's), (42, 32136), (43, 32133), (66, 32073), (68, 32049), (70, 32040), (76, 31992), (77, 31977),

Gene: Heathen_46 Start: 31467, Stop: 31192, Start Num: 25

Candidate Starts for Heathen_46:

(Start: 25 @31467 has 33 MA's), (70, 31290), (76, 31242),

Gene: HelDan_46 Start: 31719, Stop: 31444, Start Num: 25

Candidate Starts for HelDan_46:

(Start: 25 @31719 has 33 MA's), (70, 31542), (76, 31494),

Gene: Heliosoles_49 Start: 32211, Stop: 31963, Start Num: 22

Candidate Starts for Heliosoles_49:

(Start: 22 @32211 has 94 MA's), (42, 32157), (43, 32154), (66, 32094), (68, 32070), (70, 32061), (76, 32013), (77, 31998),

Gene: Hercules11_50 Start: 32317, Stop: 32069, Start Num: 22

Candidate Starts for Hercules11_50:

(Start: 22 @32317 has 94 MA's), (42, 32263), (66, 32200), (68, 32176), (70, 32167), (76, 32119), (77, 32104),

Gene: Hiro_37 Start: 28654, Stop: 28382, Start Num: 37

Candidate Starts for Hiro_37:

(Start: 37 @28654 has 46 MA's), (52, 28588), (69, 28483), (75, 28438), (78, 28402),

Gene: Holli_45 Start: 31670, Stop: 31368, Start Num: 18

Candidate Starts for Holli_45:

(1, 31940), (Start: 18 @31670 has 141 MA's), (60, 31538), (66, 31499), (73, 31451), (76, 31418),

Gene: Hookmount_46 Start: 32082, Stop: 31807, Start Num: 25

Candidate Starts for Hookmount_46:

(9, 32172), (11, 32163), (Start: 25 @32082 has 33 MA's), (70, 31905),

Gene: Houdini22_46 Start: 31884, Stop: 31582, Start Num: 18

Candidate Starts for Houdini22_46:

(Start: 18 @31884 has 141 MA's), (60, 31752), (66, 31713), (73, 31665), (76, 31632),

Gene: HuhtaEnerson15_41 Start: 31246, Stop: 30983, Start Num: 27

Candidate Starts for HuhtaEnerson15_41:

(Start: 27 @31246 has 33 MA's), (Start: 29 @31237 has 3 MA's), (45, 31195), (57, 31165), (67, 31111), (73, 31078), (76, 31045),

Gene: Huxley_46 Start: 31941, Stop: 31639, Start Num: 18

Candidate Starts for Huxley_46:

(Start: 18 @31941 has 141 MA's), (60, 31809), (66, 31770), (73, 31722), (76, 31689),

Gene: ICleared_46 Start: 31909, Stop: 31607, Start Num: 18

Candidate Starts for ICleared_46:

(1, 32179), (Start: 18 @31909 has 141 MA's), (60, 31777), (66, 31738), (73, 31690), (76, 31657),

Gene: Iceman_46 Start: 32166, Stop: 31864, Start Num: 18

Candidate Starts for Iceman_46:

(1, 32436), (Start: 18 @32166 has 141 MA's), (60, 32034), (66, 31995), (73, 31947), (76, 31914),

Gene: Idleandcovert_47 Start: 31838, Stop: 31563, Start Num: 25

Candidate Starts for Idleandcovert_47:

(Start: 25 @31838 has 33 MA's), (70, 31661), (76, 31613),

Gene: Iracema64_47 Start: 32144, Stop: 31842, Start Num: 18

Candidate Starts for Iracema64_47:

(1, 32414), (Start: 18 @32144 has 141 MA's), (60, 32012), (66, 31973), (73, 31925), (76, 31892),

Gene: Isca_45 Start: 31262, Stop: 30987, Start Num: 25

Candidate Starts for Isca_45:

(11, 31349), (15, 31292), (Start: 25 @31262 has 33 MA's), (61, 31157), (70, 31085), (76, 31037),

Gene: JF2_46 Start: 31013, Stop: 30738, Start Num: 25

Candidate Starts for JF2_46:

(11, 31100), (15, 31043), (Start: 25 @31013 has 33 MA's), (61, 30908), (70, 30836), (76, 30788),

Gene: JF4_46 Start: 31013, Stop: 30738, Start Num: 25

Candidate Starts for JF4_46:

(11, 31100), (15, 31043), (Start: 25 @31013 has 33 MA's), (61, 30908), (70, 30836), (76, 30788),

Gene: JHC117_50 Start: 32307, Stop: 32059, Start Num: 22

Candidate Starts for JHC117_50:

(Start: 22 @32307 has 94 MA's), (42, 32253), (66, 32190), (68, 32166), (70, 32157), (76, 32109), (77, 32094),

Gene: JSwag_48 Start: 30329, Stop: 30036, Start Num: 26

Candidate Starts for JSwag_48:

(Start: 26 @30329 has 22 MA's), (62, 30212), (73, 30119),

Gene: Jabiru_41 Start: 30865, Stop: 30614, Start Num: 27

Candidate Starts for Jabiru_41:

(10, 30955), (13, 30943), (Start: 27 @30865 has 33 MA's), (Start: 29 @30856 has 3 MA's), (45, 30814), (57, 30784), (67, 30730), (73, 30697), (76, 30664),

Gene: Jaykayelowell_44 Start: 31873, Stop: 31571, Start Num: 18

Candidate Starts for Jaykayelowell_44:

(1, 32143), (Start: 18 @31873 has 141 MA's), (60, 31741), (66, 31702), (73, 31654), (76, 31621),

Gene: JenCasNa_51 Start: 32308, Stop: 32060, Start Num: 22

Candidate Starts for JenCasNa_51:

(Start: 22 @32308 has 94 MA's), (42, 32254), (66, 32191), (68, 32167), (70, 32158), (76, 32110), (77, 32095),

Gene: JeppNRM_51 Start: 32209, Stop: 31961, Start Num: 22

Candidate Starts for JeppNRM_51:

(Start: 22 @32209 has 94 MA's), (42, 32155), (43, 32152), (66, 32092), (68, 32068), (70, 32059), (76, 32011), (77, 31996),

Gene: Jester_37 Start: 28330, Stop: 28058, Start Num: 37

Candidate Starts for Jester_37:

(Start: 37 @28330 has 46 MA's), (52, 28264), (75, 28114), (78, 28078),

Gene: JetBlade_46 Start: 31874, Stop: 31572, Start Num: 18

Candidate Starts for JetBlade_46:

(1, 32144), (Start: 18 @31874 has 141 MA's), (60, 31742), (66, 31703), (73, 31655), (76, 31622),

Gene: Jobu08_49 Start: 32140, Stop: 31892, Start Num: 22

Candidate Starts for Jobu08_49:

(Start: 22 @32140 has 94 MA's), (42, 32086), (43, 32083), (66, 32023), (68, 31999), (70, 31990), (76, 31942), (77, 31927),

Gene: JoongJeon_45 Start: 31877, Stop: 31575, Start Num: 18

Candidate Starts for JoongJeon_45:

(Start: 18 @31877 has 141 MA's), (60, 31745), (66, 31706), (73, 31658), (76, 31625),

Gene: Jovo_40 Start: 31287, Stop: 31024, Start Num: 27

Candidate Starts for Jovo_40:

(Start: 27 @31287 has 33 MA's), (Start: 29 @31278 has 3 MA's), (32, 31269), (41, 31248), (45, 31236), (67, 31152), (73, 31119), (76, 31086),

Gene: KADY_50 Start: 32339, Stop: 32091, Start Num: 22

Candidate Starts for KADY_50:

(Start: 22 @32339 has 94 MA's), (42, 32285), (66, 32222), (68, 32198), (70, 32189), (76, 32141), (77, 32126),

Gene: KFPoly_45 Start: 31874, Stop: 31572, Start Num: 18

Candidate Starts for KFPoly_45:

(1, 32144), (Start: 18 @31874 has 141 MA's), (60, 31742), (66, 31703), (73, 31655), (76, 31622),

Gene: Kachowdy_46 Start: 31719, Stop: 31444, Start Num: 25

Candidate Starts for Kachowdy_46:

(Start: 25 @31719 has 33 MA's), (70, 31542), (76, 31494),

Gene: Kalb97_51 Start: 32207, Stop: 31959, Start Num: 22
Candidate Starts for Kalb97_51:
(Start: 22 @32207 has 94 MA's), (42, 32153), (43, 32150), (66, 32090), (68, 32066), (70, 32057), (76, 32009), (77, 31994),

Gene: Kalnoky_51 Start: 32205, Stop: 31957, Start Num: 22
Candidate Starts for Kalnoky_51:
(Start: 22 @32205 has 94 MA's), (42, 32151), (43, 32148), (66, 32088), (68, 32064), (70, 32055), (76, 32007), (77, 31992),

Gene: Kamy_46 Start: 31882, Stop: 31580, Start Num: 18
Candidate Starts for Kamy_46:
(1, 32152), (Start: 18 @31882 has 141 MA's), (60, 31750), (66, 31711), (73, 31663), (76, 31630),

Gene: Katalie136_45 Start: 31853, Stop: 31530, Start Num: 18
Candidate Starts for Katalie136_45:
(Start: 18 @31853 has 141 MA's), (47, 31754), (49, 31745), (54, 31730), (60, 31700), (76, 31580),

Gene: KatherineG_51 Start: 31068, Stop: 30775, Start Num: 26
Candidate Starts for KatherineG_51:
(Start: 26 @31068 has 22 MA's), (62, 30951), (73, 30858),

Gene: KekoraPapaka_46 Start: 31880, Stop: 31578, Start Num: 18
Candidate Starts for KekoraPapaka_46:
(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Kingmustik0402_46 Start: 31869, Stop: 31567, Start Num: 18
Candidate Starts for Kingmustik0402_46:
(1, 32139), (Start: 18 @31869 has 141 MA's), (60, 31737), (66, 31698), (73, 31650), (76, 31617),

Gene: KittenMittens_42 Start: 30751, Stop: 30395, Start Num: 22
Candidate Starts for KittenMittens_42:
(4, 30895), (Start: 22 @30751 has 94 MA's), (63, 30568), (71, 30490),

Gene: Koan_44 Start: 31880, Stop: 31578, Start Num: 18
Candidate Starts for Koan_44:
(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Koreni_45 Start: 31561, Stop: 31259, Start Num: 18
Candidate Starts for Koreni_45:
(1, 31831), (Start: 18 @31561 has 141 MA's), (60, 31429), (66, 31390), (73, 31342), (76, 31309),

Gene: Kratak_46 Start: 32040, Stop: 31717, Start Num: 18
Candidate Starts for Kratak_46:
(Start: 18 @32040 has 141 MA's), (23, 32025), (60, 31887), (73, 31800), (76, 31767),

Gene: Kremtemulon_46 Start: 31831, Stop: 31529, Start Num: 18
Candidate Starts for Kremtemulon_46:
(1, 32101), (Start: 18 @31831 has 141 MA's), (60, 31699), (66, 31660), (76, 31579),

Gene: Krishelle_37 Start: 28678, Stop: 28406, Start Num: 37
Candidate Starts for Krishelle_37:
(Start: 30 @28711 has 1 MA's), (Start: 37 @28678 has 46 MA's), (56, 28591), (75, 28462), (78, 28426),

Gene: Kristoff_45 Start: 31839, Stop: 31501, Start Num: 22

Candidate Starts for Kristoff_45:

(4, 31983), (9, 31932), (Start: 22 @31839 has 94 MA's), (59, 31689), (63, 31674), (71, 31596),

Gene: Kyee_46 Start: 31878, Stop: 31576, Start Num: 18

Candidate Starts for Kyee_46:

(Start: 18 @31878 has 141 MA's), (60, 31746), (66, 31707), (73, 31659), (76, 31626),

Gene: LBerry_51 Start: 32312, Stop: 32064, Start Num: 22

Candidate Starts for LBerry_51:

(Start: 22 @32312 has 94 MA's), (42, 32258), (66, 32195), (68, 32171), (70, 32162), (76, 32114), (77, 32099),

Gene: LHTSCC_48 Start: 32302, Stop: 32000, Start Num: 18

Candidate Starts for LHTSCC_48:

(1, 32572), (Start: 18 @32302 has 141 MA's), (60, 32170), (66, 32131), (76, 32050),

Gene: Lambert1_46 Start: 32081, Stop: 31806, Start Num: 25

Candidate Starts for Lambert1_46:

(9, 32171), (11, 32162), (Start: 25 @32081 has 33 MA's), (70, 31904),

Gene: LappelDuVide_46 Start: 31879, Stop: 31577, Start Num: 18

Candidate Starts for LappelDuVide_46:

(1, 32149), (Start: 18 @31879 has 141 MA's), (60, 31747), (66, 31708), (73, 31660), (76, 31627),

Gene: LarryKay_50 Start: 32341, Stop: 32093, Start Num: 22

Candidate Starts for LarryKay_50:

(Start: 22 @32341 has 94 MA's), (42, 32287), (66, 32224), (68, 32200), (70, 32191), (76, 32143), (77, 32128),

Gene: LastResort_49 Start: 30629, Stop: 30336, Start Num: 26

Candidate Starts for LastResort_49:

(Start: 26 @30629 has 22 MA's), (62, 30512), (73, 30419),

Gene: Lemur_46 Start: 31877, Stop: 31575, Start Num: 18

Candidate Starts for Lemur_46:

(1, 32147), (Start: 18 @31877 has 141 MA's), (60, 31745), (66, 31706), (73, 31658), (76, 31625),

Gene: LeoAvram_46 Start: 31880, Stop: 31578, Start Num: 18

Candidate Starts for LeoAvram_46:

(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Lev2_40 Start: 30919, Stop: 30656, Start Num: 27

Candidate Starts for Lev2_40:

(Start: 27 @30919 has 33 MA's), (Start: 29 @30910 has 3 MA's), (32, 30901), (41, 30880), (45, 30868), (67, 30784), (73, 30751), (76, 30718),

Gene: Lilith_51 Start: 32301, Stop: 32053, Start Num: 22

Candidate Starts for Lilith_51:

(Start: 22 @32301 has 94 MA's), (42, 32247), (66, 32184), (68, 32160), (70, 32151), (76, 32103), (77, 32088),

Gene: Lillie_37 Start: 28394, Stop: 28122, Start Num: 37
Candidate Starts for Lillie_37:
(Start: 37 @28394 has 46 MA's), (52, 28328), (75, 28178), (78, 28142),

Gene: LittleB_46 Start: 31881, Stop: 31579, Start Num: 18
Candidate Starts for LittleB_46:
(1, 32151), (Start: 18 @31881 has 141 MA's), (60, 31749), (66, 31710), (73, 31662), (76, 31629),

Gene: LittleCherry_41 Start: 31256, Stop: 30993, Start Num: 27
Candidate Starts for LittleCherry_41:
(Start: 27 @31256 has 33 MA's), (Start: 29 @31247 has 3 MA's), (45, 31205), (57, 31175), (67, 31121),
(73, 31088), (76, 31055),

Gene: LittleGuy_46 Start: 31776, Stop: 31474, Start Num: 18
Candidate Starts for LittleGuy_46:
(1, 32046), (Start: 18 @31776 has 141 MA's), (60, 31644), (66, 31605), (73, 31557), (76, 31524),

Gene: LochMonster_47 Start: 32116, Stop: 31814, Start Num: 18
Candidate Starts for LochMonster_47:
(1, 32386), (Start: 18 @32116 has 141 MA's), (31, 32074), (60, 31984), (66, 31945), (73, 31897), (76,
31864),

Gene: Looper_50 Start: 30606, Stop: 30313, Start Num: 26
Candidate Starts for Looper_50:
(Start: 26 @30606 has 22 MA's), (62, 30489), (73, 30396),

Gene: Lorenzo_46 Start: 31880, Stop: 31578, Start Num: 18
Candidate Starts for Lorenzo_46:
(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Louie6_49 Start: 32340, Stop: 32092, Start Num: 22
Candidate Starts for Louie6_49:
(Start: 22 @32340 has 94 MA's), (42, 32286), (66, 32223), (68, 32199), (70, 32190), (76, 32142), (77,
32127),

Gene: Lowa_50 Start: 32300, Stop: 32052, Start Num: 22
Candidate Starts for Lowa_50:
(Start: 22 @32300 has 94 MA's), (42, 32246), (66, 32183), (68, 32159), (70, 32150), (76, 32102), (77,
32087),

Gene: LugYA_53 Start: 32309, Stop: 32061, Start Num: 22
Candidate Starts for LugYA_53:
(Start: 22 @32309 has 94 MA's), (42, 32255), (66, 32192), (68, 32168), (70, 32159), (76, 32111), (77,
32096),

Gene: Lunsford_47 Start: 31874, Stop: 31572, Start Num: 18
Candidate Starts for Lunsford_47:
(1, 32144), (Start: 18 @31874 has 141 MA's), (60, 31742), (66, 31703), (73, 31655), (76, 31622),

Gene: MA5_46 Start: 31164, Stop: 30889, Start Num: 25
Candidate Starts for MA5_46:
(8, 31281), (10, 31257), (11, 31251), (14, 31224), (Start: 25 @31164 has 33 MA's), (57, 31074), (70,
30987), (76, 30939),

Gene: MK4_46 Start: 31247, Stop: 30972, Start Num: 25

Candidate Starts for MK4_46:

(11, 31334), (15, 31277), (Start: 25 @31247 has 33 MA's), (61, 31142), (70, 31070), (76, 31022),

Gene: MadMarie_50 Start: 32310, Stop: 32062, Start Num: 22

Candidate Starts for MadMarie_50:

(Start: 22 @32310 has 94 MA's), (42, 32256), (66, 32193), (68, 32169), (70, 32160), (76, 32112), (77, 32097),

Gene: Mainiac_50 Start: 32302, Stop: 32054, Start Num: 22

Candidate Starts for Mainiac_50:

(Start: 22 @32302 has 94 MA's), (42, 32248), (66, 32185), (68, 32161), (70, 32152), (76, 32104), (77, 32089),

Gene: Malinsilva_52 Start: 32300, Stop: 32052, Start Num: 22

Candidate Starts for Malinsilva_52:

(Start: 22 @32300 has 94 MA's), (42, 32246), (66, 32183), (68, 32159), (70, 32150), (76, 32102), (77, 32087),

Gene: Manu_50 Start: 32208, Stop: 31960, Start Num: 22

Candidate Starts for Manu_50:

(Start: 22 @32208 has 94 MA's), (42, 32154), (43, 32151), (66, 32091), (68, 32067), (70, 32058), (76, 32010), (77, 31995),

Gene: MarQuardt_50 Start: 32310, Stop: 32062, Start Num: 22

Candidate Starts for MarQuardt_50:

(Start: 22 @32310 has 94 MA's), (42, 32256), (66, 32193), (68, 32169), (70, 32160), (76, 32112), (77, 32097),

Gene: Marchesa_46 Start: 31717, Stop: 31442, Start Num: 25

Candidate Starts for Marchesa_46:

(Start: 25 @31717 has 33 MA's), (70, 31540), (76, 31492),

Gene: Margo_46 Start: 32107, Stop: 31832, Start Num: 25

Candidate Starts for Margo_46:

(9, 32197), (11, 32188), (Start: 25 @32107 has 33 MA's), (70, 31930),

Gene: Marie_50 Start: 32308, Stop: 32060, Start Num: 22

Candidate Starts for Marie_50:

(Start: 22 @32308 has 94 MA's), (42, 32254), (66, 32191), (68, 32167), (70, 32158), (76, 32110), (77, 32095),

Gene: Marius_51 Start: 32205, Stop: 31957, Start Num: 22

Candidate Starts for Marius_51:

(Start: 22 @32205 has 94 MA's), (42, 32151), (43, 32148), (66, 32088), (68, 32064), (70, 32055), (76, 32007), (77, 31992),

Gene: MarysWell_39 Start: 31119, Stop: 30856, Start Num: 27

Candidate Starts for MarysWell_39:

(Start: 27 @31119 has 33 MA's), (Start: 29 @31110 has 3 MA's), (32, 31101), (45, 31068), (67, 30984), (73, 30951), (76, 30918),

Gene: Maverick_46 Start: 31880, Stop: 31578, Start Num: 18

Candidate Starts for Maverick_46:

(Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Maxo_47 Start: 31882, Stop: 31580, Start Num: 18

Candidate Starts for Maxo_47:

(1, 32152), (Start: 18 @31882 has 141 MA's), (60, 31750), (66, 31711), (73, 31663), (76, 31630),

Gene: Mayonnaise_45 Start: 31880, Stop: 31578, Start Num: 18

Candidate Starts for Mayonnaise_45:

(Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Mazhar510_46 Start: 31881, Stop: 31579, Start Num: 18

Candidate Starts for Mazhar510_46:

(Start: 18 @31881 has 141 MA's), (60, 31749), (66, 31710), (73, 31662), (76, 31629),

Gene: Medusa_46 Start: 31879, Stop: 31577, Start Num: 18

Candidate Starts for Medusa_46:

(1, 32149), (Start: 18 @31879 has 141 MA's), (60, 31747), (66, 31708), (73, 31660), (76, 31627),

Gene: MeeZee_46 Start: 31877, Stop: 31575, Start Num: 18

Candidate Starts for MeeZee_46:

(1, 32147), (Start: 18 @31877 has 141 MA's), (60, 31745), (66, 31706), (73, 31658), (76, 31625),

Gene: Melvin_48 Start: 31875, Stop: 31573, Start Num: 18

Candidate Starts for Melvin_48:

(1, 32145), (Start: 18 @31875 has 141 MA's), (60, 31743), (66, 31704), (73, 31656), (76, 31623),

Gene: Methuselah_47 Start: 32335, Stop: 32087, Start Num: 22

Candidate Starts for Methuselah_47:

(Start: 22 @32335 has 94 MA's), (42, 32281), (66, 32218), (68, 32194), (70, 32185), (76, 32137), (77, 32122),

Gene: Micasa_42 Start: 31386, Stop: 31123, Start Num: 27

Candidate Starts for Micasa_42:

(Start: 27 @31386 has 33 MA's), (Start: 29 @31377 has 3 MA's), (45, 31335), (57, 31305), (67, 31251), (73, 31218), (76, 31185),

Gene: Microwolf_50 Start: 32309, Stop: 32061, Start Num: 22

Candidate Starts for Microwolf_50:

(Start: 22 @32309 has 94 MA's), (42, 32255), (66, 32192), (68, 32168), (70, 32159), (76, 32111), (77, 32096),

Gene: Milcery_41 Start: 31223, Stop: 30960, Start Num: 27

Candidate Starts for Milcery_41:

(Start: 27 @31223 has 33 MA's), (Start: 29 @31214 has 3 MA's), (45, 31172), (57, 31142), (67, 31088), (73, 31055), (76, 31022),

Gene: Millski_45 Start: 31881, Stop: 31579, Start Num: 18

Candidate Starts for Millski_45:

(1, 32151), (Start: 18 @31881 has 141 MA's), (60, 31749), (66, 31710), (73, 31662), (76, 31629),

Gene: MinecraftSteve_50 Start: 30593, Stop: 30300, Start Num: 26

Candidate Starts for MinecraftSteve_50:
(Start: 26 @30593 has 22 MA's), (62, 30476), (73, 30383),

Gene: Miramae_45 Start: 32041, Stop: 31718, Start Num: 18
Candidate Starts for Miramae_45:
(Start: 18 @32041 has 141 MA's), (23, 32026), (49, 31933), (54, 31918), (60, 31888), (71, 31813), (76, 31768),

Gene: Misomonster_51 Start: 32338, Stop: 32090, Start Num: 22
Candidate Starts for Misomonster_51:
(Start: 22 @32338 has 94 MA's), (42, 32284), (66, 32221), (68, 32197), (70, 32188), (76, 32140), (77, 32125),

Gene: MoneyMay_50 Start: 32308, Stop: 32060, Start Num: 22
Candidate Starts for MoneyMay_50:
(Start: 22 @32308 has 94 MA's), (42, 32254), (66, 32191), (68, 32167), (70, 32158), (76, 32110), (77, 32095),

Gene: Montavir_49 Start: 32309, Stop: 32061, Start Num: 22
Candidate Starts for Montavir_49:
(Start: 22 @32309 has 94 MA's), (42, 32255), (66, 32192), (68, 32168), (70, 32159), (76, 32111), (77, 32096),

Gene: Morpher26_45 Start: 31874, Stop: 31551, Start Num: 18
Candidate Starts for Morpher26_45:
(Start: 18 @31874 has 141 MA's), (47, 31775), (49, 31766), (54, 31751), (60, 31721), (76, 31601),

Gene: Morrow_47 Start: 31886, Stop: 31584, Start Num: 18
Candidate Starts for Morrow_47:
(1, 32156), (Start: 18 @31886 has 141 MA's), (60, 31754), (66, 31715), (73, 31667), (76, 31634),

Gene: MuchMore_53 Start: 32300, Stop: 32052, Start Num: 22
Candidate Starts for MuchMore_53:
(Start: 22 @32300 has 94 MA's), (42, 32246), (66, 32183), (68, 32159), (70, 32150), (76, 32102), (77, 32087),

Gene: Mundrea_45 Start: 31861, Stop: 31538, Start Num: 18
Candidate Starts for Mundrea_45:
(Start: 18 @31861 has 141 MA's), (49, 31753), (54, 31738), (60, 31708), (71, 31633), (76, 31588),

Gene: MyraDee_42 Start: 29297, Stop: 29043, Start Num: 19
Candidate Starts for MyraDee_42:
(Start: 19 @29297 has 1 MA's), (65, 29138), (76, 29090),

Gene: Naca_42 Start: 31534, Stop: 31271, Start Num: 27
Candidate Starts for Naca_42:
(Start: 27 @31534 has 33 MA's), (Start: 29 @31525 has 3 MA's), (36, 31504), (45, 31483), (73, 31366), (75, 31342),

Gene: Naiad_37 Start: 28407, Stop: 28135, Start Num: 37
Candidate Starts for Naiad_37:
(Start: 37 @28407 has 46 MA's), (75, 28191), (78, 28155),

Gene: Nancinator_37 Start: 28395, Stop: 28123, Start Num: 37
Candidate Starts for Nancinator_37:
(Start: 37 @28395 has 46 MA's), (52, 28329), (75, 28179), (78, 28143),

Gene: Natosaleda_37 Start: 28394, Stop: 28122, Start Num: 37
Candidate Starts for Natosaleda_37:
(Start: 37 @28394 has 46 MA's), (52, 28328), (75, 28178), (78, 28142),

Gene: NearlyHeadless_44 Start: 30949, Stop: 30662, Start Num: 37
Candidate Starts for NearlyHeadless_44:
(Start: 37 @30949 has 46 MA's), (40, 30940), (48, 30898), (76, 30712),

Gene: Nebs_47 Start: 31880, Stop: 31578, Start Num: 18
Candidate Starts for Nebs_47:
(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Nebulosus_49 Start: 30625, Stop: 30332, Start Num: 26
Candidate Starts for Nebulosus_49:
(Start: 26 @30625 has 22 MA's), (62, 30508), (73, 30415),

Gene: Nemo27_46 Start: 31879, Stop: 31577, Start Num: 18
Candidate Starts for Nemo27_46:
(Start: 18 @31879 has 141 MA's), (60, 31747), (66, 31708), (73, 31660), (76, 31627),

Gene: Noella_46 Start: 32082, Stop: 31807, Start Num: 25
Candidate Starts for Noella_46:
(9, 32172), (11, 32163), (Start: 25 @32082 has 33 MA's), (70, 31905),

Gene: Noelle_46 Start: 32163, Stop: 31840, Start Num: 18
Candidate Starts for Noelle_46:
(Start: 18 @32163 has 141 MA's), (49, 32055), (60, 32010), (76, 31890),

Gene: Norbert_45 Start: 32081, Stop: 31806, Start Num: 25
Candidate Starts for Norbert_45:
(9, 32171), (11, 32162), (Start: 25 @32081 has 33 MA's), (70, 31904),

Gene: NorthStar_45 Start: 31880, Stop: 31578, Start Num: 18
Candidate Starts for NorthStar_45:
(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: NotAPhaseMom_46 Start: 31884, Stop: 31582, Start Num: 18
Candidate Starts for NotAPhaseMom_46:
(Start: 18 @31884 has 141 MA's), (60, 31752), (66, 31713), (73, 31665), (76, 31632),

Gene: Nyxis_46 Start: 31770, Stop: 31468, Start Num: 18
Candidate Starts for Nyxis_46:
(1, 32040), (Start: 18 @31770 has 141 MA's), (60, 31638), (66, 31599), (73, 31551), (76, 31518),

Gene: OKaNui_46 Start: 31930, Stop: 31628, Start Num: 18
Candidate Starts for OKaNui_46:
(1, 32200), (Start: 18 @31930 has 141 MA's), (60, 31798), (66, 31759), (73, 31711), (76, 31678),

Gene: Obama12_47 Start: 32304, Stop: 32002, Start Num: 18

Candidate Starts for Obama12_47:

(1, 32574), (Start: 18 @32304 has 141 MA's), (60, 32172), (66, 32133), (76, 32052),

Gene: Ohfah_47 Start: 31880, Stop: 31578, Start Num: 18

Candidate Starts for Ohfah_47:

(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: OlanP_49 Start: 32378, Stop: 32130, Start Num: 22

Candidate Starts for OlanP_49:

(Start: 22 @32378 has 94 MA's), (40, 32336), (42, 32324), (43, 32321), (66, 32261), (68, 32237), (70, 32228), (76, 32180), (77, 32165),

Gene: Ollie_50 Start: 32179, Stop: 31931, Start Num: 22

Candidate Starts for Ollie_50:

(Start: 22 @32179 has 94 MA's), (42, 32125), (66, 32062), (68, 32038), (70, 32029), (76, 31981), (77, 31966),

Gene: Oofda_49 Start: 30484, Stop: 30191, Start Num: 26

Candidate Starts for Oofda_49:

(Start: 26 @30484 has 22 MA's), (62, 30367), (73, 30274),

Gene: P28Green_51 Start: 32311, Stop: 32063, Start Num: 22

Candidate Starts for P28Green_51:

(Start: 22 @32311 has 94 MA's), (42, 32257), (66, 32194), (68, 32170), (70, 32161), (76, 32113), (77, 32098),

Gene: PGHhamlin_52 Start: 32300, Stop: 32052, Start Num: 22

Candidate Starts for PGHhamlin_52:

(Start: 22 @32300 has 94 MA's), (42, 32246), (66, 32183), (68, 32159), (70, 32150), (76, 32102), (77, 32087),

Gene: Palestino_45 Start: 31880, Stop: 31578, Start Num: 18

Candidate Starts for Palestino_45:

(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Panamaxus_44 Start: 32081, Stop: 31806, Start Num: 25

Candidate Starts for Panamaxus_44:

(9, 32171), (11, 32162), (Start: 25 @32081 has 33 MA's), (70, 31904),

Gene: Partridge_37 Start: 28510, Stop: 28205, Start Num: 30

Candidate Starts for Partridge_37:

(Start: 30 @28510 has 1 MA's), (Start: 37 @28477 has 46 MA's), (56, 28390), (75, 28261), (78, 28225),

Gene: Pawn_50 Start: 32212, Stop: 31964, Start Num: 22

Candidate Starts for Pawn_50:

(Start: 22 @32212 has 94 MA's), (42, 32158), (43, 32155), (66, 32095), (68, 32071), (70, 32062), (76, 32014), (77, 31999),

Gene: PeaceMeal1_43 Start: 30752, Stop: 30396, Start Num: 22

Candidate Starts for PeaceMeal1_43:

(4, 30896), (Start: 22 @30752 has 94 MA's), (63, 30569), (71, 30491),

Gene: Peaches_46 Start: 31879, Stop: 31577, Start Num: 18

Candidate Starts for Peaches_46:

(1, 32149), (Start: 18 @31879 has 141 MA's), (60, 31747), (66, 31708), (73, 31660), (76, 31627),

Gene: Pembroke_50 Start: 32309, Stop: 32061, Start Num: 22

Candidate Starts for Pembroke_50:

(Start: 22 @32309 has 94 MA's), (42, 32255), (66, 32192), (68, 32168), (70, 32159), (76, 32111), (77, 32096),

Gene: Penny1_51 Start: 32312, Stop: 32064, Start Num: 22

Candidate Starts for Penny1_51:

(Start: 22 @32312 has 94 MA's), (32, 32282), (42, 32258), (66, 32195), (68, 32171), (70, 32162), (76, 32114), (77, 32099),

Gene: Perplexer_45 Start: 31850, Stop: 31527, Start Num: 18

Candidate Starts for Perplexer_45:

(Start: 18 @31850 has 141 MA's), (47, 31751), (49, 31742), (54, 31727), (60, 31697), (76, 31577),

Gene: PeterPeter_46 Start: 31877, Stop: 31575, Start Num: 18

Candidate Starts for PeterPeter_46:

(1, 32147), (Start: 18 @31877 has 141 MA's), (60, 31745), (66, 31706), (73, 31658), (76, 31625),

Gene: PetiteSangsue_45 Start: 31853, Stop: 31530, Start Num: 18

Candidate Starts for PetiteSangsue_45:

(Start: 18 @31853 has 141 MA's), (47, 31754), (49, 31745), (54, 31730), (60, 31700), (76, 31580),

Gene: PetterN_44 Start: 30975, Stop: 30712, Start Num: 27

Candidate Starts for PetterN_44:

(13, 31053), (Start: 27 @30975 has 33 MA's), (Start: 29 @30966 has 3 MA's), (36, 30945), (45, 30924), (73, 30807), (75, 30783),

Gene: Phacado_46 Start: 31879, Stop: 31577, Start Num: 18

Candidate Starts for Phacado_46:

(Start: 18 @31879 has 141 MA's), (60, 31747), (66, 31708), (73, 31660), (76, 31627),

Gene: PhailMary_36 Start: 28716, Stop: 28444, Start Num: 37

Candidate Starts for PhailMary_36:

(Start: 37 @28716 has 46 MA's), (52, 28650), (75, 28500), (78, 28464),

Gene: Phantastic_47 Start: 31457, Stop: 31182, Start Num: 25

Candidate Starts for Phantastic_47:

(11, 31538), (15, 31481), (Start: 25 @31457 has 33 MA's), (33, 31430), (70, 31280), (76, 31232),

Gene: Phelipe_47 Start: 31880, Stop: 31578, Start Num: 18

Candidate Starts for Phelipe_47:

(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Phighter1804_46 Start: 31943, Stop: 31620, Start Num: 18

Candidate Starts for Phighter1804_46:

(Start: 18 @31943 has 141 MA's), (23, 31928), (60, 31790), (66, 31751), (73, 31703), (76, 31670),

Gene: Phillis_46 Start: 31492, Stop: 31232, Start Num: 37

Candidate Starts for Phillis_46:

(Start: 37 @31492 has 46 MA's), (40, 31483), (72, 31330), (76, 31291),

Gene: PhishRPhriends_48 Start: 31386, Stop: 31138, Start Num: 22

Candidate Starts for PhishRPhriends_48:

(Start: 22 @31386 has 94 MA's), (42, 31332), (43, 31329), (66, 31269), (68, 31245), (70, 31236), (76, 31188), (77, 31173),

Gene: Phlei_36 Start: 31613, Stop: 31308, Start Num: 28

Candidate Starts for Phlei_36:

(Start: 24 @31628 has 1 MA's), (28, 31613), (40, 31559), (44, 31541), (58, 31487), (79, 31319),

Gene: Phlorence_39 Start: 30794, Stop: 30531, Start Num: 27

Candidate Starts for Phlorence_39:

(Start: 27 @30794 has 33 MA's), (Start: 29 @30785 has 3 MA's), (32, 30776), (41, 30755), (45, 30743), (67, 30659), (73, 30626), (76, 30593),

Gene: Phoebe_51 Start: 32301, Stop: 32053, Start Num: 22

Candidate Starts for Phoebe_51:

(Start: 22 @32301 has 94 MA's), (42, 32247), (66, 32184), (68, 32160), (70, 32151), (76, 32103), (77, 32088),

Gene: Phontbonne_46 Start: 31771, Stop: 31469, Start Num: 18

Candidate Starts for Phontbonne_46:

(1, 32041), (Start: 18 @31771 has 141 MA's), (60, 31639), (66, 31600), (73, 31552), (76, 31519),

Gene: Phoxy_50 Start: 32336, Stop: 32088, Start Num: 22

Candidate Starts for Phoxy_50:

(Start: 22 @32336 has 94 MA's), (42, 32282), (66, 32219), (68, 32195), (70, 32186), (76, 32138), (77, 32123),

Gene: Phrankenstein_37 Start: 28340, Stop: 28068, Start Num: 37

Candidate Starts for Phrankenstein_37:

(Start: 37 @28340 has 46 MA's), (52, 28274), (75, 28124), (78, 28088),

Gene: Phranny_51 Start: 32194, Stop: 31946, Start Num: 22

Candidate Starts for Phranny_51:

(Start: 22 @32194 has 94 MA's), (42, 32140), (43, 32137), (66, 32077), (68, 32053), (70, 32044), (76, 31996), (77, 31981),

Gene: PickleBack_40 Start: 30920, Stop: 30657, Start Num: 27

Candidate Starts for PickleBack_40:

(Start: 27 @30920 has 33 MA's), (Start: 29 @30911 has 3 MA's), (32, 30902), (41, 30881), (45, 30869), (67, 30785), (73, 30752), (76, 30719),

Gene: Pipcraft_44 Start: 31880, Stop: 31578, Start Num: 18

Candidate Starts for Pipcraft_44:

(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Pistachio_48 Start: 31385, Stop: 31110, Start Num: 25

Candidate Starts for Pistachio_48:

(Start: 25 @31385 has 33 MA's), (70, 31208), (76, 31160),

Gene: Pocahontas_46 Start: 32078, Stop: 31803, Start Num: 25

Candidate Starts for Pocahontas_46:

(9, 32168), (11, 32159), (Start: 25 @32078 has 33 MA's), (70, 31901),

Gene: Polymorphads_47 Start: 31873, Stop: 31571, Start Num: 18

Candidate Starts for Polymorphads_47:

(1, 32143), (Start: 18 @31873 has 141 MA's), (60, 31741), (66, 31702), (73, 31654), (76, 31621),

Gene: Poompha_44 Start: 30750, Stop: 30394, Start Num: 22

Candidate Starts for Poompha_44:

(4, 30894), (Start: 22 @30750 has 94 MA's), (63, 30567), (71, 30489),

Gene: Popcicle_46 Start: 32078, Stop: 31803, Start Num: 25

Candidate Starts for Popcicle_46:

(9, 32168), (11, 32159), (Start: 25 @32078 has 33 MA's), (70, 31901),

Gene: PotatoSplit_52 Start: 32312, Stop: 32064, Start Num: 22

Candidate Starts for PotatoSplit_52:

(Start: 22 @32312 has 94 MA's), (42, 32258), (66, 32195), (68, 32171), (70, 32162), (76, 32114), (77, 32099),

Gene: Prin Ashe11_41 Start: 31086, Stop: 30823, Start Num: 27

Candidate Starts for Prin Ashe11_41:

(Start: 27 @31086 has 33 MA's), (Start: 29 @31077 has 3 MA's), (45, 31035), (57, 31005), (67, 30951), (73, 30918), (76, 30885),

Gene: Pumbaa_46 Start: 31825, Stop: 31523, Start Num: 18

Candidate Starts for Pumbaa_46:

(1, 32095), (Start: 18 @31825 has 141 MA's), (60, 31693), (66, 31654), (73, 31606), (76, 31573),

Gene: Puppy_48 Start: 31458, Stop: 31183, Start Num: 25

Candidate Starts for Puppy_48:

(Start: 25 @31458 has 33 MA's), (70, 31281), (76, 31233),

Gene: PurpleHaze_50 Start: 32207, Stop: 31959, Start Num: 22

Candidate Starts for PurpleHaze_50:

(Start: 22 @32207 has 94 MA's), (42, 32153), (43, 32150), (66, 32090), (68, 32066), (70, 32057), (76, 32009), (77, 31994),

Gene: QuinnKiro_45 Start: 32081, Stop: 31806, Start Num: 25

Candidate Starts for QuinnKiro_45:

(9, 32171), (11, 32162), (Start: 25 @32081 has 33 MA's), (70, 31904),

Gene: RER2_30 Start: 25266, Stop: 24994, Start Num: 37

Candidate Starts for RER2_30:

(Start: 37 @25266 has 46 MA's), (52, 25200), (75, 25050), (78, 25014),

Gene: RGL3_32 Start: 26225, Stop: 25980, Start Num: 40

Candidate Starts for RGL3_32:

(40, 26225), (48, 26183), (75, 26036), (78, 26000), (79, 25991),

Gene: Rasputin_37 Start: 28364, Stop: 28092, Start Num: 37

Candidate Starts for Rasputin_37:

(Start: 37 @28364 has 46 MA's), (52, 28298), (75, 28148), (78, 28112),

Gene: Ravana_52 Start: 31221, Stop: 30943, Start Num: 26
Candidate Starts for Ravana_52:
(12, 31314), (Start: 26 @31221 has 22 MA's), (53, 31137), (73, 31026),

Gene: ReMo_49 Start: 30626, Stop: 30333, Start Num: 26
Candidate Starts for ReMo_49:
(Start: 26 @30626 has 22 MA's), (62, 30509), (73, 30416),

Gene: Reba_50 Start: 31867, Stop: 31619, Start Num: 22
Candidate Starts for Reba_50:
(Start: 22 @31867 has 94 MA's), (42, 31813), (43, 31810), (66, 31750), (68, 31726), (70, 31717), (76, 31669), (77, 31654),

Gene: Rebeuca_45 Start: 31840, Stop: 31502, Start Num: 22
Candidate Starts for Rebeuca_45:
(4, 31984), (9, 31933), (Start: 22 @31840 has 94 MA's), (59, 31690), (63, 31675), (71, 31597),

Gene: Relief_45 Start: 31877, Stop: 31575, Start Num: 18
Candidate Starts for Relief_45:
(1, 32147), (Start: 18 @31877 has 141 MA's), (60, 31745), (66, 31706), (73, 31658), (76, 31625),

Gene: Remus_49 Start: 30309, Stop: 30016, Start Num: 26
Candidate Starts for Remus_49:
(Start: 26 @30309 has 22 MA's), (62, 30192), (73, 30099),

Gene: ResDef_46 Start: 32081, Stop: 31806, Start Num: 25
Candidate Starts for ResDef_46:
(9, 32171), (11, 32162), (Start: 25 @32081 has 33 MA's), (70, 31904),

Gene: RexFury_37 Start: 28425, Stop: 28153, Start Num: 37
Candidate Starts for RexFury_37:
(Start: 37 @28425 has 46 MA's), (52, 28359), (75, 28209), (78, 28173),

Gene: Rhodalysa_37 Start: 28394, Stop: 28122, Start Num: 37
Candidate Starts for Rhodalysa_37:
(Start: 37 @28394 has 46 MA's), (52, 28328), (75, 28178), (78, 28142),

Gene: Roary_45 Start: 31159, Stop: 30863, Start Num: 37
Candidate Starts for Roary_45:
(20, 31225), (Start: 37 @31159 has 46 MA's), (48, 31108), (76, 30922),

Gene: RockieBear_45 Start: 31880, Stop: 31578, Start Num: 18
Candidate Starts for RockieBear_45:
(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Rockstar_46 Start: 31256, Stop: 30981, Start Num: 25
Candidate Starts for Rockstar_46:
(11, 31343), (15, 31286), (Start: 25 @31256 has 33 MA's), (61, 31151), (70, 31079), (76, 31031),

Gene: Roimos_46 Start: 31635, Stop: 31360, Start Num: 25
Candidate Starts for Roimos_46:
(Start: 25 @31635 has 33 MA's), (70, 31458), (76, 31410),

Gene: Romney_46 Start: 31877, Stop: 31575, Start Num: 18
Candidate Starts for Romney_46:
(1, 32147), (Start: 18 @31877 has 141 MA's), (31, 31835), (60, 31745), (66, 31706), (73, 31658), (76, 31625),

Gene: Roosevelt_45 Start: 31882, Stop: 31580, Start Num: 18
Candidate Starts for Roosevelt_45:
(1, 32152), (Start: 18 @31882 has 141 MA's), (60, 31750), (66, 31711), (73, 31663), (76, 31630),

Gene: Rosa24_45 Start: 31911, Stop: 31609, Start Num: 18
Candidate Starts for Rosa24_45:
(1, 32181), (Start: 18 @31911 has 141 MA's), (31, 31869), (60, 31779), (66, 31740), (73, 31692), (76, 31659),

Gene: Rosalind_48 Start: 30512, Stop: 30219, Start Num: 26
Candidate Starts for Rosalind_48:
(Start: 26 @30512 has 22 MA's), (62, 30395), (73, 30302),

Gene: Ruin_46 Start: 31873, Stop: 31571, Start Num: 18
Candidate Starts for Ruin_46:
(1, 32143), (Start: 18 @31873 has 141 MA's), (60, 31741), (66, 31702), (73, 31654), (76, 31621),

Gene: Rummer_49 Start: 32339, Stop: 32091, Start Num: 22
Candidate Starts for Rummer_49:
(Start: 22 @32339 has 94 MA's), (42, 32285), (66, 32222), (68, 32198), (70, 32189), (76, 32141), (77, 32126),

Gene: Sabertooth_46 Start: 31882, Stop: 31580, Start Num: 18
Candidate Starts for Sabertooth_46:
(1, 32152), (Start: 18 @31882 has 141 MA's), (60, 31750), (66, 31711), (73, 31663), (76, 31630),

Gene: Sabia_50 Start: 32302, Stop: 32054, Start Num: 22
Candidate Starts for Sabia_50:
(Start: 22 @32302 has 94 MA's), (42, 32248), (66, 32185), (68, 32161), (70, 32152), (76, 32104), (77, 32089),

Gene: Sabinator_49 Start: 32307, Stop: 32059, Start Num: 22
Candidate Starts for Sabinator_49:
(Start: 22 @32307 has 94 MA's), (42, 32253), (66, 32190), (68, 32166), (70, 32157), (76, 32109), (77, 32094),

Gene: Saintus_39 Start: 27880, Stop: 27593, Start Num: 37
Candidate Starts for Saintus_39:
(Start: 37 @27880 has 46 MA's), (40, 27871), (48, 27829), (76, 27643),

Gene: SaturnRing_47 Start: 31838, Stop: 31563, Start Num: 25
Candidate Starts for SaturnRing_47:
(Start: 25 @31838 has 33 MA's), (70, 31661), (76, 31613),

Gene: Scamp_46 Start: 31882, Stop: 31580, Start Num: 18
Candidate Starts for Scamp_46:
(1, 32152), (Start: 18 @31882 has 141 MA's), (60, 31750), (66, 31711), (73, 31663), (76, 31630),

Gene: Scorpia_44 Start: 31052, Stop: 30789, Start Num: 27

Candidate Starts for Scorpia_44:

(13, 31130), (Start: 27 @31052 has 33 MA's), (Start: 29 @31043 has 3 MA's), (36, 31022), (45, 31001), (73, 30884), (75, 30860),

Gene: Scout_46 Start: 30966, Stop: 30691, Start Num: 25

Candidate Starts for Scout_46:

(Start: 25 @30966 has 33 MA's), (70, 30789), (76, 30741),

Gene: SenorClean_46 Start: 31880, Stop: 31578, Start Num: 18

Candidate Starts for SenorClean_46:

(Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Severus_43 Start: 30750, Stop: 30394, Start Num: 22

Candidate Starts for Severus_43:

(4, 30894), (Start: 22 @30750 has 94 MA's), (63, 30567), (71, 30489),

Gene: Shaka_46 Start: 31877, Stop: 31575, Start Num: 18

Candidate Starts for Shaka_46:

(1, 32147), (Start: 18 @31877 has 141 MA's), (60, 31745), (66, 31706), (73, 31658), (76, 31625),

Gene: ShayRa_51 Start: 30830, Stop: 30537, Start Num: 26

Candidate Starts for ShayRa_51:

(Start: 26 @30830 has 22 MA's), (62, 30713), (73, 30620),

Gene: SheldonCooper_48 Start: 32303, Stop: 32001, Start Num: 18

Candidate Starts for SheldonCooper_48:

(1, 32573), (Start: 18 @32303 has 141 MA's), (60, 32171), (66, 32132), (76, 32051),

Gene: Shuman_37 Start: 28407, Stop: 28135, Start Num: 37

Candidate Starts for Shuman_37:

(Start: 37 @28407 has 46 MA's), (52, 28341), (75, 28191), (78, 28155),

Gene: Shygu2_45 Start: 31853, Stop: 31530, Start Num: 18

Candidate Starts for Shygu2_45:

(Start: 18 @31853 has 141 MA's), (60, 31700), (66, 31661), (76, 31580),

Gene: Skipitt_45 Start: 31874, Stop: 31572, Start Num: 18

Candidate Starts for Skipitt_45:

(1, 32144), (Start: 18 @31874 has 141 MA's), (60, 31742), (66, 31703), (73, 31655), (76, 31622),

Gene: Smeadley_45 Start: 31325, Stop: 31029, Start Num: 37

Candidate Starts for Smeadley_45:

(20, 31391), (Start: 37 @31325 has 46 MA's), (48, 31274), (76, 31088),

Gene: Snickers_50 Start: 32282, Stop: 32034, Start Num: 22

Candidate Starts for Snickers_50:

(Start: 22 @32282 has 94 MA's), (42, 32228), (66, 32165), (68, 32141), (70, 32132), (76, 32084), (77, 32069),

Gene: SoYo_50 Start: 32220, Stop: 31972, Start Num: 22

Candidate Starts for SoYo_50:

(Start: 22 @32220 has 94 MA's), (42, 32166), (66, 32103), (68, 32079), (70, 32070), (76, 32022), (77, 32007),

Gene: SoilDragon_50 Start: 31756, Stop: 31508, Start Num: 22

Candidate Starts for SoilDragon_50:

(Start: 22 @31756 has 94 MA's), (42, 31702), (43, 31699), (66, 31639), (68, 31615), (70, 31606), (76, 31558), (77, 31543),

Gene: Soshari_52 Start: 32335, Stop: 32087, Start Num: 22

Candidate Starts for Soshari_52:

(Start: 22 @32335 has 94 MA's), (42, 32281), (66, 32218), (68, 32194), (70, 32185), (76, 32137), (77, 32122),

Gene: Soups_50 Start: 30829, Stop: 30536, Start Num: 26

Candidate Starts for Soups_50:

(Start: 26 @30829 has 22 MA's), (62, 30712), (73, 30619),

Gene: Sparxx_47 Start: 31875, Stop: 31573, Start Num: 18

Candidate Starts for Sparxx_47:

(1, 32145), (Start: 18 @31875 has 141 MA's), (60, 31743), (66, 31704), (73, 31656), (76, 31623),

Gene: Spike509_50 Start: 32336, Stop: 32088, Start Num: 22

Candidate Starts for Spike509_50:

(Start: 22 @32336 has 94 MA's), (42, 32282), (66, 32219), (68, 32195), (70, 32186), (76, 32138), (77, 32123),

Gene: Spino_45 Start: 31880, Stop: 31578, Start Num: 18

Candidate Starts for Spino_45:

(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: StCroix_37 Start: 28407, Stop: 28135, Start Num: 37

Candidate Starts for StCroix_37:

(Start: 37 @28407 has 46 MA's), (75, 28191), (78, 28155),

Gene: Stagni_50 Start: 32311, Stop: 32063, Start Num: 22

Candidate Starts for Stagni_50:

(Start: 22 @32311 has 94 MA's), (42, 32257), (66, 32194), (68, 32170), (70, 32161), (76, 32113), (77, 32098),

Gene: Stasia_45 Start: 31752, Stop: 31450, Start Num: 18

Candidate Starts for Stasia_45:

(Start: 18 @31752 has 141 MA's), (73, 31533),

Gene: SteMason_45 Start: 31877, Stop: 31575, Start Num: 18

Candidate Starts for SteMason_45:

(1, 32147), (Start: 18 @31877 has 141 MA's), (60, 31745), (66, 31706), (73, 31658), (76, 31625),

Gene: StepMih_50 Start: 32302, Stop: 32054, Start Num: 22

Candidate Starts for StepMih_50:

(Start: 22 @32302 has 94 MA's), (42, 32248), (66, 32185), (68, 32161), (70, 32152), (76, 32104), (77, 32089),

Gene: Stehig9_45 Start: 31163, Stop: 30888, Start Num: 37

Candidate Starts for Stephig9_45:

(20, 31229), (Start: 37 @31163 has 46 MA's), (40, 31154), (46, 31118), (72, 30986), (74, 30965),

Gene: Stink_46 Start: 32321, Stop: 31998, Start Num: 18

Candidate Starts for Stink_46:

(Start: 18 @32321 has 141 MA's), (23, 32306), (49, 32213), (54, 32198), (60, 32168), (71, 32093), (76, 32048),

Gene: Strosahl_49 Start: 30309, Stop: 30016, Start Num: 26

Candidate Starts for Strosahl_49:

(Start: 26 @30309 has 22 MA's), (62, 30192), (73, 30099),

Gene: Sultana_46 Start: 31880, Stop: 31578, Start Num: 18

Candidate Starts for Sultana_46:

(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: Swann_37 Start: 28394, Stop: 28122, Start Num: 37

Candidate Starts for Swann_37:

(Start: 37 @28394 has 46 MA's), (52, 28328), (75, 28178), (78, 28142),

Gene: Swirley_43 Start: 31587, Stop: 31324, Start Num: 27

Candidate Starts for Swirley_43:

(Start: 27 @31587 has 33 MA's), (Start: 29 @31578 has 3 MA's), (45, 31536), (57, 31506), (67, 31452), (73, 31419), (76, 31386),

Gene: Switzerland_49 Start: 30692, Stop: 30399, Start Num: 26

Candidate Starts for Switzerland_49:

(Start: 26 @30692 has 22 MA's), (62, 30575), (73, 30482),

Gene: SydNat_42 Start: 31777, Stop: 31514, Start Num: 27

Candidate Starts for SydNat_42:

(Start: 27 @31777 has 33 MA's), (Start: 29 @31768 has 3 MA's), (45, 31726), (57, 31696), (67, 31642), (73, 31609), (76, 31576),

Gene: TNguyen7_47 Start: 31805, Stop: 31530, Start Num: 25

Candidate Starts for TNguyen7_47:

(Start: 25 @31805 has 33 MA's), (70, 31628), (76, 31580),

Gene: TWAMP_37 Start: 28394, Stop: 28122, Start Num: 37

Candidate Starts for TWAMP_37:

(Start: 37 @28394 has 46 MA's), (52, 28328), (75, 28178), (78, 28142),

Gene: Takoda_37 Start: 28367, Stop: 28095, Start Num: 37

Candidate Starts for Takoda_37:

(Start: 37 @28367 has 46 MA's), (52, 28301), (75, 28151), (78, 28115),

Gene: Taquarus_46 Start: 31883, Stop: 31581, Start Num: 18

Candidate Starts for Taquarus_46:

(1, 32153), (Start: 18 @31883 has 141 MA's), (60, 31751), (66, 31712), (73, 31664), (76, 31631),

Gene: Tarynearal_39 Start: 31029, Stop: 30766, Start Num: 27

Candidate Starts for Tarynearal_39:

(Start: 27 @31029 has 33 MA's), (Start: 29 @31020 has 3 MA's), (45, 30978), (57, 30948), (67, 30894), (73, 30861), (76, 30828),

Gene: Taurus_51 Start: 32308, Stop: 32060, Start Num: 22

Candidate Starts for Taurus_51:

(Start: 22 @32308 has 94 MA's), (42, 32254), (66, 32191), (68, 32167), (70, 32158), (76, 32110), (77, 32095),

Gene: Texage_45 Start: 32082, Stop: 31807, Start Num: 25

Candidate Starts for Texage_45:

(9, 32172), (11, 32163), (Start: 25 @32082 has 33 MA's), (70, 31905),

Gene: Thanksgivukkah_45 Start: 31878, Stop: 31576, Start Num: 18

Candidate Starts for Thanksgivukkah_45:

(1, 32148), (Start: 18 @31878 has 141 MA's), (60, 31746), (66, 31707), (73, 31659), (76, 31626),

Gene: Theia_38 Start: 31043, Stop: 30789, Start Num: 29

Candidate Starts for Theia_38:

(Start: 27 @31052 has 33 MA's), (Start: 29 @31043 has 3 MA's), (32, 31034), (41, 31013), (45, 31001), (67, 30917), (73, 30884), (76, 30851),

Gene: Tiffany_50 Start: 32194, Stop: 31946, Start Num: 22

Candidate Starts for Tiffany_50:

(Start: 22 @32194 has 94 MA's), (42, 32140), (66, 32077), (68, 32053), (70, 32044), (76, 31996), (77, 31981),

Gene: Tiger_39 Start: 30576, Stop: 30322, Start Num: 29

Candidate Starts for Tiger_39:

(Start: 27 @30585 has 33 MA's), (Start: 29 @30576 has 3 MA's), (32, 30567), (41, 30546), (45, 30534), (67, 30450), (73, 30417), (76, 30384),

Gene: Timshel_45 Start: 33822, Stop: 33541, Start Num: 21

Candidate Starts for Timshel_45:

(4, 33957), (Start: 21 @33822 has 3 MA's), (51, 33759), (64, 33702), (66, 33672), (78, 33564),

Gene: TinaFeyge_46 Start: 31875, Stop: 31573, Start Num: 18

Candidate Starts for TinaFeyge_46:

(1, 32145), (Start: 18 @31875 has 141 MA's), (60, 31743), (66, 31704), (73, 31656), (76, 31623),

Gene: TinyPebbles_49 Start: 32341, Stop: 32093, Start Num: 22

Candidate Starts for TinyPebbles_49:

(Start: 22 @32341 has 94 MA's), (42, 32287), (66, 32224), (68, 32200), (70, 32191), (76, 32143), (77, 32128),

Gene: Tinybot_45 Start: 31907, Stop: 31605, Start Num: 18

Candidate Starts for Tinybot_45:

(1, 32177), (Start: 18 @31907 has 141 MA's), (60, 31775), (66, 31736), (73, 31688), (76, 31655),

Gene: TiroTheta9_46 Start: 31874, Stop: 31572, Start Num: 18

Candidate Starts for TiroTheta9_46:

(1, 32144), (Start: 18 @31874 has 141 MA's), (60, 31742), (66, 31703), (73, 31655), (76, 31622),

Gene: Todacoro_46 Start: 32081, Stop: 31806, Start Num: 25

Candidate Starts for Todacoro_46:
(9, 32171), (11, 32162), (Start: 25 @32081 has 33 MA's), (70, 31904),

Gene: Topanga_43 Start: 31489, Stop: 31151, Start Num: 22
Candidate Starts for Topanga_43:
(4, 31633), (9, 31582), (Start: 22 @31489 has 94 MA's), (59, 31339), (63, 31324), (71, 31246),

Gene: Trike_43 Start: 30758, Stop: 30402, Start Num: 22
Candidate Starts for Trike_43:
(4, 30902), (Start: 22 @30758 has 94 MA's), (63, 30575), (71, 30497),

Gene: TroyPia_47 Start: 31878, Stop: 31576, Start Num: 18
Candidate Starts for TroyPia_47:
(1, 32148), (Start: 18 @31878 has 141 MA's), (60, 31746), (66, 31707), (73, 31659), (76, 31626),

Gene: Twister_43 Start: 31400, Stop: 31062, Start Num: 22
Candidate Starts for Twister_43:
(4, 31544), (9, 31493), (Start: 22 @31400 has 94 MA's), (59, 31250), (63, 31235), (71, 31157),

Gene: TygerBlood_46 Start: 31880, Stop: 31578, Start Num: 18
Candidate Starts for TygerBlood_46:
(1, 32150), (Start: 18 @31880 has 141 MA's), (60, 31748), (66, 31709), (73, 31661), (76, 31628),

Gene: UhSalsa_37 Start: 28395, Stop: 28123, Start Num: 37
Candidate Starts for UhSalsa_37:
(Start: 37 @28395 has 46 MA's), (52, 28329), (75, 28179), (78, 28143),

Gene: Ulysses_45 Start: 31557, Stop: 31255, Start Num: 18
Candidate Starts for Ulysses_45:
(1, 31827), (Start: 18 @31557 has 141 MA's), (60, 31425), (66, 31386), (73, 31338), (76, 31305),

Gene: UnionJack_41 Start: 30553, Stop: 30302, Start Num: 27
Candidate Starts for UnionJack_41:
(10, 30643), (13, 30631), (Start: 27 @30553 has 33 MA's), (Start: 29 @30544 has 3 MA's), (45, 30502),
(57, 30472), (67, 30418), (73, 30385), (76, 30352),

Gene: Veracruz_45 Start: 32081, Stop: 31806, Start Num: 25
Candidate Starts for Veracruz_45:
(9, 32171), (11, 32162), (Start: 25 @32081 has 33 MA's), (70, 31904),

Gene: Vix_50 Start: 32391, Stop: 32143, Start Num: 22
Candidate Starts for Vix_50:
(Start: 22 @32391 has 94 MA's), (42, 32337), (66, 32274), (68, 32250), (70, 32241), (76, 32193), (77,
32178),

Gene: Waits_49 Start: 30481, Stop: 30188, Start Num: 26
Candidate Starts for Waits_49:
(Start: 26 @30481 has 22 MA's), (62, 30364), (73, 30271),

Gene: WalterMcMickey_43 Start: 31400, Stop: 31062, Start Num: 22
Candidate Starts for WalterMcMickey_43:
(4, 31544), (9, 31493), (Start: 22 @31400 has 94 MA's), (59, 31250), (63, 31235), (71, 31157),

Gene: Wander_46 Start: 31877, Stop: 31575, Start Num: 18
Candidate Starts for Wander_46:
(Start: 18 @31877 has 141 MA's), (60, 31745), (66, 31706), (73, 31658), (76, 31625),

Gene: Warrior24_50 Start: 30688, Stop: 30395, Start Num: 26
Candidate Starts for Warrior24_50:
(Start: 26 @30688 has 22 MA's), (62, 30571), (73, 30478),

Gene: Watson_50 Start: 32300, Stop: 32052, Start Num: 22
Candidate Starts for Watson_50:
(Start: 22 @32300 has 94 MA's), (42, 32246), (66, 32183), (68, 32159), (70, 32150), (76, 32102), (77, 32087),

Gene: Wilbur_46 Start: 31877, Stop: 31575, Start Num: 18
Candidate Starts for Wilbur_46:
(1, 32147), (Start: 18 @31877 has 141 MA's), (31, 31835), (60, 31745), (66, 31706), (73, 31658), (76, 31625),

Gene: Wile_45 Start: 31884, Stop: 31561, Start Num: 18
Candidate Starts for Wile_45:
(Start: 18 @31884 has 141 MA's), (47, 31785), (49, 31776), (54, 31761), (60, 31731), (76, 31611),

Gene: Wizard007_46 Start: 31885, Stop: 31583, Start Num: 18
Candidate Starts for Wizard007_46:
(1, 32155), (Start: 18 @31885 has 141 MA's), (60, 31753), (66, 31714), (73, 31666), (76, 31633),

Gene: Wooldri_52 Start: 32220, Stop: 31972, Start Num: 22
Candidate Starts for Wooldri_52:
(Start: 22 @32220 has 94 MA's), (42, 32166), (66, 32103), (68, 32079), (70, 32070), (76, 32022), (77, 32007),

Gene: Xena_44 Start: 31850, Stop: 31527, Start Num: 18
Candidate Starts for Xena_44:
(Start: 18 @31850 has 141 MA's), (47, 31751), (49, 31742), (54, 31727), (60, 31697), (76, 31577),

Gene: YoSam321_46 Start: 31874, Stop: 31572, Start Num: 18
Candidate Starts for YoSam321_46:
(1, 32144), (Start: 18 @31874 has 141 MA's), (60, 31742), (66, 31703), (73, 31655), (76, 31622),

Gene: Yogi_37 Start: 28368, Stop: 28096, Start Num: 37
Candidate Starts for Yogi_37:
(Start: 37 @28368 has 46 MA's), (52, 28302), (75, 28152), (78, 28116),

Gene: Yoncess_37 Start: 28369, Stop: 28097, Start Num: 37
Candidate Starts for Yoncess_37:
(Start: 37 @28369 has 46 MA's), (52, 28303), (75, 28153), (78, 28117),

Gene: Zarafa_46 Start: 31728, Stop: 31453, Start Num: 25
Candidate Starts for Zarafa_46:
(Start: 25 @31728 has 33 MA's), (70, 31551), (76, 31503),

Gene: Zetzy_49 Start: 31871, Stop: 31623, Start Num: 22
Candidate Starts for Zetzy_49:

(Start: 22 @31871 has 94 MA's), (42, 31817), (57, 31784), (66, 31754), (68, 31730), (70, 31721), (76, 31673), (77, 31658),

Gene: Zolita_41 Start: 31781, Stop: 31518, Start Num: 27

Candidate Starts for Zolita_41:

(Start: 27 @31781 has 33 MA's), (Start: 29 @31772 has 3 MA's), (45, 31730), (57, 31700), (67, 31646), (73, 31613), (76, 31580),