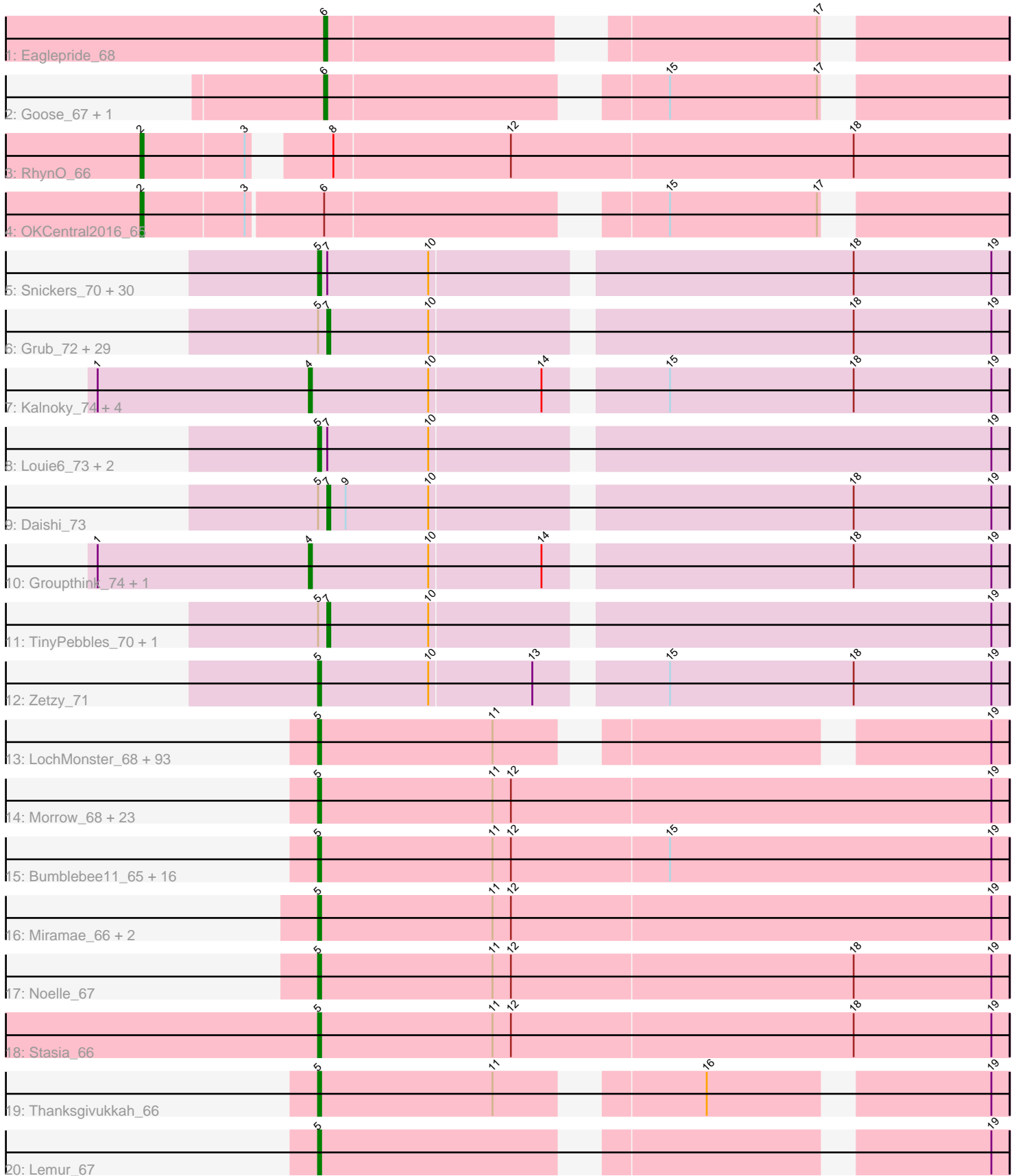


Pham 224283



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 224283 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224283 has 222 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Eaglepride_68
- Track 2 : Goose_67, Chupacabra_64
- Track 3 : RhynO_66
- Track 4 : OKCentral2016_65
- Track 5 : Snickers_70, Sabia_72, Mainiac_73, JenCasNa_75, Methuselah_67, Cullens_74, DaHudson_73, Colbster_70, Soshari_76, MoneyMay_73, Hercules11_74, LugYA_77, Taurus_75, MarQuardt_74, Vix_70, PotatoSplit_75, Farber_74, Microwolf_70, Phoxy_74, Tiffany_73, Wooldri_76, Anubis_77, Jobu08_70, LBerry_75, JHC117_70, Rummer_73, Spike509_74, P28Green_74, GingkoMaracino_74, Phoebe_75, Grum1_73
- Track 6 : Grub_72, Lowa_71, Pembroke_74, Marie_72, Grif_72, Ollie_74, SoilDragon_73, Penny1_74, GtownJaz_74, Beauxregard13_73, Lilith_72, HashRod_75, Bxz2_69, Fernando_74, BreSam8_74, Sabinator_72, Dieselweasel_74, EpicPhail_75, MadMarie_72, Stagni_71, AgronaGT15_71, LarryKay_74, PGHhamlin_76, MuchMore_77, Malinsilva_76, Bigflo_71, Watson_73, Aglet_75, AugsMagnumOpus_77, SoYo_71
- Track 7 : Kalnok_74, JeppNRM_74, Pawn_72, Marius_74, ACFishhook_71
- Track 8 : Louie6_73, Misomonster_75, BuzzBuzz_68
- Track 9 : Daishi_73
- Track 10 : Groupthink_74, Kalb97_74
- Track 11 : TinyPebbles_70, KADY_71
- Track 12 : Zetzy_71
- Track 13 : LochMonster_68, Flux_67, Kingmustik0402_67, Lunsford_67, Alberto7_68, Maverick_66, Eris_66, Phontbonne_67, Kampy_66, Skipitt_66, Spino_66, Phacado_67, Funston_66, Sparxx_68, Blackmoor_66, Mazhar510_67, OKaNui_66, Eros_67, Romney_66, Sabertooth_67, Iracema64_67, DirtyDunning_66, Clarenza_66, Houdini22_66, Shaka_65, PeterPeter_67, Huxley_64, Avle17_67, SenorClean_62, Iceman_66, Melvin_69, Koan_62, JoongJeon_66, Citius_67, Burger_65, NorthStar_65, Mayonnaise_64, Albee_67, HamSlice_63, Pumbaa_67, Millski_66, Jaykayelowell_64, Peaches_65, Eapen_67, Deano_64, Taquarus_66, Bruiser_66, Roosevelt_65, Kyee_67, TinaFeyge_65, Abdiel_67, KFPoly_66, Broseidon_67, Connomayer_67, Palestino_66, Nyxis_66, Ruin_67, Commander_65, Bartimeaus_67, Koreni_66, Cocoaberry_67, Lorenzo_67, NotAPhaseMom_66, Florean_67, Scamp_67, Nemo27_66, Camperdownii_65, Pipcraft_64, Medusa_67, Gadost_67, YoSam321_67, Bombshell_67, LittleB_67, Dhanush_67, Phighter1804_67, Relief_66, Ulysses_66, Druantia_66, Wilbur_67, Chaph_67, Annyong_66, Wander_67, Arturo_64, Holli_66, LittleGuy_67, TygerBlood_67,

Maxo_68, MeeZee_66, Baby16_67, Rosa24_64, TiroTheta9_66, Tinybot_66, LappelDuVide_67, Caelakin_66

- Track 14 : Morrow_68, BellusTerra_68, LeoAvram_66, Eagle_66, Cerulean_68, Kremtemulon_66, Shygu2_66, Obama12_68, Ohfah_68, Happiness_66, Kratark_66, ChampagnePapi_69, BangNhom_65, Cintron_67, TroyPia_68, Eurydice_68, LHTSCC_69, Phelipe_68, JetBlade_67, Polymorphads_67, SheldonCooper_67, ICleared_66, Nebs_68, CentreCat_67
- Track 15 : Bumblebee11_65, Achebe_65, AbbysRanger_66, Cici_66, Datway_66, BubbleTrouble_66, Perplexer_66, Backyardigan_64, Wizard007_66, Mundrea_66, Morpher26_66, Xena_65, PetiteSangsue_66, Cindaradix_63, Wile_65, Badger_65, Katalie136_66
- Track 16 : Miramae_66, AvatarAhPeg_66, Stink_66
- Track 17 : Noelle_67
- Track 18 : Stasia_66
- Track 19 : Thanksgivukkah_66
- Track 20 : Lemur_67

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 171 of the 213 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbysRanger_66, Abdiel_67, Achebe_65, Albee_67, Alberto7_68, Annyong_66, Anubis_77, Arturo_64, AvatarAhPeg_66, Avle17_67, Baby16_67, Backyardigan_64, Badger_65, BangNhom_65, Bartimeaus_67, BellusTerra_68, Blackmoor_66, Bombshell_67, Broseidon_67, Bruiser_66, BubbleTrouble_66, Bumblebee11_65, Burger_65, BuzzBuzz_68, Caelakin_66, Camperdownii_65, CentreCat_67, Cerulean_68, ChampagnePapi_69, Chaph_67, Cici_66, Cindaradix_63, Cintron_67, Citius_67, Clarenza_66, Cocoaberry_67, Colbster_70, Commander_65, Connomayer_67, Cullens_74, DaHudson_73, Datway_66, Deano_64, Dhanush_67, DirtyDunning_66, Druantia_66, Eagle_66, Eapen_67, Eris_66, Eros_67, Eurydice_68, Farber_74, Florean_67, Flux_67, Funston_66, Gadost_67, GingkoMaracino_74, Grum1_73, HamSlice_63, Happiness_66, Hercules11_74, Holli_66, Houdini22_66, Huxley_64, ICleared_66, Iceman_66, Iracema64_67, JHC117_70, Jaykayelowell_64, JenCasNa_75, JetBlade_67, Jobu08_70, JoongJeon_66, KFPoly_66, Kampy_66, Katalie136_66, Kingmustik0402_67, Koan_62, Koreni_66, Kratark_66, Kremtemulon_66, Kyee_67, LBerry_75, LHTSCC_69, LappelDuVide_67, Lemur_67, LeoAvram_66, LittleB_67, LittleGuy_67, LochMonster_68, Lorenzo_67, Louie6_73, LugYA_77, Lunsford_67, Mainiac_73, MarQuardt_74, Maverick_66, Maxo_68, Mayonnaise_64, Mazhar510_67, Medusa_67, MeeZee_66, Melvin_69, Methuselah_67, Microwolf_70, Millski_66, Miramae_66, Misomonster_75, MoneyMay_73, Morpher26_66, Morrow_68, Mundrea_66, Nebs_68, Nemo27_66, Noelle_67, NorthStar_65, NotAPhaseMom_66, Nyxis_66, OKaNui_66, Obama12_68, Ohfah_68, P28Green_74, Palestino_66, Peaches_65, Perplexer_66, PeterPeter_67, PetiteSangsue_66, Phacado_67, Phelipe_68, Phighter1804_67, Phoebe_75, Phontbonne_67, Phoxy_74, Pipcraft_64, Polymorphads_67, PotatoSplit_75, Pumbaa_67, Relief_66, Romney_66, Roosevelt_65, Rosa24_64, Ruin_67, Rummer_73, Sabertooth_67, Sabia_72, Scamp_67, SeniorClean_62, Shaka_65, SheldonCooper_67, Shygu2_66, Skipitt_66, Snickers_70, Soshari_76, Sparxx_68,

Spike509_74, Spino_66, Stasia_66, Stink_66, Taquarus_66, Taurus_75, Thanksgivukkah_66, Tiffany_73, TinaFeyge_65, Tinybot_66, TiroTheta9_66, TroyPia_68, TygerBlood_67, Ulysses_66, Vix_70, Wander_67, Wilbur_67, Wile_65, Wizard007_66, Wooldri_76, Xena_65, YoSam321_67, Zetzy_71,

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

- Aglet_75, AgronaGT15_71, AugsMagnumOpus_77, Beauxregard13_73, Bigflo_71, BreSam8_74, Bxz2_69, Daishi_73, Dieselweasel_74, EpicPhail_75, Fernando_74, Grif_72, Grub_72, GtownJaz_74, HashRod_75, KADY_71, LarryKay_74, Lilith_72, Lowa_71, MadMarie_72, Malinsilva_76, Marie_72, MuchMore_77, Ollie_74, PGHhamlin_76, Pembroke_74, Penny1_74, Sabinator_72, SoYo_71, SoilDragon_73, Stagin_71, TinyPebbles_70, Watson_73,

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

- ACFishhook_71, Chupacabra_64, Eaglepride_68, Goose_67, Groupthink_74, JeppNRM_74, Kalb97_74, Kalnoky_74, Marius_74, OKCentral2016_65, Pawn_72, RhynO_66,

Summary by start number:

Start 2:

- Found in 2 of 222 (0.9%) of genes in pham
- Manual Annotations of this start: 2 of 213
- Called 100.0% of time when present
- Phage (with cluster) where this start called: OKCentral2016_65 (A10), RhynO_66 (A10),

Start 4:

- Found in 7 of 222 (3.2%) of genes in pham
- Manual Annotations of this start: 7 of 213
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ACFishhook_71 (A3), Groupthink_74 (A3), JeppNRM_74 (A3), Kalb97_74 (A3), Kalnoky_74 (A3), Marius_74 (A3), Pawn_72 (A3),

Start 5:

- Found in 210 of 222 (94.6%) of genes in pham
- Manual Annotations of this start: 171 of 213
- Called 84.3% of time when present
- Phage (with cluster) where this start called: AbbysRanger_66 (A4), Abdiel_67 (A4), Achebe_65 (A4), Albee_67 (A4), Alberto7_68 (A4), Annyong_66 (A4), Anubis_77 (A3), Arturo_64 (A4), AvatarAhPeg_66 (A4), Avle17_67 (A4), Baby16_67 (A4), Backyardigan_64 (A4), Badger_65 (A4), BangNhom_65 (A4), Bartimeaus_67 (A4), BellusTerra_68 (A4), Blackmoor_66 (A4), Bombshell_67 (A4), Broseidon_67 (A4), Bruiser_66 (A4), BubbleTrouble_66 (A4), Bumblebee11_65 (A4), Burger_65 (A4), BuzzBuzz_68 (A3), Caelakin_66 (A4), Camperdownii_65 (A4), CentreCat_67 (A4), Cerulean_68 (A4), ChampagnePapi_69 (A4), Chaph_67 (A4), Cici_66 (A4), Cindaradix_63 (A4), Cintron_67 (A4), Citius_67 (A4), Clarenza_66 (A4), Cocoaberry_67 (A4), Colbster_70 (A3), Commander_65 (A4), Connomayer_67 (A4), Cullens_74 (A3), DaHudson_73 (A3), Datway_66 (A4), Deano_64 (A4), Dhanush_67 (A4), DirtyDunning_66 (A4), Druantia_66 (A4), Eagle_66 (A4), Eapen_67 (A4), Eris_66 (A4), Eros_67 (A4), Eurydice_68 (A4), Farber_74 (A3), Florean_67 (A4), Flux_67 (A4), Funston_66 (A4), Gadost_67 (A4), GingkoMaracino_74 (A3),

Grum1_73 (A3), HamSlice_63 (A4), Happiness_66 (A4), Hercules11_74 (A3), Holli_66 (A4), Houdini22_66 (A4), Huxley_64 (A4), ICleared_66 (A4), Iceman_66 (A4), Iracema64_67 (A4), JHC117_70 (A3), Jaykayelowell_64 (A4), JenCasNa_75 (A3), JetBlade_67 (A4), Jobu08_70 (A3), JoongJeon_66 (A4), KFPoly_66 (A4), Kampy_66 (A4), Katalie136_66 (A4), Kingmustik0402_67 (A4), Koan_62 (A4), Koreni_66 (A4), Kratak_66 (A4), Kremtemulon_66 (A4), Kyee_67 (A4), LBerry_75 (A3), LHTSCC_69 (A4), LappelDuVide_67 (A4), Lemur_67 (A4), LeoAvram_66 (A4), LittleB_67 (A4), LittleGuy_67 (A4), LochMonster_68 (A4), Lorenzo_67 (A4), Louie6_73 (A3), LugYA_77 (A3), Lunsford_67 (A4), Mainiac_73 (A3), MarQuardt_74 (A3), Maverick_66 (A4), Maxo_68 (A4), Mayonnaise_64 (A4), Mazhar510_67 (A4), Medusa_67 (A4), MeeZee_66 (A4), Melvin_69 (A4), Methuselah_67 (A3), Microwolf_70 (A3), Millski_66 (A4), Miramae_66 (A4), Misomonster_75 (A3), MoneyMay_73 (A3), Morpher26_66 (A4), Morrow_68 (A4), Mundrea_66 (A4), Nebs_68 (A4), Nemo27_66 (A4), Noelle_67 (A4), NorthStar_65 (A4), NotAPhaseMom_66 (A4), Nyxis_66 (A4), OKaNui_66 (A4), Obama12_68 (A4), Ohfah_68 (A4), P28Green_74 (A3), Palestino_66 (A4), Peaches_65 (A4), Perplexer_66 (A4), PeterPeter_67 (A4), PetiteSangsue_66 (A4), Phacado_67 (A4), Phelipe_68 (A4), Phighter1804_67 (A4), Phoebe_75 (A3), Phontbonne_67 (A4), Phoxy_74 (A3), Pipcraft_64 (A4), Polymorphads_67 (A4), PotatoSplit_75 (A3), Pumbaa_67 (A4), Relief_66 (A4), Romney_66 (A4), Roosevelt_65 (A4), Rosa24_64 (A4), Ruin_67 (A4), Rummer_73 (A3), Sabertooth_67 (A4), Sabia_72 (A3), Scamp_67 (A4), SeniorClean_62 (A4), Shaka_65 (A4), SheldonCooper_67 (A4), Shygu2_66 (A4), Skipitt_66 (A4), Snickers_70 (A3), Soshari_76 (A3), Sparxx_68 (A4), Spike509_74 (A3), Spino_66 (A4), Stasia_66 (A4), Stink_66 (A4), Taquarus_66 (A4), Taurus_75 (A3), Thanksgivukkah_66 (A4), Tiffany_73 (A3), TinaFeyge_65 (A4), Tinybot_66 (A4), TiroTheta9_66 (A4), TroyPia_68 (A4), TygerBlood_67 (A4), Ulysses_66 (A4), Vix_70 (A3), Wander_67 (A4), Wilbur_67 (A4), Wile_65 (A4), Wizard007_66 (A4), Wooldri_76 (A3), Xena_65 (A4), YoSam321_67 (A4), Zetzy_71 (A3),

Start 6:

- Found in 4 of 222 (1.8%) of genes in pham
- Manual Annotations of this start: 3 of 213
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Chupacabra_64 (A10), Eaglepride_68 (A10), Goose_67 (A10),

Start 7:

- Found in 67 of 222 (30.2%) of genes in pham
- Manual Annotations of this start: 30 of 213
- Called 49.3% of time when present
- Phage (with cluster) where this start called: Aglet_75 (A3), AgronaGT15_71 (A3), AugsMagnumOpus_77 (A3), Beauxregard13_73 (A3), Bigflo_71 (A3), BreSam8_74 (A3), Bxz2_69 (A3), Daishi_73 (A3), Dieselweasel_74 (A3), EpicPhail_75 (A3), Fernando_74 (A3), Grif_72 (A3), Grub_72 (A3), GtownJaz_74 (A3), HashRod_75 (A3), KADY_71 (A3), LarryKay_74 (A3), Lilith_72 (A3), Iowa_71 (A3), MadMarie_72 (A3), Malinsilva_76 (A3), Marie_72 (A3), MuchMore_77 (A3), Ollie_74 (A3), PGHhamlin_76 (A3), Pembroke_74 (A3), Penny1_74 (A3), Sabinator_72 (A3), SoYo_71 (A3), SoilDragon_73 (A3), Stagni_71 (A3), TinyPebbles_70 (A3), Watson_73 (A3),

Summary by clusters:

There are 3 clusters represented in this pham: A3, A4, A10,

Info for manual annotations of cluster A10:

- Start number 2 was manually annotated 2 times for cluster A10.
- Start number 6 was manually annotated 3 times for cluster A10.

Info for manual annotations of cluster A3:

- Start number 4 was manually annotated 7 times for cluster A3.
- Start number 5 was manually annotated 34 times for cluster A3.
- Start number 7 was manually annotated 30 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_71 Start: 42736, Stop: 42518, Start Num: 4

Candidate Starts for ACFishhook_71:

(1, 42805), (Start: 4 @42736 has 7 MA's), (10, 42697), (14, 42661), (15, 42628), (18, 42568), (19, 42523),

Gene: AbbysRanger_66 Start: 42647, Stop: 42423, Start Num: 5

Candidate Starts for AbbysRanger_66:

(Start: 5 @42647 has 171 MA's), (11, 42590), (12, 42584), (15, 42533), (19, 42428),

Gene: Abdiel_67 Start: 42370, Stop: 42173, Start Num: 5

Candidate Starts for Abdiel_67:

(Start: 5 @42370 has 171 MA's), (11, 42313), (19, 42178),

Gene: Achebe_65 Start: 42630, Stop: 42406, Start Num: 5

Candidate Starts for Achebe_65:

(Start: 5 @42630 has 171 MA's), (11, 42573), (12, 42567), (15, 42516), (19, 42411),

Gene: Aglet_75 Start: 42842, Stop: 42630, Start Num: 7

Candidate Starts for Aglet_75:

(Start: 5 @42845 has 171 MA's), (Start: 7 @42842 has 30 MA's), (10, 42809), (18, 42680), (19, 42635),

Gene: AgronaGT15_71 Start: 42690, Stop: 42478, Start Num: 7

Candidate Starts for AgronaGT15_71:

(Start: 5 @42693 has 171 MA's), (Start: 7 @42690 has 30 MA's), (10, 42657), (18, 42528), (19, 42483),

Gene: Albee_67 Start: 42357, Stop: 42160, Start Num: 5

Candidate Starts for Albee_67:

(Start: 5 @42357 has 171 MA's), (11, 42300), (19, 42165),

Gene: Alberto7_68 Start: 42694, Stop: 42497, Start Num: 5

Candidate Starts for Alberto7_68:

(Start: 5 @42694 has 171 MA's), (11, 42637), (19, 42502),

Gene: Annyong_66 Start: 42402, Stop: 42205, Start Num: 5

Candidate Starts for Annyong_66:

(Start: 5 @42402 has 171 MA's), (11, 42345), (19, 42210),

Gene: Anubis_77 Start: 42731, Stop: 42516, Start Num: 5

Candidate Starts for Anubis_77:

(Start: 5 @42731 has 171 MA's), (Start: 7 @42728 has 30 MA's), (10, 42695), (18, 42566), (19, 42521),

Gene: Arturo_64 Start: 42484, Stop: 42287, Start Num: 5

Candidate Starts for Arturo_64:

(Start: 5 @42484 has 171 MA's), (11, 42427), (19, 42292),

Gene: AugsMagnumOpus_77 Start: 42833, Stop: 42621, Start Num: 7

Candidate Starts for AugsMagnumOpus_77:

(Start: 5 @42836 has 171 MA's), (Start: 7 @42833 has 30 MA's), (10, 42800), (18, 42671), (19, 42626),

Gene: AvatarAhPeg_66 Start: 42517, Stop: 42293, Start Num: 5

Candidate Starts for AvatarAhPeg_66:

(Start: 5 @42517 has 171 MA's), (11, 42460), (12, 42454), (19, 42298),

Gene: Avle17_67 Start: 42354, Stop: 42157, Start Num: 5

Candidate Starts for Avle17_67:

(Start: 5 @42354 has 171 MA's), (11, 42297), (19, 42162),

Gene: Baby16_67 Start: 42368, Stop: 42171, Start Num: 5

Candidate Starts for Baby16_67:

(Start: 5 @42368 has 171 MA's), (11, 42311), (19, 42176),

Gene: Backyardigan_64 Start: 42663, Stop: 42439, Start Num: 5

Candidate Starts for Backyardigan_64:

(Start: 5 @42663 has 171 MA's), (11, 42606), (12, 42600), (15, 42549), (19, 42444),

Gene: Badger_65 Start: 42631, Stop: 42407, Start Num: 5

Candidate Starts for Badger_65:

(Start: 5 @42631 has 171 MA's), (11, 42574), (12, 42568), (15, 42517), (19, 42412),

Gene: BangNhom_65 Start: 42796, Stop: 42572, Start Num: 5

Candidate Starts for BangNhom_65:

(Start: 5 @42796 has 171 MA's), (11, 42739), (12, 42733), (19, 42577),

Gene: Bartimeaus_67 Start: 42359, Stop: 42162, Start Num: 5

Candidate Starts for Bartimeaus_67:

(Start: 5 @42359 has 171 MA's), (11, 42302), (19, 42167),

Gene: Beauxregard13_73 Start: 42845, Stop: 42633, Start Num: 7

Candidate Starts for Beauxregard13_73:

(Start: 5 @42848 has 171 MA's), (Start: 7 @42845 has 30 MA's), (10, 42812), (18, 42683), (19, 42638),

Gene: BellusTerra_68 Start: 42397, Stop: 42173, Start Num: 5

Candidate Starts for BellusTerra_68:

(Start: 5 @42397 has 171 MA's), (11, 42340), (12, 42334), (19, 42178),

Gene: Bigflo_71 Start: 42841, Stop: 42629, Start Num: 7

Candidate Starts for Bigflo_71:

(Start: 5 @42844 has 171 MA's), (Start: 7 @42841 has 30 MA's), (10, 42808), (18, 42679), (19, 42634),

Gene: Blackmoor_66 Start: 42359, Stop: 42162, Start Num: 5

Candidate Starts for Blackmoor_66:

(Start: 5 @42359 has 171 MA's), (11, 42302), (19, 42167),

Gene: Bombshell_67 Start: 42354, Stop: 42157, Start Num: 5

Candidate Starts for Bombshell_67:

(Start: 5 @42354 has 171 MA's), (11, 42297), (19, 42162),

Gene: BreSam8_74 Start: 42835, Stop: 42623, Start Num: 7

Candidate Starts for BreSam8_74:

(Start: 5 @42838 has 171 MA's), (Start: 7 @42835 has 30 MA's), (10, 42802), (18, 42673), (19, 42628),

Gene: Broseidon_67 Start: 42359, Stop: 42162, Start Num: 5

Candidate Starts for Broseidon_67:

(Start: 5 @42359 has 171 MA's), (11, 42302), (19, 42167),

Gene: Bruiser_66 Start: 42357, Stop: 42160, Start Num: 5

Candidate Starts for Bruiser_66:

(Start: 5 @42357 has 171 MA's), (11, 42300), (19, 42165),

Gene: BubbleTrouble_66 Start: 42384, Stop: 42160, Start Num: 5

Candidate Starts for BubbleTrouble_66:

(Start: 5 @42384 has 171 MA's), (11, 42327), (12, 42321), (15, 42270), (19, 42165),

Gene: Bumblebee11_65 Start: 42633, Stop: 42409, Start Num: 5

Candidate Starts for Bumblebee11_65:

(Start: 5 @42633 has 171 MA's), (11, 42576), (12, 42570), (15, 42519), (19, 42414),

Gene: Burger_65 Start: 42357, Stop: 42160, Start Num: 5

Candidate Starts for Burger_65:

(Start: 5 @42357 has 171 MA's), (11, 42300), (19, 42165),

Gene: BuzzBuzz_68 Start: 42872, Stop: 42657, Start Num: 5

Candidate Starts for BuzzBuzz_68:

(Start: 5 @42872 has 171 MA's), (Start: 7 @42869 has 30 MA's), (10, 42836), (19, 42662),

Gene: Bxz2_69 Start: 42876, Stop: 42664, Start Num: 7

Candidate Starts for Bxz2_69:

(Start: 5 @42879 has 171 MA's), (Start: 7 @42876 has 30 MA's), (10, 42843), (18, 42714), (19, 42669),

Gene: Caelakin_66 Start: 42357, Stop: 42160, Start Num: 5

Candidate Starts for Caelakin_66:

(Start: 5 @42357 has 171 MA's), (11, 42300), (19, 42165),

Gene: Camperdownii_65 Start: 42031, Stop: 41834, Start Num: 5

Candidate Starts for Camperdownii_65:

(Start: 5 @42031 has 171 MA's), (11, 41974), (19, 41839),

Gene: CentreCat_67 Start: 42396, Stop: 42172, Start Num: 5

Candidate Starts for CentreCat_67:

(Start: 5 @42396 has 171 MA's), (11, 42339), (12, 42333), (19, 42177),

Gene: Cerulean_68 Start: 42797, Stop: 42573, Start Num: 5
Candidate Starts for Cerulean_68:
(Start: 5 @42797 has 171 MA's), (11, 42740), (12, 42734), (19, 42578),

Gene: ChampagnePapi_69 Start: 42796, Stop: 42572, Start Num: 5
Candidate Starts for ChampagnePapi_69:
(Start: 5 @42796 has 171 MA's), (11, 42739), (12, 42733), (19, 42577),

Gene: Chaph_67 Start: 42368, Stop: 42171, Start Num: 5
Candidate Starts for Chaph_67:
(Start: 5 @42368 has 171 MA's), (11, 42311), (19, 42176),

Gene: Chupacabra_64 Start: 41694, Stop: 41500, Start Num: 6
Candidate Starts for Chupacabra_64:
(Start: 6 @41694 has 3 MA's), (15, 41598), (17, 41550),

Gene: Cici_66 Start: 42648, Stop: 42424, Start Num: 5
Candidate Starts for Cici_66:
(Start: 5 @42648 has 171 MA's), (11, 42591), (12, 42585), (15, 42534), (19, 42429),

Gene: Cindaradix_63 Start: 42259, Stop: 42035, Start Num: 5
Candidate Starts for Cindaradix_63:
(Start: 5 @42259 has 171 MA's), (11, 42202), (12, 42196), (15, 42145), (19, 42040),

Gene: Cintron_67 Start: 42507, Stop: 42283, Start Num: 5
Candidate Starts for Cintron_67:
(Start: 5 @42507 has 171 MA's), (11, 42450), (12, 42444), (19, 42288),

Gene: Citius_67 Start: 42378, Stop: 42181, Start Num: 5
Candidate Starts for Citius_67:
(Start: 5 @42378 has 171 MA's), (11, 42321), (19, 42186),

Gene: Clarenza_66 Start: 42354, Stop: 42157, Start Num: 5
Candidate Starts for Clarenza_66:
(Start: 5 @42354 has 171 MA's), (11, 42297), (19, 42162),

Gene: Cocoaberry_67 Start: 42361, Stop: 42164, Start Num: 5
Candidate Starts for Cocoaberry_67:
(Start: 5 @42361 has 171 MA's), (11, 42304), (19, 42169),

Gene: Colbster_70 Start: 42848, Stop: 42633, Start Num: 5
Candidate Starts for Colbster_70:
(Start: 5 @42848 has 171 MA's), (Start: 7 @42845 has 30 MA's), (10, 42812), (18, 42683), (19, 42638),

Gene: Commander_65 Start: 42356, Stop: 42159, Start Num: 5
Candidate Starts for Commander_65:
(Start: 5 @42356 has 171 MA's), (11, 42299), (19, 42164),

Gene: Connomayer_67 Start: 42357, Stop: 42160, Start Num: 5
Candidate Starts for Connomayer_67:
(Start: 5 @42357 has 171 MA's), (11, 42300), (19, 42165),

Gene: Cullens_74 Start: 42844, Stop: 42629, Start Num: 5

Candidate Starts for Cullens_74:

(Start: 5 @42844 has 171 MA's), (Start: 7 @42841 has 30 MA's), (10, 42808), (18, 42679), (19, 42634),

Gene: DaHudson_73 Start: 42837, Stop: 42622, Start Num: 5

Candidate Starts for DaHudson_73:

(Start: 5 @42837 has 171 MA's), (Start: 7 @42834 has 30 MA's), (10, 42801), (18, 42672), (19, 42627),

Gene: Daishi_73 Start: 41709, Stop: 41497, Start Num: 7

Candidate Starts for Daishi_73:

(Start: 5 @41712 has 171 MA's), (Start: 7 @41709 has 30 MA's), (9, 41703), (10, 41676), (18, 41547), (19, 41502),

Gene: Datway_66 Start: 42619, Stop: 42395, Start Num: 5

Candidate Starts for Datway_66:

(Start: 5 @42619 has 171 MA's), (11, 42562), (12, 42556), (15, 42505), (19, 42400),

Gene: Deano_64 Start: 42365, Stop: 42168, Start Num: 5

Candidate Starts for Deano_64:

(Start: 5 @42365 has 171 MA's), (11, 42308), (19, 42173),

Gene: Dhanush_67 Start: 42360, Stop: 42163, Start Num: 5

Candidate Starts for Dhanush_67:

(Start: 5 @42360 has 171 MA's), (11, 42303), (19, 42168),

Gene: Dieselweasel_74 Start: 42843, Stop: 42631, Start Num: 7

Candidate Starts for Dieselweasel_74:

(Start: 5 @42846 has 171 MA's), (Start: 7 @42843 has 30 MA's), (10, 42810), (18, 42681), (19, 42636),

Gene: DirtyDunning_66 Start: 42372, Stop: 42175, Start Num: 5

Candidate Starts for DirtyDunning_66:

(Start: 5 @42372 has 171 MA's), (11, 42315), (19, 42180),

Gene: Druantia_66 Start: 42360, Stop: 42163, Start Num: 5

Candidate Starts for Druantia_66:

(Start: 5 @42360 has 171 MA's), (11, 42303), (19, 42168),

Gene: Eagle_66 Start: 42418, Stop: 42194, Start Num: 5

Candidate Starts for Eagle_66:

(Start: 5 @42418 has 171 MA's), (11, 42361), (12, 42355), (19, 42199),

Gene: Eaglepride_68 Start: 41798, Stop: 41607, Start Num: 6

Candidate Starts for Eaglepride_68:

(Start: 6 @41798 has 3 MA's), (17, 41657),

Gene: Eapen_67 Start: 42352, Stop: 42155, Start Num: 5

Candidate Starts for Eapen_67:

(Start: 5 @42352 has 171 MA's), (11, 42295), (19, 42160),

Gene: EpicPhail_75 Start: 42845, Stop: 42633, Start Num: 7

Candidate Starts for EpicPhail_75:

(Start: 5 @42848 has 171 MA's), (Start: 7 @42845 has 30 MA's), (10, 42812), (18, 42683), (19, 42638),

Gene: Eris_66 Start: 42372, Stop: 42175, Start Num: 5

Candidate Starts for Eris_66:

(Start: 5 @42372 has 171 MA's), (11, 42315), (19, 42180),

Gene: Eros_67 Start: 42359, Stop: 42162, Start Num: 5

Candidate Starts for Eros_67:

(Start: 5 @42359 has 171 MA's), (11, 42302), (19, 42167),

Gene: Eurydice_68 Start: 42393, Stop: 42169, Start Num: 5

Candidate Starts for Eurydice_68:

(Start: 5 @42393 has 171 MA's), (11, 42336), (12, 42330), (19, 42174),

Gene: Farber_74 Start: 42834, Stop: 42619, Start Num: 5

Candidate Starts for Farber_74:

(Start: 5 @42834 has 171 MA's), (Start: 7 @42831 has 30 MA's), (10, 42798), (18, 42669), (19, 42624),

Gene: Fernando_74 Start: 42841, Stop: 42629, Start Num: 7

Candidate Starts for Fernando_74:

(Start: 5 @42844 has 171 MA's), (Start: 7 @42841 has 30 MA's), (10, 42808), (18, 42679), (19, 42634),

Gene: Florean_67 Start: 42356, Stop: 42159, Start Num: 5

Candidate Starts for Florean_67:

(Start: 5 @42356 has 171 MA's), (11, 42299), (19, 42164),

Gene: Flux_67 Start: 42356, Stop: 42159, Start Num: 5

Candidate Starts for Flux_67:

(Start: 5 @42356 has 171 MA's), (11, 42299), (19, 42164),

Gene: Funston_66 Start: 42357, Stop: 42160, Start Num: 5

Candidate Starts for Funston_66:

(Start: 5 @42357 has 171 MA's), (11, 42300), (19, 42165),

Gene: Gadost_67 Start: 42361, Stop: 42164, Start Num: 5

Candidate Starts for Gadost_67:

(Start: 5 @42361 has 171 MA's), (11, 42304), (19, 42169),

Gene: GingkoMaracino_74 Start: 42730, Stop: 42515, Start Num: 5

Candidate Starts for GingkoMaracino_74:

(Start: 5 @42730 has 171 MA's), (Start: 7 @42727 has 30 MA's), (10, 42694), (18, 42565), (19, 42520),

Gene: Goose_67 Start: 41510, Stop: 41316, Start Num: 6

Candidate Starts for Goose_67:

(Start: 6 @41510 has 3 MA's), (15, 41414), (17, 41366),

Gene: Grif_72 Start: 42915, Stop: 42703, Start Num: 7

Candidate Starts for Grif_72:

(Start: 5 @42918 has 171 MA's), (Start: 7 @42915 has 30 MA's), (10, 42882), (18, 42753), (19, 42708),

Gene: Groupthink_74 Start: 42664, Stop: 42446, Start Num: 4

Candidate Starts for Groupthink_74:

(1, 42733), (Start: 4 @42664 has 7 MA's), (10, 42625), (14, 42589), (18, 42496), (19, 42451),

Gene: Grub_72 Start: 42833, Stop: 42621, Start Num: 7

Candidate Starts for Grub_72:

(Start: 5 @42836 has 171 MA's), (Start: 7 @42833 has 30 MA's), (10, 42800), (18, 42671), (19, 42626),

Gene: Grum1_73 Start: 42844, Stop: 42629, Start Num: 5

Candidate Starts for Grum1_73:

(Start: 5 @42844 has 171 MA's), (Start: 7 @42841 has 30 MA's), (10, 42808), (18, 42679), (19, 42634),

Gene: GtownJaz_74 Start: 42842, Stop: 42630, Start Num: 7

Candidate Starts for GtownJaz_74:

(Start: 5 @42845 has 171 MA's), (Start: 7 @42842 has 30 MA's), (10, 42809), (18, 42680), (19, 42635),

Gene: HamSlice_63 Start: 42355, Stop: 42158, Start Num: 5

Candidate Starts for HamSlice_63:

(Start: 5 @42355 has 171 MA's), (11, 42298), (19, 42163),

Gene: Happiness_66 Start: 42379, Stop: 42155, Start Num: 5

Candidate Starts for Happiness_66:

(Start: 5 @42379 has 171 MA's), (11, 42322), (12, 42316), (19, 42160),

Gene: HashRod_75 Start: 42869, Stop: 42657, Start Num: 7

Candidate Starts for HashRod_75:

(Start: 5 @42872 has 171 MA's), (Start: 7 @42869 has 30 MA's), (10, 42836), (18, 42707), (19, 42662),

Gene: Hercules11_74 Start: 42853, Stop: 42638, Start Num: 5

Candidate Starts for Hercules11_74:

(Start: 5 @42853 has 171 MA's), (Start: 7 @42850 has 30 MA's), (10, 42817), (18, 42688), (19, 42643),

Gene: Holli_66 Start: 42147, Stop: 41950, Start Num: 5

Candidate Starts for Holli_66:

(Start: 5 @42147 has 171 MA's), (11, 42090), (19, 41955),

Gene: Houdini22_66 Start: 42361, Stop: 42164, Start Num: 5

Candidate Starts for Houdini22_66:

(Start: 5 @42361 has 171 MA's), (11, 42304), (19, 42169),

Gene: Huxley_64 Start: 42421, Stop: 42224, Start Num: 5

Candidate Starts for Huxley_64:

(Start: 5 @42421 has 171 MA's), (11, 42364), (19, 42229),

Gene: ICleared_66 Start: 42425, Stop: 42201, Start Num: 5

Candidate Starts for ICleared_66:

(Start: 5 @42425 has 171 MA's), (11, 42368), (12, 42362), (19, 42206),

Gene: Iceman_66 Start: 42646, Stop: 42449, Start Num: 5

Candidate Starts for Iceman_66:

(Start: 5 @42646 has 171 MA's), (11, 42589), (19, 42454),

Gene: Iracema64_67 Start: 42624, Stop: 42427, Start Num: 5

Candidate Starts for Iracema64_67:

(Start: 5 @42624 has 171 MA's), (11, 42567), (19, 42432),

Gene: JHC117_70 Start: 42842, Stop: 42627, Start Num: 5

Candidate Starts for JHC117_70:

(Start: 5 @42842 has 171 MA's), (Start: 7 @42839 has 30 MA's), (10, 42806), (18, 42677), (19, 42632),

Gene: Jaykayelowell_64 Start: 42350, Stop: 42153, Start Num: 5

Candidate Starts for Jaykayelowell_64:

(Start: 5 @42350 has 171 MA's), (11, 42293), (19, 42158),

Gene: JenCasNa_75 Start: 42844, Stop: 42629, Start Num: 5

Candidate Starts for JenCasNa_75:

(Start: 5 @42844 has 171 MA's), (Start: 7 @42841 has 30 MA's), (10, 42808), (18, 42679), (19, 42634),

Gene: JeppNRM_74 Start: 42665, Stop: 42447, Start Num: 4

Candidate Starts for JeppNRM_74:

(1, 42734), (Start: 4 @42665 has 7 MA's), (10, 42626), (14, 42590), (15, 42557), (18, 42497), (19, 42452),

Gene: JetBlade_67 Start: 42387, Stop: 42163, Start Num: 5

Candidate Starts for JetBlade_67:

(Start: 5 @42387 has 171 MA's), (11, 42330), (12, 42324), (19, 42168),

Gene: Jobu08_70 Start: 42676, Stop: 42461, Start Num: 5

Candidate Starts for Jobu08_70:

(Start: 5 @42676 has 171 MA's), (Start: 7 @42673 has 30 MA's), (10, 42640), (18, 42511), (19, 42466),

Gene: JoongJeon_66 Start: 42354, Stop: 42157, Start Num: 5

Candidate Starts for JoongJeon_66:

(Start: 5 @42354 has 171 MA's), (11, 42297), (19, 42162),

Gene: KADY_71 Start: 42869, Stop: 42657, Start Num: 7

Candidate Starts for KADY_71:

(Start: 5 @42872 has 171 MA's), (Start: 7 @42869 has 30 MA's), (10, 42836), (19, 42662),

Gene: KFPoly_66 Start: 42351, Stop: 42154, Start Num: 5

Candidate Starts for KFPoly_66:

(Start: 5 @42351 has 171 MA's), (11, 42294), (19, 42159),

Gene: Kalb97_74 Start: 42663, Stop: 42445, Start Num: 4

Candidate Starts for Kalb97_74:

(1, 42732), (Start: 4 @42663 has 7 MA's), (10, 42624), (14, 42588), (18, 42495), (19, 42450),

Gene: Kalnoky_74 Start: 42661, Stop: 42443, Start Num: 4

Candidate Starts for Kalnoky_74:

(1, 42730), (Start: 4 @42661 has 7 MA's), (10, 42622), (14, 42586), (15, 42553), (18, 42493), (19, 42448),

Gene: Kampy_66 Start: 42359, Stop: 42162, Start Num: 5

Candidate Starts for Kampy_66:

(Start: 5 @42359 has 171 MA's), (11, 42302), (19, 42167),

Gene: Katalie136_66 Start: 42633, Stop: 42409, Start Num: 5

Candidate Starts for Katalie136_66:

(Start: 5 @42633 has 171 MA's), (11, 42576), (12, 42570), (15, 42519), (19, 42414),

Gene: Kingmustik0402_67 Start: 42346, Stop: 42149, Start Num: 5

Candidate Starts for Kingmustik0402_67:

(Start: 5 @42346 has 171 MA's), (11, 42289), (19, 42154),

Gene: Koan_62 Start: 42357, Stop: 42160, Start Num: 5

Candidate Starts for Koan_62:

(Start: 5 @42357 has 171 MA's), (11, 42300), (19, 42165),

Gene: Koreni_66 Start: 42038, Stop: 41841, Start Num: 5

Candidate Starts for Koreni_66:

(Start: 5 @42038 has 171 MA's), (11, 41981), (19, 41846),

Gene: Kratark_66 Start: 42394, Stop: 42170, Start Num: 5

Candidate Starts for Kratark_66:

(Start: 5 @42394 has 171 MA's), (11, 42337), (12, 42331), (19, 42175),

Gene: Kremtemulon_66 Start: 42490, Stop: 42266, Start Num: 5

Candidate Starts for Kremtemulon_66:

(Start: 5 @42490 has 171 MA's), (11, 42433), (12, 42427), (19, 42271),

Gene: Kyee_67 Start: 42355, Stop: 42158, Start Num: 5

Candidate Starts for Kyee_67:

(Start: 5 @42355 has 171 MA's), (11, 42298), (19, 42163),

Gene: LBerry_75 Start: 42848, Stop: 42633, Start Num: 5

Candidate Starts for LBerry_75:

(Start: 5 @42848 has 171 MA's), (Start: 7 @42845 has 30 MA's), (10, 42812), (18, 42683), (19, 42638),

Gene: LHTSCC_69 Start: 42796, Stop: 42572, Start Num: 5

Candidate Starts for LHTSCC_69:

(Start: 5 @42796 has 171 MA's), (11, 42739), (12, 42733), (19, 42577),

Gene: LappelDuVide_67 Start: 42356, Stop: 42159, Start Num: 5

Candidate Starts for LappelDuVide_67:

(Start: 5 @42356 has 171 MA's), (11, 42299), (19, 42164),

Gene: LarryKay_74 Start: 42870, Stop: 42658, Start Num: 7

Candidate Starts for LarryKay_74:

(Start: 5 @42873 has 171 MA's), (Start: 7 @42870 has 30 MA's), (10, 42837), (18, 42708), (19, 42663),

Gene: Lemur_67 Start: 42354, Stop: 42157, Start Num: 5

Candidate Starts for Lemur_67:

(Start: 5 @42354 has 171 MA's), (19, 42162),

Gene: LeoAvram_66 Start: 42387, Stop: 42163, Start Num: 5

Candidate Starts for LeoAvram_66:

(Start: 5 @42387 has 171 MA's), (11, 42330), (12, 42324), (19, 42168),

Gene: Lilith_72 Start: 42834, Stop: 42622, Start Num: 7

Candidate Starts for Lilith_72:

(Start: 5 @42837 has 171 MA's), (Start: 7 @42834 has 30 MA's), (10, 42801), (18, 42672), (19, 42627),

Gene: LittleB_67 Start: 42358, Stop: 42161, Start Num: 5

Candidate Starts for LittleB_67:

(Start: 5 @42358 has 171 MA's), (11, 42301), (19, 42166),

Gene: LittleGuy_67 Start: 42253, Stop: 42056, Start Num: 5

Candidate Starts for LittleGuy_67:

(Start: 5 @42253 has 171 MA's), (11, 42196), (19, 42061),

Gene: LochMonster_68 Start: 42596, Stop: 42399, Start Num: 5

Candidate Starts for LochMonster_68:

(Start: 5 @42596 has 171 MA's), (11, 42539), (19, 42404),

Gene: Lorenzo_67 Start: 42357, Stop: 42160, Start Num: 5

Candidate Starts for Lorenzo_67:

(Start: 5 @42357 has 171 MA's), (11, 42300), (19, 42165),

Gene: Louie6_73 Start: 42874, Stop: 42659, Start Num: 5

Candidate Starts for Louie6_73:

(Start: 5 @42874 has 171 MA's), (Start: 7 @42871 has 30 MA's), (10, 42838), (19, 42664),

Gene: Lowa_71 Start: 42833, Stop: 42621, Start Num: 7

Candidate Starts for Lowa_71:

(Start: 5 @42836 has 171 MA's), (Start: 7 @42833 has 30 MA's), (10, 42800), (18, 42671), (19, 42626),

Gene: LugYA_77 Start: 42845, Stop: 42630, Start Num: 5

Candidate Starts for LugYA_77:

(Start: 5 @42845 has 171 MA's), (Start: 7 @42842 has 30 MA's), (10, 42809), (18, 42680), (19, 42635),

Gene: Lunsford_67 Start: 42351, Stop: 42154, Start Num: 5

Candidate Starts for Lunsford_67:

(Start: 5 @42351 has 171 MA's), (11, 42294), (19, 42159),

Gene: MadMarie_72 Start: 42842, Stop: 42630, Start Num: 7

Candidate Starts for MadMarie_72:

(Start: 5 @42845 has 171 MA's), (Start: 7 @42842 has 30 MA's), (10, 42809), (18, 42680), (19, 42635),

Gene: Mainiac_73 Start: 42837, Stop: 42622, Start Num: 5

Candidate Starts for Mainiac_73:

(Start: 5 @42837 has 171 MA's), (Start: 7 @42834 has 30 MA's), (10, 42801), (18, 42672), (19, 42627),

Gene: Malinsilva_76 Start: 42833, Stop: 42621, Start Num: 7

Candidate Starts for Malinsilva_76:

(Start: 5 @42836 has 171 MA's), (Start: 7 @42833 has 30 MA's), (10, 42800), (18, 42671), (19, 42626),

Gene: MarQuardt_74 Start: 42846, Stop: 42631, Start Num: 5

Candidate Starts for MarQuardt_74:

(Start: 5 @42846 has 171 MA's), (Start: 7 @42843 has 30 MA's), (10, 42810), (18, 42681), (19, 42636),

Gene: Marie_72 Start: 42841, Stop: 42629, Start Num: 7

Candidate Starts for Marie_72:

(Start: 5 @42844 has 171 MA's), (Start: 7 @42841 has 30 MA's), (10, 42808), (18, 42679), (19, 42634),

Gene: Marius_74 Start: 42661, Stop: 42443, Start Num: 4

Candidate Starts for Marius_74:

(1, 42730), (Start: 4 @42661 has 7 MA's), (10, 42622), (14, 42586), (15, 42553), (18, 42493), (19, 42448),

Gene: Maverick_66 Start: 42357, Stop: 42160, Start Num: 5
Candidate Starts for Maverick_66:
(Start: 5 @42357 has 171 MA's), (11, 42300), (19, 42165),

Gene: Maxo_68 Start: 42359, Stop: 42162, Start Num: 5
Candidate Starts for Maxo_68:
(Start: 5 @42359 has 171 MA's), (11, 42302), (19, 42167),

Gene: Mayonnaise_64 Start: 42357, Stop: 42160, Start Num: 5
Candidate Starts for Mayonnaise_64:
(Start: 5 @42357 has 171 MA's), (11, 42300), (19, 42165),

Gene: Mazhar510_67 Start: 42358, Stop: 42161, Start Num: 5
Candidate Starts for Mazhar510_67:
(Start: 5 @42358 has 171 MA's), (11, 42301), (19, 42166),

Gene: Medusa_67 Start: 42371, Stop: 42174, Start Num: 5
Candidate Starts for Medusa_67:
(Start: 5 @42371 has 171 MA's), (11, 42314), (19, 42179),

Gene: MeeZee_66 Start: 42354, Stop: 42157, Start Num: 5
Candidate Starts for MeeZee_66:
(Start: 5 @42354 has 171 MA's), (11, 42297), (19, 42162),

Gene: Melvin_69 Start: 42352, Stop: 42155, Start Num: 5
Candidate Starts for Melvin_69:
(Start: 5 @42352 has 171 MA's), (11, 42295), (19, 42160),

Gene: Methuselah_67 Start: 42868, Stop: 42653, Start Num: 5
Candidate Starts for Methuselah_67:
(Start: 5 @42868 has 171 MA's), (Start: 7 @42865 has 30 MA's), (10, 42832), (18, 42703), (19, 42658),

Gene: Microwolf_70 Start: 42860, Stop: 42645, Start Num: 5
Candidate Starts for Microwolf_70:
(Start: 5 @42860 has 171 MA's), (Start: 7 @42857 has 30 MA's), (10, 42824), (18, 42695), (19, 42650),

Gene: Millski_66 Start: 42358, Stop: 42161, Start Num: 5
Candidate Starts for Millski_66:
(Start: 5 @42358 has 171 MA's), (11, 42301), (19, 42166),

Gene: Miramae_66 Start: 42179, Stop: 41955, Start Num: 5
Candidate Starts for Miramae_66:
(Start: 5 @42179 has 171 MA's), (11, 42122), (12, 42116), (19, 41960),

Gene: Misomonster_75 Start: 42871, Stop: 42656, Start Num: 5
Candidate Starts for Misomonster_75:
(Start: 5 @42871 has 171 MA's), (Start: 7 @42868 has 30 MA's), (10, 42835), (19, 42661),

Gene: MoneyMay_73 Start: 42844, Stop: 42629, Start Num: 5
Candidate Starts for MoneyMay_73:
(Start: 5 @42844 has 171 MA's), (Start: 7 @42841 has 30 MA's), (10, 42808), (18, 42679), (19, 42634),

Gene: Morpher26_66 Start: 42654, Stop: 42430, Start Num: 5
Candidate Starts for Morpher26_66:
(Start: 5 @42654 has 171 MA's), (11, 42597), (12, 42591), (15, 42540), (19, 42435),

Gene: Morrow_68 Start: 42399, Stop: 42175, Start Num: 5
Candidate Starts for Morrow_68:
(Start: 5 @42399 has 171 MA's), (11, 42342), (12, 42336), (19, 42180),

Gene: MuchMore_77 Start: 42833, Stop: 42621, Start Num: 7
Candidate Starts for MuchMore_77:
(Start: 5 @42836 has 171 MA's), (Start: 7 @42833 has 30 MA's), (10, 42800), (18, 42671), (19, 42626),

Gene: Mundrea_66 Start: 42647, Stop: 42423, Start Num: 5
Candidate Starts for Mundrea_66:
(Start: 5 @42647 has 171 MA's), (11, 42590), (12, 42584), (15, 42533), (19, 42428),

Gene: Nebs_68 Start: 42396, Stop: 42172, Start Num: 5
Candidate Starts for Nebs_68:
(Start: 5 @42396 has 171 MA's), (11, 42339), (12, 42333), (19, 42177),

Gene: Nemo27_66 Start: 42356, Stop: 42159, Start Num: 5
Candidate Starts for Nemo27_66:
(Start: 5 @42356 has 171 MA's), (11, 42299), (19, 42164),

Gene: Noelle_67 Start: 42962, Stop: 42738, Start Num: 5
Candidate Starts for Noelle_67:
(Start: 5 @42962 has 171 MA's), (11, 42905), (12, 42899), (18, 42788), (19, 42743),

Gene: NorthStar_65 Start: 42357, Stop: 42160, Start Num: 5
Candidate Starts for NorthStar_65:
(Start: 5 @42357 has 171 MA's), (11, 42300), (19, 42165),

Gene: NotAPhaseMom_66 Start: 42361, Stop: 42164, Start Num: 5
Candidate Starts for NotAPhaseMom_66:
(Start: 5 @42361 has 171 MA's), (11, 42304), (19, 42169),

Gene: Nyxis_66 Start: 42247, Stop: 42050, Start Num: 5
Candidate Starts for Nyxis_66:
(Start: 5 @42247 has 171 MA's), (11, 42190), (19, 42055),

Gene: OKCentral2016_65 Start: 41306, Stop: 41055, Start Num: 2
Candidate Starts for OKCentral2016_65:
(Start: 2 @41306 has 2 MA's), (3, 41273), (Start: 6 @41249 has 3 MA's), (15, 41153), (17, 41105),

Gene: OKaNui_66 Start: 42407, Stop: 42210, Start Num: 5
Candidate Starts for OKaNui_66:
(Start: 5 @42407 has 171 MA's), (11, 42350), (19, 42215),

Gene: Obama12_68 Start: 42780, Stop: 42556, Start Num: 5
Candidate Starts for Obama12_68:
(Start: 5 @42780 has 171 MA's), (11, 42723), (12, 42717), (19, 42561),

Gene: Ohfah_68 Start: 42396, Stop: 42172, Start Num: 5

Candidate Starts for Ohfah_68:

(Start: 5 @42396 has 171 MA's), (11, 42339), (12, 42333), (19, 42177),

Gene: Ollie_74 Start: 42712, Stop: 42500, Start Num: 7

Candidate Starts for Ollie_74:

(Start: 5 @42715 has 171 MA's), (Start: 7 @42712 has 30 MA's), (10, 42679), (18, 42550), (19, 42505),

Gene: P28Green_74 Start: 42847, Stop: 42632, Start Num: 5

Candidate Starts for P28Green_74:

(Start: 5 @42847 has 171 MA's), (Start: 7 @42844 has 30 MA's), (10, 42811), (18, 42682), (19, 42637),

Gene: PGHhamlin_76 Start: 42833, Stop: 42621, Start Num: 7

Candidate Starts for PGHhamlin_76:

(Start: 5 @42836 has 171 MA's), (Start: 7 @42833 has 30 MA's), (10, 42800), (18, 42671), (19, 42626),

Gene: Palestino_66 Start: 42357, Stop: 42160, Start Num: 5

Candidate Starts for Palestino_66:

(Start: 5 @42357 has 171 MA's), (11, 42300), (19, 42165),

Gene: Pawn_72 Start: 42668, Stop: 42450, Start Num: 4

Candidate Starts for Pawn_72:

(1, 42737), (Start: 4 @42668 has 7 MA's), (10, 42629), (14, 42593), (15, 42560), (18, 42500), (19, 42455),

Gene: Peaches_65 Start: 42356, Stop: 42159, Start Num: 5

Candidate Starts for Peaches_65:

(Start: 5 @42356 has 171 MA's), (11, 42299), (19, 42164),

Gene: Pembroke_74 Start: 42842, Stop: 42630, Start Num: 7

Candidate Starts for Pembroke_74:

(Start: 5 @42845 has 171 MA's), (Start: 7 @42842 has 30 MA's), (10, 42809), (18, 42680), (19, 42635),

Gene: Penny1_74 Start: 42845, Stop: 42633, Start Num: 7

Candidate Starts for Penny1_74:

(Start: 5 @42848 has 171 MA's), (Start: 7 @42845 has 30 MA's), (10, 42812), (18, 42683), (19, 42638),

Gene: Perplexer_66 Start: 42630, Stop: 42406, Start Num: 5

Candidate Starts for Perplexer_66:

(Start: 5 @42630 has 171 MA's), (11, 42573), (12, 42567), (15, 42516), (19, 42411),

Gene: PeterPeter_67 Start: 42354, Stop: 42157, Start Num: 5

Candidate Starts for PeterPeter_67:

(Start: 5 @42354 has 171 MA's), (11, 42297), (19, 42162),

Gene: PetiteSangsue_66 Start: 42633, Stop: 42409, Start Num: 5

Candidate Starts for PetiteSangsue_66:

(Start: 5 @42633 has 171 MA's), (11, 42576), (12, 42570), (15, 42519), (19, 42414),

Gene: Phacado_67 Start: 42356, Stop: 42159, Start Num: 5

Candidate Starts for Phacado_67:

(Start: 5 @42356 has 171 MA's), (11, 42299), (19, 42164),

Gene: Phelipe_68 Start: 42396, Stop: 42172, Start Num: 5

Candidate Starts for Phelipe_68:

(Start: 5 @42396 has 171 MA's), (11, 42339), (12, 42333), (19, 42177),

Gene: Phighter1804_67 Start: 42421, Stop: 42224, Start Num: 5

Candidate Starts for Phighter1804_67:

(Start: 5 @42421 has 171 MA's), (11, 42364), (19, 42229),

Gene: Phoebe_75 Start: 42837, Stop: 42622, Start Num: 5

Candidate Starts for Phoebe_75:

(Start: 5 @42837 has 171 MA's), (Start: 7 @42834 has 30 MA's), (10, 42801), (18, 42672), (19, 42627),

Gene: Phontbonne_67 Start: 42263, Stop: 42066, Start Num: 5

Candidate Starts for Phontbonne_67:

(Start: 5 @42263 has 171 MA's), (11, 42206), (19, 42071),

Gene: Phoxy_74 Start: 42869, Stop: 42654, Start Num: 5

Candidate Starts for Phoxy_74:

(Start: 5 @42869 has 171 MA's), (Start: 7 @42866 has 30 MA's), (10, 42833), (18, 42704), (19, 42659),

Gene: Pipcraft_64 Start: 42357, Stop: 42160, Start Num: 5

Candidate Starts for Pipcraft_64:

(Start: 5 @42357 has 171 MA's), (11, 42300), (19, 42165),

Gene: Polymorphads_67 Start: 42377, Stop: 42153, Start Num: 5

Candidate Starts for Polymorphads_67:

(Start: 5 @42377 has 171 MA's), (11, 42320), (12, 42314), (19, 42158),

Gene: PotatoSplit_75 Start: 42848, Stop: 42633, Start Num: 5

Candidate Starts for PotatoSplit_75:

(Start: 5 @42848 has 171 MA's), (Start: 7 @42845 has 30 MA's), (10, 42812), (18, 42683), (19, 42638),

Gene: Pumbaa_67 Start: 42302, Stop: 42105, Start Num: 5

Candidate Starts for Pumbaa_67:

(Start: 5 @42302 has 171 MA's), (11, 42245), (19, 42110),

Gene: Relief_66 Start: 42354, Stop: 42157, Start Num: 5

Candidate Starts for Relief_66:

(Start: 5 @42354 has 171 MA's), (11, 42297), (19, 42162),

Gene: RhynO_66 Start: 41808, Stop: 41539, Start Num: 2

Candidate Starts for RhynO_66:

(Start: 2 @41808 has 2 MA's), (3, 41775), (8, 41757), (12, 41700), (18, 41589),

Gene: Romney_66 Start: 42354, Stop: 42157, Start Num: 5

Candidate Starts for Romney_66:

(Start: 5 @42354 has 171 MA's), (11, 42297), (19, 42162),

Gene: Roosevelt_65 Start: 42359, Stop: 42162, Start Num: 5

Candidate Starts for Roosevelt_65:

(Start: 5 @42359 has 171 MA's), (11, 42302), (19, 42167),

Gene: Rosa24_64 Start: 42388, Stop: 42191, Start Num: 5

Candidate Starts for Rosa24_64:

(Start: 5 @42388 has 171 MA's), (11, 42331), (19, 42196),

Gene: Ruin_67 Start: 42350, Stop: 42153, Start Num: 5

Candidate Starts for Ruin_67:

(Start: 5 @42350 has 171 MA's), (11, 42293), (19, 42158),

Gene: Rummer_73 Start: 42872, Stop: 42657, Start Num: 5

Candidate Starts for Rummer_73:

(Start: 5 @42872 has 171 MA's), (Start: 7 @42869 has 30 MA's), (10, 42836), (18, 42707), (19, 42662),

Gene: Sabertooth_67 Start: 42359, Stop: 42162, Start Num: 5

Candidate Starts for Sabertooth_67:

(Start: 5 @42359 has 171 MA's), (11, 42302), (19, 42167),

Gene: Sabia_72 Start: 42852, Stop: 42637, Start Num: 5

Candidate Starts for Sabia_72:

(Start: 5 @42852 has 171 MA's), (Start: 7 @42849 has 30 MA's), (10, 42816), (18, 42687), (19, 42642),

Gene: Sabinator_72 Start: 42840, Stop: 42628, Start Num: 7

Candidate Starts for Sabinator_72:

(Start: 5 @42843 has 171 MA's), (Start: 7 @42840 has 30 MA's), (10, 42807), (18, 42678), (19, 42633),

Gene: Scamp_67 Start: 42359, Stop: 42162, Start Num: 5

Candidate Starts for Scamp_67:

(Start: 5 @42359 has 171 MA's), (11, 42302), (19, 42167),

Gene: SenorClean_62 Start: 42357, Stop: 42160, Start Num: 5

Candidate Starts for SenorClean_62:

(Start: 5 @42357 has 171 MA's), (11, 42300), (19, 42165),

Gene: Shaka_65 Start: 42354, Stop: 42157, Start Num: 5

Candidate Starts for Shaka_65:

(Start: 5 @42354 has 171 MA's), (11, 42297), (19, 42162),

Gene: SheldonCooper_67 Start: 42797, Stop: 42573, Start Num: 5

Candidate Starts for SheldonCooper_67:

(Start: 5 @42797 has 171 MA's), (11, 42740), (12, 42734), (19, 42578),

Gene: Shygu2_66 Start: 42684, Stop: 42460, Start Num: 5

Candidate Starts for Shygu2_66:

(Start: 5 @42684 has 171 MA's), (11, 42627), (12, 42621), (19, 42465),

Gene: Skipitt_66 Start: 42351, Stop: 42154, Start Num: 5

Candidate Starts for Skipitt_66:

(Start: 5 @42351 has 171 MA's), (11, 42294), (19, 42159),

Gene: Snickers_70 Start: 42817, Stop: 42602, Start Num: 5

Candidate Starts for Snickers_70:

(Start: 5 @42817 has 171 MA's), (Start: 7 @42814 has 30 MA's), (10, 42781), (18, 42652), (19, 42607),

Gene: SoYo_71 Start: 42753, Stop: 42541, Start Num: 7

Candidate Starts for SoYo_71:

(Start: 5 @42756 has 171 MA's), (Start: 7 @42753 has 30 MA's), (10, 42720), (18, 42591), (19, 42546),

Gene: SoilDragon_73 Start: 42289, Stop: 42077, Start Num: 7

Candidate Starts for SoilDragon_73:

(Start: 5 @42292 has 171 MA's), (Start: 7 @42289 has 30 MA's), (10, 42256), (18, 42127), (19, 42082),

Gene: Soshari_76 Start: 42868, Stop: 42653, Start Num: 5

Candidate Starts for Soshari_76:

(Start: 5 @42868 has 171 MA's), (Start: 7 @42865 has 30 MA's), (10, 42832), (18, 42703), (19, 42658),

Gene: Sparxx_68 Start: 42352, Stop: 42155, Start Num: 5

Candidate Starts for Sparxx_68:

(Start: 5 @42352 has 171 MA's), (11, 42295), (19, 42160),

Gene: Spike509_74 Start: 42869, Stop: 42654, Start Num: 5

Candidate Starts for Spike509_74:

(Start: 5 @42869 has 171 MA's), (Start: 7 @42866 has 30 MA's), (10, 42833), (18, 42704), (19, 42659),

Gene: Spino_66 Start: 42360, Stop: 42163, Start Num: 5

Candidate Starts for Spino_66:

(Start: 5 @42360 has 171 MA's), (11, 42303), (19, 42168),

Gene: Stagni_71 Start: 42844, Stop: 42632, Start Num: 7

Candidate Starts for Stagni_71:

(Start: 5 @42847 has 171 MA's), (Start: 7 @42844 has 30 MA's), (10, 42811), (18, 42682), (19, 42637),

Gene: Stasia_66 Start: 42567, Stop: 42343, Start Num: 5

Candidate Starts for Stasia_66:

(Start: 5 @42567 has 171 MA's), (11, 42510), (12, 42504), (18, 42393), (19, 42348),

Gene: Stink_66 Start: 42459, Stop: 42235, Start Num: 5

Candidate Starts for Stink_66:

(Start: 5 @42459 has 171 MA's), (11, 42402), (12, 42396), (19, 42240),

Gene: Taquarus_66 Start: 42360, Stop: 42163, Start Num: 5

Candidate Starts for Taquarus_66:

(Start: 5 @42360 has 171 MA's), (11, 42303), (19, 42168),

Gene: Taurus_75 Start: 42844, Stop: 42629, Start Num: 5

Candidate Starts for Taurus_75:

(Start: 5 @42844 has 171 MA's), (Start: 7 @42841 has 30 MA's), (10, 42808), (18, 42679), (19, 42634),

Gene: Thanksgivukkah_66 Start: 42355, Stop: 42158, Start Num: 5

Candidate Starts for Thanksgivukkah_66:

(Start: 5 @42355 has 171 MA's), (11, 42298), (16, 42244), (19, 42163),

Gene: Tiffany_73 Start: 42729, Stop: 42514, Start Num: 5

Candidate Starts for Tiffany_73:

(Start: 5 @42729 has 171 MA's), (Start: 7 @42726 has 30 MA's), (10, 42693), (18, 42564), (19, 42519),

Gene: TinaFeyge_65 Start: 42352, Stop: 42155, Start Num: 5

Candidate Starts for TinaFeyge_65:

(Start: 5 @42352 has 171 MA's), (11, 42295), (19, 42160),

Gene: TinyPebbles_70 Start: 42871, Stop: 42659, Start Num: 7
Candidate Starts for TinyPebbles_70:
(Start: 5 @42874 has 171 MA's), (Start: 7 @42871 has 30 MA's), (10, 42838), (19, 42664),

Gene: Tinybot_66 Start: 42387, Stop: 42190, Start Num: 5
Candidate Starts for Tinybot_66:
(Start: 5 @42387 has 171 MA's), (11, 42330), (19, 42195),

Gene: TiroTheta9_66 Start: 42351, Stop: 42154, Start Num: 5
Candidate Starts for TiroTheta9_66:
(Start: 5 @42351 has 171 MA's), (11, 42294), (19, 42159),

Gene: TroyPia_68 Start: 42391, Stop: 42167, Start Num: 5
Candidate Starts for TroyPia_68:
(Start: 5 @42391 has 171 MA's), (11, 42334), (12, 42328), (19, 42172),

Gene: TygerBlood_67 Start: 42357, Stop: 42160, Start Num: 5
Candidate Starts for TygerBlood_67:
(Start: 5 @42357 has 171 MA's), (11, 42300), (19, 42165),

Gene: Ulysses_66 Start: 42043, Stop: 41846, Start Num: 5
Candidate Starts for Ulysses_66:
(Start: 5 @42043 has 171 MA's), (11, 41986), (19, 41851),

Gene: Vix_70 Start: 42927, Stop: 42712, Start Num: 5
Candidate Starts for Vix_70:
(Start: 5 @42927 has 171 MA's), (Start: 7 @42924 has 30 MA's), (10, 42891), (18, 42762), (19, 42717),

Gene: Wander_67 Start: 42354, Stop: 42157, Start Num: 5
Candidate Starts for Wander_67:
(Start: 5 @42354 has 171 MA's), (11, 42297), (19, 42162),

Gene: Watson_73 Start: 42833, Stop: 42621, Start Num: 7
Candidate Starts for Watson_73:
(Start: 5 @42836 has 171 MA's), (Start: 7 @42833 has 30 MA's), (10, 42800), (18, 42671), (19, 42626),

Gene: Wilbur_67 Start: 42354, Stop: 42157, Start Num: 5
Candidate Starts for Wilbur_67:
(Start: 5 @42354 has 171 MA's), (11, 42297), (19, 42162),

Gene: Wile_65 Start: 42663, Stop: 42439, Start Num: 5
Candidate Starts for Wile_65:
(Start: 5 @42663 has 171 MA's), (11, 42606), (12, 42600), (15, 42549), (19, 42444),

Gene: Wizard007_66 Start: 42389, Stop: 42165, Start Num: 5
Candidate Starts for Wizard007_66:
(Start: 5 @42389 has 171 MA's), (11, 42332), (12, 42326), (15, 42275), (19, 42170),

Gene: Wooldri_76 Start: 42756, Stop: 42541, Start Num: 5
Candidate Starts for Wooldri_76:
(Start: 5 @42756 has 171 MA's), (Start: 7 @42753 has 30 MA's), (10, 42720), (18, 42591), (19, 42546),

Gene: Xena_65 Start: 42630, Stop: 42406, Start Num: 5

Candidate Starts for Xena_65:

(Start: 5 @42630 has 171 MA's), (11, 42573), (12, 42567), (15, 42516), (19, 42411),

Gene: YoSam321_67 Start: 42351, Stop: 42154, Start Num: 5

Candidate Starts for YoSam321_67:

(Start: 5 @42351 has 171 MA's), (11, 42294), (19, 42159),

Gene: Zetzy_71 Start: 42407, Stop: 42192, Start Num: 5

Candidate Starts for Zetzy_71:

(Start: 5 @42407 has 171 MA's), (10, 42371), (13, 42338), (15, 42302), (18, 42242), (19, 42197),