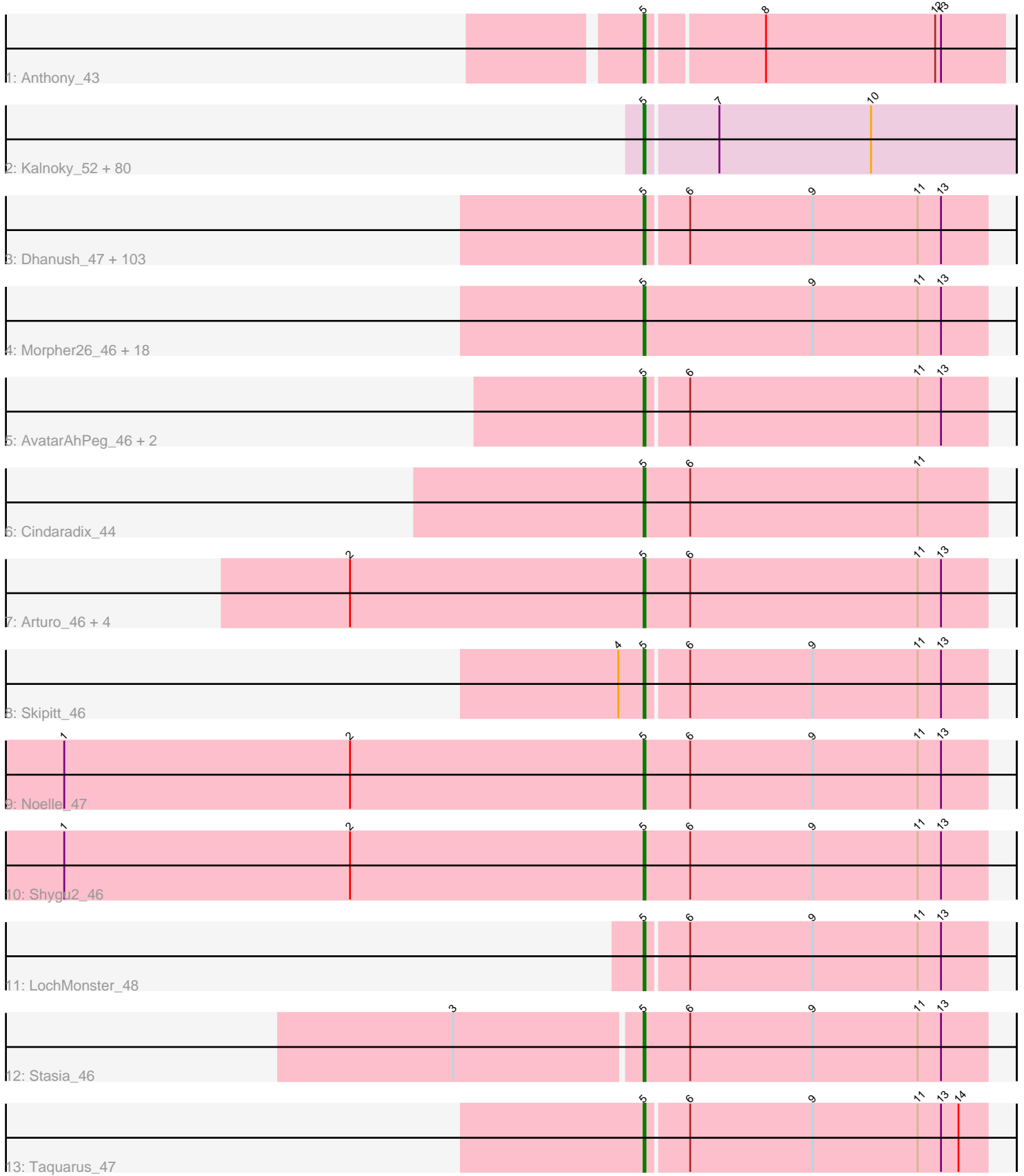


Pham 193727



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 193727 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193727 has 220 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Anthony_43
- Track 2 : Kalnok_52, Malinsilva_53, LugYA_54, Spike509_51, OlanP_50, HashRod_52, Wooldri_53, Sabia_51, JHC117_51, Jobu08_50, Grum1_51, Ollie_51, Lilith_52, Zetzy_50, Hercules11_51, Aglet_52, Heliosoles_50, SoYo_51, MarQuardt_51, Microwolf_51, Watson_51, ACFishhook_50, Taurus_52, Tiffany_51, AugsMagnumOpus_54, StepMih_51, MadMarie_51, Snickers_51, LBerry_52, DaHudson_51, Fernando_51, P28Green_52, Phoebe_52, Pawn_51, Daishi_50, BreSam8_51, AgronaGT15_50, GtownJaz_51, Dieselweasel_52, Beauxregard13_51, Phranny_52, Marie_51, Marius_52, HaveUMetTed_52, GingkoMaracino_51, MuchMore_54, Anubis_54, Colbster_51, Grif_51, Grub_51, Soshari_53, Gemma_50, Groupthink_52, Rummer_50, PGHhamlin_53, PurpleHaze_51, Bxz2_47, Pembroke_51, MoneyMay_51, KADY_51, Vix_51, Manu_51, BuzzBuzz_49, Stagni_51, PhishRPhriends_49, Misomonster_52, Louie6_50, Kalb97_52, Mainiac_51, Sabinator_50, JeppNRM_52, Penny1_52, Cullens_51, Reba_51, Phoxy_51, Farber_51, EpicPhail_52, LarryKay_51, PotatoSplit_53, JenCasNa_52, SoilDragon_51
- Track 3 : Dhanush_47, Nebs_48, Wilbur_47, Avle17_47, Flux_47, Bombshell_47, Pipcraft_45, Relief_46, Clarenza_46, NotAPhaseMom_47, Jaykayelowell_45, Mazhar510_47, JoongJeon_46, Ulysses_46, Chaph_47, NorthStar_46, CentreCat_47, Melvin_49, Ruin_47, Nyxis_47, Annyong_47, TygerBlood_47, HamSlice_46, Broseidon_47, JetBlade_47, Rosa24_46, Lemur_47, Millski_46, Caelakin_47, Wander_47, Alberto7_48, Bruiser_46, Medusa_47, BellusTerra_48, Connomayer_47, KFPoly_46, Phacado_47, Felipe_48, BubbleTrouble_46, Romney_47, Iracema64_48, Sabertooth_47, Morrow_48, Shaka_47, Camperdownii_45, LittleB_47, Houdini22_47, Lunsford_48, Bartimeaus_47, Koreni_46, Druantia_47, Cintron_46, Florean_47, Iceman_47, Eurydice_48, Ohfah_48, LeoAvram_47, Peaches_47, Burger_45, Happiness_46, LittleGuy_47, Sparxx_48, Thanksgivukkah_46, Wizard007_47, Pumbaa_47, Scamp_47, Albee_47, Holli_46, Citius_47, Eapen_47, Deano_46, Maxo_48, Baby16_47, Eros_47, TroyPia_48, LappelDuVide_47, Tinybot_46, Kingmustik0402_47, Palestino_46, Phontbonne_47, Maverick_47, Eris_46, TinaFeyge_47, Kyee_47, Kampy_47, Eagle_47, Kremtemulon_47, Abdiel_47, Funston_46, OKaNui_47, Commander_47, Lorenzo_47, TiroTheta9_47, Polymorphads_48, Cocoaberry_47, MeeZee_47, Roosevelt_46, PeterPeter_47, Nemo27_47, ICleared_47, Gadost_47, YoSam321_47, Blackmoor_47, Spino_46
- Track 4 : Morpher26_46, Cici_46, Datway_46, BangNhom_48, Bumblebee11_45, Cerulean_48, LHTSCC_49, SheldonCooper_49, AbbysRanger_46, Obama12_48,

Backyardigan_45, Achebe_45, Xena_45, Wile_46, Badger_45, PetiteSangsue_46, Katalie136_46, ChampagnePapi_49, Perplexer_46

- Track 5 : AvatarAhPeg_46, Stink_47, Miramae_46
- Track 6 : Cindradix_44
- Track 7 : Arturo_46, Mundrea_46, Phighter1804_47, DirtyDunning_46, Kratak_47
- Track 8 : Skipitt_46
- Track 9 : Noelle_47
- Track 10 : Shygu2_46
- Track 11 : LochMonster_48
- Track 12 : Stasia_46
- Track 13 : Taquarus_47

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

The start number called the most often in the published annotations is 5, it was called in 217 of the 217 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ACFishhook_50, AbbysRanger_46, Abdiel_47, Achebe_45, Aglet_52, AgronaGT15_50, Albee_47, Alberto7_48, Annyong_47, Anthony_43, Anubis_54, Arturo_46, AugsMagnumOpus_54, AvatarAhPeg_46, Avle17_47, Baby16_47, Backyardigan_45, Badger_45, BangNhom_48, Bartimeaus_47, Beauxregard13_51, BellusTerra_48, Blackmoor_47, Bombshell_47, BreSam8_51, Broseidon_47, Bruiser_46, BubbleTrouble_46, Bumblebee11_45, Burger_45, BuzzBuzz_49, Bxz2_47, Caelakin_47, Camperdownii_45, CentreCat_47, Cerulean_48, ChampagnePapi_49, Chaph_47, Cici_46, Cindradix_44, Cintron_46, Citius_47, Clarenza_46, Cocoaberry_47, Colbster_51, Commander_47, Connomayer_47, Cullens_51, DaHudson_51, Daishi_50, Datway_46, Deano_46, Dhanush_47, Dieselweasel_52, DirtyDunning_46, Druantia_47, Eagle_47, Eapen_47, EpicPhail_52, Eris_46, Eros_47, Eurydice_48, Farber_51, Fernando_51, Floean_47, Flux_47, Funston_46, Gadost_47, Gemma_50, GingkoMaracino_51, Grif_51, Groupthink_52, Grub_51, Grum1_51, GtownJaz_51, HamSlice_46, Happiness_46, HashRod_52, HaveUMetTed_52, Heliosoles_50, Hercules11_51, Holli_46, Houdini22_47, ICleared_47, Iceman_47, Iracema64_48, JHC117_51, Jaykayelowell_45, JenCasNa_52, JeppNRM_52, JetBlade_47, Jobu08_50, JoongJeon_46, KADY_51, KFPoly_46, Kalb97_52, Kalnoky_52, Kampy_47, Katalie136_46, Kingmustik0402_47, Koreni_46, Kratak_47, Kremtemulon_47, Kyee_47, LBerry_52, LHTSCC_49, LappelDuVide_47, LarryKay_51, Lemur_47, LeoAvram_47, Lilith_52, LittleB_47, LittleGuy_47, LochMonster_48, Lorenzo_47, Louie6_50, LugYA_54, Lunsford_48, MadMarie_51, Mainiac_51, Malinsilva_53, Manu_51, MarQuardt_51, Marie_51, Marius_52, Maverick_47, Maxo_48, Mazhar510_47, Medusa_47, MeeZee_47, Melvin_49, Microwolf_51, Millski_46, Miramae_46, Misomonster_52, MoneyMay_51, Morpher26_46, Morrow_48, MuchMore_54, Mundrea_46, Nebs_48, Nemo27_47, Noelle_47, NorthStar_46, NotAPhaseMom_47, Nyxis_47, OKaNui_47, Obama12_48, Ohfah_48, OlanP_50, Ollie_51, P28Green_52, PGHhamlin_53, Palestino_46, Pawn_51, Peaches_47, Pembroke_51, Penny1_52, Perplexer_46, PeterPeter_47, PetiteSangsue_46, Phacado_47, Phelipe_48, Phighter1804_47, PhishRPhriends_49, Phoebe_52, Phontbonne_47, Phoxy_51, Phranny_52, Pipcraft_45, Polymorphads_48, PotatoSplit_53, Pumbaa_47, PurpleHaze_51, Reba_51, Relief_46, Romney_47,

Roosevelt_46, Rosa24_46, Ruin_47, Rummer_50, Sabertooth_47, Sabia_51, Sabinator_50, Scamp_47, Shaka_47, SheldonCooper_49, Shygu2_46, Skipitt_46, Snickers_51, SoYo_51, SoilDragon_51, Soshari_53, Sparxx_48, Spike509_51, Spino_46, Stagni_51, Stasia_46, StepMih_51, Stink_47, Taquarus_47, Taurus_52, Thanksgivukkah_46, Tiffany_51, TinaFeyge_47, Tinybot_46, TiroTheta9_47, TroyPia_48, TygerBlood_47, Ulysses_46, Vix_51, Wander_47, Watson_51, Wilbur_47, Wile_46, Wizard007_47, Wooldri_53, Xena_45, YoSam321_47, Zetzy_50,

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

-

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

-

Summary by start number:

Start 5:

- Found in 220 of 220 (100.0%) of genes in pham
- Manual Annotations of this start: 217 of 217
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ACFishhook_50 (A3), AbbysRanger_46 (A4), Abdiel_47 (A4), Achebe_45 (A4), Aglet_52 (A3), AgronaGT15_50 (A3), Albee_47 (A4), Alberto7_48 (A4), Annyong_47 (A4), Anthony_43 (A20), Anubis_54 (A3), Arturo_46 (A4), AugsMagnumOpus_54 (A3), AvatarAhPeg_46 (A4), Avle17_47 (A4), Baby16_47 (A4), Backyardigan_45 (A4), Badger_45 (A4), BangNhom_48 (A4), Bartimeaus_47 (A4), Beauxregard13_51 (A3), BellusTerra_48 (A4), Blackmoor_47 (A4), Bombshell_47 (A4), BreSam8_51 (A3), Broseidon_47 (A4), Bruiser_46 (A4), BubbleTrouble_46 (A4), Bumblebee11_45 (A4), Burger_45 (A4), BuzzBuzz_49 (A3), Bxz2_47 (A3), Caelakin_47 (A4), Camperdownii_45 (A4), CentreCat_47 (A4), Cerulean_48 (A4), ChampagnePapi_49 (A4), Chaph_47 (A4), Cici_46 (A4), Cindaradix_44 (A4), Cintron_46 (A4), Citius_47 (A4), Clarenza_46 (A4), Cocoaberry_47 (A4), Colbster_51 (A3), Commander_47 (A4), Connomayer_47 (A4), Cullens_51 (A3), DaHudson_51 (A3), Daishi_50 (A3), Datway_46 (A4), Deano_46 (A4), Dhanush_47 (A4), Dieselweasel_52 (A3), DirtyDunning_46 (A4), Druantia_47 (A4), Eagle_47 (A4), Eapen_47 (A4), EpicPhail_52 (A3), Eris_46 (A4), Eros_47 (A4), Eurydice_48 (A4), Farber_51 (A3), Fernando_51 (A3), Florean_47 (A4), Flux_47 (A4), Funston_46 (A4), Gadost_47 (A4), Gemma_50 (A3), GingkoMaracino_51 (A3), Grif_51 (A3), Groupthink_52 (A3), Grub_51 (A3), Grum1_51 (A3), GtownJaz_51 (A3), HamSlice_46 (A4), Happiness_46 (A4), HashRod_52 (A3), HaveUMetTed_52 (A3), Heliosoles_50 (A3), Hercules11_51 (A3), Holli_46 (A4), Houdini22_47 (A4), ICleared_47 (A4), Iceman_47 (A4), Iracema64_48 (A4), JHC117_51 (A3), Jaykayelowell_45 (A4), JenCasNa_52 (A3), JeppNRM_52 (A3), JetBlade_47 (A4), Jobu08_50 (A3), JoongJeon_46 (A4), KADY_51 (A3), KFPoly_46 (A4), Kalb97_52 (A3), Kalnoky_52 (A3), Kampy_47 (A4), Katalie136_46 (A4), Kingmustik0402_47 (A4), Koreni_46 (A4), Kratark_47 (A4), Kremtemulon_47 (A4), Kyee_47 (A4), LBerry_52 (A3), LHTSCC_49 (A4), LappelDuVide_47 (A4), LarryKay_51 (A3), Lemur_47 (A4), LeoAvram_47 (A4), Lilith_52 (A3), LittleB_47 (A4), LittleGuy_47 (A4), LochMonster_48 (A4), Lorenzo_47 (A4), Louie6_50 (A3), LugYA_54 (A3), Lunsford_48 (A4), MadMarie_51 (A3), Mainiac_51 (A3), Malinsilva_53 (A3), Manu_51 (A3), MarQuardt_51 (A3), Marie_51 (A3), Marius_52 (A3), Maverick_47 (A4), Maxo_48 (A4), Mazhar510_47 (A4), Medusa_47 (A4), MeeZee_47 (A4), Melvin_49 (A4), Microwolf_51 (A3), Millski_46 (A4), Miramae_46 (A4), Misomonster_52 (A3), MoneyMay_51 (A3), Morpher26_46 (A4), Morrow_48 (A4), MuchMore_54 (A3),

Mundrea_46 (A4), Nebs_48 (A4), Nemo27_47 (A4), Noelle_47 (A4), NorthStar_46 (A4), NotAPhaseMom_47 (A4), Nyxis_47 (A4), OKaNui_47 (A4), Obama12_48 (A4), Ohfah_48 (A4), OlanP_50 (A3), Ollie_51 (A3), P28Green_52 (A3), PGHhamlin_53 (A3), Palestino_46 (A4), Pawn_51 (A3), Peaches_47 (A4), Pembroke_51 (A3), Penny1_52 (A3), Perplexer_46 (A4), PeterPeter_47 (A4), PetiteSangsue_46 (A4), Phacado_47 (A4), Phelipe_48 (A4), Phighter1804_47 (A4), PhishRPhriends_49 (A3), Phoebe_52 (A3), Phontbonne_47 (A4), Phoxy_51 (A3), Phranny_52 (A3), Pipcraft_45 (A4), Polymorphads_48 (A4), PotatoSplit_53 (A3), Pumbaa_47 (A4), PurpleHaze_51 (A3), Reba_51 (A3), Relief_46 (A4), Romney_47 (A4), Roosevelt_46 (A4), Rosa24_46 (A4), Ruin_47 (A4), Rummer_50 (A3), Sabertooth_47 (A4), Sabia_51 (A3), Sabinator_50 (A3), Scamp_47 (A4), Shaka_47 (A4), SheldonCooper_49 (A4), Shygu2_46 (A4), Skipitt_46 (A4), Snickers_51 (A3), SoYo_51 (A3), SoilDragon_51 (A3), Soshari_53 (A3), Sparxx_48 (A4), Spike509_51 (A3), Spino_46 (A4), Stagni_51 (A3), Stasia_46 (A4), StepMih_51 (A3), Stink_47 (A4), Taquarus_47 (A4), Taurus_52 (A3), Thanksgivukkah_46 (A4), Tiffany_51 (A3), TinaFeyge_47 (A4), Tinybot_46 (A4), TiroTheta9_47 (A4), TroyPia_48 (A4), TygerBlood_47 (A4), Ulysses_46 (A4), Vix_51 (A3), Wander_47 (A4), Watson_51 (A3), Wilbur_47 (A4), Wile_46 (A4), Wizard007_47 (A4), Wooldri_53 (A3), Xena_45 (A4), YoSam321_47 (A4), Zetzy_50 (A3),

Summary by clusters:

There are 3 clusters represented in this pham: A20, A3, A4,

Info for manual annotations of cluster A20:

- Start number 5 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:

- Start number 5 was manually annotated 79 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 5 was manually annotated 137 times for cluster A4.

Gene Information:

Gene: ACFishhook_50 Start: 32461, Stop: 32273, Start Num: 5

Candidate Starts for ACFishhook_50:

(Start: 5 @32461 has 217 MA's), (7, 32425), (10, 32347),

Gene: AbbysRanger_46 Start: 32043, Stop: 31867, Start Num: 5

Candidate Starts for AbbysRanger_46:

(Start: 5 @32043 has 217 MA's), (9, 31956), (11, 31902), (13, 31890),

Gene: Abdiel_47 Start: 32054, Stop: 31881, Start Num: 5

Candidate Starts for Abdiel_47:

(Start: 5 @32054 has 217 MA's), (6, 32033), (9, 31970), (11, 31916), (13, 31904),

Gene: Achebe_45 Start: 32026, Stop: 31850, Start Num: 5

Candidate Starts for Achebe_45:

(Start: 5 @32026 has 217 MA's), (9, 31939), (11, 31885), (13, 31873),

Gene: Aglet_52 Start: 32490, Stop: 32302, Start Num: 5

Candidate Starts for Aglet_52:

(Start: 5 @32490 has 217 MA's), (7, 32454), (10, 32376),

Gene: AgronaGT15_50 Start: 32341, Stop: 32153, Start Num: 5

Candidate Starts for AgronaGT15_50:

(Start: 5 @32341 has 217 MA's), (7, 32305), (10, 32227),

Gene: Albee_47 Start: 32053, Stop: 31880, Start Num: 5

Candidate Starts for Albee_47:

(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: Alberto7_48 Start: 32390, Stop: 32217, Start Num: 5

Candidate Starts for Alberto7_48:

(Start: 5 @32390 has 217 MA's), (6, 32369), (9, 32306), (11, 32252), (13, 32240),

Gene: Annyong_47 Start: 32098, Stop: 31925, Start Num: 5

Candidate Starts for Annyong_47:

(Start: 5 @32098 has 217 MA's), (6, 32077), (9, 32014), (11, 31960), (13, 31948),

Gene: Anthony_43 Start: 29967, Stop: 29788, Start Num: 5

Candidate Starts for Anthony_43:

(Start: 5 @29967 has 217 MA's), (8, 29910), (12, 29823), (13, 29820),

Gene: Anubis_54 Start: 32376, Stop: 32188, Start Num: 5

Candidate Starts for Anubis_54:

(Start: 5 @32376 has 217 MA's), (7, 32340), (10, 32262),

Gene: Arturo_46 Start: 32333, Stop: 32157, Start Num: 5

Candidate Starts for Arturo_46:

(2, 32483), (Start: 5 @32333 has 217 MA's), (6, 32309), (11, 32192), (13, 32180),

Gene: AugsMagnumOpus_54 Start: 32481, Stop: 32293, Start Num: 5

Candidate Starts for AugsMagnumOpus_54:

(Start: 5 @32481 has 217 MA's), (7, 32445), (10, 32367),

Gene: AvatarAhPeg_46 Start: 32552, Stop: 32379, Start Num: 5

Candidate Starts for AvatarAhPeg_46:

(Start: 5 @32552 has 217 MA's), (6, 32531), (11, 32414), (13, 32402),

Gene: Avle17_47 Start: 32050, Stop: 31877, Start Num: 5

Candidate Starts for Avle17_47:

(Start: 5 @32050 has 217 MA's), (6, 32029), (9, 31966), (11, 31912), (13, 31900),

Gene: Baby16_47 Start: 32064, Stop: 31891, Start Num: 5

Candidate Starts for Baby16_47:

(Start: 5 @32064 has 217 MA's), (6, 32043), (9, 31980), (11, 31926), (13, 31914),

Gene: Backyardigan_45 Start: 32059, Stop: 31883, Start Num: 5

Candidate Starts for Backyardigan_45:

(Start: 5 @32059 has 217 MA's), (9, 31972), (11, 31918), (13, 31906),

Gene: Badger_45 Start: 32027, Stop: 31851, Start Num: 5

Candidate Starts for Badger_45:

(Start: 5 @32027 has 217 MA's), (9, 31940), (11, 31886), (13, 31874),

Gene: BangNhom_48 Start: 32475, Stop: 32302, Start Num: 5

Candidate Starts for BangNhom_48:

(Start: 5 @32475 has 217 MA's), (9, 32391), (11, 32337), (13, 32325),

Gene: Bartimeaus_47 Start: 32055, Stop: 31882, Start Num: 5

Candidate Starts for Bartimeaus_47:

(Start: 5 @32055 has 217 MA's), (6, 32034), (9, 31971), (11, 31917), (13, 31905),

Gene: Beauxregard13_51 Start: 32493, Stop: 32305, Start Num: 5

Candidate Starts for Beauxregard13_51:

(Start: 5 @32493 has 217 MA's), (7, 32457), (10, 32379),

Gene: BellusTerra_48 Start: 32054, Stop: 31881, Start Num: 5

Candidate Starts for BellusTerra_48:

(Start: 5 @32054 has 217 MA's), (6, 32033), (9, 31970), (11, 31916), (13, 31904),

Gene: Blackmoor_47 Start: 32055, Stop: 31882, Start Num: 5

Candidate Starts for Blackmoor_47:

(Start: 5 @32055 has 217 MA's), (6, 32034), (9, 31971), (11, 31917), (13, 31905),

Gene: Bombshell_47 Start: 32050, Stop: 31877, Start Num: 5

Candidate Starts for Bombshell_47:

(Start: 5 @32050 has 217 MA's), (6, 32029), (9, 31966), (11, 31912), (13, 31900),

Gene: BreSam8_51 Start: 32483, Stop: 32295, Start Num: 5

Candidate Starts for BreSam8_51:

(Start: 5 @32483 has 217 MA's), (7, 32447), (10, 32369),

Gene: Broseidon_47 Start: 32055, Stop: 31882, Start Num: 5

Candidate Starts for Broseidon_47:

(Start: 5 @32055 has 217 MA's), (6, 32034), (9, 31971), (11, 31917), (13, 31905),

Gene: Bruiser_46 Start: 32053, Stop: 31880, Start Num: 5

Candidate Starts for Bruiser_46:

(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: BubbleTrouble_46 Start: 32053, Stop: 31880, Start Num: 5

Candidate Starts for BubbleTrouble_46:

(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: Bumblebee11_45 Start: 32029, Stop: 31853, Start Num: 5

Candidate Starts for Bumblebee11_45:

(Start: 5 @32029 has 217 MA's), (9, 31942), (11, 31888), (13, 31876),

Gene: Burger_45 Start: 32053, Stop: 31880, Start Num: 5

Candidate Starts for Burger_45:

(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: BuzzBuzz_49 Start: 32520, Stop: 32332, Start Num: 5

Candidate Starts for BuzzBuzz_49:

(Start: 5 @32520 has 217 MA's), (7, 32484), (10, 32406),

Gene: Bxz2_47 Start: 32527, Stop: 32339, Start Num: 5

Candidate Starts for Bxz2_47:

(Start: 5 @32527 has 217 MA's), (7, 32491), (10, 32413),

Gene: Caelakin_47 Start: 32053, Stop: 31880, Start Num: 5

Candidate Starts for Caelakin_47:

(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: Camperdownii_45 Start: 31726, Stop: 31553, Start Num: 5

Candidate Starts for Camperdownii_45:

(Start: 5 @31726 has 217 MA's), (6, 31705), (9, 31642), (11, 31588), (13, 31576),

Gene: CentreCat_47 Start: 32056, Stop: 31883, Start Num: 5

Candidate Starts for CentreCat_47:

(Start: 5 @32056 has 217 MA's), (6, 32035), (9, 31972), (11, 31918), (13, 31906),

Gene: Cerulean_48 Start: 32476, Stop: 32303, Start Num: 5

Candidate Starts for Cerulean_48:

(Start: 5 @32476 has 217 MA's), (9, 32392), (11, 32338), (13, 32326),

Gene: ChampagnePapi_49 Start: 32475, Stop: 32302, Start Num: 5

Candidate Starts for ChampagnePapi_49:

(Start: 5 @32475 has 217 MA's), (9, 32391), (11, 32337), (13, 32325),

Gene: Chaph_47 Start: 32064, Stop: 31891, Start Num: 5

Candidate Starts for Chaph_47:

(Start: 5 @32064 has 217 MA's), (6, 32043), (9, 31980), (11, 31926), (13, 31914),

Gene: Cici_46 Start: 32044, Stop: 31868, Start Num: 5

Candidate Starts for Cici_46:

(Start: 5 @32044 has 217 MA's), (9, 31957), (11, 31903), (13, 31891),

Gene: Cindaradix_44 Start: 31669, Stop: 31493, Start Num: 5

Candidate Starts for Cindaradix_44:

(Start: 5 @31669 has 217 MA's), (6, 31645), (11, 31528),

Gene: Cintron_46 Start: 32033, Stop: 31860, Start Num: 5

Candidate Starts for Cintron_46:

(Start: 5 @32033 has 217 MA's), (6, 32012), (9, 31949), (11, 31895), (13, 31883),

Gene: Citius_47 Start: 32074, Stop: 31901, Start Num: 5

Candidate Starts for Citius_47:

(Start: 5 @32074 has 217 MA's), (6, 32053), (9, 31990), (11, 31936), (13, 31924),

Gene: Clarenza_46 Start: 32050, Stop: 31877, Start Num: 5

Candidate Starts for Clarenza_46:

(Start: 5 @32050 has 217 MA's), (6, 32029), (9, 31966), (11, 31912), (13, 31900),

Gene: Cocoaberry_47 Start: 32057, Stop: 31884, Start Num: 5

Candidate Starts for Cocoaberry_47:

(Start: 5 @32057 has 217 MA's), (6, 32036), (9, 31973), (11, 31919), (13, 31907),

Gene: Colbster_51 Start: 32493, Stop: 32305, Start Num: 5

Candidate Starts for Colbster_51:

(Start: 5 @32493 has 217 MA's), (7, 32457), (10, 32379),

Gene: Commander_47 Start: 32052, Stop: 31879, Start Num: 5

Candidate Starts for Commander_47:

(Start: 5 @32052 has 217 MA's), (6, 32031), (9, 31968), (11, 31914), (13, 31902),

Gene: Connomayer_47 Start: 32053, Stop: 31880, Start Num: 5

Candidate Starts for Connomayer_47:

(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: Cullens_51 Start: 32489, Stop: 32301, Start Num: 5

Candidate Starts for Cullens_51:

(Start: 5 @32489 has 217 MA's), (7, 32453), (10, 32375),

Gene: DaHudson_51 Start: 32482, Stop: 32294, Start Num: 5

Candidate Starts for DaHudson_51:

(Start: 5 @32482 has 217 MA's), (7, 32446), (10, 32368),

Gene: Daishi_50 Start: 31361, Stop: 31173, Start Num: 5

Candidate Starts for Daishi_50:

(Start: 5 @31361 has 217 MA's), (7, 31325), (10, 31247),

Gene: Datway_46 Start: 32015, Stop: 31839, Start Num: 5

Candidate Starts for Datway_46:

(Start: 5 @32015 has 217 MA's), (9, 31928), (11, 31874), (13, 31862),

Gene: Deano_46 Start: 32061, Stop: 31888, Start Num: 5

Candidate Starts for Deano_46:

(Start: 5 @32061 has 217 MA's), (6, 32040), (9, 31977), (11, 31923), (13, 31911),

Gene: Dhanush_47 Start: 32056, Stop: 31883, Start Num: 5

Candidate Starts for Dhanush_47:

(Start: 5 @32056 has 217 MA's), (6, 32035), (9, 31972), (11, 31918), (13, 31906),

Gene: Dieselweasel_52 Start: 32492, Stop: 32304, Start Num: 5

Candidate Starts for Dieselweasel_52:

(Start: 5 @32492 has 217 MA's), (7, 32456), (10, 32378),

Gene: DirtyDunning_46 Start: 32074, Stop: 31898, Start Num: 5

Candidate Starts for DirtyDunning_46:

(2, 32224), (Start: 5 @32074 has 217 MA's), (6, 32050), (11, 31933), (13, 31921),

Gene: Druantia_47 Start: 32056, Stop: 31883, Start Num: 5

Candidate Starts for Druantia_47:

(Start: 5 @32056 has 217 MA's), (6, 32035), (9, 31972), (11, 31918), (13, 31906),

Gene: Eagle_47 Start: 32078, Stop: 31905, Start Num: 5

Candidate Starts for Eagle_47:

(Start: 5 @32078 has 217 MA's), (6, 32057), (9, 31994), (11, 31940), (13, 31928),

Gene: Eapen_47 Start: 32048, Stop: 31875, Start Num: 5
Candidate Starts for Eapen_47:
(Start: 5 @32048 has 217 MA's), (6, 32027), (9, 31964), (11, 31910), (13, 31898),

Gene: EpicPhail_52 Start: 32493, Stop: 32305, Start Num: 5
Candidate Starts for EpicPhail_52:
(Start: 5 @32493 has 217 MA's), (7, 32457), (10, 32379),

Gene: Eris_46 Start: 32053, Stop: 31880, Start Num: 5
Candidate Starts for Eris_46:
(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: Eros_47 Start: 32055, Stop: 31882, Start Num: 5
Candidate Starts for Eros_47:
(Start: 5 @32055 has 217 MA's), (6, 32034), (9, 31971), (11, 31917), (13, 31905),

Gene: Eurydice_48 Start: 32050, Stop: 31877, Start Num: 5
Candidate Starts for Eurydice_48:
(Start: 5 @32050 has 217 MA's), (6, 32029), (9, 31966), (11, 31912), (13, 31900),

Gene: Farber_51 Start: 32482, Stop: 32294, Start Num: 5
Candidate Starts for Farber_51:
(Start: 5 @32482 has 217 MA's), (7, 32446), (10, 32368),

Gene: Fernando_51 Start: 32489, Stop: 32301, Start Num: 5
Candidate Starts for Fernando_51:
(Start: 5 @32489 has 217 MA's), (7, 32453), (10, 32375),

Gene: Florean_47 Start: 32052, Stop: 31879, Start Num: 5
Candidate Starts for Florean_47:
(Start: 5 @32052 has 217 MA's), (6, 32031), (9, 31968), (11, 31914), (13, 31902),

Gene: Flux_47 Start: 32052, Stop: 31879, Start Num: 5
Candidate Starts for Flux_47:
(Start: 5 @32052 has 217 MA's), (6, 32031), (9, 31968), (11, 31914), (13, 31902),

Gene: Funston_46 Start: 32053, Stop: 31880, Start Num: 5
Candidate Starts for Funston_46:
(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: Gadost_47 Start: 32057, Stop: 31884, Start Num: 5
Candidate Starts for Gadost_47:
(Start: 5 @32057 has 217 MA's), (6, 32036), (9, 31973), (11, 31919), (13, 31907),

Gene: Gemma_50 Start: 32385, Stop: 32197, Start Num: 5
Candidate Starts for Gemma_50:
(Start: 5 @32385 has 217 MA's), (7, 32349), (10, 32271),

Gene: GingkoMaracino_51 Start: 32375, Stop: 32187, Start Num: 5
Candidate Starts for GingkoMaracino_51:
(Start: 5 @32375 has 217 MA's), (7, 32339), (10, 32261),

Gene: Grif_51 Start: 32564, Stop: 32376, Start Num: 5

Candidate Starts for Grif_51:

(Start: 5 @32564 has 217 MA's), (7, 32528), (10, 32450),

Gene: Groupthink_52 Start: 32389, Stop: 32201, Start Num: 5

Candidate Starts for Groupthink_52:

(Start: 5 @32389 has 217 MA's), (7, 32353), (10, 32275),

Gene: Grub_51 Start: 32481, Stop: 32293, Start Num: 5

Candidate Starts for Grub_51:

(Start: 5 @32481 has 217 MA's), (7, 32445), (10, 32367),

Gene: Grum1_51 Start: 32489, Stop: 32301, Start Num: 5

Candidate Starts for Grum1_51:

(Start: 5 @32489 has 217 MA's), (7, 32453), (10, 32375),

Gene: GtownJaz_51 Start: 32491, Stop: 32303, Start Num: 5

Candidate Starts for GtownJaz_51:

(Start: 5 @32491 has 217 MA's), (7, 32455), (10, 32377),

Gene: HamSlice_46 Start: 32051, Stop: 31878, Start Num: 5

Candidate Starts for HamSlice_46:

(Start: 5 @32051 has 217 MA's), (6, 32030), (9, 31967), (11, 31913), (13, 31901),

Gene: Happiness_46 Start: 32058, Stop: 31885, Start Num: 5

Candidate Starts for Happiness_46:

(Start: 5 @32058 has 217 MA's), (6, 32037), (9, 31974), (11, 31920), (13, 31908),

Gene: HashRod_52 Start: 32520, Stop: 32332, Start Num: 5

Candidate Starts for HashRod_52:

(Start: 5 @32520 has 217 MA's), (7, 32484), (10, 32406),

Gene: HaveUMetTed_52 Start: 32371, Stop: 32183, Start Num: 5

Candidate Starts for HaveUMetTed_52:

(Start: 5 @32371 has 217 MA's), (7, 32335), (10, 32257),

Gene: Heliosoles_50 Start: 32392, Stop: 32204, Start Num: 5

Candidate Starts for Heliosoles_50:

(Start: 5 @32392 has 217 MA's), (7, 32356), (10, 32278),

Gene: Hercules11_51 Start: 32498, Stop: 32310, Start Num: 5

Candidate Starts for Hercules11_51:

(Start: 5 @32498 has 217 MA's), (7, 32462), (10, 32384),

Gene: Holli_46 Start: 31843, Stop: 31670, Start Num: 5

Candidate Starts for Holli_46:

(Start: 5 @31843 has 217 MA's), (6, 31822), (9, 31759), (11, 31705), (13, 31693),

Gene: Houdini22_47 Start: 32057, Stop: 31884, Start Num: 5

Candidate Starts for Houdini22_47:

(Start: 5 @32057 has 217 MA's), (6, 32036), (9, 31973), (11, 31919), (13, 31907),

Gene: ICleared_47 Start: 32082, Stop: 31909, Start Num: 5

Candidate Starts for ICleared_47:

(Start: 5 @32082 has 217 MA's), (6, 32061), (9, 31998), (11, 31944), (13, 31932),

Gene: Iceman_47 Start: 32339, Stop: 32166, Start Num: 5

Candidate Starts for Iceman_47:

(Start: 5 @32339 has 217 MA's), (6, 32318), (9, 32255), (11, 32201), (13, 32189),

Gene: Iracema64_48 Start: 32317, Stop: 32144, Start Num: 5

Candidate Starts for Iracema64_48:

(Start: 5 @32317 has 217 MA's), (6, 32296), (9, 32233), (11, 32179), (13, 32167),

Gene: JHC117_51 Start: 32488, Stop: 32300, Start Num: 5

Candidate Starts for JHC117_51:

(Start: 5 @32488 has 217 MA's), (7, 32452), (10, 32374),

Gene: Jaykayelowell_45 Start: 32046, Stop: 31873, Start Num: 5

Candidate Starts for Jaykayelowell_45:

(Start: 5 @32046 has 217 MA's), (6, 32025), (9, 31962), (11, 31908), (13, 31896),

Gene: JenCasNa_52 Start: 32489, Stop: 32301, Start Num: 5

Candidate Starts for JenCasNa_52:

(Start: 5 @32489 has 217 MA's), (7, 32453), (10, 32375),

Gene: JeppNRM_52 Start: 32390, Stop: 32202, Start Num: 5

Candidate Starts for JeppNRM_52:

(Start: 5 @32390 has 217 MA's), (7, 32354), (10, 32276),

Gene: JetBlade_47 Start: 32047, Stop: 31874, Start Num: 5

Candidate Starts for JetBlade_47:

(Start: 5 @32047 has 217 MA's), (6, 32026), (9, 31963), (11, 31909), (13, 31897),

Gene: Jobu08_50 Start: 32321, Stop: 32133, Start Num: 5

Candidate Starts for Jobu08_50:

(Start: 5 @32321 has 217 MA's), (7, 32285), (10, 32207),

Gene: JoongJeon_46 Start: 32050, Stop: 31877, Start Num: 5

Candidate Starts for JoongJeon_46:

(Start: 5 @32050 has 217 MA's), (6, 32029), (9, 31966), (11, 31912), (13, 31900),

Gene: KADY_51 Start: 32520, Stop: 32332, Start Num: 5

Candidate Starts for KADY_51:

(Start: 5 @32520 has 217 MA's), (7, 32484), (10, 32406),

Gene: KFPoly_46 Start: 32047, Stop: 31874, Start Num: 5

Candidate Starts for KFPoly_46:

(Start: 5 @32047 has 217 MA's), (6, 32026), (9, 31963), (11, 31909), (13, 31897),

Gene: Kalb97_52 Start: 32388, Stop: 32200, Start Num: 5

Candidate Starts for Kalb97_52:

(Start: 5 @32388 has 217 MA's), (7, 32352), (10, 32274),

Gene: Kalnoky_52 Start: 32386, Stop: 32198, Start Num: 5

Candidate Starts for Kalnoky_52:

(Start: 5 @32386 has 217 MA's), (7, 32350), (10, 32272),

Gene: Kamy_47 Start: 32055, Stop: 31882, Start Num: 5

Candidate Starts for Kamy_47:

(Start: 5 @32055 has 217 MA's), (6, 32034), (9, 31971), (11, 31917), (13, 31905),

Gene: Katalie136_46 Start: 32029, Stop: 31853, Start Num: 5

Candidate Starts for Katalie136_46:

(Start: 5 @32029 has 217 MA's), (9, 31942), (11, 31888), (13, 31876),

Gene: Kingmustik0402_47 Start: 32042, Stop: 31869, Start Num: 5

Candidate Starts for Kingmustik0402_47:

(Start: 5 @32042 has 217 MA's), (6, 32021), (9, 31958), (11, 31904), (13, 31892),

Gene: Koreni_46 Start: 31734, Stop: 31561, Start Num: 5

Candidate Starts for Koreni_46:

(Start: 5 @31734 has 217 MA's), (6, 31713), (9, 31650), (11, 31596), (13, 31584),

Gene: Kratak_47 Start: 32216, Stop: 32040, Start Num: 5

Candidate Starts for Kratak_47:

(2, 32366), (Start: 5 @32216 has 217 MA's), (6, 32192), (11, 32075), (13, 32063),

Gene: Kremtemulon_47 Start: 32004, Stop: 31831, Start Num: 5

Candidate Starts for Kremtemulon_47:

(Start: 5 @32004 has 217 MA's), (6, 31983), (9, 31920), (11, 31866), (13, 31854),

Gene: Kyee_47 Start: 32051, Stop: 31878, Start Num: 5

Candidate Starts for Kyee_47:

(Start: 5 @32051 has 217 MA's), (6, 32030), (9, 31967), (11, 31913), (13, 31901),

Gene: LBerry_52 Start: 32493, Stop: 32305, Start Num: 5

Candidate Starts for LBerry_52:

(Start: 5 @32493 has 217 MA's), (7, 32457), (10, 32379),

Gene: LHTSCC_49 Start: 32475, Stop: 32302, Start Num: 5

Candidate Starts for LHTSCC_49:

(Start: 5 @32475 has 217 MA's), (9, 32391), (11, 32337), (13, 32325),

Gene: LappelDuVide_47 Start: 32052, Stop: 31879, Start Num: 5

Candidate Starts for LappelDuVide_47:

(Start: 5 @32052 has 217 MA's), (6, 32031), (9, 31968), (11, 31914), (13, 31902),

Gene: LarryKay_51 Start: 32522, Stop: 32334, Start Num: 5

Candidate Starts for LarryKay_51:

(Start: 5 @32522 has 217 MA's), (7, 32486), (10, 32408),

Gene: Lemur_47 Start: 32050, Stop: 31877, Start Num: 5

Candidate Starts for Lemur_47:

(Start: 5 @32050 has 217 MA's), (6, 32029), (9, 31966), (11, 31912), (13, 31900),

Gene: LeoAvram_47 Start: 32053, Stop: 31880, Start Num: 5

Candidate Starts for LeoAvram_47:

(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: Lilith_52 Start: 32482, Stop: 32294, Start Num: 5

Candidate Starts for Lilith_52:

(Start: 5 @32482 has 217 MA's), (7, 32446), (10, 32368),

Gene: LittleB_47 Start: 32054, Stop: 31881, Start Num: 5

Candidate Starts for LittleB_47:

(Start: 5 @32054 has 217 MA's), (6, 32033), (9, 31970), (11, 31916), (13, 31904),

Gene: LittleGuy_47 Start: 31949, Stop: 31776, Start Num: 5

Candidate Starts for LittleGuy_47:

(Start: 5 @31949 has 217 MA's), (6, 31928), (9, 31865), (11, 31811), (13, 31799),

Gene: LochMonster_48 Start: 32289, Stop: 32116, Start Num: 5

Candidate Starts for LochMonster_48:

(Start: 5 @32289 has 217 MA's), (6, 32268), (9, 32205), (11, 32151), (13, 32139),

Gene: Lorenzo_47 Start: 32053, Stop: 31880, Start Num: 5

Candidate Starts for Lorenzo_47:

(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: Louie6_50 Start: 32521, Stop: 32333, Start Num: 5

Candidate Starts for Louie6_50:

(Start: 5 @32521 has 217 MA's), (7, 32485), (10, 32407),

Gene: LugYA_54 Start: 32490, Stop: 32302, Start Num: 5

Candidate Starts for LugYA_54:

(Start: 5 @32490 has 217 MA's), (7, 32454), (10, 32376),

Gene: Lunsford_48 Start: 32047, Stop: 31874, Start Num: 5

Candidate Starts for Lunsford_48:

(Start: 5 @32047 has 217 MA's), (6, 32026), (9, 31963), (11, 31909), (13, 31897),

Gene: MadMarie_51 Start: 32491, Stop: 32303, Start Num: 5

Candidate Starts for MadMarie_51:

(Start: 5 @32491 has 217 MA's), (7, 32455), (10, 32377),

Gene: Mainiac_51 Start: 32483, Stop: 32295, Start Num: 5

Candidate Starts for Mainiac_51:

(Start: 5 @32483 has 217 MA's), (7, 32447), (10, 32369),

Gene: Malinsilva_53 Start: 32481, Stop: 32293, Start Num: 5

Candidate Starts for Malinsilva_53:

(Start: 5 @32481 has 217 MA's), (7, 32445), (10, 32367),

Gene: Manu_51 Start: 32389, Stop: 32201, Start Num: 5

Candidate Starts for Manu_51:

(Start: 5 @32389 has 217 MA's), (7, 32353), (10, 32275),

Gene: MarQuardt_51 Start: 32491, Stop: 32303, Start Num: 5

Candidate Starts for MarQuardt_51:

(Start: 5 @32491 has 217 MA's), (7, 32455), (10, 32377),

Gene: Marie_51 Start: 32489, Stop: 32301, Start Num: 5

Candidate Starts for Marie_51:
(Start: 5 @32489 has 217 MA's), (7, 32453), (10, 32375),

Gene: Marius_52 Start: 32386, Stop: 32198, Start Num: 5
Candidate Starts for Marius_52:
(Start: 5 @32386 has 217 MA's), (7, 32350), (10, 32272),

Gene: Maverick_47 Start: 32053, Stop: 31880, Start Num: 5
Candidate Starts for Maverick_47:
(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: Maxo_48 Start: 32055, Stop: 31882, Start Num: 5
Candidate Starts for Maxo_48:
(Start: 5 @32055 has 217 MA's), (6, 32034), (9, 31971), (11, 31917), (13, 31905),

Gene: Mazhar510_47 Start: 32054, Stop: 31881, Start Num: 5
Candidate Starts for Mazhar510_47:
(Start: 5 @32054 has 217 MA's), (6, 32033), (9, 31970), (11, 31916), (13, 31904),

Gene: Medusa_47 Start: 32052, Stop: 31879, Start Num: 5
Candidate Starts for Medusa_47:
(Start: 5 @32052 has 217 MA's), (6, 32031), (9, 31968), (11, 31914), (13, 31902),

Gene: MeeZee_47 Start: 32050, Stop: 31877, Start Num: 5
Candidate Starts for MeeZee_47:
(Start: 5 @32050 has 217 MA's), (6, 32029), (9, 31966), (11, 31912), (13, 31900),

Gene: Melvin_49 Start: 32048, Stop: 31875, Start Num: 5
Candidate Starts for Melvin_49:
(Start: 5 @32048 has 217 MA's), (6, 32027), (9, 31964), (11, 31910), (13, 31898),

Gene: Microwolf_51 Start: 32490, Stop: 32302, Start Num: 5
Candidate Starts for Microwolf_51:
(Start: 5 @32490 has 217 MA's), (7, 32454), (10, 32376),

Gene: Millski_46 Start: 32054, Stop: 31881, Start Num: 5
Candidate Starts for Millski_46:
(Start: 5 @32054 has 217 MA's), (6, 32033), (9, 31970), (11, 31916), (13, 31904),

Gene: Miramae_46 Start: 32214, Stop: 32041, Start Num: 5
Candidate Starts for Miramae_46:
(Start: 5 @32214 has 217 MA's), (6, 32193), (11, 32076), (13, 32064),

Gene: Misomonster_52 Start: 32519, Stop: 32331, Start Num: 5
Candidate Starts for Misomonster_52:
(Start: 5 @32519 has 217 MA's), (7, 32483), (10, 32405),

Gene: MoneyMay_51 Start: 32489, Stop: 32301, Start Num: 5
Candidate Starts for MoneyMay_51:
(Start: 5 @32489 has 217 MA's), (7, 32453), (10, 32375),

Gene: Morpher26_46 Start: 32050, Stop: 31874, Start Num: 5
Candidate Starts for Morpher26_46:

(Start: 5 @32050 has 217 MA's), (9, 31963), (11, 31909), (13, 31897),

Gene: Morrow_48 Start: 32059, Stop: 31886, Start Num: 5

Candidate Starts for Morrow_48:

(Start: 5 @32059 has 217 MA's), (6, 32038), (9, 31975), (11, 31921), (13, 31909),

Gene: MuchMore_54 Start: 32481, Stop: 32293, Start Num: 5

Candidate Starts for MuchMore_54:

(Start: 5 @32481 has 217 MA's), (7, 32445), (10, 32367),

Gene: Mundrea_46 Start: 32037, Stop: 31861, Start Num: 5

Candidate Starts for Mundrea_46:

(2, 32187), (Start: 5 @32037 has 217 MA's), (6, 32013), (11, 31896), (13, 31884),

Gene: Nebs_48 Start: 32053, Stop: 31880, Start Num: 5

Candidate Starts for Nebs_48:

(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: Nemo27_47 Start: 32052, Stop: 31879, Start Num: 5

Candidate Starts for Nemo27_47:

(Start: 5 @32052 has 217 MA's), (6, 32031), (9, 31968), (11, 31914), (13, 31902),

Gene: Noelle_47 Start: 32339, Stop: 32163, Start Num: 5

Candidate Starts for Noelle_47:

(1, 32636), (2, 32489), (Start: 5 @32339 has 217 MA's), (6, 32315), (9, 32252), (11, 32198), (13, 32186),

Gene: NorthStar_46 Start: 32053, Stop: 31880, Start Num: 5

Candidate Starts for NorthStar_46:

(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: NotAPhaseMom_47 Start: 32057, Stop: 31884, Start Num: 5

Candidate Starts for NotAPhaseMom_47:

(Start: 5 @32057 has 217 MA's), (6, 32036), (9, 31973), (11, 31919), (13, 31907),

Gene: Nyxis_47 Start: 31943, Stop: 31770, Start Num: 5

Candidate Starts for Nyxis_47:

(Start: 5 @31943 has 217 MA's), (6, 31922), (9, 31859), (11, 31805), (13, 31793),

Gene: OKaNui_47 Start: 32103, Stop: 31930, Start Num: 5

Candidate Starts for OKaNui_47:

(Start: 5 @32103 has 217 MA's), (6, 32082), (9, 32019), (11, 31965), (13, 31953),

Gene: Obama12_48 Start: 32477, Stop: 32304, Start Num: 5

Candidate Starts for Obama12_48:

(Start: 5 @32477 has 217 MA's), (9, 32393), (11, 32339), (13, 32327),

Gene: Ohfah_48 Start: 32053, Stop: 31880, Start Num: 5

Candidate Starts for Ohfah_48:

(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: OlanP_50 Start: 32559, Stop: 32371, Start Num: 5

Candidate Starts for OlanP_50:

(Start: 5 @32559 has 217 MA's), (7, 32523), (10, 32445),

Gene: Ollie_51 Start: 32360, Stop: 32172, Start Num: 5

Candidate Starts for Ollie_51:

(Start: 5 @32360 has 217 MA's), (7, 32324), (10, 32246),

Gene: P28Green_52 Start: 32492, Stop: 32304, Start Num: 5

Candidate Starts for P28Green_52:

(Start: 5 @32492 has 217 MA's), (7, 32456), (10, 32378),

Gene: PGHhamlin_53 Start: 32481, Stop: 32293, Start Num: 5

Candidate Starts for PGHhamlin_53:

(Start: 5 @32481 has 217 MA's), (7, 32445), (10, 32367),

Gene: Palestino_46 Start: 32053, Stop: 31880, Start Num: 5

Candidate Starts for Palestino_46:

(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: Pawn_51 Start: 32393, Stop: 32205, Start Num: 5

Candidate Starts for Pawn_51:

(Start: 5 @32393 has 217 MA's), (7, 32357), (10, 32279),

Gene: Peaches_47 Start: 32052, Stop: 31879, Start Num: 5

Candidate Starts for Peaches_47:

(Start: 5 @32052 has 217 MA's), (6, 32031), (9, 31968), (11, 31914), (13, 31902),

Gene: Pembroke_51 Start: 32490, Stop: 32302, Start Num: 5

Candidate Starts for Pembroke_51:

(Start: 5 @32490 has 217 MA's), (7, 32454), (10, 32376),

Gene: Penny1_52 Start: 32493, Stop: 32305, Start Num: 5

Candidate Starts for Penny1_52:

(Start: 5 @32493 has 217 MA's), (7, 32457), (10, 32379),

Gene: Perplexer_46 Start: 32026, Stop: 31850, Start Num: 5

Candidate Starts for Perplexer_46:

(Start: 5 @32026 has 217 MA's), (9, 31939), (11, 31885), (13, 31873),

Gene: PeterPeter_47 Start: 32050, Stop: 31877, Start Num: 5

Candidate Starts for PeterPeter_47:

(Start: 5 @32050 has 217 MA's), (6, 32029), (9, 31966), (11, 31912), (13, 31900),

Gene: PetiteSangsue_46 Start: 32029, Stop: 31853, Start Num: 5

Candidate Starts for PetiteSangsue_46:

(Start: 5 @32029 has 217 MA's), (9, 31942), (11, 31888), (13, 31876),

Gene: Phacado_47 Start: 32052, Stop: 31879, Start Num: 5

Candidate Starts for Phacado_47:

(Start: 5 @32052 has 217 MA's), (6, 32031), (9, 31968), (11, 31914), (13, 31902),

Gene: Phelipe_48 Start: 32053, Stop: 31880, Start Num: 5

Candidate Starts for Phelipe_48:

(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: Phighter1804_47 Start: 32119, Stop: 31943, Start Num: 5
Candidate Starts for Phighter1804_47:
(2, 32269), (Start: 5 @32119 has 217 MA's), (6, 32095), (11, 31978), (13, 31966),

Gene: PhishRPhriends_49 Start: 31567, Stop: 31379, Start Num: 5
Candidate Starts for PhishRPhriends_49:
(Start: 5 @31567 has 217 MA's), (7, 31531), (10, 31453),

Gene: Phoebe_52 Start: 32482, Stop: 32294, Start Num: 5
Candidate Starts for Phoebe_52:
(Start: 5 @32482 has 217 MA's), (7, 32446), (10, 32368),

Gene: Phontbonne_47 Start: 31944, Stop: 31771, Start Num: 5
Candidate Starts for Phontbonne_47:
(Start: 5 @31944 has 217 MA's), (6, 31923), (9, 31860), (11, 31806), (13, 31794),

Gene: Phoxy_51 Start: 32517, Stop: 32329, Start Num: 5
Candidate Starts for Phoxy_51:
(Start: 5 @32517 has 217 MA's), (7, 32481), (10, 32403),

Gene: Phranny_52 Start: 32375, Stop: 32187, Start Num: 5
Candidate Starts for Phranny_52:
(Start: 5 @32375 has 217 MA's), (7, 32339), (10, 32261),

Gene: Pipcraft_45 Start: 32053, Stop: 31880, Start Num: 5
Candidate Starts for Pipcraft_45:
(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: Polymorphads_48 Start: 32046, Stop: 31873, Start Num: 5
Candidate Starts for Polymorphads_48:
(Start: 5 @32046 has 217 MA's), (6, 32025), (9, 31962), (11, 31908), (13, 31896),

Gene: PotatoSplit_53 Start: 32493, Stop: 32305, Start Num: 5
Candidate Starts for PotatoSplit_53:
(Start: 5 @32493 has 217 MA's), (7, 32457), (10, 32379),

Gene: Pumbaa_47 Start: 31998, Stop: 31825, Start Num: 5
Candidate Starts for Pumbaa_47:
(Start: 5 @31998 has 217 MA's), (6, 31977), (9, 31914), (11, 31860), (13, 31848),

Gene: PurpleHaze_51 Start: 32388, Stop: 32200, Start Num: 5
Candidate Starts for PurpleHaze_51:
(Start: 5 @32388 has 217 MA's), (7, 32352), (10, 32274),

Gene: Reba_51 Start: 32048, Stop: 31860, Start Num: 5
Candidate Starts for Reba_51:
(Start: 5 @32048 has 217 MA's), (7, 32012), (10, 31934),

Gene: Relief_46 Start: 32050, Stop: 31877, Start Num: 5
Candidate Starts for Relief_46:
(Start: 5 @32050 has 217 MA's), (6, 32029), (9, 31966), (11, 31912), (13, 31900),

Gene: Romney_47 Start: 32050, Stop: 31877, Start Num: 5
Candidate Starts for Romney_47:
(Start: 5 @32050 has 217 MA's), (6, 32029), (9, 31966), (11, 31912), (13, 31900),

Gene: Roosevelt_46 Start: 32055, Stop: 31882, Start Num: 5
Candidate Starts for Roosevelt_46:
(Start: 5 @32055 has 217 MA's), (6, 32034), (9, 31971), (11, 31917), (13, 31905),

Gene: Rosa24_46 Start: 32084, Stop: 31911, Start Num: 5
Candidate Starts for Rosa24_46:
(Start: 5 @32084 has 217 MA's), (6, 32063), (9, 32000), (11, 31946), (13, 31934),

Gene: Ruin_47 Start: 32046, Stop: 31873, Start Num: 5
Candidate Starts for Ruin_47:
(Start: 5 @32046 has 217 MA's), (6, 32025), (9, 31962), (11, 31908), (13, 31896),

Gene: Rummer_50 Start: 32520, Stop: 32332, Start Num: 5
Candidate Starts for Rummer_50:
(Start: 5 @32520 has 217 MA's), (7, 32484), (10, 32406),

Gene: Sabertooth_47 Start: 32055, Stop: 31882, Start Num: 5
Candidate Starts for Sabertooth_47:
(Start: 5 @32055 has 217 MA's), (6, 32034), (9, 31971), (11, 31917), (13, 31905),

Gene: Sabia_51 Start: 32483, Stop: 32295, Start Num: 5
Candidate Starts for Sabia_51:
(Start: 5 @32483 has 217 MA's), (7, 32447), (10, 32369),

Gene: Sabinator_50 Start: 32488, Stop: 32300, Start Num: 5
Candidate Starts for Sabinator_50:
(Start: 5 @32488 has 217 MA's), (7, 32452), (10, 32374),

Gene: Scamp_47 Start: 32055, Stop: 31882, Start Num: 5
Candidate Starts for Scamp_47:
(Start: 5 @32055 has 217 MA's), (6, 32034), (9, 31971), (11, 31917), (13, 31905),

Gene: Shaka_47 Start: 32050, Stop: 31877, Start Num: 5
Candidate Starts for Shaka_47:
(Start: 5 @32050 has 217 MA's), (6, 32029), (9, 31966), (11, 31912), (13, 31900),

Gene: SheldonCooper_49 Start: 32476, Stop: 32303, Start Num: 5
Candidate Starts for SheldonCooper_49:
(Start: 5 @32476 has 217 MA's), (9, 32392), (11, 32338), (13, 32326),

Gene: Shygu2_46 Start: 32029, Stop: 31853, Start Num: 5
Candidate Starts for Shygu2_46:
(1, 32326), (2, 32179), (Start: 5 @32029 has 217 MA's), (6, 32005), (9, 31942), (11, 31888), (13, 31876),

Gene: Skipitt_46 Start: 32047, Stop: 31874, Start Num: 5
Candidate Starts for Skipitt_46:
(4, 32059), (Start: 5 @32047 has 217 MA's), (6, 32026), (9, 31963), (11, 31909), (13, 31897),

Gene: Snickers_51 Start: 32463, Stop: 32275, Start Num: 5
Candidate Starts for Snickers_51:
(Start: 5 @32463 has 217 MA's), (7, 32427), (10, 32349),

Gene: SoYo_51 Start: 32401, Stop: 32213, Start Num: 5
Candidate Starts for SoYo_51:
(Start: 5 @32401 has 217 MA's), (7, 32365), (10, 32287),

Gene: SoilDragon_51 Start: 31937, Stop: 31749, Start Num: 5
Candidate Starts for SoilDragon_51:
(Start: 5 @31937 has 217 MA's), (7, 31901), (10, 31823),

Gene: Soshari_53 Start: 32516, Stop: 32328, Start Num: 5
Candidate Starts for Soshari_53:
(Start: 5 @32516 has 217 MA's), (7, 32480), (10, 32402),

Gene: Sparxx_48 Start: 32048, Stop: 31875, Start Num: 5
Candidate Starts for Sparxx_48:
(Start: 5 @32048 has 217 MA's), (6, 32027), (9, 31964), (11, 31910), (13, 31898),

Gene: Spike509_51 Start: 32517, Stop: 32329, Start Num: 5
Candidate Starts for Spike509_51:
(Start: 5 @32517 has 217 MA's), (7, 32481), (10, 32403),

Gene: Spino_46 Start: 32053, Stop: 31880, Start Num: 5
Candidate Starts for Spino_46:
(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: Stagni_51 Start: 32492, Stop: 32304, Start Num: 5
Candidate Starts for Stagni_51:
(Start: 5 @32492 has 217 MA's), (7, 32456), (10, 32378),

Gene: Stasia_46 Start: 31928, Stop: 31752, Start Num: 5
Candidate Starts for Stasia_46:
(3, 32021), (Start: 5 @31928 has 217 MA's), (6, 31904), (9, 31841), (11, 31787), (13, 31775),

Gene: StepMih_51 Start: 32483, Stop: 32295, Start Num: 5
Candidate Starts for StepMih_51:
(Start: 5 @32483 has 217 MA's), (7, 32447), (10, 32369),

Gene: Stink_47 Start: 32494, Stop: 32321, Start Num: 5
Candidate Starts for Stink_47:
(Start: 5 @32494 has 217 MA's), (6, 32473), (11, 32356), (13, 32344),

Gene: Taquarus_47 Start: 32056, Stop: 31883, Start Num: 5
Candidate Starts for Taquarus_47:
(Start: 5 @32056 has 217 MA's), (6, 32035), (9, 31972), (11, 31918), (13, 31906), (14, 31897),

Gene: Taurus_52 Start: 32489, Stop: 32301, Start Num: 5
Candidate Starts for Taurus_52:
(Start: 5 @32489 has 217 MA's), (7, 32453), (10, 32375),

Gene: Thanksgivukkah_46 Start: 32051, Stop: 31878, Start Num: 5

Candidate Starts for Thanksgivukkah_46:
(Start: 5 @32051 has 217 MA's), (6, 32030), (9, 31967), (11, 31913), (13, 31901),

Gene: Tiffany_51 Start: 32375, Stop: 32187, Start Num: 5
Candidate Starts for Tiffany_51:
(Start: 5 @32375 has 217 MA's), (7, 32339), (10, 32261),

Gene: TinaFeyge_47 Start: 32048, Stop: 31875, Start Num: 5
Candidate Starts for TinaFeyge_47:
(Start: 5 @32048 has 217 MA's), (6, 32027), (9, 31964), (11, 31910), (13, 31898),

Gene: Tinybot_46 Start: 32080, Stop: 31907, Start Num: 5
Candidate Starts for Tinybot_46:
(Start: 5 @32080 has 217 MA's), (6, 32059), (9, 31996), (11, 31942), (13, 31930),

Gene: TiroTheta9_47 Start: 32047, Stop: 31874, Start Num: 5
Candidate Starts for TiroTheta9_47:
(Start: 5 @32047 has 217 MA's), (6, 32026), (9, 31963), (11, 31909), (13, 31897),

Gene: TroyPia_48 Start: 32051, Stop: 31878, Start Num: 5
Candidate Starts for TroyPia_48:
(Start: 5 @32051 has 217 MA's), (6, 32030), (9, 31967), (11, 31913), (13, 31901),

Gene: TygerBlood_47 Start: 32053, Stop: 31880, Start Num: 5
Candidate Starts for TygerBlood_47:
(Start: 5 @32053 has 217 MA's), (6, 32032), (9, 31969), (11, 31915), (13, 31903),

Gene: Ulysses_46 Start: 31730, Stop: 31557, Start Num: 5
Candidate Starts for Ulysses_46:
(Start: 5 @31730 has 217 MA's), (6, 31709), (9, 31646), (11, 31592), (13, 31580),

Gene: Vix_51 Start: 32572, Stop: 32384, Start Num: 5
Candidate Starts for Vix_51:
(Start: 5 @32572 has 217 MA's), (7, 32536), (10, 32458),

Gene: Wander_47 Start: 32050, Stop: 31877, Start Num: 5
Candidate Starts for Wander_47:
(Start: 5 @32050 has 217 MA's), (6, 32029), (9, 31966), (11, 31912), (13, 31900),

Gene: Watson_51 Start: 32481, Stop: 32293, Start Num: 5
Candidate Starts for Watson_51:
(Start: 5 @32481 has 217 MA's), (7, 32445), (10, 32367),

Gene: Wilbur_47 Start: 32050, Stop: 31877, Start Num: 5
Candidate Starts for Wilbur_47:
(Start: 5 @32050 has 217 MA's), (6, 32029), (9, 31966), (11, 31912), (13, 31900),

Gene: Wile_46 Start: 32060, Stop: 31884, Start Num: 5
Candidate Starts for Wile_46:
(Start: 5 @32060 has 217 MA's), (9, 31973), (11, 31919), (13, 31907),

Gene: Wizard007_47 Start: 32058, Stop: 31885, Start Num: 5
Candidate Starts for Wizard007_47:

(Start: 5 @32058 has 217 MA's), (6, 32037), (9, 31974), (11, 31920), (13, 31908),

Gene: Wooldri_53 Start: 32401, Stop: 32213, Start Num: 5

Candidate Starts for Wooldri_53:

(Start: 5 @32401 has 217 MA's), (7, 32365), (10, 32287),

Gene: Xena_45 Start: 32026, Stop: 31850, Start Num: 5

Candidate Starts for Xena_45:

(Start: 5 @32026 has 217 MA's), (9, 31939), (11, 31885), (13, 31873),

Gene: YoSam321_47 Start: 32047, Stop: 31874, Start Num: 5

Candidate Starts for YoSam321_47:

(Start: 5 @32047 has 217 MA's), (6, 32026), (9, 31963), (11, 31909), (13, 31897),

Gene: Zetzy_50 Start: 32052, Stop: 31864, Start Num: 5

Candidate Starts for Zetzy_50:

(Start: 5 @32052 has 217 MA's), (7, 32016), (10, 31938),