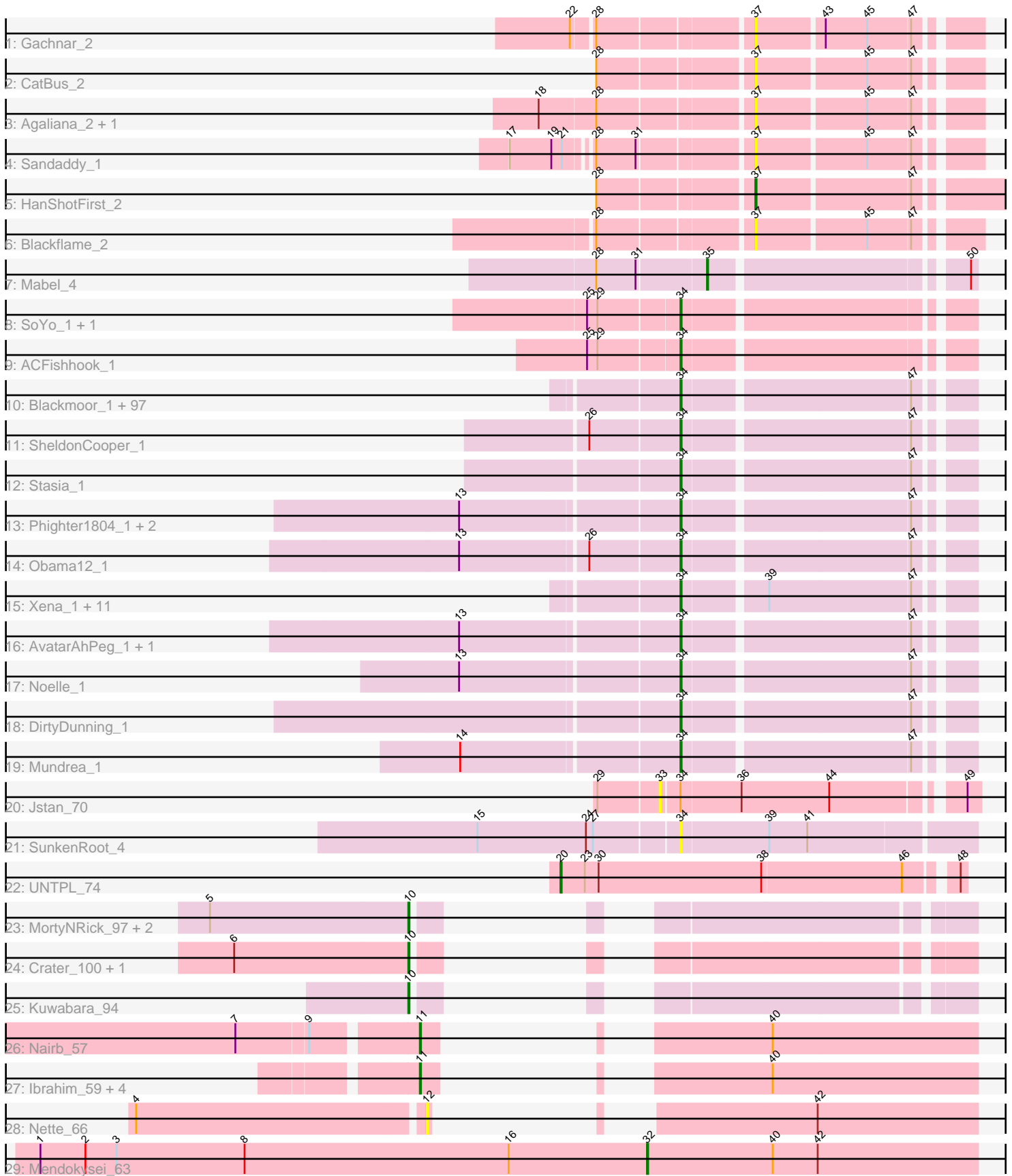


Pham 311332



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 311332 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311332 has 149 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Gachnar_2
- Track 2 : CatBus_2
- Track 3 : Agaliana_2, ChristmasHams_2
- Track 4 : Sandaddy_1
- Track 5 : HanShotFirst_2
- Track 6 : Blackflame_2
- Track 7 : Mabel_4
- Track 8 : SoYo_1, Croquant_2
- Track 9 : ACFishhook_1
- Track 10 : Blackmoor_1, SenorClean_1, LittleGuy_1, Kremtemulon_1, Druantia_1, ICleared_1, Avle17_1, SteMason_1, Mayonnaise_1, Huxley_1, Cocoaberry_1, Holli_1, Pipcraft_1, Polymorphads_1, Kampy_1, Palestino_1, Medusa_1, Wizard007_1, Melvin_1, Annyong_1, Lunsford_1, Funston_1, Houdini22_1, Lorenzo_1, Phontbonne_1, Koreni_1, Iracema64_1, Nemo27_1, TroyPia_1, Ohfah_1, Sultana_1, Shygu2_1, BubbleTrouble_1, Broseidon_1, OKaNui_1, Eurydice_1, Sabertooth_1, Taquarus_1, Millski_1, Citius_1, Jaykayelowell_1, Clarenza_1, JetBlade_1, CentreCat_1, Lemur_1, Cintron_1, Romney_1, Sparxx_1, Eapen_1, Nebs_1, NotAPhaseMom_1, Arturo_86, Iceman_1, Florean_1, Kyee_1, Maxo_1, Connomayer_1, Kratak_1, Koan_1, Ruin_1, Nyxis_1, Skipitt_1, Bartimeaus_1, Relief_1, Eris_1, Alberto7_1, Chaph_1, Mazhar510_1, Flux_1, Spino_1, Roosevelt_1, TinaFeyge_1, Eros_1, Albee_1, Gadost_1, Thanksgivukkah_1, Bombshell_1, NorthStar_1, LittleB_1, Scamp_1, BellusTerra_1, Morrow_1, Baby16_1, TygerBlood_1, JoongJeon_1, KFPoly_1, Happiness_1, Deano_1, YoSam321_1, Wilbur_1, Dhanush_1, Wander_1, Abdiel_1, PeterPeter_1, Bruiser_1, Phacado_1, Kingmustik0402_1, Camperdownii_1
- Track 11 : SheldonCooper_1
- Track 12 : Stasia_1
- Track 13 : Phighter1804_1, Pumbaa_1, LochMonster_1
- Track 14 : Obama12_1
- Track 15 : Xena_1, Badger_1, Datway_1, PetiteSangsue_1, Cici_1, Morpher26_1, Wile_1, Katalie136_1, Achebe_1, Perplexer_1, AbbysRanger_1, Bumblebee11_1
- Track 16 : AvatarAhPeg_1, Miramae_1
- Track 17 : Noelle_1
- Track 18 : DirtyDunning_1
- Track 19 : Mundrea_1
- Track 20 : Jstan_70
- Track 21 : SunkenRoot_4

- Track 22 : UNTPL_74
- Track 23 : MortyNRick_97, Birdsong_96, BearBQ_102
- Track 24 : Crater_100, Apricot_101
- Track 25 : Kuwabara_94
- Track 26 : Nairb_57
- Track 27 : Ibrahim_59, ZenTime222_65, Whitty_58, RonRayGun_59, Bernal13_59
- Track 28 : Nette_66
- Track 29 : Mendokysei_63

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

The start number called the most often in the published annotations is 34, it was called in 123 of the 139 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ACFishhook_1, AbbysRanger_1, Abdiel_1, Achebe_1, Albee_1, Alberto7_1, Annyong_1, Arturo_86, AvatarAhPeg_1, Avle17_1, Baby16_1, Badger_1, Bartimeaus_1, BellusTerra_1, Blackmoor_1, Bombshell_1, Broseidon_1, Bruiser_1, BubbleTrouble_1, Bumblebee11_1, Camperdownii_1, CentreCat_1, Chaph_1, Cici_1, Cintron_1, Citius_1, Clarenza_1, Cocoaberry_1, Connomayer_1, Croquant_2, Datway_1, Deano_1, Dhanush_1, DirtyDunning_1, Druantia_1, Eapen_1, Eris_1, Eros_1, Eurydice_1, Floean_1, Flux_1, Funston_1, Gadost_1, Happiness_1, Holli_1, Houdini22_1, Huxley_1, ICleared_1, Iceman_1, Iracema64_1, Jaykayelowell_1, JetBlade_1, JoongJeon_1, KFPoly_1, Kamy_1, Katalie136_1, Kingmustik0402_1, Koan_1, Koreni_1, Kratark_1, Kremtemulon_1, Kyee_1, Lemur_1, LittleB_1, LittleGuy_1, LochMonster_1, Lorenzo_1, Lunsford_1, Maxo_1, Mayonnaise_1, Mazhar510_1, Medusa_1, Melvin_1, Millski_1, Miramae_1, Morpher26_1, Morrow_1, Mundrea_1, Nebs_1, Nemo27_1, Noelle_1, NorthStar_1, NotAPhaseMom_1, Nyxis_1, OKaNui_1, Obama12_1, Ohfah_1, Palestino_1, Perplexer_1, PeterPeter_1, PetiteSangsue_1, Phacado_1, Phighter1804_1, Phontbonne_1, Pipcraft_1, Polymorphads_1, Pumbaa_1, Relief_1, Romney_1, Roosevelt_1, Ruin_1, Sabertooth_1, Scamp_1, SeniorClean_1, SheldonCooper_1, Shygu2_1, Skipitt_1, SoYo_1, Sparxx_1, Spino_1, Stasia_1, SteMason_1, Sultana_1, SunkenRoot_4, Taquarus_1, Thanksgivukkah_1, TinaFeyge_1, TroyPia_1, TygerBlood_1, Wander_1, Wilbur_1, Wile_1, Wizard007_1, Xena_1, YoSam321_1,

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

- Jstan_70,

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

- Agaliana_2, Apricot_101, BearBQ_102, Bernal13_59, Birdsong_96, Blackflame_2, CatBus_2, ChristmasHams_2, Crater_100, Gachnar_2, HanShotFirst_2, Ibrahim_59, Kuwabara_94, Mabel_4, Mendokysei_63, MortyNRick_97, Nairb_57, Nette_66, RonRayGun_59, Sandaddy_1, UNTPL_74, Whitty_58, ZenTime222_65,

Summary by start number:

Start 10:

- Found in 6 of 149 (4.0%) of genes in pham
- Manual Annotations of this start: 6 of 139

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apricot_101 (DN3), BearBQ_102 (DN), Birdsong_96 (DN), Crater_100 (DN3), Kuwabara_94 (DN4), MortyNRick_97 (DN),

Start 11:

- Found in 6 of 149 (4.0%) of genes in pham
- Manual Annotations of this start: 6 of 139
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bernal13_59 (T), Ibrahim_59 (T), Nairb_57 (T), RonRayGun_59 (T), Whitty_58 (T), ZenTime222_65 (T),

Start 12:

- Found in 1 of 149 (0.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nette_66 (T),

Start 20:

- Found in 1 of 149 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 139
- Called 100.0% of time when present
- Phage (with cluster) where this start called: UNTPL_74 (BH),

Start 32:

- Found in 1 of 149 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 139
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mendokysei_63 (T),

Start 33:

- Found in 1 of 149 (0.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jstan_70 (AZ1),

Start 34:

- Found in 126 of 149 (84.6%) of genes in pham
- Manual Annotations of this start: 123 of 139
- Called 99.2% of time when present
- Phage (with cluster) where this start called: ACFishhook_1 (A3), AbbysRanger_1 (A4), Abdiel_1 (A4), Achebe_1 (A4), Albee_1 (A4), Alberto7_1 (A4), Annyong_1 (A4), Arturo_86 (A4), AvatarAhPeg_1 (A4), Avle17_1 (A4), Baby16_1 (A4), Badger_1 (A4), Bartimeaus_1 (A4), BellusTerra_1 (A4), Blackmoor_1 (A4), Bombshell_1 (A4), Broseidon_1 (A4), Bruiser_1 (A4), BubbleTrouble_1 (A4), Bumblebee11_1 (A4), Camperdownii_1 (A4), CentreCat_1 (A4), Chaph_1 (A4), Cici_1 (A4), Cintron_1 (A4), Citius_1 (A4), Clarenza_1 (A4), Cocoaberry_1 (A4), Connomayer_1 (A4), Croquant_2 (A3), Datway_1 (A4), Deano_1 (A4), Dhanush_1 (A4), DirtyDunning_1 (A4), Druantia_1 (A4), Eapen_1 (A4), Eris_1 (A4), Eros_1 (A4), Eurydice_1 (A4), Floean_1 (A4), Flux_1 (A4), Funston_1 (A4), Gadost_1 (A4), Happiness_1 (A4), Holli_1 (A4), Houdini22_1 (A4), Huxley_1 (A4), ICleared_1 (A4), Iceman_1 (A4), Iracema64_1 (A4), Jaykayelowell_1 (A4), JetBlade_1 (A4), JoongJeon_1 (A4), KFPoly_1 (A4), Kamy_1 (A4), Katalie136_1 (A4), Kingmustik0402_1 (A4), Koan_1 (A4), Koreni_1 (A4), Kratak_1 (A4), Kremtemulon_1 (A4), Kyee_1 (A4), Lemur_1 (A4), LittleB_1

(A4), LittleGuy_1 (A4), LochMonster_1 (A4), Lorenzo_1 (A4), Lunsford_1 (A4), Maxo_1 (A4), Mayonnaise_1 (A4), Mazhar510_1 (A4), Medusa_1 (A4), Melvin_1 (A4), Millski_1 (A4), Miramae_1 (A4), Morpher26_1 (A4), Morrow_1 (A4), Mundrea_1 (A4), Nebs_1 (A4), Nemo27_1 (A4), Noelle_1 (A4), NorthStar_1 (A4), NotAPhaseMom_1 (A4), Nyxis_1 (A4), OKaNui_1 (A4), Obama12_1 (A4), Ohfah_1 (A4), Palestino_1 (A4), Perplexer_1 (A4), PeterPeter_1 (A4), PetiteSangsue_1 (A4), Phacado_1 (A4), Phighter1804_1 (A4), Phontbonne_1 (A4), Pipcraft_1 (A4), Polymorphads_1 (A4), Pumbaa_1 (A4), Relief_1 (A4), Romney_1 (A4), Roosevelt_1 (A4), Ruin_1 (A4), Sabertooth_1 (A4), Scamp_1 (A4), SenorClean_1 (A4), SheldonCooper_1 (A4), Shygu2_1 (A4), Skipitt_1 (A4), SoYo_1 (A3), Sparxx_1 (A4), Spino_1 (A4), Stasia_1 (A4), SteMason_1 (A4), Sultana_1 (A4), SunkenRoot_4 (BD3), Taquarus_1 (A4), Thanksgivukkah_1 (A4), TinaFeyge_1 (A4), TroyPia_1 (A4), TygerBlood_1 (A4), Wander_1 (A4), Wilbur_1 (A4), Wile_1 (A4), Wizard007_1 (A4), Xena_1 (A4), YoSam321_1 (A4),

Start 35:

- Found in 1 of 149 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 139
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mabel_4 (A11),

Start 37:

- Found in 7 of 149 (4.7%) of genes in pham
- Manual Annotations of this start: 1 of 139
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agaliana_2 (A1), Blackflame_2 (A1), CatBus_2 (A1), ChristmasHams_2 (A1), Gachnar_2 (A1), HanShotFirst_2 (A1), Sandaddy_1 (A1),

Summary by clusters:

There are 11 clusters represented in this pham: DN, A11, DN3, BH, A1, DN4, A3, A4, BD3, AZ1, T,

Info for manual annotations of cluster A1:

- Start number 37 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster A11:

- Start number 35 was manually annotated 1 time for cluster A11.

Info for manual annotations of cluster A3:

- Start number 34 was manually annotated 2 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 34 was manually annotated 121 times for cluster A4.

Info for manual annotations of cluster BH:

- Start number 20 was manually annotated 1 time for cluster BH.

Info for manual annotations of cluster DN:

- Start number 10 was manually annotated 3 times for cluster DN.

Info for manual annotations of cluster DN3:

- Start number 10 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DN4:

- Start number 10 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster T:

- Start number 11 was manually annotated 6 times for cluster T.
- Start number 32 was manually annotated 1 time for cluster T.

Gene Information:

Gene: ACFishhook_1 Start: 596, Stop: 823, Start Num: 34

Candidate Starts for ACFishhook_1:

(25, 521), (29, 530), (Start: 34 @596 has 123 MA's),

Gene: AbbysRanger_1 Start: 542, Stop: 769, Start Num: 34

Candidate Starts for AbbysRanger_1:

(Start: 34 @542 has 123 MA's), (39, 608), (47, 728),

Gene: Abdiel_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Abdiel_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Achebe_1 Start: 542, Stop: 769, Start Num: 34

Candidate Starts for Achebe_1:

(Start: 34 @542 has 123 MA's), (39, 608), (47, 728),

Gene: Agaliana_2 Start: 958, Stop: 1131, Start Num: 37

Candidate Starts for Agaliana_2:

(18, 787), (28, 835), (Start: 37 @958 has 1 MA's), (45, 1048), (47, 1084),

Gene: Albee_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Albee_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Alberto7_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Alberto7_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Annyong_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Annyong_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Apricot_101 Start: 51816, Stop: 52109, Start Num: 10

Candidate Starts for Apricot_101:

(6, 51666), (Start: 10 @51816 has 6 MA's),

Gene: Arturo_86 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Arturo_86:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: AvatarAhPeg_1 Start: 535, Stop: 762, Start Num: 34

Candidate Starts for AvatarAhPeg_1:

(13, 355), (Start: 34 @535 has 123 MA's), (47, 721),

Gene: Avle17_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Avle17_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Baby16_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Baby16_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Badger_1 Start: 543, Stop: 770, Start Num: 34

Candidate Starts for Badger_1:

(Start: 34 @543 has 123 MA's), (39, 609), (47, 729),

Gene: Bartimeaus_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Bartimeaus_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: BearBQ_102 Start: 54695, Stop: 54988, Start Num: 10

Candidate Starts for BearBQ_102:

(5, 54524), (Start: 10 @54695 has 6 MA's),

Gene: BellusTerra_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for BellusTerra_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Bernal13_59 Start: 40895, Stop: 41194, Start Num: 11

Candidate Starts for Bernal13_59:

(Start: 11 @40895 has 6 MA's), (40, 41018),

Gene: Birdsong_96 Start: 52683, Stop: 52976, Start Num: 10

Candidate Starts for Birdsong_96:

(5, 52512), (Start: 10 @52683 has 6 MA's),

Gene: Blackflame_2 Start: 840, Stop: 1013, Start Num: 37

Candidate Starts for Blackflame_2:

(28, 717), (Start: 37 @840 has 1 MA's), (45, 930), (47, 966),

Gene: Blackmoor_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Blackmoor_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Bombshell_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Bombshell_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Broseidon_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Broseidon_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Bruiser_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Bruiser_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: BubbleTrouble_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for BubbleTrouble_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Bumblebee11_1 Start: 542, Stop: 769, Start Num: 34
Candidate Starts for Bumblebee11_1:
(Start: 34 @542 has 123 MA's), (39, 608), (47, 728),

Gene: Camperdownii_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Camperdownii_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: CatBus_2 Start: 873, Stop: 1046, Start Num: 37
Candidate Starts for CatBus_2:
(28, 750), (Start: 37 @873 has 1 MA's), (45, 963), (47, 999),

Gene: CentreCat_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for CentreCat_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Chaph_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Chaph_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: ChristmasHams_2 Start: 958, Stop: 1131, Start Num: 37
Candidate Starts for ChristmasHams_2:
(18, 787), (28, 835), (Start: 37 @958 has 1 MA's), (45, 1048), (47, 1084),

Gene: Cici_1 Start: 542, Stop: 769, Start Num: 34
Candidate Starts for Cici_1:
(Start: 34 @542 has 123 MA's), (39, 608), (47, 728),

Gene: Cintron_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Cintron_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Citius_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Citius_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Clarenza_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Clarenza_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Cocoaberry_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Cocoaberry_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Connomayer_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Connomayer_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Crater_100 Start: 52160, Stop: 52453, Start Num: 10
Candidate Starts for Crater_100:
(6, 52010), (Start: 10 @52160 has 6 MA's),

Gene: Croquant_2 Start: 592, Stop: 819, Start Num: 34
Candidate Starts for Croquant_2:
(25, 517), (29, 526), (Start: 34 @592 has 123 MA's),

Gene: Datway_1 Start: 542, Stop: 769, Start Num: 34
Candidate Starts for Datway_1:
(Start: 34 @542 has 123 MA's), (39, 608), (47, 728),

Gene: Deano_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Deano_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Dhanush_1 Start: 537, Stop: 764, Start Num: 34
Candidate Starts for Dhanush_1:
(Start: 34 @537 has 123 MA's), (47, 723),

Gene: DirtyDunning_1 Start: 536, Stop: 763, Start Num: 34
Candidate Starts for DirtyDunning_1:
(Start: 34 @536 has 123 MA's), (47, 722),

Gene: Druantia_1 Start: 539, Stop: 766, Start Num: 34
Candidate Starts for Druantia_1:
(Start: 34 @539 has 123 MA's), (47, 725),

Gene: Eapen_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Eapen_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Eris_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Eris_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Eros_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Eros_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Eurydice_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Eurydice_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Florean_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Florean_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Flux_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Flux_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Funston_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Funston_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Gachnar_2 Start: 892, Stop: 1065, Start Num: 37
Candidate Starts for Gachnar_2:
(22, 754), (28, 769), (Start: 37 @892 has 1 MA's), (43, 946), (45, 982), (47, 1018),

Gene: Gadost_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Gadost_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: HanShotFirst_2 Start: 873, Stop: 1067, Start Num: 37
Candidate Starts for HanShotFirst_2:
(28, 750), (Start: 37 @873 has 1 MA's), (47, 999),

Gene: Happiness_1 Start: 537, Stop: 764, Start Num: 34
Candidate Starts for Happiness_1:
(Start: 34 @537 has 123 MA's), (47, 723),

Gene: Holli_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Holli_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Houdini22_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Houdini22_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Huxley_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Huxley_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: ICleared_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for ICleared_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Ibrahim_59 Start: 41099, Stop: 41398, Start Num: 11
Candidate Starts for Ibrahim_59:
(Start: 11 @41099 has 6 MA's), (40, 41222),

Gene: Iceman_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Iceman_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Iracema64_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Iracema64_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Jaykayelowell_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Jaykayelowell_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: JetBlade_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for JetBlade_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: JoongJeon_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for JoongJeon_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Jstan_70 Start: 43158, Stop: 43409, Start Num: 33

Candidate Starts for Jstan_70:

(29, 43107), (33, 43158), (Start: 34 @43173 has 123 MA's), (36, 43224), (44, 43299), (49, 43398),

Gene: KFPoly_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for KFPoly_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Kampy_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Kampy_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Katalie136_1 Start: 542, Stop: 769, Start Num: 34

Candidate Starts for Katalie136_1:

(Start: 34 @542 has 123 MA's), (39, 608), (47, 728),

Gene: Kingmustik0402_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Kingmustik0402_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Koan_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Koan_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Koreni_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Koreni_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Kratark_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Kratark_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Kremtemulon_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Kremtemulon_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Kuwabara_94 Start: 53726, Stop: 54019, Start Num: 10

Candidate Starts for Kuwabara_94:

(Start: 10 @53726 has 6 MA's),

Gene: Kyee_1 Start: 538, Stop: 765, Start Num: 34

Candidate Starts for Kyee_1:

(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Lemur_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Lemur_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: LittleB_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for LittleB_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: LittleGuy_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for LittleGuy_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: LochMonster_1 Start: 536, Stop: 763, Start Num: 34
Candidate Starts for LochMonster_1:
(13, 356), (Start: 34 @536 has 123 MA's), (47, 722),

Gene: Lorenzo_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Lorenzo_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Lunsford_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Lunsford_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Mabel_4 Start: 2458, Stop: 2664, Start Num: 35
Candidate Starts for Mabel_4:
(28, 2368), (31, 2401), (Start: 35 @2458 has 1 MA's), (50, 2659),

Gene: Maxo_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Maxo_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Mayonnaise_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Mayonnaise_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Mazhar510_1 Start: 539, Stop: 766, Start Num: 34
Candidate Starts for Mazhar510_1:
(Start: 34 @539 has 123 MA's), (47, 725),

Gene: Medusa_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Medusa_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Melvin_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Melvin_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Mendokysei_63 Start: 42026, Stop: 42310, Start Num: 32
Candidate Starts for Mendokysei_63:
(1, 41501), (2, 41540), (3, 41567), (8, 41678), (16, 41906), (Start: 32 @42026 has 1 MA's), (40, 42134),
(42, 42173),

Gene: Millski_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Millski_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Miramae_1 Start: 535, Stop: 762, Start Num: 34
Candidate Starts for Miramae_1:
(13, 355), (Start: 34 @535 has 123 MA's), (47, 721),

Gene: Morpher26_1 Start: 542, Stop: 769, Start Num: 34
Candidate Starts for Morpher26_1:
(Start: 34 @542 has 123 MA's), (39, 608), (47, 728),

Gene: Morrow_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Morrow_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: MortyNRick_97 Start: 53600, Stop: 53893, Start Num: 10
Candidate Starts for MortyNRick_97:
(5, 53429), (Start: 10 @53600 has 6 MA's),

Gene: Mundrea_1 Start: 539, Stop: 766, Start Num: 34
Candidate Starts for Mundrea_1:
(14, 359), (Start: 34 @539 has 123 MA's), (47, 725),

Gene: Nairb_57 Start: 40896, Stop: 41195, Start Num: 11
Candidate Starts for Nairb_57:
(7, 40761), (9, 40821), (Start: 11 @40896 has 6 MA's), (40, 41019),

Gene: Nebs_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Nebs_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Nemo27_1 Start: 537, Stop: 764, Start Num: 34
Candidate Starts for Nemo27_1:
(Start: 34 @537 has 123 MA's), (47, 723),

Gene: Nette_66 Start: 41850, Stop: 42134, Start Num: 12
Candidate Starts for Nette_66:
(4, 41607), (12, 41850), (42, 41997),

Gene: Noelle_1 Start: 526, Stop: 753, Start Num: 34
Candidate Starts for Noelle_1:
(13, 346), (Start: 34 @526 has 123 MA's), (47, 712),

Gene: NorthStar_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for NorthStar_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: NotAPhaseMom_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for NotAPhaseMom_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Nyxis_1 Start: 539, Stop: 766, Start Num: 34
Candidate Starts for Nyxis_1:
(Start: 34 @539 has 123 MA's), (47, 725),

Gene: OKaNui_1 Start: 537, Stop: 764, Start Num: 34
Candidate Starts for OKaNui_1:
(Start: 34 @537 has 123 MA's), (47, 723),

Gene: Obama12_1 Start: 537, Stop: 764, Start Num: 34
Candidate Starts for Obama12_1:
(13, 357), (26, 462), (Start: 34 @537 has 123 MA's), (47, 723),

Gene: Ohfah_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Ohfah_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Palestino_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Palestino_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Perplexer_1 Start: 542, Stop: 769, Start Num: 34
Candidate Starts for Perplexer_1:
(Start: 34 @542 has 123 MA's), (39, 608), (47, 728),

Gene: PeterPeter_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for PeterPeter_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: PetiteSangsue_1 Start: 542, Stop: 769, Start Num: 34
Candidate Starts for PetiteSangsue_1:
(Start: 34 @542 has 123 MA's), (39, 608), (47, 728),

Gene: Phacado_1 Start: 537, Stop: 764, Start Num: 34
Candidate Starts for Phacado_1:
(Start: 34 @537 has 123 MA's), (47, 723),

Gene: Phighter1804_1 Start: 536, Stop: 763, Start Num: 34
Candidate Starts for Phighter1804_1:
(13, 356), (Start: 34 @536 has 123 MA's), (47, 722),

Gene: Phontbonne_1 Start: 536, Stop: 763, Start Num: 34
Candidate Starts for Phontbonne_1:
(Start: 34 @536 has 123 MA's), (47, 722),

Gene: Pipcraft_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Pipcraft_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Polymorphads_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Polymorphads_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Pumbaa_1 Start: 536, Stop: 763, Start Num: 34

Candidate Starts for Pumbaa_1:
(13, 356), (Start: 34 @536 has 123 MA's), (47, 722),

Gene: Relief_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Relief_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Romney_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Romney_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: RonRayGun_59 Start: 41099, Stop: 41398, Start Num: 11
Candidate Starts for RonRayGun_59:
(Start: 11 @41099 has 6 MA's), (40, 41222),

Gene: Roosevelt_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Roosevelt_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Ruin_1 Start: 537, Stop: 764, Start Num: 34
Candidate Starts for Ruin_1:
(Start: 34 @537 has 123 MA's), (47, 723),

Gene: Sabertooth_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Sabertooth_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Sandaddy_1 Start: 722, Stop: 895, Start Num: 37
Candidate Starts for Sandaddy_1:
(17, 536), (19, 572), (21, 581), (28, 599), (31, 632), (Start: 37 @722 has 1 MA's), (45, 812), (47, 848),

Gene: Scamp_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Scamp_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: SenorClean_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for SenorClean_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: SheldonCooper_1 Start: 536, Stop: 763, Start Num: 34
Candidate Starts for SheldonCooper_1:
(26, 461), (Start: 34 @536 has 123 MA's), (47, 722),

Gene: Shygu2_1 Start: 542, Stop: 769, Start Num: 34
Candidate Starts for Shygu2_1:
(Start: 34 @542 has 123 MA's), (47, 728),

Gene: Skipitt_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Skipitt_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: SoYo_1 Start: 592, Stop: 819, Start Num: 34
Candidate Starts for SoYo_1:

(25, 517), (29, 526), (Start: 34 @592 has 123 MA's),

Gene: Sparxx_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Sparxx_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Spino_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Spino_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Stasia_1 Start: 544, Stop: 771, Start Num: 34
Candidate Starts for Stasia_1:
(Start: 34 @544 has 123 MA's), (47, 730),

Gene: SteMason_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for SteMason_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Sultana_1 Start: 539, Stop: 766, Start Num: 34
Candidate Starts for Sultana_1:
(Start: 34 @539 has 123 MA's), (47, 725),

Gene: SunkenRoot_4 Start: 1022, Stop: 1267, Start Num: 34
Candidate Starts for SunkenRoot_4:
(15, 854), (24, 947), (27, 953), (Start: 34 @1022 has 123 MA's), (39, 1097), (41, 1130),

Gene: Taquarus_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Taquarus_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Thanksgivukkah_1 Start: 539, Stop: 766, Start Num: 34
Candidate Starts for Thanksgivukkah_1:
(Start: 34 @539 has 123 MA's), (47, 725),

Gene: TinaFeyge_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for TinaFeyge_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: TroyPia_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for TroyPia_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: TygerBlood_1 Start: 540, Stop: 767, Start Num: 34
Candidate Starts for TygerBlood_1:
(Start: 34 @540 has 123 MA's), (47, 726),

Gene: UNTPL_74 Start: 50402, Stop: 50737, Start Num: 20
Candidate Starts for UNTPL_74:
(Start: 20 @50402 has 1 MA's), (23, 50423), (30, 50435), (38, 50576), (46, 50696), (48, 50732),

Gene: Wander_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Wander_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Whitty_58 Start: 40896, Stop: 41195, Start Num: 11
Candidate Starts for Whitty_58:
(Start: 11 @40896 has 6 MA's), (40, 41019),

Gene: Wilbur_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for Wilbur_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: Wile_1 Start: 543, Stop: 770, Start Num: 34
Candidate Starts for Wile_1:
(Start: 34 @543 has 123 MA's), (39, 609), (47, 729),

Gene: Wizard007_1 Start: 540, Stop: 767, Start Num: 34
Candidate Starts for Wizard007_1:
(Start: 34 @540 has 123 MA's), (47, 726),

Gene: Xena_1 Start: 542, Stop: 769, Start Num: 34
Candidate Starts for Xena_1:
(Start: 34 @542 has 123 MA's), (39, 608), (47, 728),

Gene: YoSam321_1 Start: 538, Stop: 765, Start Num: 34
Candidate Starts for YoSam321_1:
(Start: 34 @538 has 123 MA's), (47, 724),

Gene: ZenTime222_65 Start: 41847, Stop: 42146, Start Num: 11
Candidate Starts for ZenTime222_65:
(Start: 11 @41847 has 6 MA's), (40, 41970),