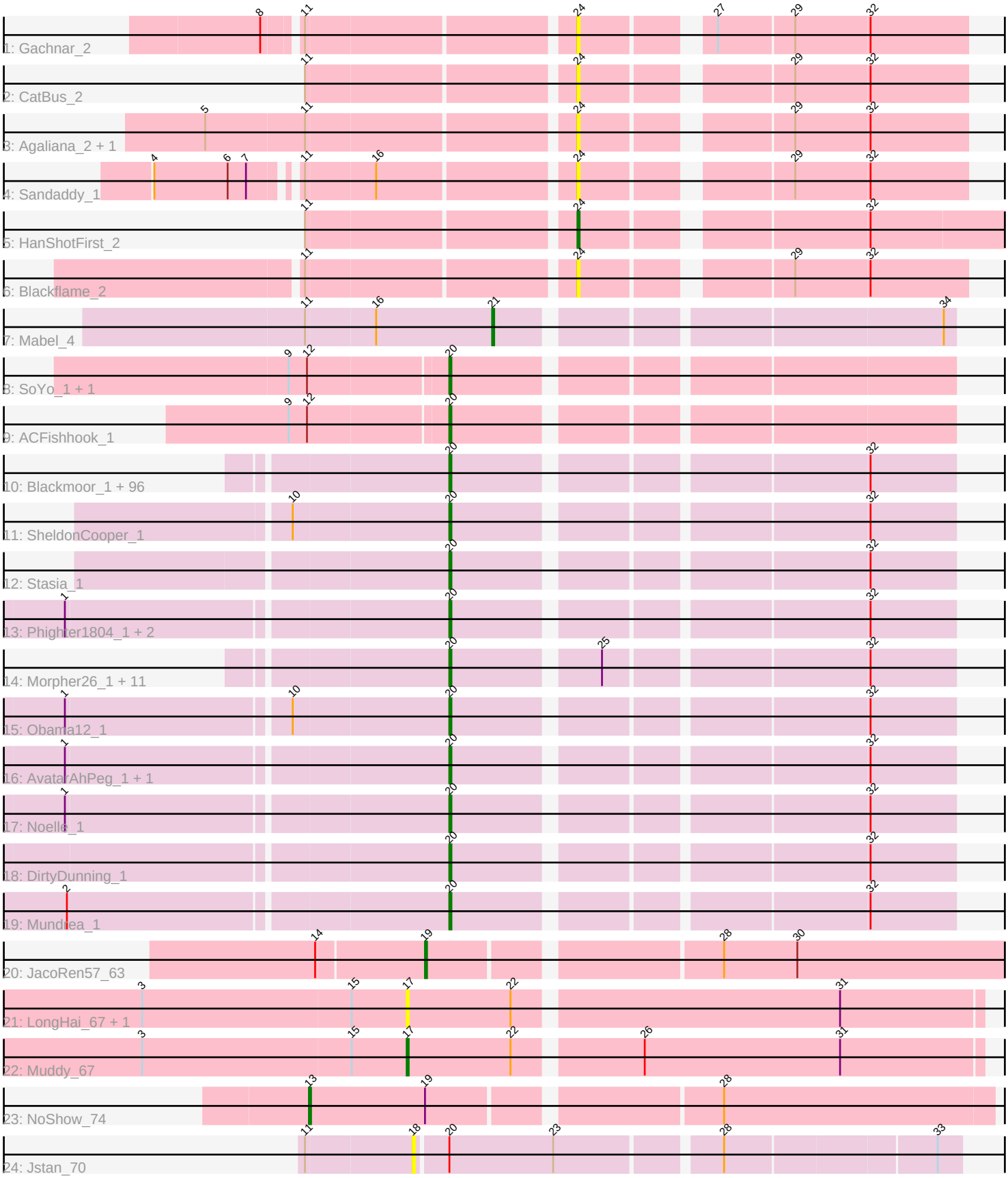
Pham 304795


1: Gachnar_2
2: CatBus_2
3: Agaliana_2 + 1
4: Sandaddy_1
5: HanShotFirst_2
6: Blackflame_2
7: Mabel_4
8: SoYo_1 + 1
9: ACFishhook_1
10: Blackmoor_1 + 96
11: SheldonCooper_1
12: Stasia_1
13: Phighter1804_1 + 2
14: Morpher26_1 + 11
15: Obama12_1
16: AvatarAhPeg_1 + 1
17: Noelle_1
18: DirtyDunning_1
19: Mundrea_1
20: JacoRen57_63
21: LongHai_67 + 1
22: Muddy_67
23: NoShow_74
24: Jstan_70

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 304795 Report

This analysis was run 06/08/26 on database version 649.

Pham number 304795 has 137 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, 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, 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, Sabertooth_1, Taquarus_1, Millski_1, Citius_1, Jaykayelowell_1, Clarenza_1, JetBlade_1, CentreCat_1, Lemur_1, Cintron_1, Ruin_1, Romney_1, Sparxx_1, Eapen_1, Nebs_1, NotAPhaseMom_1, Arturo_86, Iceman_1, Florean_1, Kyee_1, Maxo_1, Connomayer_1, Kratark_1, Koan_1, Nyxis_1, Skipitt_1, Bartimeaus_1, Relief_1, Eris_1, Alberto7_1, Chaph_1, JoongJeon_1, Flux_1, Spino_1, TygerBlood_1, Roosevelt_1, Eros_1, Funston_1, Gadost_1, Albee_1, Eurydice_1, Thanksgivukkah_1, Bombshell_1, NorthStar_1, TinaFeyge_1, LittleB_1, Scamp_1, BellusTerra_1, Morrow_1, Baby16_1, Mazhar510_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 : Morpher26_1, Xena_1, Badger_1, Datway_1, PetiteSangsue_1, Cici_1, Wile_1, Katalie136_1, Achebe_1, Perplexer_1, AbbysRanger_1, Bumblebee11_1
- Track 15 : Obama12_1
- Track 16 : AvatarAhPeg_1, Miramae_1
- Track 17 : Noelle_1
- Track 18 : DirtyDunning_1
- Track 19 : Mundrea_1
- Track 20 : JacoRen57_63
- Track 21 : LongHai_67, Salvus_67

• Track 22 : Muddy_67
• Track 23 : NoShow_74
• Track 24 : Jstan_70

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

The start number called the most often in the published annotations is 20, it was called in 122 of the 127 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, Florean_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, Kampy_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, SenorClean_1, SheldonCooper_1, Shygu2_1, Skipitt_1, SoYo_1, Sparxx_1, Spino_1, Stasia_1, Sultana_1, 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, Blackflame_2, CatBus_2, ChristmasHams_2, Gachnar_2, HanShotFirst_2, JacoRen57_63, LongHai_67, Mabel_4, Muddy_67, NoShow_74, Salvus_67, Sandaddy_1,

Summary by start number:

Start 13:
• Found in 1 of 137 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 127
• Called 100.0% of time when present
• Phage (with cluster) where this start called: NoShow_74 (AB),

Start 17:
• Found in 3 of 137 (2.2%) of genes in pham
• Manual Annotations of this start: 1 of 127

• Called 100.0% of time when present
• Phage (with cluster) where this start called: LongHai_67 (AB), Muddy_67 (AB), Salvus_67 (AB),

Start 18:
• Found in 1 of 137 (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 19:
• Found in 2 of 137 (1.5%) of genes in pham
• Manual Annotations of this start: 1 of 127
• Called 50.0% of time when present
• Phage (with cluster) where this start called: JacoRen57_63 (AB),

Start 20:
• Found in 124 of 137 (90.5%) of genes in pham
• Manual Annotations of this start: 122 of 127
• 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), Florean_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), Kampy_1 (A4), Katalie136_1 (A4), Kingmustik0402_1 (A4), Koan_1 (A4), Koreni_1 (A4), Kratark_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), Sultana_1 (A4), 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 21:
• Found in 1 of 137 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 127
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Mabel_4 (A11),

Start 24:
• Found in 7 of 137 (5.1%) of genes in pham
• Manual Annotations of this start: 1 of 127
• 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 6 clusters represented in this pham: AB, A11, A1, A3, A4, AZ1,

Info for manual annotations of cluster A1:
•Start number 24 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster A11:
•Start number 21 was manually annotated 1 time for cluster A11.

Info for manual annotations of cluster A3:
•Start number 20 was manually annotated 2 times for cluster A3.

Info for manual annotations of cluster A4:
•Start number 20 was manually annotated 120 times for cluster A4.

Info for manual annotations of cluster AB:
•Start number 13 was manually annotated 1 time for cluster AB.
•Start number 17 was manually annotated 1 time for cluster AB.
•Start number 19 was manually annotated 1 time for cluster AB.

Gene Information:

Gene: ACFishhook_1 Start: 596, Stop: 823, Start Num: 20
Candidate Starts for ACFishhook_1:
(9, 521), (12, 530), (Start: 20 @596 has 122 MA's),

Gene: AbbysRanger_1 Start: 542, Stop: 769, Start Num: 20
Candidate Starts for AbbysRanger_1:
(Start: 20 @542 has 122 MA's), (25, 608), (32, 728),

Gene: Abdiel_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Abdiel_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Achebe_1 Start: 542, Stop: 769, Start Num: 20
Candidate Starts for Achebe_1:
(Start: 20 @542 has 122 MA's), (25, 608), (32, 728),

Gene: Agaliana_2 Start: 958, Stop: 1131, Start Num: 24
Candidate Starts for Agaliana_2:

(5, 787), (11, 835), (Start: 24 @958 has 1 MA's), (29, 1048), (32, 1084),

Gene: Albee_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Albee_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Alberto7_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Alberto7_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Annyong_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Annyong_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Arturo_86 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Arturo_86:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: AvatarAhPeg_1 Start: 535, Stop: 762, Start Num: 20
Candidate Starts for AvatarAhPeg_1:
(1, 355), (Start: 20 @535 has 122 MA's), (32, 721),

Gene: Avle17_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Avle17_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Baby16_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Baby16_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Badger_1 Start: 543, Stop: 770, Start Num: 20
Candidate Starts for Badger_1:
(Start: 20 @543 has 122 MA's), (25, 609), (32, 729),

Gene: Bartimeaus_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Bartimeaus_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: BellusTerra_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for BellusTerra_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Blackflame_2 Start: 840, Stop: 1013, Start Num: 24
Candidate Starts for Blackflame_2:
(11, 717), (Start: 24 @840 has 1 MA's), (29, 930), (32, 966),

Gene: Blackmoor_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Blackmoor_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Bombshell_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Bombshell_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Broseidon_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Broseidon_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Bruiser_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Bruiser_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: BubbleTrouble_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for BubbleTrouble_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Bumblebee11_1 Start: 542, Stop: 769, Start Num: 20
Candidate Starts for Bumblebee11_1:
(Start: 20 @542 has 122 MA's), (25, 608), (32, 728),

Gene: Camperdownii_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Camperdownii_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: CatBus_2 Start: 873, Stop: 1046, Start Num: 24
Candidate Starts for CatBus_2:
(11, 750), (Start: 24 @873 has 1 MA's), (29, 963), (32, 999),

Gene: CentreCat_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for CentreCat_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Chaph_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Chaph_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: ChristmasHams_2 Start: 958, Stop: 1131, Start Num: 24
Candidate Starts for ChristmasHams_2:
(5, 787), (11, 835), (Start: 24 @958 has 1 MA's), (29, 1048), (32, 1084),

Gene: Cici_1 Start: 542, Stop: 769, Start Num: 20
Candidate Starts for Cici_1:
(Start: 20 @542 has 122 MA's), (25, 608), (32, 728),

Gene: Cintron_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Cintron_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Citius_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Citius_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Clarenza_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Clarenza_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Cocoaberry_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Cocoaberry_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Connomayer_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Connomayer_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Croquant_2 Start: 592, Stop: 819, Start Num: 20
Candidate Starts for Croquant_2:
(9, 517), (12, 526), (Start: 20 @592 has 122 MA's),

Gene: Datway_1 Start: 542, Stop: 769, Start Num: 20
Candidate Starts for Datway_1:
(Start: 20 @542 has 122 MA's), (25, 608), (32, 728),

Gene: Deano_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Deano_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Dhanush_1 Start: 537, Stop: 764, Start Num: 20
Candidate Starts for Dhanush_1:
(Start: 20 @537 has 122 MA's), (32, 723),

Gene: DirtyDunning_1 Start: 536, Stop: 763, Start Num: 20
Candidate Starts for DirtyDunning_1:
(Start: 20 @536 has 122 MA's), (32, 722),

Gene: Druantia_1 Start: 539, Stop: 766, Start Num: 20
Candidate Starts for Druantia_1:
(Start: 20 @539 has 122 MA's), (32, 725),

Gene: Eapen_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Eapen_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Eris_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Eris_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Eros_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Eros_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Eurydice_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Eurydice_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Florean_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Florean_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Flux_1 Start: 538, Stop: 765, Start Num: 20

Candidate Starts for Flux_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Funston_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Funston_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Gachnar_2 Start: 892, Stop: 1065, Start Num: 24
Candidate Starts for Gachnar_2:
(8, 754), (11, 769), (Start: 24 @892 has 1 MA's), (27, 946), (29, 982), (32, 1018),

Gene: Gadost_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Gadost_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: HanShotFirst_2 Start: 873, Stop: 1067, Start Num: 24
Candidate Starts for HanShotFirst_2:
(11, 750), (Start: 24 @873 has 1 MA's), (32, 999),

Gene: Happiness_1 Start: 537, Stop: 764, Start Num: 20
Candidate Starts for Happiness_1:
(Start: 20 @537 has 122 MA's), (32, 723),

Gene: Holli_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Holli_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Houdini22_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Houdini22_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Huxley_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Huxley_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: ICleared_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for ICleared_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Iceman_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Iceman_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Iracema64_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Iracema64_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: JacoRen57_63 Start: 47251, Stop: 47520, Start Num: 19
Candidate Starts for JacoRen57_63:
(14, 47200), (Start: 19 @47251 has 1 MA's), (28, 47383), (30, 47419),

Gene: Jaykayelowell_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Jaykayelowell_1:

(Start: 20 @538 has 122 MA's), (32, 724),

Gene: JetBlade_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for JetBlade_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: JoongJeon_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for JoongJeon_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Jstan_70 Start: 43158, Stop: 43409, Start Num: 18
Candidate Starts for Jstan_70:
(11, 43107), (18, 43158), (Start: 20 @43173 has 122 MA's), (23, 43224), (28, 43299), (33, 43398),

Gene: KFPoly_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for KFPoly_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Kampy_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Kampy_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Katalie136_1 Start: 542, Stop: 769, Start Num: 20
Candidate Starts for Katalie136_1:
(Start: 20 @542 has 122 MA's), (25, 608), (32, 728),

Gene: Kingmustik0402_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Kingmustik0402_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Koan_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Koan_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Koreni_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Koreni_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Kratark_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Kratark_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Kremtemulon_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Kremtemulon_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Kyee_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Kyee_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Lemur_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Lemur_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: LittleB_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for LittleB_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: LittleGuy_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for LittleGuy_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: LochMonster_1 Start: 536, Stop: 763, Start Num: 20
Candidate Starts for LochMonster_1:
(1, 356), (Start: 20 @536 has 122 MA's), (32, 722),

Gene: LongHai_67 Start: 46426, Stop: 46698, Start Num: 17
Candidate Starts for LongHai_67:
(3, 46297), (15, 46399), (Start: 17 @46426 has 1 MA's), (22, 46477), (31, 46630),

Gene: Lorenzo_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Lorenzo_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Lunsford_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Lunsford_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Mabel_4 Start: 2458, Stop: 2664, Start Num: 21
Candidate Starts for Mabel_4:
(11, 2368), (16, 2401), (Start: 21 @2458 has 1 MA's), (34, 2659),

Gene: Maxo_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Maxo_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Mayonnaise_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Mayonnaise_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Mazhar510_1 Start: 539, Stop: 766, Start Num: 20
Candidate Starts for Mazhar510_1:
(Start: 20 @539 has 122 MA's), (32, 725),

Gene: Medusa_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Medusa_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Melvin_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Melvin_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Millski_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Millski_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Miramae_1 Start: 535, Stop: 762, Start Num: 20
Candidate Starts for Miramae_1:
(1, 355), (Start: 20 @535 has 122 MA's), (32, 721),

Gene: Morpher26_1 Start: 542, Stop: 769, Start Num: 20
Candidate Starts for Morpher26_1:
(Start: 20 @542 has 122 MA's), (25, 608), (32, 728),

Gene: Morrow_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Morrow_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Muddy_67 Start: 46594, Stop: 46866, Start Num: 17
Candidate Starts for Muddy_67:
(3, 46465), (15, 46567), (Start: 17 @46594 has 1 MA's), (22, 46645), (26, 46702), (31, 46798),

Gene: Mundrea_1 Start: 539, Stop: 766, Start Num: 20
Candidate Starts for Mundrea_1:
(2, 359), (Start: 20 @539 has 122 MA's), (32, 725),

Gene: Nebs_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Nebs_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Nemo27_1 Start: 537, Stop: 764, Start Num: 20
Candidate Starts for Nemo27_1:
(Start: 20 @537 has 122 MA's), (32, 723),

Gene: NoShow_74 Start: 49650, Stop: 49970, Start Num: 13
Candidate Starts for NoShow_74:
(Start: 13 @49650 has 1 MA's), (Start: 19 @49707 has 1 MA's), (28, 49839),

Gene: Noelle_1 Start: 526, Stop: 753, Start Num: 20
Candidate Starts for Noelle_1:
(1, 346), (Start: 20 @526 has 122 MA's), (32, 712),

Gene: NorthStar_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for NorthStar_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: NotAPhaseMom_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for NotAPhaseMom_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Nyxis_1 Start: 539, Stop: 766, Start Num: 20
Candidate Starts for Nyxis_1:
(Start: 20 @539 has 122 MA's), (32, 725),

Gene: OKaNui_1 Start: 537, Stop: 764, Start Num: 20
Candidate Starts for OKaNui_1:
(Start: 20 @537 has 122 MA's), (32, 723),

Gene: Obama12_1 Start: 537, Stop: 764, Start Num: 20

Candidate Starts for Obama12_1:
(1, 357), (10, 462), (Start: 20 @537 has 122 MA's), (32, 723),

Gene: Ohfah_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Ohfah_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Palestino_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Palestino_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Perplexer_1 Start: 542, Stop: 769, Start Num: 20
Candidate Starts for Perplexer_1:
(Start: 20 @542 has 122 MA's), (25, 608), (32, 728),

Gene: PeterPeter_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for PeterPeter_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: PetiteSangsue_1 Start: 542, Stop: 769, Start Num: 20
Candidate Starts for PetiteSangsue_1:
(Start: 20 @542 has 122 MA's), (25, 608), (32, 728),

Gene: Phacado_1 Start: 537, Stop: 764, Start Num: 20
Candidate Starts for Phacado_1:
(Start: 20 @537 has 122 MA's), (32, 723),

Gene: Phighter1804_1 Start: 536, Stop: 763, Start Num: 20
Candidate Starts for Phighter1804_1:
(1, 356), (Start: 20 @536 has 122 MA's), (32, 722),

Gene: Phontbonne_1 Start: 536, Stop: 763, Start Num: 20
Candidate Starts for Phontbonne_1:
(Start: 20 @536 has 122 MA's), (32, 722),

Gene: Pipcraft_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Pipcraft_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Polymorphads_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Polymorphads_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Pumbaa_1 Start: 536, Stop: 763, Start Num: 20
Candidate Starts for Pumbaa_1:
(1, 356), (Start: 20 @536 has 122 MA's), (32, 722),

Gene: Relief_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Relief_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Romney_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Romney_1:

(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Roosevelt_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Roosevelt_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Ruin_1 Start: 537, Stop: 764, Start Num: 20
Candidate Starts for Ruin_1:
(Start: 20 @537 has 122 MA's), (32, 723),

Gene: Sabertooth_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Sabertooth_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Salvus_67 Start: 46426, Stop: 46698, Start Num: 17
Candidate Starts for Salvus_67:
(3, 46297), (15, 46399), (Start: 17 @46426 has 1 MA's), (22, 46477), (31, 46630),

Gene: Sandaddy_1 Start: 722, Stop: 895, Start Num: 24
Candidate Starts for Sandaddy_1:
(4, 536), (6, 572), (7, 581), (11, 599), (16, 632), (Start: 24 @722 has 1 MA's), (29, 812), (32, 848),

Gene: Scamp_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Scamp_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: SenorClean_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for SenorClean_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: SheldonCooper_1 Start: 536, Stop: 763, Start Num: 20
Candidate Starts for SheldonCooper_1:
(10, 461), (Start: 20 @536 has 122 MA's), (32, 722),

Gene: Shygu2_1 Start: 542, Stop: 769, Start Num: 20
Candidate Starts for Shygu2_1:
(Start: 20 @542 has 122 MA's), (32, 728),

Gene: Skipitt_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Skipitt_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: SoYo_1 Start: 592, Stop: 819, Start Num: 20
Candidate Starts for SoYo_1:
(9, 517), (12, 526), (Start: 20 @592 has 122 MA's),

Gene: Sparxx_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Sparxx_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Spino_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Spino_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Stasia_1 Start: 544, Stop: 771, Start Num: 20
Candidate Starts for Stasia_1:
(Start: 20 @544 has 122 MA's), (32, 730),

Gene: Sultana_1 Start: 539, Stop: 766, Start Num: 20
Candidate Starts for Sultana_1:
(Start: 20 @539 has 122 MA's), (32, 725),

Gene: Taquarus_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Taquarus_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Thanksgivukkah_1 Start: 539, Stop: 766, Start Num: 20
Candidate Starts for Thanksgivukkah_1:
(Start: 20 @539 has 122 MA's), (32, 725),

Gene: TinaFeyge_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for TinaFeyge_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: TroyPia_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for TroyPia_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: TygerBlood_1 Start: 540, Stop: 767, Start Num: 20
Candidate Starts for TygerBlood_1:
(Start: 20 @540 has 122 MA's), (32, 726),

Gene: Wander_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Wander_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Wilbur_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for Wilbur_1:
(Start: 20 @538 has 122 MA's), (32, 724),

Gene: Wile_1 Start: 543, Stop: 770, Start Num: 20
Candidate Starts for Wile_1:
(Start: 20 @543 has 122 MA's), (25, 609), (32, 729),

Gene: Wizard007_1 Start: 540, Stop: 767, Start Num: 20
Candidate Starts for Wizard007_1:
(Start: 20 @540 has 122 MA's), (32, 726),

Gene: Xena_1 Start: 542, Stop: 769, Start Num: 20
Candidate Starts for Xena_1:
(Start: 20 @542 has 122 MA's), (25, 608), (32, 728),

Gene: YoSam321_1 Start: 538, Stop: 765, Start Num: 20
Candidate Starts for YoSam321_1:
(Start: 20 @538 has 122 MA's), (32, 724),