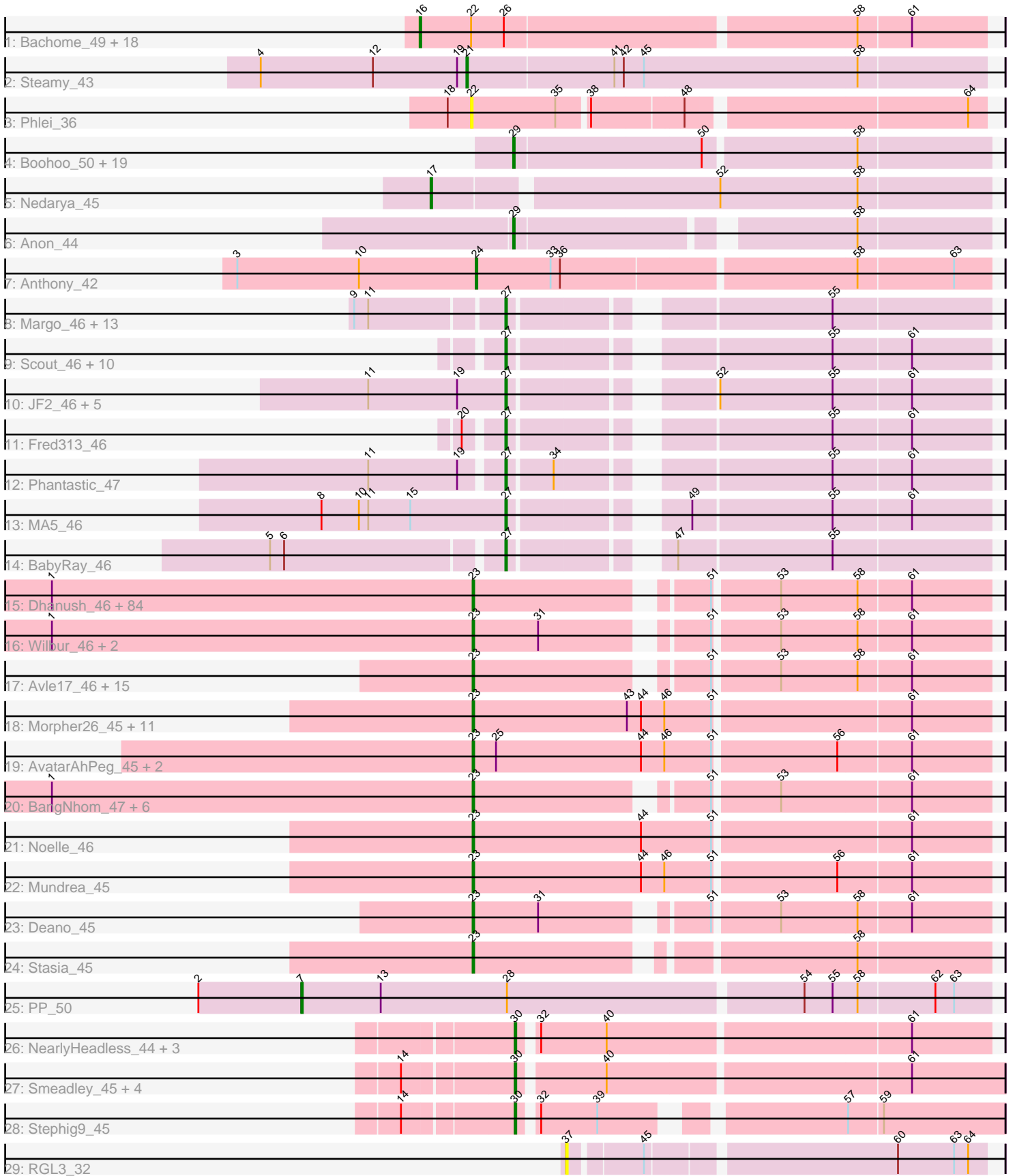


Pham 163338



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 163338 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163338 has 221 members, 12 are drafts.

Phages represented in each track:

- Track 1 : Bachome_49, Fibonacci_47, Sham4_47, Petersenfast_46, Bud_47, Lucivia_48, Orange_47, Hutc2_47, Insomnia_47, Ebony_47, Mulciber_47, Snape_47, Gilberta_48, Salz_46, MaCh_48, Jabith_48, Timothy_47, Et2Brutus_46, TinyTimmy_46
- Track 2 : Steamy_43
- Track 3 : Phlei_36
- Track 4 : Boohoo_50, DekHockey33_50, Switzerland_49, Battleship_50, ShayRa_51, Anaysia_50, LastResort_49, KatherineG_51, Rosalind_48, Oofda_50, Nebulosus_49, Epsocamisio_48, Remus_49, Looper_50, ReMo_49, Waits_49, Soups_50, MinecraftSteve_50, JSwag_48, Strosahl_49
- Track 5 : Nedarya_45
- Track 6 : Anon_44
- Track 7 : Anthony_42
- Track 8 : Margo_46, Lambert1_46, Texage_45, Caviar_46, QuinnKiro_45, Pocahontas_46, Norbert_45, Hookmount_46, Veracruz_45, Todacoro_46, Panamaxus_44, Popcicle_46, Noella_46, ResDef_47
- Track 9 : Scout_46, BlueBird_48, Giroux_47, Heathen_46, Bugatti_47, SaturnRing_47, Idleandcovert_47, Pistachio_48, Puppy_48, HelDan_46, TNguyen7_47
- Track 10 : JF2_46, Isca_45, JF4_46, MK4_46, B1_43, Rockstar_46
- Track 11 : Fred313_46
- Track 12 : Phantastic_47
- Track 13 : MA5_46
- Track 14 : BabyRay_46
- Track 15 : Dhanush_46, Bombshell_46, Nebs_47, Relief_45, Chaph_46, CentreCat_46, Melvin_48, Ruin_46, Eapen_46, Pipcraft_44, TygerBlood_46, HamSlice_45, TroyPia_47, Lemur_46, Millski_45, LittleB_46, Morrow_47, Alberto7_47, Medusa_46, Jaykayelowell_44, Connomayer_46, OKaNui_46, Caelakin_46, Phelipe_47, KFPoly_45, Blackmoor_46, BubbleTrouble_45, JetBlade_46, Sabertooth_46, Iracema64_47, Ulysses_45, Shaka_46, LeoAvram_46, Clarenza_45, Wizard007_46, Lorenzo_46, Cintron_45, Skipitt_45, Lunsford_47, Koreni_45, Ohfah_47, Iceman_46, Eurydice_47, Druantia_46, Citius_46, Flux_46, MeeZee_46, Annyong_46, Burger_44, NorthStar_45, Happiness_45, Peaches_46, Eros_46, LittleGuy_46, Sparxx_47, Scamp_46, Thanksgivukkah_45, Pumbaa_46, Albee_46, Maxo_47, Baby16_46, LappelDuVide_45, Tinybot_45, Kingmustik0402_46, Palestino_45, Phontbonne_46, Eris_45, Nyxis_46, TinaFeyge_46, Kampy_46, Eagle_46, Abdiel_46, Broseidon_46, Commander_46,

TiroTheta9_46, Bartimeaus_46, Polymorphads_47, Florean_46, Roosevelt_45, PeterPeter_46, ICleared_46, YoSam321_46, Taquarus_46, Spino_45, Holli_45

- Track 16 : Wilbur_46, Romney_46, LochMonster_47
- Track 17 : Avle17_46, NotAPhaseMom_46, Mazhar510_46, JoongJeon_45, Wander_46, Funston_45, Phacado_46, BellusTerra_47, Bruiser_45, Camperdownii_44, Houdini22_46, Maverick_46, Kyee_46, Cocoaberry_46, Nemo27_46, Gadost_46
- Track 18 : Morpher26_45, Cici_45, Xena_44, Bumblebee11_44, AbbysRanger_45, Backyardigan_44, Achebe_44, Badger_44, PetiteSangsue_45, Katalie136_45, Perplexer_45, Wile_45
- Track 19 : AvatarAhPeg_45, Stink_46, Miramae_45
- Track 20 : BangNhom_47, Cerulean_47, SheldonCooper_48, Obama12_47, ChampagnePapi_48, Kremtemulon_44, LHTSCC_48
- Track 21 : Noelle_46
- Track 22 : Mundrea_45
- Track 23 : Deano_45
- Track 24 : Stasia_45
- Track 25 : PP_50
- Track 26 : NearlyHeadless_44, Astro_44, Groundhog_43, Saintus_39
- Track 27 : Smeadley_45, Dixon_44, Danforth_44, Expelliarmus_44, Roary_45
- Track 28 : Stephig9_45
- Track 29 : RGL3_32

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

The start number called the most often in the published annotations is 23, it was called in 128 of the 209 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbysRanger_45, Abdiel_46, Achebe_44, Albee_46, Alberto7_47, Annyong_46, AvatarAhPeg_45, Avle17_46, Baby16_46, Backyardigan_44, Badger_44, BangNhom_47, Bartimeaus_46, BellusTerra_47, Blackmoor_46, Bombshell_46, Broseidon_46, Bruiser_45, BubbleTrouble_45, Bumblebee11_44, Burger_44, Caelakin_46, Camperdownii_44, CentreCat_46, Cerulean_47, ChampagnePapi_48, Chaph_46, Cici_45, Cintron_45, Citius_46, Clarenza_45, Cocoaberry_46, Commander_46, Connomayer_46, Deano_45, Dhanush_46, Druantia_46, Eagle_46, Eapen_46, Eris_45, Eros_46, Eurydice_47, Florean_46, Flux_46, Funston_45, Gadost_46, HamSlice_45, Happiness_45, Holli_45, Houdini22_46, ICleared_46, Iceman_46, Iracema64_47, Jaykayelowell_44, JetBlade_46, JoongJeon_45, KFPoly_45, Kampy_46, Katalie136_45, Kingmustik0402_46, Koreni_45, Kremtemulon_44, Kyee_46, LHTSCC_48, LappelDuVide_45, Lemur_46, LeoAvram_46, LittleB_46, LittleGuy_46, LochMonster_47, Lorenzo_46, Lunsford_47, Maverick_46, Maxo_47, Mazhar510_46, Medusa_46, MeeZee_46, Melvin_48, Millski_45, Miramae_45, Morpher26_45, Morrow_47, Mundrea_45, Nebs_47, Nemo27_46, Noelle_46, NorthStar_45, NotAPhaseMom_46, Nyxis_46, OKaNui_46, Obama12_47, Ohfah_47, Palestino_45, Peaches_46, Perplexer_45, PeterPeter_46, PetiteSangsue_45, Phacado_46, Felipe_47, Phontbonne_46, Pipcraft_44, Polymorphads_47, Pumbaa_46, Relief_45, Romney_46, Roosevelt_45, Ruin_46, Sabertooth_46, Scamp_46, Shaka_46, SheldonCooper_48, Skipitt_45, Sparxx_47, Spino_45, Stasia_45, Stink_46, Taquarus_46, Thanksgivukkah_45, TinaFeyge_46,

Tinybot_45, TiroTheta9_46, TroyPia_47, TygerBlood_46, Ulysses_45, Wander_46, Wilbur_46, Wile_45, Wizard007_46, Xena_44, YoSam321_46,

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

-

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

- Anaysia_50, Anon_44, Anthony_42, Astro_44, B1_43, BabyRay_46, Bachome_49, Battleship_50, BlueBird_48, Boohoo_50, Bud_47, Bugatti_47, Caviar_46, Danforth_44, DekHockey33_50, Dixon_44, Ebony_47, Epsocamisio_48, Et2Brutus_46, Expelliarmus_44, Fibonacci_47, Fred313_46, Gilberta_48, Giroux_47, Groundhog_43, Heathen_46, HelDan_46, Hookmount_46, Hutc2_47, Idleandcovert_47, Insomnia_47, Isca_45, JF2_46, JF4_46, JSwag_48, Jabith_48, KatherineG_51, Lambert1_46, LastResort_49, Looper_50, Lucivia_48, MA5_46, MK4_46, MaCh_48, Margo_46, MinecraftSteve_50, Mulciber_47, NearlyHeadless_44, Nebulosus_49, Nedarya_45, Noella_46, Norbert_45, Oofda_50, Orange_47, PP_50, Panamaxus_44, Petersenfast_46, Phantastic_47, Phlei_36, Pistachio_48, Pocahontas_46, Popcicle_46, Puppy_48, QuinnKiro_45, RGL3_32, ReMo_49, Remus_49, ResDef_47, Roary_45, Rockstar_46, Rosalind_48, Saintus_39, Salz_46, SaturnRing_47, Scout_46, Sham4_47, ShayRa_51, Smeadley_45, Snape_47, Soups_50, Steamy_43, Stephig9_45, Strosahl_49, Switzerland_49, TNguyen7_47, Texage_45, Timothy_47, TinyTimmy_46, Todacoro_46, Veracruz_45, Waits_49,

Summary by start number:

Start 7:

- Found in 1 of 221 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 209
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PP_50 (A7),

Start 16:

- Found in 19 of 221 (8.6%) of genes in pham
- Manual Annotations of this start: 16 of 209
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bachome_49 (A11), Bud_47 (A11), Ebony_47 (A11), Et2Brutus_46 (A11), Fibonacci_47 (A11), Gilberta_48 (A11), Hutc2_47 (A11), Insomnia_47 (A11), Jabith_48 (A11), Lucivia_48 (A11), MaCh_48 (A11), Mulciber_47 (A11), Orange_47 (A11), Petersenfast_46 (A11), Salz_46 (A11), Sham4_47 (A11), Snape_47 (A11), Timothy_47 (A11), TinyTimmy_46 (A11),

Start 17:

- Found in 1 of 221 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 209
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nedarya_45 (A15),

Start 21:

- Found in 1 of 221 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 209
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Steamy_43 (A12),

Start 22:

- Found in 20 of 221 (9.0%) of genes in pham
- No Manual Annotations of this start.
- Called 5.0% of time when present
- Phage (with cluster) where this start called: Phlei_36 (A13),

Start 23:

- Found in 130 of 221 (58.8%) of genes in pham
- Manual Annotations of this start: 128 of 209
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbysRanger_45 (A4), Abdiel_46 (A4), Achebe_44 (A4), Albee_46 (A4), Alberto7_47 (A4), Annyong_46 (A4), AvatarAhPeg_45 (A4), Avle17_46 (A4), Baby16_46 (A4), Backyardigan_44 (A4), Badger_44 (A4), BangNhom_47 (A4), Bartimeaus_46 (A4), BellusTerra_47 (A4), Blackmoor_46 (A4), Bombshell_46 (A4), Broseidon_46 (A4), Bruiser_45 (A4), BubbleTrouble_45 (A4), Bumblebee11_44 (A4), Burger_44 (A4), Caelakin_46 (A4), Camperdownii_44 (A4), CentreCat_46 (A4), Cerulean_47 (A4), ChampagnePapi_48 (A4), Chaph_46 (A4), Cici_45 (A4), Cintron_45 (A4), Citius_46 (A4), Clarenza_45 (A4), Cocoaberry_46 (A4), Commander_46 (A4), Connomayer_46 (A4), Deano_45 (A4), Dhanush_46 (A4), Druantia_46 (A4), Eagle_46 (A4), Eapen_46 (A4), Eris_45 (A4), Eros_46 (A4), Eurydice_47 (A4), Florean_46 (A4), Flux_46 (A4), Funston_45 (A4), Gadost_46 (A4), HamSlice_45 (A4), Happiness_45 (A4), Holli_45 (A4), Houdini22_46 (A4), ICleared_46 (A4), Iceman_46 (A4), Iracema64_47 (A4), Jaykayelowell_44 (A4), JetBlade_46 (A4), JoongJeon_45 (A4), KFPoly_45 (A4), Kamy_46 (A4), Katalie136_45 (A4), Kingmustik0402_46 (A4), Koreni_45 (A4), Kremtemulon_44 (A4), Kyee_46 (A4), LHTSCC_48 (A4), LappelDuVide_45 (A4), Lemur_46 (A4), LeoAvram_46 (A4), LittleB_46 (A4), LittleGuy_46 (A4), LochMonster_47 (A4), Lorenzo_46 (A4), Lunsford_47 (A4), Maverick_46 (A4), Maxo_47 (A4), Mazhar510_46 (A4), Medusa_46 (A4), MeeZee_46 (A4), Melvin_48 (A4), Millski_45 (A4), Miramae_45 (A4), Morpher26_45 (A4), Morrow_47 (A4), Mundrea_45 (A4), Nebs_47 (A4), Nemo27_46 (A4), Noelle_46 (A4), NorthStar_45 (A4), NotAPhaseMom_46 (A4), Nyxis_46 (A4), OKaNui_46 (A4), Obama12_47 (A4), Ohfah_47 (A4), Palestino_45 (A4), Peaches_46 (A4), Perplexer_45 (A4), PeterPeter_46 (A4), PetiteSangsue_45 (A4), Phacado_46 (A4), Phelipe_47 (A4), Phontbonne_46 (A4), Pipcraft_44 (A4), Polymorphads_47 (A4), Pumbaa_46 (A4), Relief_45 (A4), Romney_46 (A4), Roosevelt_45 (A4), Ruin_46 (A4), Sabertooth_46 (A4), Scamp_46 (A4), Shaka_46 (A4), SheldonCooper_48 (A4), Skipitt_45 (A4), Sparxx_47 (A4), Spino_45 (A4), Stasia_45 (A4), Stink_46 (A4), Taquarus_46 (A4), Thanksgivukkah_45 (A4), TinaFeyge_46 (A4), Tinybot_45 (A4), TiroTheta9_46 (A4), TroyPia_47 (A4), TygerBlood_46 (A4), Ulysses_45 (A4), Wander_46 (A4), Wilbur_46 (A4), Wile_45 (A4), Wizard007_46 (A4), Xena_44 (A4), YoSam321_46 (A4),

Start 24:

- Found in 1 of 221 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 209
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anthony_42 (A20),

Start 27:

- Found in 35 of 221 (15.8%) of genes in pham
- Manual Annotations of this start: 31 of 209
- Called 100.0% of time when present

- Phage (with cluster) where this start called: B1_43 (A3), BabyRay_46 (A3), BlueBird_48 (A3), Bugatti_47 (A3), Caviar_46 (A3), Fred313_46 (A3), Giroux_47 (A3), Heathen_46 (A3), HelDan_46 (A3), Hookmount_46 (A3), Idleandcovert_47 (A3), Isca_45 (A3), JF2_46 (A3), JF4_46 (A3), Lambert1_46 (A3), MA5_46 (A3), MK4_46 (A3), Margo_46 (A3), Noella_46 (A3), Norbert_45 (A3), Panamaxus_44 (A3), Phantastic_47 (A3), Pistachio_48 (A3), Pocahontas_46 (A3), Popcicle_46 (A3), Puppy_48 (A3), QuinnKiro_45 (A3), ResDef_47 (A3), Rockstar_46 (A3), SaturnRing_47 (A3), Scout_46 (A3), TNguyen7_47 (A3), Texage_45 (A3), Todacoro_46 (A3), Veracruz_45 (A3),

Start 29:

- Found in 21 of 221 (9.5%) of genes in pham
- Manual Annotations of this start: 20 of 209
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anaysia_50 (A15), Anon_44 (A15), Battleship_50 (A15), Boohoo_50 (A15), DekHockey33_50 (A15), Epsocamisio_48 (A15), JSwag_48 (A15), KatherineG_51 (A15), LastResort_49 (A15), Looper_50 (A15), MinecraftSteve_50 (A15), Nebulosus_49 (A15), Oofda_50 (A15), ReMo_49 (A15), Remus_49 (A15), Rosalind_48 (A15), ShayRa_51 (A15), Soups_50 (A15), Strosahl_49 (A15), Switzerland_49 (A15), Waits_49 (A15),

Start 30:

- Found in 10 of 221 (4.5%) of genes in pham
- Manual Annotations of this start: 10 of 209
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Astro_44 (A8), Danforth_44 (A8), Dixon_44 (A8), Expelliarmus_44 (A8), Groundhog_43 (A8), NearlyHeadless_44 (A8), Roary_45 (A8), Saintus_39 (A8), Smeadley_45 (A8), Stephig9_45 (A8),

Start 37:

- Found in 1 of 221 (0.5%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RGL3_32 (CA),

Summary by clusters:

There are 10 clusters represented in this pham: A15, A20, A11, A13, A12, CA, A3, A4, A7, A8,

Info for manual annotations of cluster A11:

- Start number 16 was manually annotated 16 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 21 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A15:

- Start number 17 was manually annotated 1 time for cluster A15.
- Start number 29 was manually annotated 20 times for cluster A15.

Info for manual annotations of cluster A20:

- Start number 24 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:

- Start number 27 was manually annotated 31 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 23 was manually annotated 128 times for cluster A4.

Info for manual annotations of cluster A7:

- Start number 7 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster A8:

- Start number 30 was manually annotated 10 times for cluster A8.

Gene Information:

Gene: AbbysRanger_45 Start: 31867, Stop: 31544, Start Num: 23

Candidate Starts for AbbysRanger_45:

(Start: 23 @31867 has 128 MA's), (43, 31768), (44, 31759), (46, 31744), (51, 31714), (61, 31594),

Gene: Abdiel_46 Start: 31881, Stop: 31579, Start Num: 23

Candidate Starts for Abdiel_46:

(1, 32151), (Start: 23 @31881 has 128 MA's), (51, 31749), (53, 31710), (58, 31662), (61, 31629),

Gene: Achebe_44 Start: 31850, Stop: 31527, Start Num: 23

Candidate Starts for Achebe_44:

(Start: 23 @31850 has 128 MA's), (43, 31751), (44, 31742), (46, 31727), (51, 31697), (61, 31577),

Gene: Albee_46 Start: 31880, Stop: 31578, Start Num: 23

Candidate Starts for Albee_46:

(1, 32150), (Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: Alberto7_47 Start: 32217, Stop: 31915, Start Num: 23

Candidate Starts for Alberto7_47:

(1, 32487), (Start: 23 @32217 has 128 MA's), (51, 32085), (53, 32046), (58, 31998), (61, 31965),

Gene: Anaysia_50 Start: 30853, Stop: 30560, Start Num: 29

Candidate Starts for Anaysia_50:

(Start: 29 @30853 has 20 MA's), (50, 30736), (58, 30643),

Gene: Annyong_46 Start: 31925, Stop: 31623, Start Num: 23

Candidate Starts for Annyong_46:

(1, 32195), (Start: 23 @31925 has 128 MA's), (51, 31793), (53, 31754), (58, 31706), (61, 31673),

Gene: Anon_44 Start: 29643, Stop: 29365, Start Num: 29

Candidate Starts for Anon_44:

(Start: 29 @29643 has 20 MA's), (58, 29448),

Gene: Anthony_42 Start: 29795, Stop: 29478, Start Num: 24

Candidate Starts for Anthony_42:

(3, 29948), (10, 29870), (Start: 24 @29795 has 1 MA's), (33, 29747), (36, 29741), (58, 29561), (63, 29501),

Gene: Astro_44 Start: 31145, Stop: 30849, Start Num: 30

Candidate Starts for Astro_44:

(Start: 30 @31145 has 10 MA's), (32, 31136), (40, 31094), (61, 30908),

Gene: AvatarAhPeg_45 Start: 32379, Stop: 32056, Start Num: 23

Candidate Starts for AvatarAhPeg_45:

(Start: 23 @32379 has 128 MA's), (25, 32364), (44, 32271), (46, 32256), (51, 32226), (56, 32151), (61, 32106),

Gene: Avle17_46 Start: 31877, Stop: 31575, Start Num: 23

Candidate Starts for Avle17_46:

(Start: 23 @31877 has 128 MA's), (51, 31745), (53, 31706), (58, 31658), (61, 31625),

Gene: B1_43 Start: 31013, Stop: 30738, Start Num: 27

Candidate Starts for B1_43:

(11, 31100), (19, 31043), (Start: 27 @31013 has 31 MA's), (52, 30908), (55, 30836), (61, 30788),

Gene: Baby16_46 Start: 31891, Stop: 31589, Start Num: 23

Candidate Starts for Baby16_46:

(1, 32161), (Start: 23 @31891 has 128 MA's), (51, 31759), (53, 31720), (58, 31672), (61, 31639),

Gene: BabyRay_46 Start: 31749, Stop: 31474, Start Num: 27

Candidate Starts for BabyRay_46:

(5, 31890), (6, 31881), (Start: 27 @31749 has 31 MA's), (47, 31668), (55, 31572),

Gene: Bachome_49 Start: 31693, Stop: 31346, Start Num: 16

Candidate Starts for Bachome_49:

(Start: 16 @31693 has 16 MA's), (22, 31660), (26, 31639), (58, 31426), (61, 31393),

Gene: Backyardigan_44 Start: 31883, Stop: 31560, Start Num: 23

Candidate Starts for Backyardigan_44:

(Start: 23 @31883 has 128 MA's), (43, 31784), (44, 31775), (46, 31760), (51, 31730), (61, 31610),

Gene: Badger_44 Start: 31851, Stop: 31528, Start Num: 23

Candidate Starts for Badger_44:

(Start: 23 @31851 has 128 MA's), (43, 31752), (44, 31743), (46, 31728), (51, 31698), (61, 31578),

Gene: BangNhom_47 Start: 32302, Stop: 32000, Start Num: 23

Candidate Starts for BangNhom_47:

(1, 32572), (Start: 23 @32302 has 128 MA's), (51, 32170), (53, 32131), (61, 32050),

Gene: Bartimeaus_46 Start: 31882, Stop: 31580, Start Num: 23

Candidate Starts for Bartimeaus_46:

(1, 32152), (Start: 23 @31882 has 128 MA's), (51, 31750), (53, 31711), (58, 31663), (61, 31630),

Gene: Battleship_50 Start: 30586, Stop: 30293, Start Num: 29

Candidate Starts for Battleship_50:

(Start: 29 @30586 has 20 MA's), (50, 30469), (58, 30376),

Gene: BellusTerra_47 Start: 31881, Stop: 31579, Start Num: 23

Candidate Starts for BellusTerra_47:

(Start: 23 @31881 has 128 MA's), (51, 31749), (53, 31710), (58, 31662), (61, 31629),

Gene: Blackmoor_46 Start: 31882, Stop: 31580, Start Num: 23

Candidate Starts for Blackmoor_46:

(1, 32152), (Start: 23 @31882 has 128 MA's), (51, 31750), (53, 31711), (58, 31663), (61, 31630),

Gene: BlueBird_48 Start: 31838, Stop: 31563, Start Num: 27

Candidate Starts for BlueBird_48:

(Start: 27 @31838 has 31 MA's), (55, 31661), (61, 31613),

Gene: Bombshell_46 Start: 31877, Stop: 31575, Start Num: 23

Candidate Starts for Bombshell_46:

(1, 32147), (Start: 23 @31877 has 128 MA's), (51, 31745), (53, 31706), (58, 31658), (61, 31625),

Gene: Boohoo_50 Start: 30853, Stop: 30560, Start Num: 29

Candidate Starts for Boohoo_50:

(Start: 29 @30853 has 20 MA's), (50, 30736), (58, 30643),

Gene: Broseidon_46 Start: 31882, Stop: 31580, Start Num: 23

Candidate Starts for Broseidon_46:

(1, 32152), (Start: 23 @31882 has 128 MA's), (51, 31750), (53, 31711), (58, 31663), (61, 31630),

Gene: Bruiser_45 Start: 31880, Stop: 31578, Start Num: 23

Candidate Starts for Bruiser_45:

(Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: BubbleTrouble_45 Start: 31880, Stop: 31578, Start Num: 23

Candidate Starts for BubbleTrouble_45:

(1, 32150), (Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: Bud_47 Start: 31267, Stop: 30920, Start Num: 16

Candidate Starts for Bud_47:

(Start: 16 @31267 has 16 MA's), (22, 31234), (26, 31213), (58, 31000), (61, 30967),

Gene: Bugatti_47 Start: 31838, Stop: 31563, Start Num: 27

Candidate Starts for Bugatti_47:

(Start: 27 @31838 has 31 MA's), (55, 31661), (61, 31613),

Gene: Bumblebee11_44 Start: 31853, Stop: 31530, Start Num: 23

Candidate Starts for Bumblebee11_44:

(Start: 23 @31853 has 128 MA's), (43, 31754), (44, 31745), (46, 31730), (51, 31700), (61, 31580),

Gene: Burger_44 Start: 31880, Stop: 31578, Start Num: 23

Candidate Starts for Burger_44:

(1, 32150), (Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: Caelakin_46 Start: 31880, Stop: 31578, Start Num: 23

Candidate Starts for Caelakin_46:

(1, 32150), (Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: Camperdownii_44 Start: 31553, Stop: 31251, Start Num: 23

Candidate Starts for Camperdownii_44:

(Start: 23 @31553 has 128 MA's), (51, 31421), (53, 31382), (58, 31334), (61, 31301),

Gene: Caviar_46 Start: 32081, Stop: 31806, Start Num: 27

Candidate Starts for Caviar_46:

(9, 32171), (11, 32162), (Start: 27 @32081 has 31 MA's), (55, 31904),

Gene: CentreCat_46 Start: 31883, Stop: 31581, Start Num: 23

Candidate Starts for CentreCat_46:

(1, 32153), (Start: 23 @31883 has 128 MA's), (51, 31751), (53, 31712), (58, 31664), (61, 31631),

Gene: Cerulean_47 Start: 32303, Stop: 32001, Start Num: 23

Candidate Starts for Cerulean_47:

(1, 32573), (Start: 23 @32303 has 128 MA's), (51, 32171), (53, 32132), (61, 32051),

Gene: ChampagnePapi_48 Start: 32302, Stop: 32000, Start Num: 23

Candidate Starts for ChampagnePapi_48:

(1, 32572), (Start: 23 @32302 has 128 MA's), (51, 32170), (53, 32131), (61, 32050),

Gene: Chaph_46 Start: 31891, Stop: 31589, Start Num: 23

Candidate Starts for Chaph_46:

(1, 32161), (Start: 23 @31891 has 128 MA's), (51, 31759), (53, 31720), (58, 31672), (61, 31639),

Gene: Cici_45 Start: 31868, Stop: 31545, Start Num: 23

Candidate Starts for Cici_45:

(Start: 23 @31868 has 128 MA's), (43, 31769), (44, 31760), (46, 31745), (51, 31715), (61, 31595),

Gene: Cintron_45 Start: 31860, Stop: 31558, Start Num: 23

Candidate Starts for Cintron_45:

(1, 32130), (Start: 23 @31860 has 128 MA's), (51, 31728), (53, 31689), (58, 31641), (61, 31608),

Gene: Citius_46 Start: 31901, Stop: 31599, Start Num: 23

Candidate Starts for Citius_46:

(1, 32171), (Start: 23 @31901 has 128 MA's), (51, 31769), (53, 31730), (58, 31682), (61, 31649),

Gene: Clarenza_45 Start: 31877, Stop: 31575, Start Num: 23

Candidate Starts for Clarenza_45:

(1, 32147), (Start: 23 @31877 has 128 MA's), (51, 31745), (53, 31706), (58, 31658), (61, 31625),

Gene: Cocoaberry_46 Start: 31884, Stop: 31582, Start Num: 23

Candidate Starts for Cocoaberry_46:

(Start: 23 @31884 has 128 MA's), (51, 31752), (53, 31713), (58, 31665), (61, 31632),

Gene: Commander_46 Start: 31879, Stop: 31577, Start Num: 23

Candidate Starts for Commander_46:

(1, 32149), (Start: 23 @31879 has 128 MA's), (51, 31747), (53, 31708), (58, 31660), (61, 31627),

Gene: Connomayer_46 Start: 31880, Stop: 31578, Start Num: 23

Candidate Starts for Connomayer_46:

(1, 32150), (Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: Danforth_44 Start: 31174, Stop: 30878, Start Num: 30

Candidate Starts for Danforth_44:

(14, 31240), (Start: 30 @31174 has 10 MA's), (40, 31123), (61, 30937),

Gene: Deano_45 Start: 31888, Stop: 31586, Start Num: 23
Candidate Starts for Deano_45:
(Start: 23 @31888 has 128 MA's), (31, 31846), (51, 31756), (53, 31717), (58, 31669), (61, 31636),

Gene: DekHockey33_50 Start: 31068, Stop: 30775, Start Num: 29
Candidate Starts for DekHockey33_50:
(Start: 29 @31068 has 20 MA's), (50, 30951), (58, 30858),

Gene: Dhanush_46 Start: 31883, Stop: 31581, Start Num: 23
Candidate Starts for Dhanush_46:
(1, 32153), (Start: 23 @31883 has 128 MA's), (51, 31751), (53, 31712), (58, 31664), (61, 31631),

Gene: Dixon_44 Start: 31047, Stop: 30760, Start Num: 30
Candidate Starts for Dixon_44:
(14, 31113), (Start: 30 @31047 has 10 MA's), (40, 30996), (61, 30810),

Gene: Druantia_46 Start: 31883, Stop: 31581, Start Num: 23
Candidate Starts for Druantia_46:
(1, 32153), (Start: 23 @31883 has 128 MA's), (51, 31751), (53, 31712), (58, 31664), (61, 31631),

Gene: Eagle_46 Start: 31905, Stop: 31603, Start Num: 23
Candidate Starts for Eagle_46:
(1, 32175), (Start: 23 @31905 has 128 MA's), (51, 31773), (53, 31734), (58, 31686), (61, 31653),

Gene: Eapen_46 Start: 31875, Stop: 31573, Start Num: 23
Candidate Starts for Eapen_46:
(1, 32145), (Start: 23 @31875 has 128 MA's), (51, 31743), (53, 31704), (58, 31656), (61, 31623),

Gene: Ebony_47 Start: 31284, Stop: 30937, Start Num: 16
Candidate Starts for Ebony_47:
(Start: 16 @31284 has 16 MA's), (22, 31251), (26, 31230), (58, 31017), (61, 30984),

Gene: Epsocamisio_48 Start: 30391, Stop: 30098, Start Num: 29
Candidate Starts for Epsocamisio_48:
(Start: 29 @30391 has 20 MA's), (50, 30274), (58, 30181),

Gene: Eris_45 Start: 31880, Stop: 31578, Start Num: 23
Candidate Starts for Eris_45:
(1, 32150), (Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: Eros_46 Start: 31882, Stop: 31580, Start Num: 23
Candidate Starts for Eros_46:
(1, 32152), (Start: 23 @31882 has 128 MA's), (51, 31750), (53, 31711), (58, 31663), (61, 31630),

Gene: Et2Brutus_46 Start: 31244, Stop: 30897, Start Num: 16
Candidate Starts for Et2Brutus_46:
(Start: 16 @31244 has 16 MA's), (22, 31211), (26, 31190), (58, 30977), (61, 30944),

Gene: Eurydice_47 Start: 31877, Stop: 31575, Start Num: 23
Candidate Starts for Eurydice_47:
(1, 32147), (Start: 23 @31877 has 128 MA's), (51, 31745), (53, 31706), (58, 31658), (61, 31625),

Gene: Expelliarmus_44 Start: 31203, Stop: 30907, Start Num: 30
Candidate Starts for Expelliarmus_44:
(14, 31269), (Start: 30 @31203 has 10 MA's), (40, 31152), (61, 30966),

Gene: Fibonacci_47 Start: 31259, Stop: 30912, Start Num: 16
Candidate Starts for Fibonacci_47:
(Start: 16 @31259 has 16 MA's), (22, 31226), (26, 31205), (58, 30992), (61, 30959),

Gene: Florean_46 Start: 31879, Stop: 31577, Start Num: 23
Candidate Starts for Florean_46:
(1, 32149), (Start: 23 @31879 has 128 MA's), (51, 31747), (53, 31708), (58, 31660), (61, 31627),

Gene: Flux_46 Start: 31879, Stop: 31577, Start Num: 23
Candidate Starts for Flux_46:
(1, 32149), (Start: 23 @31879 has 128 MA's), (51, 31747), (53, 31708), (58, 31660), (61, 31627),

Gene: Fred313_46 Start: 31411, Stop: 31136, Start Num: 27
Candidate Starts for Fred313_46:
(20, 31432), (Start: 27 @31411 has 31 MA's), (55, 31234), (61, 31186),

Gene: Funston_45 Start: 31880, Stop: 31578, Start Num: 23
Candidate Starts for Funston_45:
(Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: Gadost_46 Start: 31884, Stop: 31582, Start Num: 23
Candidate Starts for Gadost_46:
(Start: 23 @31884 has 128 MA's), (51, 31752), (53, 31713), (58, 31665), (61, 31632),

Gene: Gilberta_48 Start: 31696, Stop: 31349, Start Num: 16
Candidate Starts for Gilberta_48:
(Start: 16 @31696 has 16 MA's), (22, 31663), (26, 31642), (58, 31429), (61, 31396),

Gene: Giroux_47 Start: 31837, Stop: 31562, Start Num: 27
Candidate Starts for Giroux_47:
(Start: 27 @31837 has 31 MA's), (55, 31660), (61, 31612),

Gene: Groundhog_43 Start: 31110, Stop: 30814, Start Num: 30
Candidate Starts for Groundhog_43:
(Start: 30 @31110 has 10 MA's), (32, 31101), (40, 31059), (61, 30873),

Gene: HamSlice_45 Start: 31878, Stop: 31576, Start Num: 23
Candidate Starts for HamSlice_45:
(1, 32148), (Start: 23 @31878 has 128 MA's), (51, 31746), (53, 31707), (58, 31659), (61, 31626),

Gene: Happiness_45 Start: 31885, Stop: 31583, Start Num: 23
Candidate Starts for Happiness_45:
(1, 32155), (Start: 23 @31885 has 128 MA's), (51, 31753), (53, 31714), (58, 31666), (61, 31633),

Gene: Heathen_46 Start: 31467, Stop: 31192, Start Num: 27
Candidate Starts for Heathen_46:
(Start: 27 @31467 has 31 MA's), (55, 31290), (61, 31242),

Gene: HelDan_46 Start: 31719, Stop: 31444, Start Num: 27

Candidate Starts for HelDan_46:

(Start: 27 @31719 has 31 MA's), (55, 31542), (61, 31494),

Gene: Holli_45 Start: 31670, Stop: 31368, Start Num: 23

Candidate Starts for Holli_45:

(1, 31940), (Start: 23 @31670 has 128 MA's), (51, 31538), (53, 31499), (58, 31451), (61, 31418),

Gene: Hookmount_46 Start: 32082, Stop: 31807, Start Num: 27

Candidate Starts for Hookmount_46:

(9, 32172), (11, 32163), (Start: 27 @32082 has 31 MA's), (55, 31905),

Gene: Houdini22_46 Start: 31884, Stop: 31582, Start Num: 23

Candidate Starts for Houdini22_46:

(Start: 23 @31884 has 128 MA's), (51, 31752), (53, 31713), (58, 31665), (61, 31632),

Gene: Hutc2_47 Start: 31259, Stop: 30912, Start Num: 16

Candidate Starts for Hutc2_47:

(Start: 16 @31259 has 16 MA's), (22, 31226), (26, 31205), (58, 30992), (61, 30959),

Gene: ICleared_46 Start: 31909, Stop: 31607, Start Num: 23

Candidate Starts for ICleared_46:

(1, 32179), (Start: 23 @31909 has 128 MA's), (51, 31777), (53, 31738), (58, 31690), (61, 31657),

Gene: Iceman_46 Start: 32166, Stop: 31864, Start Num: 23

Candidate Starts for Iceman_46:

(1, 32436), (Start: 23 @32166 has 128 MA's), (51, 32034), (53, 31995), (58, 31947), (61, 31914),

Gene: Idleandcovert_47 Start: 31838, Stop: 31563, Start Num: 27

Candidate Starts for Idleandcovert_47:

(Start: 27 @31838 has 31 MA's), (55, 31661), (61, 31613),

Gene: Insomnia_47 Start: 31764, Stop: 31417, Start Num: 16

Candidate Starts for Insomnia_47:

(Start: 16 @31764 has 16 MA's), (22, 31731), (26, 31710), (58, 31497), (61, 31464),

Gene: Iracema64_47 Start: 32144, Stop: 31842, Start Num: 23

Candidate Starts for Iracema64_47:

(1, 32414), (Start: 23 @32144 has 128 MA's), (51, 32012), (53, 31973), (58, 31925), (61, 31892),

Gene: Isca_45 Start: 31262, Stop: 30987, Start Num: 27

Candidate Starts for Isca_45:

(11, 31349), (19, 31292), (Start: 27 @31262 has 31 MA's), (52, 31157), (55, 31085), (61, 31037),

Gene: JF2_46 Start: 31013, Stop: 30738, Start Num: 27

Candidate Starts for JF2_46:

(11, 31100), (19, 31043), (Start: 27 @31013 has 31 MA's), (52, 30908), (55, 30836), (61, 30788),

Gene: JF4_46 Start: 31013, Stop: 30738, Start Num: 27

Candidate Starts for JF4_46:

(11, 31100), (19, 31043), (Start: 27 @31013 has 31 MA's), (52, 30908), (55, 30836), (61, 30788),

Gene: JSwag_48 Start: 30329, Stop: 30036, Start Num: 29

Candidate Starts for JSwag_48:

(Start: 29 @30329 has 20 MA's), (50, 30212), (58, 30119),

Gene: Jabith_48 Start: 31765, Stop: 31418, Start Num: 16

Candidate Starts for Jabith_48:

(Start: 16 @31765 has 16 MA's), (22, 31732), (26, 31711), (58, 31498), (61, 31465),

Gene: Jaykayelowell_44 Start: 31873, Stop: 31571, Start Num: 23

Candidate Starts for Jaykayelowell_44:

(1, 32143), (Start: 23 @31873 has 128 MA's), (51, 31741), (53, 31702), (58, 31654), (61, 31621),

Gene: JetBlade_46 Start: 31874, Stop: 31572, Start Num: 23

Candidate Starts for JetBlade_46:

(1, 32144), (Start: 23 @31874 has 128 MA's), (51, 31742), (53, 31703), (58, 31655), (61, 31622),

Gene: JoongJeon_45 Start: 31877, Stop: 31575, Start Num: 23

Candidate Starts for JoongJeon_45:

(Start: 23 @31877 has 128 MA's), (51, 31745), (53, 31706), (58, 31658), (61, 31625),

Gene: KFPoly_45 Start: 31874, Stop: 31572, Start Num: 23

Candidate Starts for KFPoly_45:

(1, 32144), (Start: 23 @31874 has 128 MA's), (51, 31742), (53, 31703), (58, 31655), (61, 31622),

Gene: Kamy_46 Start: 31882, Stop: 31580, Start Num: 23

Candidate Starts for Kamy_46:

(1, 32152), (Start: 23 @31882 has 128 MA's), (51, 31750), (53, 31711), (58, 31663), (61, 31630),

Gene: Katalie136_45 Start: 31853, Stop: 31530, Start Num: 23

Candidate Starts for Katalie136_45:

(Start: 23 @31853 has 128 MA's), (43, 31754), (44, 31745), (46, 31730), (51, 31700), (61, 31580),

Gene: KatherineG_51 Start: 31068, Stop: 30775, Start Num: 29

Candidate Starts for KatherineG_51:

(Start: 29 @31068 has 20 MA's), (50, 30951), (58, 30858),

Gene: Kingmustik0402_46 Start: 31869, Stop: 31567, Start Num: 23

Candidate Starts for Kingmustik0402_46:

(1, 32139), (Start: 23 @31869 has 128 MA's), (51, 31737), (53, 31698), (58, 31650), (61, 31617),

Gene: Koreni_45 Start: 31561, Stop: 31259, Start Num: 23

Candidate Starts for Koreni_45:

(1, 31831), (Start: 23 @31561 has 128 MA's), (51, 31429), (53, 31390), (58, 31342), (61, 31309),

Gene: Kremtemulon_44 Start: 31831, Stop: 31529, Start Num: 23

Candidate Starts for Kremtemulon_44:

(1, 32101), (Start: 23 @31831 has 128 MA's), (51, 31699), (53, 31660), (61, 31579),

Gene: Kyee_46 Start: 31878, Stop: 31576, Start Num: 23

Candidate Starts for Kyee_46:

(Start: 23 @31878 has 128 MA's), (51, 31746), (53, 31707), (58, 31659), (61, 31626),

Gene: LHTSCC_48 Start: 32302, Stop: 32000, Start Num: 23

Candidate Starts for LHTSCC_48:

(1, 32572), (Start: 23 @32302 has 128 MA's), (51, 32170), (53, 32131), (61, 32050),

Gene: Lambert1_46 Start: 32081, Stop: 31806, Start Num: 27
Candidate Starts for Lambert1_46:
(9, 32171), (11, 32162), (Start: 27 @32081 has 31 MA's), (55, 31904),

Gene: LappelDuVide_45 Start: 31879, Stop: 31577, Start Num: 23
Candidate Starts for LappelDuVide_45:
(1, 32149), (Start: 23 @31879 has 128 MA's), (51, 31747), (53, 31708), (58, 31660), (61, 31627),

Gene: LastResort_49 Start: 30629, Stop: 30336, Start Num: 29
Candidate Starts for LastResort_49:
(Start: 29 @30629 has 20 MA's), (50, 30512), (58, 30419),

Gene: Lemur_46 Start: 31877, Stop: 31575, Start Num: 23
Candidate Starts for Lemur_46:
(1, 32147), (Start: 23 @31877 has 128 MA's), (51, 31745), (53, 31706), (58, 31658), (61, 31625),

Gene: LeoAvram_46 Start: 31880, Stop: 31578, Start Num: 23
Candidate Starts for LeoAvram_46:
(1, 32150), (Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: LittleB_46 Start: 31881, Stop: 31579, Start Num: 23
Candidate Starts for LittleB_46:
(1, 32151), (Start: 23 @31881 has 128 MA's), (51, 31749), (53, 31710), (58, 31662), (61, 31629),

Gene: LittleGuy_46 Start: 31776, Stop: 31474, Start Num: 23
Candidate Starts for LittleGuy_46:
(1, 32046), (Start: 23 @31776 has 128 MA's), (51, 31644), (53, 31605), (58, 31557), (61, 31524),

Gene: LochMonster_47 Start: 32116, Stop: 31814, Start Num: 23
Candidate Starts for LochMonster_47:
(1, 32386), (Start: 23 @32116 has 128 MA's), (31, 32074), (51, 31984), (53, 31945), (58, 31897), (61, 31864),

Gene: Looper_50 Start: 30606, Stop: 30313, Start Num: 29
Candidate Starts for Looper_50:
(Start: 29 @30606 has 20 MA's), (50, 30489), (58, 30396),

Gene: Lorenzo_46 Start: 31880, Stop: 31578, Start Num: 23
Candidate Starts for Lorenzo_46:
(1, 32150), (Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: Lucivia_48 Start: 31754, Stop: 31407, Start Num: 16
Candidate Starts for Lucivia_48:
(Start: 16 @31754 has 16 MA's), (22, 31721), (26, 31700), (58, 31487), (61, 31454),

Gene: Lunsford_47 Start: 31874, Stop: 31572, Start Num: 23
Candidate Starts for Lunsford_47:
(1, 32144), (Start: 23 @31874 has 128 MA's), (51, 31742), (53, 31703), (58, 31655), (61, 31622),

Gene: MA5_46 Start: 31164, Stop: 30889, Start Num: 27
Candidate Starts for MA5_46:

(8, 31281), (10, 31257), (11, 31251), (15, 31224), (Start: 27 @31164 has 31 MA's), (49, 31074), (55, 30987), (61, 30939),

Gene: MK4_46 Start: 31247, Stop: 30972, Start Num: 27

Candidate Starts for MK4_46:

(11, 31334), (19, 31277), (Start: 27 @31247 has 31 MA's), (52, 31142), (55, 31070), (61, 31022),

Gene: MaCh_48 Start: 31692, Stop: 31345, Start Num: 16

Candidate Starts for MaCh_48:

(Start: 16 @31692 has 16 MA's), (22, 31659), (26, 31638), (58, 31425), (61, 31392),

Gene: Margo_46 Start: 32107, Stop: 31832, Start Num: 27

Candidate Starts for Margo_46:

(9, 32197), (11, 32188), (Start: 27 @32107 has 31 MA's), (55, 31930),

Gene: Maverick_46 Start: 31880, Stop: 31578, Start Num: 23

Candidate Starts for Maverick_46:

(Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: Maxo_47 Start: 31882, Stop: 31580, Start Num: 23

Candidate Starts for Maxo_47:

(1, 32152), (Start: 23 @31882 has 128 MA's), (51, 31750), (53, 31711), (58, 31663), (61, 31630),

Gene: Mazhar510_46 Start: 31881, Stop: 31579, Start Num: 23

Candidate Starts for Mazhar510_46:

(Start: 23 @31881 has 128 MA's), (51, 31749), (53, 31710), (58, 31662), (61, 31629),

Gene: Medusa_46 Start: 31879, Stop: 31577, Start Num: 23

Candidate Starts for Medusa_46:

(1, 32149), (Start: 23 @31879 has 128 MA's), (51, 31747), (53, 31708), (58, 31660), (61, 31627),

Gene: MeeZee_46 Start: 31877, Stop: 31575, Start Num: 23

Candidate Starts for MeeZee_46:

(1, 32147), (Start: 23 @31877 has 128 MA's), (51, 31745), (53, 31706), (58, 31658), (61, 31625),

Gene: Melvin_48 Start: 31875, Stop: 31573, Start Num: 23

Candidate Starts for Melvin_48:

(1, 32145), (Start: 23 @31875 has 128 MA's), (51, 31743), (53, 31704), (58, 31656), (61, 31623),

Gene: Millski_45 Start: 31881, Stop: 31579, Start Num: 23

Candidate Starts for Millski_45:

(1, 32151), (Start: 23 @31881 has 128 MA's), (51, 31749), (53, 31710), (58, 31662), (61, 31629),

Gene: MinecraftSteve_50 Start: 30593, Stop: 30300, Start Num: 29

Candidate Starts for MinecraftSteve_50:

(Start: 29 @30593 has 20 MA's), (50, 30476), (58, 30383),

Gene: Miramae_45 Start: 32041, Stop: 31718, Start Num: 23

Candidate Starts for Miramae_45:

(Start: 23 @32041 has 128 MA's), (25, 32026), (44, 31933), (46, 31918), (51, 31888), (56, 31813), (61, 31768),

Gene: Morpher26_45 Start: 31874, Stop: 31551, Start Num: 23

Candidate Starts for Morpher26_45:

(Start: 23 @31874 has 128 MA's), (43, 31775), (44, 31766), (46, 31751), (51, 31721), (61, 31601),

Gene: Morrow_47 Start: 31886, Stop: 31584, Start Num: 23

Candidate Starts for Morrow_47:

(1, 32156), (Start: 23 @31886 has 128 MA's), (51, 31754), (53, 31715), (58, 31667), (61, 31634),

Gene: Mulciber_47 Start: 31256, Stop: 30909, Start Num: 16

Candidate Starts for Mulciber_47:

(Start: 16 @31256 has 16 MA's), (22, 31223), (26, 31202), (58, 30989), (61, 30956),

Gene: Mundrea_45 Start: 31861, Stop: 31538, Start Num: 23

Candidate Starts for Mundrea_45:

(Start: 23 @31861 has 128 MA's), (44, 31753), (46, 31738), (51, 31708), (56, 31633), (61, 31588),

Gene: NearlyHeadless_44 Start: 30949, Stop: 30662, Start Num: 30

Candidate Starts for NearlyHeadless_44:

(Start: 30 @30949 has 10 MA's), (32, 30940), (40, 30898), (61, 30712),

Gene: Nebs_47 Start: 31880, Stop: 31578, Start Num: 23

Candidate Starts for Nebs_47:

(1, 32150), (Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: Nebulosus_49 Start: 30625, Stop: 30332, Start Num: 29

Candidate Starts for Nebulosus_49:

(Start: 29 @30625 has 20 MA's), (50, 30508), (58, 30415),

Gene: Nedarya_45 Start: 30054, Stop: 29713, Start Num: 17

Candidate Starts for Nedarya_45:

(Start: 17 @30054 has 1 MA's), (52, 29883), (58, 29796),

Gene: Nemo27_46 Start: 31879, Stop: 31577, Start Num: 23

Candidate Starts for Nemo27_46:

(Start: 23 @31879 has 128 MA's), (51, 31747), (53, 31708), (58, 31660), (61, 31627),

Gene: Noella_46 Start: 32082, Stop: 31807, Start Num: 27

Candidate Starts for Noella_46:

(9, 32172), (11, 32163), (Start: 27 @32082 has 31 MA's), (55, 31905),

Gene: Noelle_46 Start: 32163, Stop: 31840, Start Num: 23

Candidate Starts for Noelle_46:

(Start: 23 @32163 has 128 MA's), (44, 32055), (51, 32010), (61, 31890),

Gene: Norbert_45 Start: 32081, Stop: 31806, Start Num: 27

Candidate Starts for Norbert_45:

(9, 32171), (11, 32162), (Start: 27 @32081 has 31 MA's), (55, 31904),

Gene: NorthStar_45 Start: 31880, Stop: 31578, Start Num: 23

Candidate Starts for NorthStar_45:

(1, 32150), (Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: NotAPhaseMom_46 Start: 31884, Stop: 31582, Start Num: 23

Candidate Starts for NotAPhaseMom_46:

(Start: 23 @31884 has 128 MA's), (51, 31752), (53, 31713), (58, 31665), (61, 31632),

Gene: Nyxis_46 Start: 31770, Stop: 31468, Start Num: 23

Candidate Starts for Nyxis_46:

(1, 32040), (Start: 23 @31770 has 128 MA's), (51, 31638), (53, 31599), (58, 31551), (61, 31518),

Gene: OKaNui_46 Start: 31930, Stop: 31628, Start Num: 23

Candidate Starts for OKaNui_46:

(1, 32200), (Start: 23 @31930 has 128 MA's), (51, 31798), (53, 31759), (58, 31711), (61, 31678),

Gene: Obama12_47 Start: 32304, Stop: 32002, Start Num: 23

Candidate Starts for Obama12_47:

(1, 32574), (Start: 23 @32304 has 128 MA's), (51, 32172), (53, 32133), (61, 32052),

Gene: Ohfah_47 Start: 31880, Stop: 31578, Start Num: 23

Candidate Starts for Ohfah_47:

(1, 32150), (Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: Oofda_50 Start: 30484, Stop: 30191, Start Num: 29

Candidate Starts for Oofda_50:

(Start: 29 @30484 has 20 MA's), (50, 30367), (58, 30274),

Gene: Orange_47 Start: 31254, Stop: 30907, Start Num: 16

Candidate Starts for Orange_47:

(Start: 16 @31254 has 16 MA's), (22, 31221), (26, 31200), (58, 30987), (61, 30954),

Gene: PP_50 Start: 36311, Stop: 35883, Start Num: 7

Candidate Starts for PP_50:

(2, 36377), (Start: 7 @36311 has 1 MA's), (13, 36260), (28, 36179), (54, 35999), (55, 35981), (58, 35966), (62, 35918), (63, 35906),

Gene: Palestino_45 Start: 31880, Stop: 31578, Start Num: 23

Candidate Starts for Palestino_45:

(1, 32150), (Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: Panamaxus_44 Start: 32081, Stop: 31806, Start Num: 27

Candidate Starts for Panamaxus_44:

(9, 32171), (11, 32162), (Start: 27 @32081 has 31 MA's), (55, 31904),

Gene: Peaches_46 Start: 31879, Stop: 31577, Start Num: 23

Candidate Starts for Peaches_46:

(1, 32149), (Start: 23 @31879 has 128 MA's), (51, 31747), (53, 31708), (58, 31660), (61, 31627),

Gene: Perplexer_45 Start: 31850, Stop: 31527, Start Num: 23

Candidate Starts for Perplexer_45:

(Start: 23 @31850 has 128 MA's), (43, 31751), (44, 31742), (46, 31727), (51, 31697), (61, 31577),

Gene: PeterPeter_46 Start: 31877, Stop: 31575, Start Num: 23

Candidate Starts for PeterPeter_46:

(1, 32147), (Start: 23 @31877 has 128 MA's), (51, 31745), (53, 31706), (58, 31658), (61, 31625),

Gene: Petersenfast_46 Start: 31261, Stop: 30914, Start Num: 16

Candidate Starts for Petersenfast_46:

(Start: 16 @31261 has 16 MA's), (22, 31228), (26, 31207), (58, 30994), (61, 30961),

Gene: PetiteSangsue_45 Start: 31853, Stop: 31530, Start Num: 23

Candidate Starts for PetiteSangsue_45:

(Start: 23 @31853 has 128 MA's), (43, 31754), (44, 31745), (46, 31730), (51, 31700), (61, 31580),

Gene: Phacado_46 Start: 31879, Stop: 31577, Start Num: 23

Candidate Starts for Phacado_46:

(Start: 23 @31879 has 128 MA's), (51, 31747), (53, 31708), (58, 31660), (61, 31627),

Gene: Phantastic_47 Start: 31457, Stop: 31182, Start Num: 27

Candidate Starts for Phantastic_47:

(11, 31538), (19, 31481), (Start: 27 @31457 has 31 MA's), (34, 31430), (55, 31280), (61, 31232),

Gene: Phelipe_47 Start: 31880, Stop: 31578, Start Num: 23

Candidate Starts for Phelipe_47:

(1, 32150), (Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: Phlei_36 Start: 31613, Stop: 31308, Start Num: 22

Candidate Starts for Phlei_36:

(18, 31628), (22, 31613), (35, 31559), (38, 31541), (48, 31487), (64, 31319),

Gene: Phontbonne_46 Start: 31771, Stop: 31469, Start Num: 23

Candidate Starts for Phontbonne_46:

(1, 32041), (Start: 23 @31771 has 128 MA's), (51, 31639), (53, 31600), (58, 31552), (61, 31519),

Gene: Pipcraft_44 Start: 31880, Stop: 31578, Start Num: 23

Candidate Starts for Pipcraft_44:

(1, 32150), (Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: Pistachio_48 Start: 31385, Stop: 31110, Start Num: 27

Candidate Starts for Pistachio_48:

(Start: 27 @31385 has 31 MA's), (55, 31208), (61, 31160),

Gene: Pocahontas_46 Start: 32078, Stop: 31803, Start Num: 27

Candidate Starts for Pocahontas_46:

(9, 32168), (11, 32159), (Start: 27 @32078 has 31 MA's), (55, 31901),

Gene: Polymorphads_47 Start: 31873, Stop: 31571, Start Num: 23

Candidate Starts for Polymorphads_47:

(1, 32143), (Start: 23 @31873 has 128 MA's), (51, 31741), (53, 31702), (58, 31654), (61, 31621),

Gene: Popcicle_46 Start: 32078, Stop: 31803, Start Num: 27

Candidate Starts for Popcicle_46:

(9, 32168), (11, 32159), (Start: 27 @32078 has 31 MA's), (55, 31901),

Gene: Pumbaa_46 Start: 31825, Stop: 31523, Start Num: 23

Candidate Starts for Pumbaa_46:

(1, 32095), (Start: 23 @31825 has 128 MA's), (51, 31693), (53, 31654), (58, 31606), (61, 31573),

Gene: Puppy_48 Start: 31458, Stop: 31183, Start Num: 27

Candidate Starts for Puppy_48:

(Start: 27 @31458 has 31 MA's), (55, 31281), (61, 31233),

Gene: QuinnKiro_45 Start: 32081, Stop: 31806, Start Num: 27
Candidate Starts for QuinnKiro_45:
(9, 32171), (11, 32162), (Start: 27 @32081 has 31 MA's), (55, 31904),

Gene: RGL3_32 Start: 26225, Stop: 25980, Start Num: 37
Candidate Starts for RGL3_32:
(37, 26225), (45, 26183), (60, 26036), (63, 26000), (64, 25991),

Gene: ReMo_49 Start: 30626, Stop: 30333, Start Num: 29
Candidate Starts for ReMo_49:
(Start: 29 @30626 has 20 MA's), (50, 30509), (58, 30416),

Gene: Relief_45 Start: 31877, Stop: 31575, Start Num: 23
Candidate Starts for Relief_45:
(1, 32147), (Start: 23 @31877 has 128 MA's), (51, 31745), (53, 31706), (58, 31658), (61, 31625),

Gene: Remus_49 Start: 30309, Stop: 30016, Start Num: 29
Candidate Starts for Remus_49:
(Start: 29 @30309 has 20 MA's), (50, 30192), (58, 30099),

Gene: ResDef_47 Start: 32081, Stop: 31806, Start Num: 27
Candidate Starts for ResDef_47:
(9, 32171), (11, 32162), (Start: 27 @32081 has 31 MA's), (55, 31904),

Gene: Roary_45 Start: 31159, Stop: 30863, Start Num: 30
Candidate Starts for Roary_45:
(14, 31225), (Start: 30 @31159 has 10 MA's), (40, 31108), (61, 30922),

Gene: Rockstar_46 Start: 31256, Stop: 30981, Start Num: 27
Candidate Starts for Rockstar_46:
(11, 31343), (19, 31286), (Start: 27 @31256 has 31 MA's), (52, 31151), (55, 31079), (61, 31031),

Gene: Romney_46 Start: 31877, Stop: 31575, Start Num: 23
Candidate Starts for Romney_46:
(1, 32147), (Start: 23 @31877 has 128 MA's), (31, 31835), (51, 31745), (53, 31706), (58, 31658), (61, 31625),

Gene: Roosevelt_45 Start: 31882, Stop: 31580, Start Num: 23
Candidate Starts for Roosevelt_45:
(1, 32152), (Start: 23 @31882 has 128 MA's), (51, 31750), (53, 31711), (58, 31663), (61, 31630),

Gene: Rosalind_48 Start: 30512, Stop: 30219, Start Num: 29
Candidate Starts for Rosalind_48:
(Start: 29 @30512 has 20 MA's), (50, 30395), (58, 30302),

Gene: Ruin_46 Start: 31873, Stop: 31571, Start Num: 23
Candidate Starts for Ruin_46:
(1, 32143), (Start: 23 @31873 has 128 MA's), (51, 31741), (53, 31702), (58, 31654), (61, 31621),

Gene: Sabertooth_46 Start: 31882, Stop: 31580, Start Num: 23
Candidate Starts for Sabertooth_46:
(1, 32152), (Start: 23 @31882 has 128 MA's), (51, 31750), (53, 31711), (58, 31663), (61, 31630),

Gene: Saintus_39 Start: 27880, Stop: 27593, Start Num: 30
Candidate Starts for Saintus_39:
(Start: 30 @27880 has 10 MA's), (32, 27871), (40, 27829), (61, 27643),

Gene: Salz_46 Start: 31232, Stop: 30885, Start Num: 16
Candidate Starts for Salz_46:
(Start: 16 @31232 has 16 MA's), (22, 31199), (26, 31178), (58, 30965), (61, 30932),

Gene: SaturnRing_47 Start: 31838, Stop: 31563, Start Num: 27
Candidate Starts for SaturnRing_47:
(Start: 27 @31838 has 31 MA's), (55, 31661), (61, 31613),

Gene: Scamp_46 Start: 31882, Stop: 31580, Start Num: 23
Candidate Starts for Scamp_46:
(1, 32152), (Start: 23 @31882 has 128 MA's), (51, 31750), (53, 31711), (58, 31663), (61, 31630),

Gene: Scout_46 Start: 30966, Stop: 30691, Start Num: 27
Candidate Starts for Scout_46:
(Start: 27 @30966 has 31 MA's), (55, 30789), (61, 30741),

Gene: Shaka_46 Start: 31877, Stop: 31575, Start Num: 23
Candidate Starts for Shaka_46:
(1, 32147), (Start: 23 @31877 has 128 MA's), (51, 31745), (53, 31706), (58, 31658), (61, 31625),

Gene: Sham4_47 Start: 31260, Stop: 30913, Start Num: 16
Candidate Starts for Sham4_47:
(Start: 16 @31260 has 16 MA's), (22, 31227), (26, 31206), (58, 30993), (61, 30960),

Gene: ShayRa_51 Start: 30830, Stop: 30537, Start Num: 29
Candidate Starts for ShayRa_51:
(Start: 29 @30830 has 20 MA's), (50, 30713), (58, 30620),

Gene: SheldonCooper_48 Start: 32303, Stop: 32001, Start Num: 23
Candidate Starts for SheldonCooper_48:
(1, 32573), (Start: 23 @32303 has 128 MA's), (51, 32171), (53, 32132), (61, 32051),

Gene: Skipitt_45 Start: 31874, Stop: 31572, Start Num: 23
Candidate Starts for Skipitt_45:
(1, 32144), (Start: 23 @31874 has 128 MA's), (51, 31742), (53, 31703), (58, 31655), (61, 31622),

Gene: Smeadley_45 Start: 31325, Stop: 31029, Start Num: 30
Candidate Starts for Smeadley_45:
(14, 31391), (Start: 30 @31325 has 10 MA's), (40, 31274), (61, 31088),

Gene: Snape_47 Start: 31258, Stop: 30911, Start Num: 16
Candidate Starts for Snape_47:
(Start: 16 @31258 has 16 MA's), (22, 31225), (26, 31204), (58, 30991), (61, 30958),

Gene: Soups_50 Start: 30829, Stop: 30536, Start Num: 29
Candidate Starts for Soups_50:
(Start: 29 @30829 has 20 MA's), (50, 30712), (58, 30619),

Gene: Sparxx_47 Start: 31875, Stop: 31573, Start Num: 23
Candidate Starts for Sparxx_47:
(1, 32145), (Start: 23 @31875 has 128 MA's), (51, 31743), (53, 31704), (58, 31656), (61, 31623),

Gene: Spino_45 Start: 31880, Stop: 31578, Start Num: 23
Candidate Starts for Spino_45:
(1, 32150), (Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: Stasia_45 Start: 31752, Stop: 31450, Start Num: 23
Candidate Starts for Stasia_45:
(Start: 23 @31752 has 128 MA's), (58, 31533),

Gene: Steamy_43 Start: 31608, Stop: 31282, Start Num: 21
Candidate Starts for Steamy_43:
(4, 31740), (12, 31668), (19, 31614), (Start: 21 @31608 has 1 MA's), (41, 31515), (42, 31509), (45, 31497), (58, 31362),

Gene: Stephig9_45 Start: 31163, Stop: 30888, Start Num: 30
Candidate Starts for Stephig9_45:
(14, 31229), (Start: 30 @31163 has 10 MA's), (32, 31154), (39, 31118), (57, 30986), (59, 30965),

Gene: Stink_46 Start: 32321, Stop: 31998, Start Num: 23
Candidate Starts for Stink_46:
(Start: 23 @32321 has 128 MA's), (25, 32306), (44, 32213), (46, 32198), (51, 32168), (56, 32093), (61, 32048),

Gene: Strosahl_49 Start: 30309, Stop: 30016, Start Num: 29
Candidate Starts for Strosahl_49:
(Start: 29 @30309 has 20 MA's), (50, 30192), (58, 30099),

Gene: Switzerland_49 Start: 30692, Stop: 30399, Start Num: 29
Candidate Starts for Switzerland_49:
(Start: 29 @30692 has 20 MA's), (50, 30575), (58, 30482),

Gene: TNguyen7_47 Start: 31805, Stop: 31530, Start Num: 27
Candidate Starts for TNguyen7_47:
(Start: 27 @31805 has 31 MA's), (55, 31628), (61, 31580),

Gene: Taquarus_46 Start: 31883, Stop: 31581, Start Num: 23
Candidate Starts for Taquarus_46:
(1, 32153), (Start: 23 @31883 has 128 MA's), (51, 31751), (53, 31712), (58, 31664), (61, 31631),

Gene: Texage_45 Start: 32082, Stop: 31807, Start Num: 27
Candidate Starts for Texage_45:
(9, 32172), (11, 32163), (Start: 27 @32082 has 31 MA's), (55, 31905),

Gene: Thanksgivukkah_45 Start: 31878, Stop: 31576, Start Num: 23
Candidate Starts for Thanksgivukkah_45:
(1, 32148), (Start: 23 @31878 has 128 MA's), (51, 31746), (53, 31707), (58, 31659), (61, 31626),

Gene: Timothy_47 Start: 31235, Stop: 30888, Start Num: 16
Candidate Starts for Timothy_47:
(Start: 16 @31235 has 16 MA's), (22, 31202), (26, 31181), (58, 30968), (61, 30935),

Gene: TinaFeyge_46 Start: 31875, Stop: 31573, Start Num: 23
Candidate Starts for TinaFeyge_46:
(1, 32145), (Start: 23 @31875 has 128 MA's), (51, 31743), (53, 31704), (58, 31656), (61, 31623),

Gene: TinyTimmy_46 Start: 31278, Stop: 30931, Start Num: 16
Candidate Starts for TinyTimmy_46:
(Start: 16 @31278 has 16 MA's), (22, 31245), (26, 31224), (58, 31011), (61, 30978),

Gene: Tinybot_45 Start: 31907, Stop: 31605, Start Num: 23
Candidate Starts for Tinybot_45:
(1, 32177), (Start: 23 @31907 has 128 MA's), (51, 31775), (53, 31736), (58, 31688), (61, 31655),

Gene: TiroTheta9_46 Start: 31874, Stop: 31572, Start Num: 23
Candidate Starts for TiroTheta9_46:
(1, 32144), (Start: 23 @31874 has 128 MA's), (51, 31742), (53, 31703), (58, 31655), (61, 31622),

Gene: Todacoro_46 Start: 32081, Stop: 31806, Start Num: 27
Candidate Starts for Todacoro_46:
(9, 32171), (11, 32162), (Start: 27 @32081 has 31 MA's), (55, 31904),

Gene: TroyPia_47 Start: 31878, Stop: 31576, Start Num: 23
Candidate Starts for TroyPia_47:
(1, 32148), (Start: 23 @31878 has 128 MA's), (51, 31746), (53, 31707), (58, 31659), (61, 31626),

Gene: TygerBlood_46 Start: 31880, Stop: 31578, Start Num: 23
Candidate Starts for TygerBlood_46:
(1, 32150), (Start: 23 @31880 has 128 MA's), (51, 31748), (53, 31709), (58, 31661), (61, 31628),

Gene: Ulysses_45 Start: 31557, Stop: 31255, Start Num: 23
Candidate Starts for Ulysses_45:
(1, 31827), (Start: 23 @31557 has 128 MA's), (51, 31425), (53, 31386), (58, 31338), (61, 31305),

Gene: Veracruz_45 Start: 32081, Stop: 31806, Start Num: 27
Candidate Starts for Veracruz_45:
(9, 32171), (11, 32162), (Start: 27 @32081 has 31 MA's), (55, 31904),

Gene: Waits_49 Start: 30481, Stop: 30188, Start Num: 29
Candidate Starts for Waits_49:
(Start: 29 @30481 has 20 MA's), (50, 30364), (58, 30271),

Gene: Wander_46 Start: 31877, Stop: 31575, Start Num: 23
Candidate Starts for Wander_46:
(Start: 23 @31877 has 128 MA's), (51, 31745), (53, 31706), (58, 31658), (61, 31625),

Gene: Wilbur_46 Start: 31877, Stop: 31575, Start Num: 23
Candidate Starts for Wilbur_46:
(1, 32147), (Start: 23 @31877 has 128 MA's), (31, 31835), (51, 31745), (53, 31706), (58, 31658), (61, 31625),

Gene: Wile_45 Start: 31884, Stop: 31561, Start Num: 23
Candidate Starts for Wile_45:
(Start: 23 @31884 has 128 MA's), (43, 31785), (44, 31776), (46, 31761), (51, 31731), (61, 31611),

Gene: Wizard007_46 Start: 31885, Stop: 31583, Start Num: 23

Candidate Starts for Wizard007_46:

(1, 32155), (Start: 23 @31885 has 128 MA's), (51, 31753), (53, 31714), (58, 31666), (61, 31633),

Gene: Xena_44 Start: 31850, Stop: 31527, Start Num: 23

Candidate Starts for Xena_44:

(Start: 23 @31850 has 128 MA's), (43, 31751), (44, 31742), (46, 31727), (51, 31697), (61, 31577),

Gene: YoSam321_46 Start: 31874, Stop: 31572, Start Num: 23

Candidate Starts for YoSam321_46:

(1, 32144), (Start: 23 @31874 has 128 MA's), (51, 31742), (53, 31703), (58, 31655), (61, 31622),