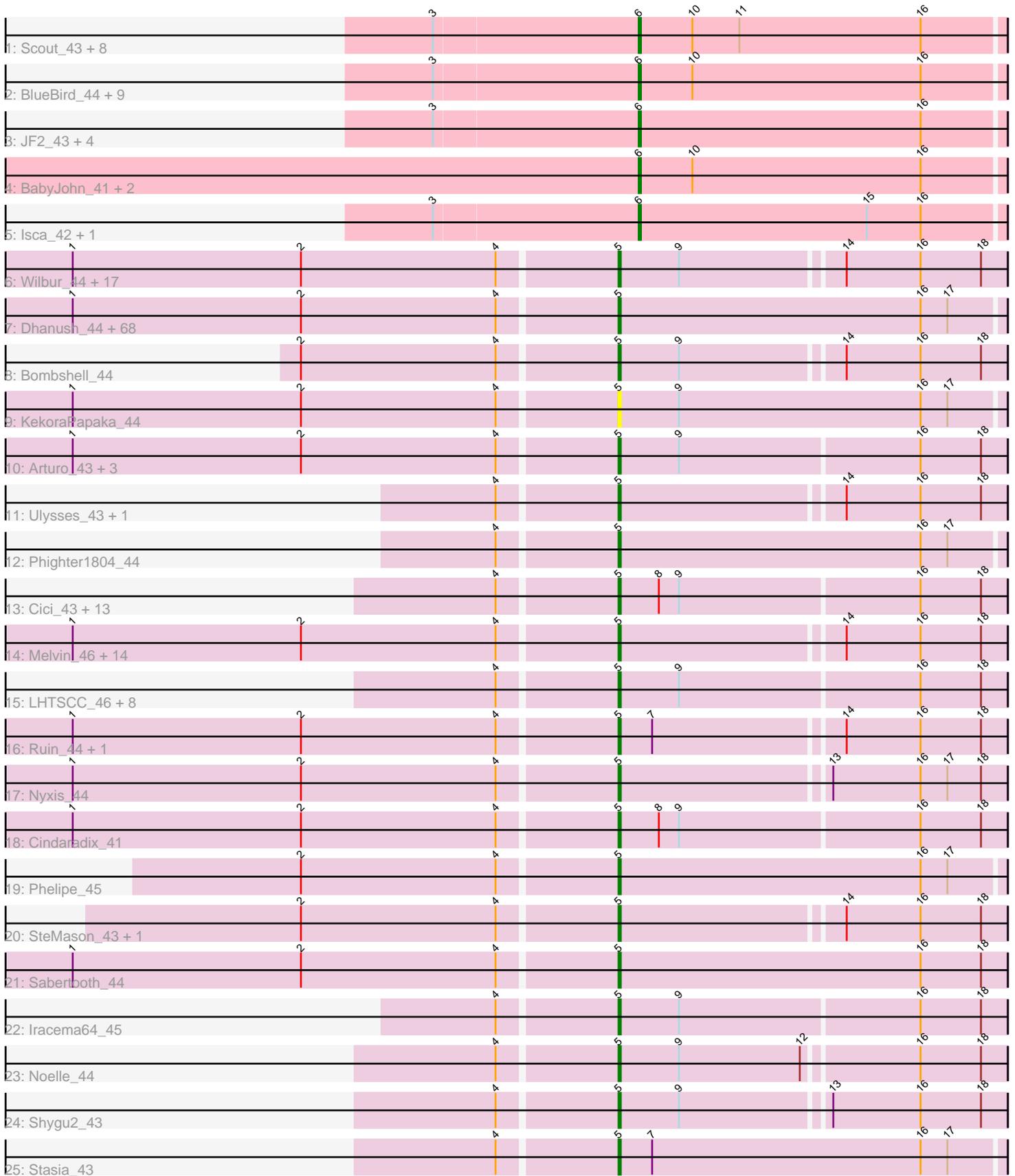


Pham 283528



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 283528 Report

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

Pham number 283528 has 175 members, 15 are drafts.

Phages represented in each track:

- Track 1 : Scout_43, Zarafa_43, Fred313_43, Heathen_43, Kachowdy_43, Marchesa_43, Roimos_43, DropBear_43, HelDan_43
- Track 2 : BlueBird_44, Giroux_44, Idleandcovert_43, SaturnRing_43, BabyRay_43, Bugatti_43, Clammy_43, Pistachio_44, Puppy_44, TNguyen7_43
- Track 3 : JF2_43, Phantastic_43, MK4_43, JF4_43, B1_40
- Track 4 : BabyJohn_41, MA5_43, Chiqui_41
- Track 5 : Isca_42, Rockstar_43
- Track 6 : Wilbur_44, Avle17_44, Relief_43, Jaykayelowell_42, JoongJeon_43, JetBlade_44, Eapen_44, Kremtemulon_44, KFPoly_43, Wander_44, Romney_44, Lunsford_45, Iceman_44, LittleGuy_44, Shaka_44, Kingmustik0402_44, Phontbonne_44, PeterPeter_44
- Track 7 : Dhanush_44, Pipcraft_42, Albee_44, Nebs_45, NotAPhaseMom_44, Sultana_44, Chaph_44, CentreCat_44, Mayonnaise_43, Phacado_44, TygerBlood_44, HamSlice_43, Lemur_44, TroyPia_45, Caelakin_44, RockieBear_43, LittleB_44, SenorClean_44, Morrow_45, BellusTerra_45, Medusa_44, Bruiser_43, BubbleTrouble_43, Connomayer_44, Blackmoor_44, Scamp_44, Clarenza_43, Wizard007_44, Camperdownii_42, Mazhar510_44, LeoAvram_44, Houdini22_44, Bartimeaus_44, Ohfah_45, Druantia_44, Koan_42, Burger_42, Eagle_44, Peaches_44, NorthStar_43, Eros_44, Holli_43, Deano_43, Maxo_45, Citius_44, Baby16_44, LappelDuVide_44, Huxley_44, LochMonster_45, Sparxx_45, Eris_43, Maverick_44, Kyee_44, TinaFeyge_44, Kampy_44, Gadost_44, Abdiel_44, Broseidon_44, Funston_43, Commander_44, Koreni_43, Lorenzo_44, Polymorphads_45, Florean_44, Cocoaberry_44, Roosevelt_43, Nemo27_44, Taquarus_44, Spino_43
- Track 8 : Bombshell_44
- Track 9 : KekoraPapaka_44
- Track 10 : Arturo_43, DirtyDunning_43, Happiness_43, Kratak_44
- Track 11 : Ulysses_43, Alberto7_45
- Track 12 : Phighter1804_44
- Track 13 : Cici_43, Backyardigan_42, Xena_42, Datway_43, Bumblebee11_42, AbbysRanger_43, Mundrea_43, Morpher26_43, Achebe_42, Wile_43, Badger_42, PetiteSangsue_43, Katalie136_43, Perplexer_43
- Track 14 : Melvin_46, Rosa24_43, Millski_43, Cintron_43, Annyong_44, Eurydice_45, Thanksgivukkah_43, MeeZee_44, Tinybot_43, Flux_44, OKaNui_44, ICleared_44, Pumbaa_44, YoSam321_44, Skipitt_43
- Track 15 : LHTSCC_46, Stink_44, BangNhom_45, Cerulean_45, Obama12_45, AvatarAhPeg_43, SheldonCooper_46, ChampagnePapi_46, Miramae_43

- Track 16 : Ruin_44, Palestino_43
- Track 17 : Nyxis_44
- Track 18 : Cindaradix_41
- Track 19 : Phelipe_45
- Track 20 : SteMason_43, TiroTheta9_44
- Track 21 : Sabertooth_44
- Track 22 : Iracema64_45
- Track 23 : Noelle_44
- Track 24 : Shygu2_43
- Track 25 : Stasia_43

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 141 of the 160 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbysRanger_43, Abdiel_44, Achebe_42, Albee_44, Alberto7_45, Annyong_44, Arturo_43, AvatarAhPeg_43, Avle17_44, Baby16_44, Backyardigan_42, Badger_42, BangNhom_45, Bartimeaus_44, BellusTerra_45, Blackmoor_44, Bombshell_44, Broseidon_44, Bruiser_43, BubbleTrouble_43, Bumblebee11_42, Burger_42, Caelakin_44, Camperdownii_42, CentreCat_44, Cerulean_45, ChampagnePapi_46, Chaph_44, Cici_43, Cindaradix_41, Cintron_43, Citius_44, Clarenza_43, Cocoaberry_44, Commander_44, Connomayer_44, Datway_43, Deano_43, Dhanush_44, DirtyDunning_43, Druantia_44, Eagle_44, Eapen_44, Eris_43, Eros_44, Eurydice_45, Floean_44, Flux_44, Funston_43, Gadost_44, HamSlice_43, Happiness_43, Holli_43, Houdini22_44, Huxley_44, ICleared_44, Iceman_44, Iracema64_45, Jaykayelowell_42, JetBlade_44, JoongJeon_43, KFPoly_43, Kampy_44, Katalie136_43, KekoraPapaka_44, Kingmustik0402_44, Koan_42, Koreni_43, Kratak_44, Kremtemulon_44, Kyee_44, LHTSCC_46, LappelDuVide_44, Lemur_44, LeoAvram_44, LittleB_44, LittleGuy_44, LochMonster_45, Lorenzo_44, Lunsford_45, Maverick_44, Maxo_45, Mayonnaise_43, Mazhar510_44, Medusa_44, MeeZee_44, Melvin_46, Millski_43, Miramae_43, Morpher26_43, Morrow_45, Mundrea_43, Nebs_45, Nemo27_44, Noelle_44, NorthStar_43, NotAPhaseMom_44, Nyxis_44, OKaNui_44, Obama12_45, Ohfah_45, Palestino_43, Peaches_44, Perplexer_43, PeterPeter_44, PetiteSangsue_43, Phacado_44, Phelipe_45, Phighter1804_44, Phontbonne_44, Pipcraft_42, Polymorphads_45, Pumbaa_44, Relief_43, RockieBear_43, Romney_44, Roosevelt_43, Rosa24_43, Ruin_44, Sabertooth_44, Scamp_44, SeniorClean_44, Shaka_44, SheldonCooper_46, Shygu2_43, Skipitt_43, Sparxx_45, Spino_43, Stasia_43, SteMason_43, Stink_44, Sultana_44, Taquarus_44, Thanksgivukkah_43, TinaFeyge_44, Tinybot_43, TiroTheta9_44, TroyPia_45, TygerBlood_44, Ulysses_43, Wander_44, Wilbur_44, Wile_43, Wizard007_44, Xena_42, YoSam321_44,

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

-

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

- B1_40, BabyJohn_41, BabyRay_43, BlueBird_44, Bugatti_43, Chiqui_41, Clammy_43, DropBear_43, Fred313_43, Giroux_44, Heathen_43, HelDan_43,

Idleandcovert_43, Isca_42, JF2_43, JF4_43, Kachowdy_43, MA5_43, MK4_43, Marchesa_43, Phantastic_43, Pistachio_44, Puppy_44, Rockstar_43, Roimos_43, SaturnRing_43, Scout_43, TNguyen7_43, Zarafa_43,

Summary by start number:

Start 5:

- Found in 146 of 175 (83.4%) of genes in pham
- Manual Annotations of this start: 141 of 160
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbysRanger_43 (A4), Abdiel_44 (A4), Achebe_42 (A4), Albee_44 (A4), Alberto7_45 (A4), Annyong_44 (A4), Arturo_43 (A4), AvatarAhPeg_43 (A4), Avle17_44 (A4), Baby16_44 (A4), Backyardigan_42 (A4), Badger_42 (A4), BangNhom_45 (A4), Bartimeaus_44 (A4), BellusTerra_45 (A4), Blackmoor_44 (A4), Bombshell_44 (A4), Broseidon_44 (A4), Bruiser_43 (A4), BubbleTrouble_43 (A4), Bumblebee11_42 (A4), Burger_42 (A4), Caelakin_44 (A4), Camperdownii_42 (A4), CentreCat_44 (A4), Cerulean_45 (A4), ChampagnePapi_46 (A4), Chaph_44 (A4), Cici_43 (A4), Cindaradix_41 (A4), Cintron_43 (A4), Citius_44 (A4), Clarenza_43 (A4), Cocoaberry_44 (A4), Commander_44 (A4), Connomayer_44 (A4), Datway_43 (A4), Deano_43 (A4), Dhanush_44 (A4), DirtyDunning_43 (A4), Druantia_44 (A4), Eagle_44 (A4), Eapen_44 (A4), Eris_43 (A4), Eros_44 (A4), Eurydice_45 (A4), Florean_44 (A4), Flux_44 (A4), Funston_43 (A4), Gadost_44 (A4), HamSlice_43 (A4), Happiness_43 (A4), Holli_43 (A4), Houdini22_44 (A4), Huxley_44 (A4), ICleared_44 (A4), Iceman_44 (A4), Iracema64_45 (A4), Jaykayelowell_42 (A4), JetBlade_44 (A4), JoongJeon_43 (A4), KFPoly_43 (A4), Kamy_44 (A4), Katalie136_43 (A4), KekoraPapaka_44 (A4), Kingmustik0402_44 (A4), Koan_42 (A4), Koreni_43 (A4), Kratak_44 (A4), Kremtemulon_44 (A4), Kyee_44 (A4), LHTSCC_46 (A4), LappelDuVide_44 (A4), Lemur_44 (A4), LeoAvram_44 (A4), LittleB_44 (A4), LittleGuy_44 (A4), LochMonster_45 (A4), Lorenzo_44 (A4), Lunsford_45 (A4), Maverick_44 (A4), Maxo_45 (A4), Mayonnaise_43 (A4), Mazhar510_44 (A4), Medusa_44 (A4), MeeZee_44 (A4), Melvin_46 (A4), Millski_43 (A4), Miramae_43 (A4), Morpher26_43 (A4), Morrow_45 (A4), Mundrea_43 (A4), Nebs_45 (A4), Nemo27_44 (A4), Noelle_44 (A4), NorthStar_43 (A4), NotAPhaseMom_44 (A4), Nyxis_44 (A4), OKaNui_44 (A4), Obama12_45 (A4), Ohfah_45 (A4), Palestino_43 (A4), Peaches_44 (A4), Perplexer_43 (A4), PeterPeter_44 (A4), PetiteSangsue_43 (A4), Phacado_44 (A4), Phelipe_45 (A4), Phighter1804_44 (A4), Phontbonne_44 (A4), Pipcraft_42 (A4), Polymorphads_45 (A4), Pumbaa_44 (A4), Relief_43 (A4), RockieBear_43 (A4), Romney_44 (A4), Roosevelt_43 (A4), Rosa24_43 (A4), Ruin_44 (A4), Sabertooth_44 (A4), Scamp_44 (A4), SeniorClean_44 (A4), Shaka_44 (A4), SheldonCooper_46 (A4), Shygu2_43 (A4), Skipitt_43 (A4), Sparxx_45 (A4), Spino_43 (A4), Stasia_43 (A4), SteMason_43 (A4), Stink_44 (A4), Sultana_44 (A4), Taquarus_44 (A4), Thanksgivukkah_43 (A4), TinaFeyge_44 (A4), Tinybot_43 (A4), TiroTheta9_44 (A4), TroyPia_45 (A4), TygerBlood_44 (A4), Ulysses_43 (A4), Wander_44 (A4), Wilbur_44 (A4), Wile_43 (A4), Wizard007_44 (A4), Xena_42 (A4), YoSam321_44 (A4),

Start 6:

- Found in 29 of 175 (16.6%) of genes in pham
- Manual Annotations of this start: 19 of 160
- Called 100.0% of time when present
- Phage (with cluster) where this start called: B1_40 (A3), BabyJohn_41 (A3), BabyRay_43 (A3), BlueBird_44 (A3), Bugatti_43 (A3), Chiqui_41 (A3), Clammy_43 (A3), DropBear_43 (A3), Fred313_43 (A3), Giroux_44 (A3), Heathen_43 (A3),

HelDan_43 (A3), Idleandcovert_43 (A3), Isca_42 (A3), JF2_43 (A3), JF4_43 (A3), Kachowdy_43 (A3), MA5_43 (A3), MK4_43 (A3), Marchesa_43 (A3), Phantastic_43 (A3), Pistachio_44 (A3), Puppy_44 (A3), Rockstar_43 (A3), Roimos_43 (A3), SaturnRing_43 (A3), Scout_43 (A3), TNguyen7_43 (A3), Zarafa_43 (A3),

Summary by clusters:

There are 2 clusters represented in this pham: A3, A4,

Info for manual annotations of cluster A3:

•Start number 6 was manually annotated 19 times for cluster A3.

Info for manual annotations of cluster A4:

•Start number 5 was manually annotated 141 times for cluster A4.

Gene Information:

Gene: AbbysRanger_43 Start: 29686, Stop: 29516, Start Num: 5

Candidate Starts for AbbysRanger_43:

(4, 29737), (Start: 5 @29686 has 141 MA's), (8, 29668), (9, 29659), (16, 29554), (18, 29527),

Gene: Abdiel_44 Start: 29724, Stop: 29554, Start Num: 5

Candidate Starts for Abdiel_44:

(1, 29964), (2, 29862), (4, 29775), (Start: 5 @29724 has 141 MA's), (16, 29589), (17, 29577),

Gene: Achebe_42 Start: 29669, Stop: 29499, Start Num: 5

Candidate Starts for Achebe_42:

(4, 29720), (Start: 5 @29669 has 141 MA's), (8, 29651), (9, 29642), (16, 29537), (18, 29510),

Gene: Albee_44 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for Albee_44:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Alberto7_45 Start: 30060, Stop: 29893, Start Num: 5

Candidate Starts for Alberto7_45:

(4, 30111), (Start: 5 @30060 has 141 MA's), (14, 29964), (16, 29931), (18, 29904),

Gene: Annyong_44 Start: 29768, Stop: 29601, Start Num: 5

Candidate Starts for Annyong_44:

(1, 30008), (2, 29906), (4, 29819), (Start: 5 @29768 has 141 MA's), (14, 29672), (16, 29639), (18, 29612),

Gene: Arturo_43 Start: 29979, Stop: 29809, Start Num: 5

Candidate Starts for Arturo_43:

(1, 30219), (2, 30117), (4, 30030), (Start: 5 @29979 has 141 MA's), (9, 29952), (16, 29847), (18, 29820),

Gene: AvatarAhPeg_43 Start: 30198, Stop: 30028, Start Num: 5

Candidate Starts for AvatarAhPeg_43:

(4, 30249), (Start: 5 @30198 has 141 MA's), (9, 30171), (16, 30066), (18, 30039),

Gene: Avle17_44 Start: 29720, Stop: 29553, Start Num: 5
Candidate Starts for Avle17_44:
(1, 29960), (2, 29858), (4, 29771), (Start: 5 @29720 has 141 MA's), (9, 29693), (14, 29624), (16, 29591), (18, 29564),

Gene: B1_40 Start: 28679, Stop: 28518, Start Num: 6
Candidate Starts for B1_40:
(3, 28769), (Start: 6 @28679 has 19 MA's), (16, 28553),

Gene: Baby16_44 Start: 29734, Stop: 29564, Start Num: 5
Candidate Starts for Baby16_44:
(1, 29974), (2, 29872), (4, 29785), (Start: 5 @29734 has 141 MA's), (16, 29599), (17, 29587),

Gene: BabyJohn_41 Start: 29470, Stop: 29309, Start Num: 6
Candidate Starts for BabyJohn_41:
(Start: 6 @29470 has 19 MA's), (10, 29446), (16, 29344),

Gene: BabyRay_43 Start: 29415, Stop: 29254, Start Num: 6
Candidate Starts for BabyRay_43:
(3, 29505), (Start: 6 @29415 has 19 MA's), (10, 29391), (16, 29289),

Gene: Backyardigan_42 Start: 29702, Stop: 29532, Start Num: 5
Candidate Starts for Backyardigan_42:
(4, 29753), (Start: 5 @29702 has 141 MA's), (8, 29684), (9, 29675), (16, 29570), (18, 29543),

Gene: Badger_42 Start: 29670, Stop: 29500, Start Num: 5
Candidate Starts for Badger_42:
(4, 29721), (Start: 5 @29670 has 141 MA's), (8, 29652), (9, 29643), (16, 29538), (18, 29511),

Gene: BangNhom_45 Start: 30145, Stop: 29975, Start Num: 5
Candidate Starts for BangNhom_45:
(4, 30196), (Start: 5 @30145 has 141 MA's), (9, 30118), (16, 30013), (18, 29986),

Gene: Bartimeaus_44 Start: 29725, Stop: 29555, Start Num: 5
Candidate Starts for Bartimeaus_44:
(1, 29965), (2, 29863), (4, 29776), (Start: 5 @29725 has 141 MA's), (16, 29590), (17, 29578),

Gene: BellusTerra_45 Start: 29724, Stop: 29554, Start Num: 5
Candidate Starts for BellusTerra_45:
(1, 29964), (2, 29862), (4, 29775), (Start: 5 @29724 has 141 MA's), (16, 29589), (17, 29577),

Gene: Blackmoor_44 Start: 29725, Stop: 29555, Start Num: 5
Candidate Starts for Blackmoor_44:
(1, 29965), (2, 29863), (4, 29776), (Start: 5 @29725 has 141 MA's), (16, 29590), (17, 29578),

Gene: BlueBird_44 Start: 29325, Stop: 29164, Start Num: 6
Candidate Starts for BlueBird_44:
(3, 29415), (Start: 6 @29325 has 19 MA's), (10, 29301), (16, 29199),

Gene: Bombshell_44 Start: 29720, Stop: 29553, Start Num: 5
Candidate Starts for Bombshell_44:
(2, 29858), (4, 29771), (Start: 5 @29720 has 141 MA's), (9, 29693), (14, 29624), (16, 29591), (18, 29564),

Gene: Broseidon_44 Start: 29725, Stop: 29555, Start Num: 5

Candidate Starts for Broseidon_44:

(1, 29965), (2, 29863), (4, 29776), (Start: 5 @29725 has 141 MA's), (16, 29590), (17, 29578),

Gene: Bruiser_43 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for Bruiser_43:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: BubbleTrouble_43 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for BubbleTrouble_43:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Bugatti_43 Start: 29325, Stop: 29164, Start Num: 6

Candidate Starts for Bugatti_43:

(3, 29415), (Start: 6 @29325 has 19 MA's), (10, 29301), (16, 29199),

Gene: Bumblebee11_42 Start: 29672, Stop: 29502, Start Num: 5

Candidate Starts for Bumblebee11_42:

(4, 29723), (Start: 5 @29672 has 141 MA's), (8, 29654), (9, 29645), (16, 29540), (18, 29513),

Gene: Burger_42 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for Burger_42:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Caelakin_44 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for Caelakin_44:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Camperdownii_42 Start: 29396, Stop: 29226, Start Num: 5

Candidate Starts for Camperdownii_42:

(1, 29636), (2, 29534), (4, 29447), (Start: 5 @29396 has 141 MA's), (16, 29261), (17, 29249),

Gene: CentreCat_44 Start: 29726, Stop: 29556, Start Num: 5

Candidate Starts for CentreCat_44:

(1, 29966), (2, 29864), (4, 29777), (Start: 5 @29726 has 141 MA's), (16, 29591), (17, 29579),

Gene: Cerulean_45 Start: 30146, Stop: 29976, Start Num: 5

Candidate Starts for Cerulean_45:

(4, 30197), (Start: 5 @30146 has 141 MA's), (9, 30119), (16, 30014), (18, 29987),

Gene: ChampagnePapi_46 Start: 30145, Stop: 29975, Start Num: 5

Candidate Starts for ChampagnePapi_46:

(4, 30196), (Start: 5 @30145 has 141 MA's), (9, 30118), (16, 30013), (18, 29986),

Gene: Chaph_44 Start: 29734, Stop: 29564, Start Num: 5

Candidate Starts for Chaph_44:

(1, 29974), (2, 29872), (4, 29785), (Start: 5 @29734 has 141 MA's), (16, 29599), (17, 29587),

Gene: Chiqui_41 Start: 29479, Stop: 29318, Start Num: 6

Candidate Starts for Chiqui_41:

(Start: 6 @29479 has 19 MA's), (10, 29455), (16, 29353),

Gene: Cici_43 Start: 29687, Stop: 29517, Start Num: 5

Candidate Starts for Cici_43:

(4, 29738), (Start: 5 @29687 has 141 MA's), (8, 29669), (9, 29660), (16, 29555), (18, 29528),

Gene: Cindaradix_41 Start: 29312, Stop: 29142, Start Num: 5

Candidate Starts for Cindaradix_41:

(1, 29552), (2, 29450), (4, 29363), (Start: 5 @29312 has 141 MA's), (8, 29294), (9, 29285), (16, 29180), (18, 29153),

Gene: Cintron_43 Start: 29703, Stop: 29536, Start Num: 5

Candidate Starts for Cintron_43:

(1, 29943), (2, 29841), (4, 29754), (Start: 5 @29703 has 141 MA's), (14, 29607), (16, 29574), (18, 29547),

Gene: Citius_44 Start: 29744, Stop: 29574, Start Num: 5

Candidate Starts for Citius_44:

(1, 29984), (2, 29882), (4, 29795), (Start: 5 @29744 has 141 MA's), (16, 29609), (17, 29597),

Gene: Clammy_43 Start: 29325, Stop: 29164, Start Num: 6

Candidate Starts for Clammy_43:

(3, 29415), (Start: 6 @29325 has 19 MA's), (10, 29301), (16, 29199),

Gene: Clarenza_43 Start: 29720, Stop: 29550, Start Num: 5

Candidate Starts for Clarenza_43:

(1, 29960), (2, 29858), (4, 29771), (Start: 5 @29720 has 141 MA's), (16, 29585), (17, 29573),

Gene: Cocoaberry_44 Start: 29727, Stop: 29557, Start Num: 5

Candidate Starts for Cocoaberry_44:

(1, 29967), (2, 29865), (4, 29778), (Start: 5 @29727 has 141 MA's), (16, 29592), (17, 29580),

Gene: Commander_44 Start: 29722, Stop: 29552, Start Num: 5

Candidate Starts for Commander_44:

(1, 29962), (2, 29860), (4, 29773), (Start: 5 @29722 has 141 MA's), (16, 29587), (17, 29575),

Gene: Connomayer_44 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for Connomayer_44:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Datway_43 Start: 29658, Stop: 29488, Start Num: 5

Candidate Starts for Datway_43:

(4, 29709), (Start: 5 @29658 has 141 MA's), (8, 29640), (9, 29631), (16, 29526), (18, 29499),

Gene: Deano_43 Start: 29731, Stop: 29561, Start Num: 5

Candidate Starts for Deano_43:

(1, 29971), (2, 29869), (4, 29782), (Start: 5 @29731 has 141 MA's), (16, 29596), (17, 29584),

Gene: Dhanush_44 Start: 29726, Stop: 29556, Start Num: 5

Candidate Starts for Dhanush_44:

(1, 29966), (2, 29864), (4, 29777), (Start: 5 @29726 has 141 MA's), (16, 29591), (17, 29579),

Gene: DirtyDunning_43 Start: 29720, Stop: 29550, Start Num: 5

Candidate Starts for DirtyDunning_43:

(1, 29960), (2, 29858), (4, 29771), (Start: 5 @29720 has 141 MA's), (9, 29693), (16, 29588), (18, 29561),

Gene: DropBear_43 Start: 29392, Stop: 29231, Start Num: 6

Candidate Starts for DropBear_43:

(3, 29482), (Start: 6 @29392 has 19 MA's), (10, 29368), (11, 29347), (16, 29266),

Gene: Druantia_44 Start: 29726, Stop: 29556, Start Num: 5

Candidate Starts for Druantia_44:

(1, 29966), (2, 29864), (4, 29777), (Start: 5 @29726 has 141 MA's), (16, 29591), (17, 29579),

Gene: Eagle_44 Start: 29748, Stop: 29578, Start Num: 5

Candidate Starts for Eagle_44:

(1, 29988), (2, 29886), (4, 29799), (Start: 5 @29748 has 141 MA's), (16, 29613), (17, 29601),

Gene: Eapen_44 Start: 29718, Stop: 29551, Start Num: 5

Candidate Starts for Eapen_44:

(1, 29958), (2, 29856), (4, 29769), (Start: 5 @29718 has 141 MA's), (9, 29691), (14, 29622), (16, 29589), (18, 29562),

Gene: Eris_43 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for Eris_43:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Eros_44 Start: 29725, Stop: 29555, Start Num: 5

Candidate Starts for Eros_44:

(1, 29965), (2, 29863), (4, 29776), (Start: 5 @29725 has 141 MA's), (16, 29590), (17, 29578),

Gene: Eurydice_45 Start: 29720, Stop: 29553, Start Num: 5

Candidate Starts for Eurydice_45:

(1, 29960), (2, 29858), (4, 29771), (Start: 5 @29720 has 141 MA's), (14, 29624), (16, 29591), (18, 29564),

Gene: Florean_44 Start: 29722, Stop: 29552, Start Num: 5

Candidate Starts for Florean_44:

(1, 29962), (2, 29860), (4, 29773), (Start: 5 @29722 has 141 MA's), (16, 29587), (17, 29575),

Gene: Flux_44 Start: 29722, Stop: 29555, Start Num: 5

Candidate Starts for Flux_44:

(1, 29962), (2, 29860), (4, 29773), (Start: 5 @29722 has 141 MA's), (14, 29626), (16, 29593), (18, 29566),

Gene: Fred313_43 Start: 29077, Stop: 28916, Start Num: 6

Candidate Starts for Fred313_43:

(3, 29167), (Start: 6 @29077 has 19 MA's), (10, 29053), (11, 29032), (16, 28951),

Gene: Funston_43 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for Funston_43:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Gadost_44 Start: 29727, Stop: 29557, Start Num: 5

Candidate Starts for Gadost_44:

(1, 29967), (2, 29865), (4, 29778), (Start: 5 @29727 has 141 MA's), (16, 29592), (17, 29580),

Gene: Giroux_44 Start: 29324, Stop: 29163, Start Num: 6
Candidate Starts for Giroux_44:
(3, 29414), (Start: 6 @29324 has 19 MA's), (10, 29300), (16, 29198),

Gene: HamSlice_43 Start: 29721, Stop: 29551, Start Num: 5
Candidate Starts for HamSlice_43:
(1, 29961), (2, 29859), (4, 29772), (Start: 5 @29721 has 141 MA's), (16, 29586), (17, 29574),

Gene: Happiness_43 Start: 29728, Stop: 29558, Start Num: 5
Candidate Starts for Happiness_43:
(1, 29968), (2, 29866), (4, 29779), (Start: 5 @29728 has 141 MA's), (9, 29701), (16, 29596), (18, 29569),

Gene: Heathen_43 Start: 29133, Stop: 28972, Start Num: 6
Candidate Starts for Heathen_43:
(3, 29223), (Start: 6 @29133 has 19 MA's), (10, 29109), (11, 29088), (16, 29007),

Gene: HelDan_43 Start: 29385, Stop: 29224, Start Num: 6
Candidate Starts for HelDan_43:
(3, 29475), (Start: 6 @29385 has 19 MA's), (10, 29361), (11, 29340), (16, 29259),

Gene: Holli_43 Start: 29513, Stop: 29343, Start Num: 5
Candidate Starts for Holli_43:
(1, 29753), (2, 29651), (4, 29564), (Start: 5 @29513 has 141 MA's), (16, 29378), (17, 29366),

Gene: Houdini22_44 Start: 29727, Stop: 29557, Start Num: 5
Candidate Starts for Houdini22_44:
(1, 29967), (2, 29865), (4, 29778), (Start: 5 @29727 has 141 MA's), (16, 29592), (17, 29580),

Gene: Huxley_44 Start: 29784, Stop: 29614, Start Num: 5
Candidate Starts for Huxley_44:
(1, 30024), (2, 29922), (4, 29835), (Start: 5 @29784 has 141 MA's), (16, 29649), (17, 29637),

Gene: ICleared_44 Start: 29752, Stop: 29585, Start Num: 5
Candidate Starts for ICleared_44:
(1, 29992), (2, 29890), (4, 29803), (Start: 5 @29752 has 141 MA's), (14, 29656), (16, 29623), (18, 29596),

Gene: Iceman_44 Start: 30009, Stop: 29842, Start Num: 5
Candidate Starts for Iceman_44:
(1, 30249), (2, 30147), (4, 30060), (Start: 5 @30009 has 141 MA's), (9, 29982), (14, 29913), (16, 29880), (18, 29853),

Gene: Idleandcovert_43 Start: 29325, Stop: 29164, Start Num: 6
Candidate Starts for Idleandcovert_43:
(3, 29415), (Start: 6 @29325 has 19 MA's), (10, 29301), (16, 29199),

Gene: Iracema64_45 Start: 29987, Stop: 29817, Start Num: 5
Candidate Starts for Iracema64_45:
(4, 30038), (Start: 5 @29987 has 141 MA's), (9, 29960), (16, 29855), (18, 29828),

Gene: Isca_42 Start: 28928, Stop: 28767, Start Num: 6

Candidate Starts for Isca_42:

(3, 29018), (Start: 6 @28928 has 19 MA's), (15, 28826), (16, 28802),

Gene: JF2_43 Start: 28679, Stop: 28518, Start Num: 6

Candidate Starts for JF2_43:

(3, 28769), (Start: 6 @28679 has 19 MA's), (16, 28553),

Gene: JF4_43 Start: 28679, Stop: 28518, Start Num: 6

Candidate Starts for JF4_43:

(3, 28769), (Start: 6 @28679 has 19 MA's), (16, 28553),

Gene: Jaykayelowell_42 Start: 29716, Stop: 29549, Start Num: 5

Candidate Starts for Jaykayelowell_42:

(1, 29956), (2, 29854), (4, 29767), (Start: 5 @29716 has 141 MA's), (9, 29689), (14, 29620), (16, 29587), (18, 29560),

Gene: JetBlade_44 Start: 29717, Stop: 29550, Start Num: 5

Candidate Starts for JetBlade_44:

(1, 29957), (2, 29855), (4, 29768), (Start: 5 @29717 has 141 MA's), (9, 29690), (14, 29621), (16, 29588), (18, 29561),

Gene: JoongJeon_43 Start: 29720, Stop: 29553, Start Num: 5

Candidate Starts for JoongJeon_43:

(1, 29960), (2, 29858), (4, 29771), (Start: 5 @29720 has 141 MA's), (9, 29693), (14, 29624), (16, 29591), (18, 29564),

Gene: KFPoly_43 Start: 29717, Stop: 29550, Start Num: 5

Candidate Starts for KFPoly_43:

(1, 29957), (2, 29855), (4, 29768), (Start: 5 @29717 has 141 MA's), (9, 29690), (14, 29621), (16, 29588), (18, 29561),

Gene: Kachowdy_43 Start: 29385, Stop: 29224, Start Num: 6

Candidate Starts for Kachowdy_43:

(3, 29475), (Start: 6 @29385 has 19 MA's), (10, 29361), (11, 29340), (16, 29259),

Gene: Kampy_44 Start: 29725, Stop: 29555, Start Num: 5

Candidate Starts for Kampy_44:

(1, 29965), (2, 29863), (4, 29776), (Start: 5 @29725 has 141 MA's), (16, 29590), (17, 29578),

Gene: Katalie136_43 Start: 29672, Stop: 29502, Start Num: 5

Candidate Starts for Katalie136_43:

(4, 29723), (Start: 5 @29672 has 141 MA's), (8, 29654), (9, 29645), (16, 29540), (18, 29513),

Gene: KekoraPapaka_44 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for KekoraPapaka_44:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (9, 29696), (16, 29588), (17, 29576),

Gene: Kingmustik0402_44 Start: 29712, Stop: 29545, Start Num: 5

Candidate Starts for Kingmustik0402_44:

(1, 29952), (2, 29850), (4, 29763), (Start: 5 @29712 has 141 MA's), (9, 29685), (14, 29616), (16, 29583), (18, 29556),

Gene: Koan_42 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for Koan_42:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Koreni_43 Start: 29404, Stop: 29234, Start Num: 5

Candidate Starts for Koreni_43:

(1, 29644), (2, 29542), (4, 29455), (Start: 5 @29404 has 141 MA's), (16, 29269), (17, 29257),

Gene: Kratark_44 Start: 29862, Stop: 29692, Start Num: 5

Candidate Starts for Kratark_44:

(1, 30102), (2, 30000), (4, 29913), (Start: 5 @29862 has 141 MA's), (9, 29835), (16, 29730), (18, 29703),

Gene: Kremtemulon_44 Start: 29674, Stop: 29507, Start Num: 5

Candidate Starts for Kremtemulon_44:

(1, 29914), (2, 29812), (4, 29725), (Start: 5 @29674 has 141 MA's), (9, 29647), (14, 29578), (16, 29545), (18, 29518),

Gene: Kyee_44 Start: 29721, Stop: 29551, Start Num: 5

Candidate Starts for Kyee_44:

(1, 29961), (2, 29859), (4, 29772), (Start: 5 @29721 has 141 MA's), (16, 29586), (17, 29574),

Gene: LHTSCC_46 Start: 30145, Stop: 29975, Start Num: 5

Candidate Starts for LHTSCC_46:

(4, 30196), (Start: 5 @30145 has 141 MA's), (9, 30118), (16, 30013), (18, 29986),

Gene: LappelDuVide_44 Start: 29722, Stop: 29552, Start Num: 5

Candidate Starts for LappelDuVide_44:

(1, 29962), (2, 29860), (4, 29773), (Start: 5 @29722 has 141 MA's), (16, 29587), (17, 29575),

Gene: Lemur_44 Start: 29720, Stop: 29550, Start Num: 5

Candidate Starts for Lemur_44:

(1, 29960), (2, 29858), (4, 29771), (Start: 5 @29720 has 141 MA's), (16, 29585), (17, 29573),

Gene: LeoAvram_44 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for LeoAvram_44:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: LittleB_44 Start: 29724, Stop: 29554, Start Num: 5

Candidate Starts for LittleB_44:

(1, 29964), (2, 29862), (4, 29775), (Start: 5 @29724 has 141 MA's), (16, 29589), (17, 29577),

Gene: LittleGuy_44 Start: 29619, Stop: 29452, Start Num: 5

Candidate Starts for LittleGuy_44:

(1, 29859), (2, 29757), (4, 29670), (Start: 5 @29619 has 141 MA's), (9, 29592), (14, 29523), (16, 29490), (18, 29463),

Gene: LochMonster_45 Start: 29959, Stop: 29789, Start Num: 5

Candidate Starts for LochMonster_45:

(1, 30199), (2, 30097), (4, 30010), (Start: 5 @29959 has 141 MA's), (16, 29824), (17, 29812),

Gene: Lorenzo_44 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for Lorenzo_44:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Lunsford_45 Start: 29717, Stop: 29550, Start Num: 5

Candidate Starts for Lunsford_45:

(1, 29957), (2, 29855), (4, 29768), (Start: 5 @29717 has 141 MA's), (9, 29690), (14, 29621), (16, 29588), (18, 29561),

Gene: MA5_43 Start: 28829, Stop: 28668, Start Num: 6

Candidate Starts for MA5_43:

(Start: 6 @28829 has 19 MA's), (10, 28805), (16, 28703),

Gene: MK4_43 Start: 28913, Stop: 28752, Start Num: 6

Candidate Starts for MK4_43:

(3, 29003), (Start: 6 @28913 has 19 MA's), (16, 28787),

Gene: Marchesa_43 Start: 29383, Stop: 29222, Start Num: 6

Candidate Starts for Marchesa_43:

(3, 29473), (Start: 6 @29383 has 19 MA's), (10, 29359), (11, 29338), (16, 29257),

Gene: Maverick_44 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for Maverick_44:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Maxo_45 Start: 29725, Stop: 29555, Start Num: 5

Candidate Starts for Maxo_45:

(1, 29965), (2, 29863), (4, 29776), (Start: 5 @29725 has 141 MA's), (16, 29590), (17, 29578),

Gene: Mayonnaise_43 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for Mayonnaise_43:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Mazhar510_44 Start: 29724, Stop: 29554, Start Num: 5

Candidate Starts for Mazhar510_44:

(1, 29964), (2, 29862), (4, 29775), (Start: 5 @29724 has 141 MA's), (16, 29589), (17, 29577),

Gene: Medusa_44 Start: 29722, Stop: 29552, Start Num: 5

Candidate Starts for Medusa_44:

(1, 29962), (2, 29860), (4, 29773), (Start: 5 @29722 has 141 MA's), (16, 29587), (17, 29575),

Gene: MeeZee_44 Start: 29720, Stop: 29553, Start Num: 5

Candidate Starts for MeeZee_44:

(1, 29960), (2, 29858), (4, 29771), (Start: 5 @29720 has 141 MA's), (14, 29624), (16, 29591), (18, 29564),

Gene: Melvin_46 Start: 29718, Stop: 29551, Start Num: 5

Candidate Starts for Melvin_46:

(1, 29958), (2, 29856), (4, 29769), (Start: 5 @29718 has 141 MA's), (14, 29622), (16, 29589), (18, 29562),

Gene: Millski_43 Start: 29724, Stop: 29557, Start Num: 5

Candidate Starts for Millski_43:

(1, 29964), (2, 29862), (4, 29775), (Start: 5 @29724 has 141 MA's), (14, 29628), (16, 29595), (18, 29568),

Gene: Miramae_43 Start: 29860, Stop: 29690, Start Num: 5

Candidate Starts for Miramae_43:

(4, 29911), (Start: 5 @29860 has 141 MA's), (9, 29833), (16, 29728), (18, 29701),

Gene: Morpher26_43 Start: 29693, Stop: 29523, Start Num: 5

Candidate Starts for Morpher26_43:

(4, 29744), (Start: 5 @29693 has 141 MA's), (8, 29675), (9, 29666), (16, 29561), (18, 29534),

Gene: Morrow_45 Start: 29729, Stop: 29559, Start Num: 5

Candidate Starts for Morrow_45:

(1, 29969), (2, 29867), (4, 29780), (Start: 5 @29729 has 141 MA's), (16, 29594), (17, 29582),

Gene: Mundrea_43 Start: 29680, Stop: 29510, Start Num: 5

Candidate Starts for Mundrea_43:

(4, 29731), (Start: 5 @29680 has 141 MA's), (8, 29662), (9, 29653), (16, 29548), (18, 29521),

Gene: Nebs_45 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for Nebs_45:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Nemo27_44 Start: 29722, Stop: 29552, Start Num: 5

Candidate Starts for Nemo27_44:

(1, 29962), (2, 29860), (4, 29773), (Start: 5 @29722 has 141 MA's), (16, 29587), (17, 29575),

Gene: Noelle_44 Start: 29982, Stop: 29815, Start Num: 5

Candidate Starts for Noelle_44:

(4, 30033), (Start: 5 @29982 has 141 MA's), (9, 29955), (12, 29901), (16, 29853), (18, 29826),

Gene: NorthStar_43 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for NorthStar_43:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: NotAPhaseMom_44 Start: 29727, Stop: 29557, Start Num: 5

Candidate Starts for NotAPhaseMom_44:

(1, 29967), (2, 29865), (4, 29778), (Start: 5 @29727 has 141 MA's), (16, 29592), (17, 29580),

Gene: Nyxis_44 Start: 29613, Stop: 29446, Start Num: 5

Candidate Starts for Nyxis_44:

(1, 29853), (2, 29751), (4, 29664), (Start: 5 @29613 has 141 MA's), (13, 29523), (16, 29484), (17, 29472), (18, 29457),

Gene: OKaNui_44 Start: 29773, Stop: 29606, Start Num: 5

Candidate Starts for OKaNui_44:

(1, 30013), (2, 29911), (4, 29824), (Start: 5 @29773 has 141 MA's), (14, 29677), (16, 29644), (18, 29617),

Gene: Obama12_45 Start: 30147, Stop: 29977, Start Num: 5

Candidate Starts for Obama12_45:

(4, 30198), (Start: 5 @30147 has 141 MA's), (9, 30120), (16, 30015), (18, 29988),

Gene: Ohfah_45 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for Ohfah_45:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Palestino_43 Start: 29720, Stop: 29553, Start Num: 5

Candidate Starts for Palestino_43:

(1, 29960), (2, 29858), (4, 29771), (Start: 5 @29720 has 141 MA's), (7, 29705), (14, 29624), (16, 29591), (18, 29564),

Gene: Peaches_44 Start: 29722, Stop: 29552, Start Num: 5

Candidate Starts for Peaches_44:

(1, 29962), (2, 29860), (4, 29773), (Start: 5 @29722 has 141 MA's), (16, 29587), (17, 29575),

Gene: Perplexer_43 Start: 29669, Stop: 29499, Start Num: 5

Candidate Starts for Perplexer_43:

(4, 29720), (Start: 5 @29669 has 141 MA's), (8, 29651), (9, 29642), (16, 29537), (18, 29510),

Gene: PeterPeter_44 Start: 29720, Stop: 29553, Start Num: 5

Candidate Starts for PeterPeter_44:

(1, 29960), (2, 29858), (4, 29771), (Start: 5 @29720 has 141 MA's), (9, 29693), (14, 29624), (16, 29591), (18, 29564),

Gene: PetiteSangsue_43 Start: 29672, Stop: 29502, Start Num: 5

Candidate Starts for PetiteSangsue_43:

(4, 29723), (Start: 5 @29672 has 141 MA's), (8, 29654), (9, 29645), (16, 29540), (18, 29513),

Gene: Phacado_44 Start: 29722, Stop: 29552, Start Num: 5

Candidate Starts for Phacado_44:

(1, 29962), (2, 29860), (4, 29773), (Start: 5 @29722 has 141 MA's), (16, 29587), (17, 29575),

Gene: Phantastic_43 Start: 28944, Stop: 28783, Start Num: 6

Candidate Starts for Phantastic_43:

(3, 29034), (Start: 6 @28944 has 19 MA's), (16, 28818),

Gene: Phelipe_45 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for Phelipe_45:

(2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Phighter1804_44 Start: 29765, Stop: 29595, Start Num: 5

Candidate Starts for Phighter1804_44:

(4, 29816), (Start: 5 @29765 has 141 MA's), (16, 29630), (17, 29618),

Gene: Phontbonne_44 Start: 29614, Stop: 29447, Start Num: 5

Candidate Starts for Phontbonne_44:

(1, 29854), (2, 29752), (4, 29665), (Start: 5 @29614 has 141 MA's), (9, 29587), (14, 29518), (16, 29485), (18, 29458),

Gene: Pipcraft_42 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for Pipcraft_42:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Pistachio_44 Start: 28872, Stop: 28711, Start Num: 6

Candidate Starts for Pistachio_44:

(3, 28962), (Start: 6 @28872 has 19 MA's), (10, 28848), (16, 28746),

Gene: Polymorphads_45 Start: 29716, Stop: 29546, Start Num: 5
Candidate Starts for Polymorphads_45:
(1, 29956), (2, 29854), (4, 29767), (Start: 5 @29716 has 141 MA's), (16, 29581), (17, 29569),

Gene: Pumbaa_44 Start: 29665, Stop: 29498, Start Num: 5
Candidate Starts for Pumbaa_44:
(1, 29905), (2, 29803), (4, 29716), (Start: 5 @29665 has 141 MA's), (14, 29569), (16, 29536), (18, 29509),

Gene: Puppy_44 Start: 28945, Stop: 28784, Start Num: 6
Candidate Starts for Puppy_44:
(3, 29035), (Start: 6 @28945 has 19 MA's), (10, 28921), (16, 28819),

Gene: Relief_43 Start: 29720, Stop: 29553, Start Num: 5
Candidate Starts for Relief_43:
(1, 29960), (2, 29858), (4, 29771), (Start: 5 @29720 has 141 MA's), (9, 29693), (14, 29624), (16, 29591), (18, 29564),

Gene: RockieBear_43 Start: 29723, Stop: 29553, Start Num: 5
Candidate Starts for RockieBear_43:
(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Rockstar_43 Start: 28920, Stop: 28759, Start Num: 6
Candidate Starts for Rockstar_43:
(3, 29010), (Start: 6 @28920 has 19 MA's), (15, 28818), (16, 28794),

Gene: Roimos_43 Start: 29301, Stop: 29140, Start Num: 6
Candidate Starts for Roimos_43:
(3, 29391), (Start: 6 @29301 has 19 MA's), (10, 29277), (11, 29256), (16, 29175),

Gene: Romney_44 Start: 29720, Stop: 29553, Start Num: 5
Candidate Starts for Romney_44:
(1, 29960), (2, 29858), (4, 29771), (Start: 5 @29720 has 141 MA's), (9, 29693), (14, 29624), (16, 29591), (18, 29564),

Gene: Roosevelt_43 Start: 29725, Stop: 29555, Start Num: 5
Candidate Starts for Roosevelt_43:
(1, 29965), (2, 29863), (4, 29776), (Start: 5 @29725 has 141 MA's), (16, 29590), (17, 29578),

Gene: Rosa24_43 Start: 29754, Stop: 29587, Start Num: 5
Candidate Starts for Rosa24_43:
(1, 29994), (2, 29892), (4, 29805), (Start: 5 @29754 has 141 MA's), (14, 29658), (16, 29625), (18, 29598),

Gene: Ruin_44 Start: 29716, Stop: 29549, Start Num: 5
Candidate Starts for Ruin_44:
(1, 29956), (2, 29854), (4, 29767), (Start: 5 @29716 has 141 MA's), (7, 29701), (14, 29620), (16, 29587), (18, 29560),

Gene: Sabertooth_44 Start: 29725, Stop: 29552, Start Num: 5
Candidate Starts for Sabertooth_44:
(1, 29965), (2, 29863), (4, 29776), (Start: 5 @29725 has 141 MA's), (16, 29590), (18, 29563),

Gene: SaturnRing_43 Start: 29325, Stop: 29164, Start Num: 6
Candidate Starts for SaturnRing_43:
(3, 29415), (Start: 6 @29325 has 19 MA's), (10, 29301), (16, 29199),

Gene: Scamp_44 Start: 29725, Stop: 29555, Start Num: 5
Candidate Starts for Scamp_44:
(1, 29965), (2, 29863), (4, 29776), (Start: 5 @29725 has 141 MA's), (16, 29590), (17, 29578),

Gene: Scout_43 Start: 28632, Stop: 28471, Start Num: 6
Candidate Starts for Scout_43:
(3, 28722), (Start: 6 @28632 has 19 MA's), (10, 28608), (11, 28587), (16, 28506),

Gene: SenorClean_44 Start: 29723, Stop: 29553, Start Num: 5
Candidate Starts for SenorClean_44:
(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Shaka_44 Start: 29720, Stop: 29553, Start Num: 5
Candidate Starts for Shaka_44:
(1, 29960), (2, 29858), (4, 29771), (Start: 5 @29720 has 141 MA's), (9, 29693), (14, 29624), (16, 29591), (18, 29564),

Gene: SheldonCooper_46 Start: 30146, Stop: 29976, Start Num: 5
Candidate Starts for SheldonCooper_46:
(4, 30197), (Start: 5 @30146 has 141 MA's), (9, 30119), (16, 30014), (18, 29987),

Gene: Shygu2_43 Start: 29672, Stop: 29505, Start Num: 5
Candidate Starts for Shygu2_43:
(4, 29723), (Start: 5 @29672 has 141 MA's), (9, 29645), (13, 29582), (16, 29543), (18, 29516),

Gene: Skipitt_43 Start: 29717, Stop: 29550, Start Num: 5
Candidate Starts for Skipitt_43:
(1, 29957), (2, 29855), (4, 29768), (Start: 5 @29717 has 141 MA's), (14, 29621), (16, 29588), (18, 29561),

Gene: Sparxx_45 Start: 29718, Stop: 29548, Start Num: 5
Candidate Starts for Sparxx_45:
(1, 29958), (2, 29856), (4, 29769), (Start: 5 @29718 has 141 MA's), (16, 29583), (17, 29571),

Gene: Spino_43 Start: 29723, Stop: 29553, Start Num: 5
Candidate Starts for Spino_43:
(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Stasia_43 Start: 29592, Stop: 29422, Start Num: 5
Candidate Starts for Stasia_43:
(4, 29643), (Start: 5 @29592 has 141 MA's), (7, 29577), (16, 29457), (17, 29445),

Gene: SteMason_43 Start: 29720, Stop: 29553, Start Num: 5
Candidate Starts for SteMason_43:
(2, 29858), (4, 29771), (Start: 5 @29720 has 141 MA's), (14, 29624), (16, 29591), (18, 29564),

Gene: Stink_44 Start: 30140, Stop: 29970, Start Num: 5
Candidate Starts for Stink_44:
(4, 30191), (Start: 5 @30140 has 141 MA's), (9, 30113), (16, 30008), (18, 29981),

Gene: Sultana_44 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for Sultana_44:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: TNguyen7_43 Start: 29292, Stop: 29131, Start Num: 6

Candidate Starts for TNguyen7_43:

(3, 29382), (Start: 6 @29292 has 19 MA's), (10, 29268), (16, 29166),

Gene: Taquarus_44 Start: 29726, Stop: 29556, Start Num: 5

Candidate Starts for Taquarus_44:

(1, 29966), (2, 29864), (4, 29777), (Start: 5 @29726 has 141 MA's), (16, 29591), (17, 29579),

Gene: Thanksgivukkah_43 Start: 29721, Stop: 29554, Start Num: 5

Candidate Starts for Thanksgivukkah_43:

(1, 29961), (2, 29859), (4, 29772), (Start: 5 @29721 has 141 MA's), (14, 29625), (16, 29592), (18, 29565),

Gene: TinaFeyge_44 Start: 29718, Stop: 29548, Start Num: 5

Candidate Starts for TinaFeyge_44:

(1, 29958), (2, 29856), (4, 29769), (Start: 5 @29718 has 141 MA's), (16, 29583), (17, 29571),

Gene: Tinybot_43 Start: 29750, Stop: 29583, Start Num: 5

Candidate Starts for Tinybot_43:

(1, 29990), (2, 29888), (4, 29801), (Start: 5 @29750 has 141 MA's), (14, 29654), (16, 29621), (18, 29594),

Gene: TiroTheta9_44 Start: 29717, Stop: 29550, Start Num: 5

Candidate Starts for TiroTheta9_44:

(2, 29855), (4, 29768), (Start: 5 @29717 has 141 MA's), (14, 29621), (16, 29588), (18, 29561),

Gene: TroyPia_45 Start: 29721, Stop: 29551, Start Num: 5

Candidate Starts for TroyPia_45:

(1, 29961), (2, 29859), (4, 29772), (Start: 5 @29721 has 141 MA's), (16, 29586), (17, 29574),

Gene: TygerBlood_44 Start: 29723, Stop: 29553, Start Num: 5

Candidate Starts for TygerBlood_44:

(1, 29963), (2, 29861), (4, 29774), (Start: 5 @29723 has 141 MA's), (16, 29588), (17, 29576),

Gene: Ulysses_43 Start: 29400, Stop: 29233, Start Num: 5

Candidate Starts for Ulysses_43:

(4, 29451), (Start: 5 @29400 has 141 MA's), (14, 29304), (16, 29271), (18, 29244),

Gene: Wander_44 Start: 29720, Stop: 29553, Start Num: 5

Candidate Starts for Wander_44:

(1, 29960), (2, 29858), (4, 29771), (Start: 5 @29720 has 141 MA's), (9, 29693), (14, 29624), (16, 29591), (18, 29564),

Gene: Wilbur_44 Start: 29720, Stop: 29553, Start Num: 5

Candidate Starts for Wilbur_44:

(1, 29960), (2, 29858), (4, 29771), (Start: 5 @29720 has 141 MA's), (9, 29693), (14, 29624), (16, 29591), (18, 29564),

Gene: Wile_43 Start: 29703, Stop: 29533, Start Num: 5

Candidate Starts for Wile_43:

(4, 29754), (Start: 5 @29703 has 141 MA's), (8, 29685), (9, 29676), (16, 29571), (18, 29544),

Gene: Wizard007_44 Start: 29728, Stop: 29558, Start Num: 5

Candidate Starts for Wizard007_44:

(1, 29968), (2, 29866), (4, 29779), (Start: 5 @29728 has 141 MA's), (16, 29593), (17, 29581),

Gene: Xena_42 Start: 29669, Stop: 29499, Start Num: 5

Candidate Starts for Xena_42:

(4, 29720), (Start: 5 @29669 has 141 MA's), (8, 29651), (9, 29642), (16, 29537), (18, 29510),

Gene: YoSam321_44 Start: 29717, Stop: 29550, Start Num: 5

Candidate Starts for YoSam321_44:

(1, 29957), (2, 29855), (4, 29768), (Start: 5 @29717 has 141 MA's), (14, 29621), (16, 29588), (18, 29561),

Gene: Zarafa_43 Start: 29394, Stop: 29233, Start Num: 6

Candidate Starts for Zarafa_43:

(3, 29484), (Start: 6 @29394 has 19 MA's), (10, 29370), (11, 29349), (16, 29268),