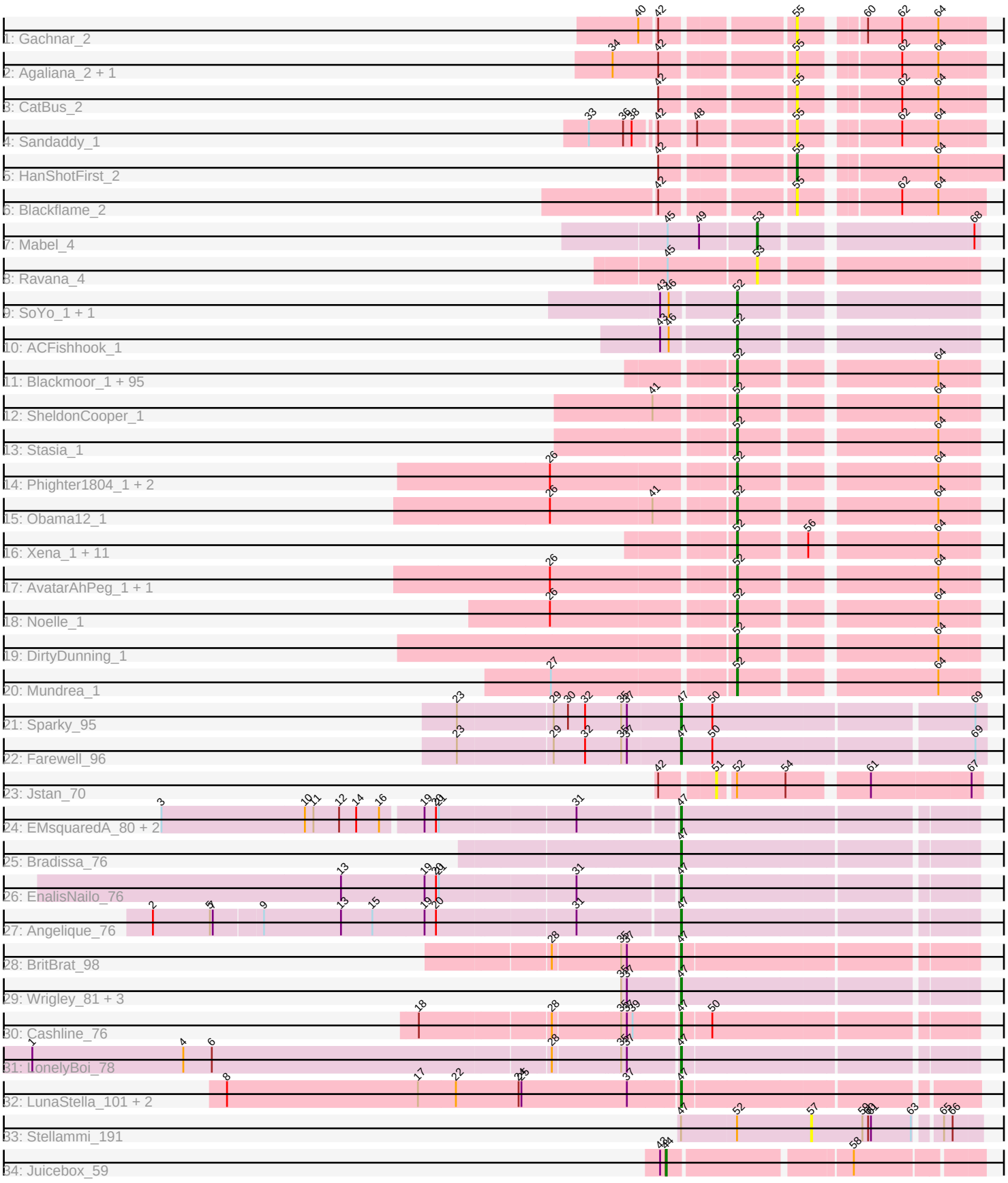
Pham 294490


1: Gachnar_2
2: Agaliana_2 + 1
3: CatBus_2
4: Sandaddy_1
5: HanShotFirst_2
6: Blackflame_2
7: Mabel_4
8: Ravana_4
9: SoYo_1 + 1
10: ACFishhook_1
11: Blackmoor_1 + 95
12: SheldonCooper_1
13: Stasia_1
14: Phighter1804_1 + 2
15: Obama12_1
16: Xena_1 + 11
17: AvatarAhPeg_1 + 1
18: Noelle_1
19: DirtyDunning_1
20: Mundrea_1
21: Sparky_95
22: Farewell_96
23: Jstan_70
24: EMsquaredA_80 + 2
25: Bradissa_76
26: EnalisNailo_76
27: Angelique_76
28: BritBrat_98
29: Wrigley_81 + 3
30: Cashline_76
31: LonelyBoi_78
32: LunaStella_101 + 2
33: Stellammi_191
34: Juicebox_59

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 294490 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294490 has 152 members, 10 are drafts.

Phages represented in each track:
- Track 1 : Gachnar_2
- Track 2 : Agaliana_2, ChristmasHams_2
- Track 3 : CatBus_2
- Track 4 : Sandaddy_1
- Track 5 : HanShotFirst_2
- Track 6 : Blackflame_2
- Track 7 : Mabel_4
- Track 8 : Ravana_4
- Track 9 : SoYo_1, Croquant_2
- Track 10 : ACFishhook_1
- Track 11 : Blackmoor_1, SenorClean_1, LittleGuy_1, Kremtemulon_1, Druantia_1, ICleared_1, Avle17_1, Mayonnaise_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, 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, Kratark_1, Koan_1, Ruin_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, TinaFeyge_1, Eros_1, Gadost_1, Albee_1, Eurydice_1, Thanksgivukkah_1, Bombshell_1, NorthStar_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 12 : SheldonCooper_1
- Track 13 : Stasia_1
- Track 14 : Phighter1804_1, Pumbaa_1, LochMonster_1
- Track 15 : Obama12_1
- Track 16 : 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 17 : AvatarAhPeg_1, Miramae_1
- Track 18 : Noelle_1
- Track 19 : DirtyDunning_1
- Track 20 : Mundrea_1
- Track 21 : Sparky_95
- Track 22 : Farewell_96

• Track 23 : Jstan_70
• Track 24 : EMsquaredA_80, Floral_80, Pollux_82
• Track 25 : Bradissa_76
• Track 26 : EnalisNailo_76
• Track 27 : Angelique_76
• Track 28 : BritBrat_98
• Track 29 : Wrigley_81, Posh_79, Pytheas_83, Jablanski_82
• Track 30 : Cashline_76
• Track 31 : LonelyBoi_78
• Track 32 : LunaStella_101, TChen_101, Renaud18_112
• Track 33 : Stellammi_191
• Track 34 : Juicebox_59

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

The start number called the most often in the published annotations is 52, it was called in 121 of the 142 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, 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, Stellammi_191,

Genes that do not have the "Most Annotated" start:
• Agaliana_2, Angelique_76, Blackflame_2, Bradissa_76, BritBrat_98, Cashline_76, CatBus_2, ChristmasHams_2, EMsquaredA_80, EnalisNailo_76, Farewell_96, Floral_80, Gachnar_2, HanShotFirst_2, Jablanski_82, Juicebox_59, LonelyBoi_78, LunaStella_101, Mabel_4, Pollux_82, Posh_79, Pytheas_83, Ravana_4, Renaud18_112, Sandaddy_1, Sparky_95, TChen_101, Wrigley_81,

Summary by start number:

Start 44:
• Found in 1 of 152 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 142
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Juicebox_59 (singleton),

Start 47:
• Found in 19 of 152 (12.5%) of genes in pham
• Manual Annotations of this start: 18 of 142
• Called 94.7% of time when present
• Phage (with cluster) where this start called: Angelique_76 (CY1), Bradissa_76 (CY1), BritBrat_98 (CY2), Cashline_76 (CY6), EMsquaredA_80 (CY1), EnalisNailo_76 (CY1), Farewell_96 (AF), Floral_80 (CY1), Jablanski_82 (CY3), LonelyBoi_78 (CY7), LunaStella_101 (F4), Pollux_82 (CY1), Posh_79 (CY4), Pytheas_83 (CY3), Renaud18_112 (F4), Sparky_95 (AF), TChen_101 (F4), Wrigley_81 (CY4),

Start 51:
• Found in 1 of 152 (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 52:
• Found in 124 of 152 (81.6%) of genes in pham
• Manual Annotations of this start: 121 of 142
• Called 98.4% 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), 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 53:
• Found in 2 of 152 (1.3%) of genes in pham
• Manual Annotations of this start: 1 of 142
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Mabel_4 (A11), Ravana_4 (A15),

Start 55:
• Found in 7 of 152 (4.6%) of genes in pham
• Manual Annotations of this start: 1 of 142
• 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),

Start 57:
• Found in 1 of 152 (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: Stellammi_191 (UNK),

Summary by clusters:

There are 16 clusters represented in this pham: CY3, A15, CY1, A11, CY6, CY4, F4, AF, singleton, CY2, A1, A3, A4, AZ1, CY7, UNK,

Info for manual annotations of cluster A1:
•Start number 55 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster A11:
•Start number 53 was manually annotated 1 time for cluster A11.

Info for manual annotations of cluster A3:
•Start number 52 was manually annotated 2 times for cluster A3.

Info for manual annotations of cluster A4:
•Start number 52 was manually annotated 119 times for cluster A4.

Info for manual annotations of cluster AF:
•Start number 47 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster CY1:
•Start number 47 was manually annotated 6 times for cluster CY1.

Info for manual annotations of cluster CY2:
•Start number 47 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CY3:
•Start number 47 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:
•Start number 47 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CY6:
•Start number 47 was manually annotated 1 time for cluster CY6.

Info for manual annotations of cluster CY7:
•Start number 47 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster F4:
•Start number 47 was manually annotated 3 times for cluster F4.

Gene Information:

Gene: ACFishhook_1 Start: 596, Stop: 823, Start Num: 52
Candidate Starts for ACFishhook_1:
(43, 521), (46, 530), (Start: 52 @596 has 121 MA's),

Gene: AbbysRanger_1 Start: 542, Stop: 769, Start Num: 52
Candidate Starts for AbbysRanger_1:
(Start: 52 @542 has 121 MA's), (56, 608), (64, 728),

Gene: Abdiel_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Abdiel_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Achebe_1 Start: 542, Stop: 769, Start Num: 52
Candidate Starts for Achebe_1:
(Start: 52 @542 has 121 MA's), (56, 608), (64, 728),

Gene: Agaliana_2 Start: 958, Stop: 1131, Start Num: 55
Candidate Starts for Agaliana_2:
(34, 787), (42, 835), (Start: 55 @958 has 1 MA's), (62, 1048), (64, 1084),

Gene: Albee_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Albee_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Alberto7_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Alberto7_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Angelique_76 Start: 50625, Stop: 50915, Start Num: 47
Candidate Starts for Angelique_76:
(2, 50097), (5, 50157), (7, 50160), (9, 50208), (13, 50289), (15, 50322), (19, 50376), (20, 50388), (31, 50526), (Start: 47 @50625 has 18 MA's),

Gene: Annyong_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Annyong_1:

(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Arturo_86 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Arturo_86:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: AvatarAhPeg_1 Start: 535, Stop: 762, Start Num: 52
Candidate Starts for AvatarAhPeg_1:
(26, 355), (Start: 52 @535 has 121 MA's), (64, 721),

Gene: Avle17_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Avle17_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Baby16_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Baby16_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Badger_1 Start: 543, Stop: 770, Start Num: 52
Candidate Starts for Badger_1:
(Start: 52 @543 has 121 MA's), (56, 609), (64, 729),

Gene: Bartimeaus_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Bartimeaus_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: BellusTerra_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for BellusTerra_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Blackflame_2 Start: 840, Stop: 1013, Start Num: 55
Candidate Starts for Blackflame_2:
(42, 717), (Start: 55 @840 has 1 MA's), (62, 930), (64, 966),

Gene: Blackmoor_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Blackmoor_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Bombshell_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Bombshell_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Bradissa_76 Start: 51528, Stop: 51818, Start Num: 47
Candidate Starts for Bradissa_76:
(Start: 47 @51528 has 18 MA's),

Gene: BritBrat_98 Start: 55168, Stop: 55455, Start Num: 47
Candidate Starts for BritBrat_98:
(28, 55045), (35, 55111), (37, 55117), (Start: 47 @55168 has 18 MA's),

Gene: Broseidon_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Broseidon_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Bruiser_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Bruiser_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: BubbleTrouble_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for BubbleTrouble_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Bumblebee11_1 Start: 542, Stop: 769, Start Num: 52
Candidate Starts for Bumblebee11_1:
(Start: 52 @542 has 121 MA's), (56, 608), (64, 728),

Gene: Camperdownii_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Camperdownii_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Cashline_76 Start: 52028, Stop: 52315, Start Num: 47
Candidate Starts for Cashline_76:
(18, 51776), (28, 51905), (35, 51971), (37, 51977), (39, 51983), (Start: 47 @52028 has 18 MA's), (50, 52058),

Gene: CatBus_2 Start: 873, Stop: 1046, Start Num: 55
Candidate Starts for CatBus_2:
(42, 750), (Start: 55 @873 has 1 MA's), (62, 963), (64, 999),

Gene: CentreCat_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for CentreCat_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Chaph_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Chaph_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: ChristmasHams_2 Start: 958, Stop: 1131, Start Num: 55
Candidate Starts for ChristmasHams_2:
(34, 787), (42, 835), (Start: 55 @958 has 1 MA's), (62, 1048), (64, 1084),

Gene: Cici_1 Start: 542, Stop: 769, Start Num: 52
Candidate Starts for Cici_1:
(Start: 52 @542 has 121 MA's), (56, 608), (64, 728),

Gene: Cintron_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Cintron_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Citius_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Citius_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Clarenza_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Clarenza_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Cocoaberry_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Cocoaberry_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Connomayer_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Connomayer_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Croquant_2 Start: 592, Stop: 819, Start Num: 52
Candidate Starts for Croquant_2:
(43, 517), (46, 526), (Start: 52 @592 has 121 MA's),

Gene: Datway_1 Start: 542, Stop: 769, Start Num: 52
Candidate Starts for Datway_1:
(Start: 52 @542 has 121 MA's), (56, 608), (64, 728),

Gene: Deano_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Deano_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Dhanush_1 Start: 537, Stop: 764, Start Num: 52
Candidate Starts for Dhanush_1:
(Start: 52 @537 has 121 MA's), (64, 723),

Gene: DirtyDunning_1 Start: 536, Stop: 763, Start Num: 52
Candidate Starts for DirtyDunning_1:
(Start: 52 @536 has 121 MA's), (64, 722),

Gene: Druantia_1 Start: 539, Stop: 766, Start Num: 52
Candidate Starts for Druantia_1:
(Start: 52 @539 has 121 MA's), (64, 725),

Gene: EMsquaredA_80 Start: 50168, Stop: 50458, Start Num: 47
Candidate Starts for EMsquaredA_80:
(3, 49655), (10, 49805), (11, 49814), (12, 49841), (14, 49859), (16, 49883), (19, 49922), (20, 49934), (21, 49937), (31, 50072), (Start: 47 @50168 has 18 MA's),

Gene: Eapen_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Eapen_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: EnalisNailo_76 Start: 50668, Stop: 50958, Start Num: 47
Candidate Starts for EnalisNailo_76:
(13, 50335), (19, 50422), (20, 50434), (21, 50437), (31, 50572), (Start: 47 @50668 has 18 MA's),

Gene: Eris_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Eris_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Eros_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Eros_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Eurydice_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Eurydice_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Farewell_96 Start: 61361, Stop: 61663, Start Num: 47
Candidate Starts for Farewell_96:
(23, 61136), (29, 61232), (32, 61265), (35, 61301), (37, 61307), (Start: 47 @61361 has 18 MA's), (50, 61394), (69, 61652),

Gene: Floral_80 Start: 52125, Stop: 52415, Start Num: 47
Candidate Starts for Floral_80:
(3, 51612), (10, 51762), (11, 51771), (12, 51798), (14, 51816), (16, 51840), (19, 51879), (20, 51891), (21, 51894), (31, 52029), (Start: 47 @52125 has 18 MA's),

Gene: Florean_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Florean_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Flux_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Flux_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Funston_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Funston_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Gachnar_2 Start: 892, Stop: 1065, Start Num: 55
Candidate Starts for Gachnar_2:
(40, 754), (42, 769), (Start: 55 @892 has 1 MA's), (60, 946), (62, 982), (64, 1018),

Gene: Gadost_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Gadost_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: HanShotFirst_2 Start: 873, Stop: 1067, Start Num: 55
Candidate Starts for HanShotFirst_2:
(42, 750), (Start: 55 @873 has 1 MA's), (64, 999),

Gene: Happiness_1 Start: 537, Stop: 764, Start Num: 52
Candidate Starts for Happiness_1:
(Start: 52 @537 has 121 MA's), (64, 723),

Gene: Holli_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Holli_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Houdini22_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Houdini22_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: ICleared_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for ICleared_1:

(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Iceman_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Iceman_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Iracema64_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Iracema64_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Jablanski_82 Start: 53171, Stop: 53461, Start Num: 47
Candidate Starts for Jablanski_82:
(35, 53114), (37, 53120), (Start: 47 @53171 has 18 MA's),

Gene: Jaykayelowell_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Jaykayelowell_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: JetBlade_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for JetBlade_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: JoongJeon_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for JoongJeon_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Jstan_70 Start: 43158, Stop: 43409, Start Num: 51
Candidate Starts for Jstan_70:
(42, 43107), (51, 43158), (Start: 52 @43173 has 121 MA's), (54, 43224), (61, 43299), (67, 43398),

Gene: Juicebox_59 Start: 41044, Stop: 41346, Start Num: 44
Candidate Starts for Juicebox_59:
(43, 41038), (Start: 44 @41044 has 1 MA's), (58, 41221),

Gene: KFPoly_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for KFPoly_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Kampy_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Kampy_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Katalie136_1 Start: 542, Stop: 769, Start Num: 52
Candidate Starts for Katalie136_1:
(Start: 52 @542 has 121 MA's), (56, 608), (64, 728),

Gene: Kingmustik0402_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Kingmustik0402_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Koan_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Koan_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Koreni_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Koreni_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Kratark_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Kratark_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Kremtemulon_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Kremtemulon_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Kyee_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Kyee_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Lemur_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Lemur_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: LittleB_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for LittleB_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: LittleGuy_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for LittleGuy_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: LochMonster_1 Start: 536, Stop: 763, Start Num: 52
Candidate Starts for LochMonster_1:
(26, 356), (Start: 52 @536 has 121 MA's), (64, 722),

Gene: LonelyBoi_78 Start: 53256, Stop: 53543, Start Num: 47
Candidate Starts for LonelyBoi_78:
(1, 52596), (4, 52755), (6, 52785), (28, 53133), (35, 53199), (37, 53205), (Start: 47 @53256 has 18 MA's),

Gene: Lorenzo_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Lorenzo_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: LunaStella_101 Start: 55262, Stop: 55549, Start Num: 47
Candidate Starts for LunaStella_101:
(8, 54791), (17, 54992), (22, 55031), (24, 55097), (25, 55100), (37, 55211), (Start: 47 @55262 has 18 MA's),

Gene: Lunsford_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Lunsford_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Mabel_4 Start: 2458, Stop: 2664, Start Num: 53
Candidate Starts for Mabel_4:

(45, 2368), (49, 2401), (Start: 53 @2458 has 1 MA's), (68, 2659),

Gene: Maxo_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Maxo_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Mayonnaise_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Mayonnaise_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Mazhar510_1 Start: 539, Stop: 766, Start Num: 52
Candidate Starts for Mazhar510_1:
(Start: 52 @539 has 121 MA's), (64, 725),

Gene: Medusa_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Medusa_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Melvin_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Melvin_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Millski_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Millski_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Miramae_1 Start: 535, Stop: 762, Start Num: 52
Candidate Starts for Miramae_1:
(26, 355), (Start: 52 @535 has 121 MA's), (64, 721),

Gene: Morpher26_1 Start: 542, Stop: 769, Start Num: 52
Candidate Starts for Morpher26_1:
(Start: 52 @542 has 121 MA's), (56, 608), (64, 728),

Gene: Morrow_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Morrow_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Mundrea_1 Start: 539, Stop: 766, Start Num: 52
Candidate Starts for Mundrea_1:
(27, 359), (Start: 52 @539 has 121 MA's), (64, 725),

Gene: Nebs_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Nebs_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Nemo27_1 Start: 537, Stop: 764, Start Num: 52
Candidate Starts for Nemo27_1:
(Start: 52 @537 has 121 MA's), (64, 723),

Gene: Noelle_1 Start: 526, Stop: 753, Start Num: 52
Candidate Starts for Noelle_1:
(26, 346), (Start: 52 @526 has 121 MA's), (64, 712),

Gene: NorthStar_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for NorthStar_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: NotAPhaseMom_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for NotAPhaseMom_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Nyxis_1 Start: 539, Stop: 766, Start Num: 52
Candidate Starts for Nyxis_1:
(Start: 52 @539 has 121 MA's), (64, 725),

Gene: OKaNui_1 Start: 537, Stop: 764, Start Num: 52
Candidate Starts for OKaNui_1:
(Start: 52 @537 has 121 MA's), (64, 723),

Gene: Obama12_1 Start: 537, Stop: 764, Start Num: 52
Candidate Starts for Obama12_1:
(26, 357), (41, 462), (Start: 52 @537 has 121 MA's), (64, 723),

Gene: Ohfah_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Ohfah_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Palestino_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Palestino_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Perplexer_1 Start: 542, Stop: 769, Start Num: 52
Candidate Starts for Perplexer_1:
(Start: 52 @542 has 121 MA's), (56, 608), (64, 728),

Gene: PeterPeter_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for PeterPeter_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: PetiteSangsue_1 Start: 542, Stop: 769, Start Num: 52
Candidate Starts for PetiteSangsue_1:
(Start: 52 @542 has 121 MA's), (56, 608), (64, 728),

Gene: Phacado_1 Start: 537, Stop: 764, Start Num: 52
Candidate Starts for Phacado_1:
(Start: 52 @537 has 121 MA's), (64, 723),

Gene: Phighter1804_1 Start: 536, Stop: 763, Start Num: 52
Candidate Starts for Phighter1804_1:
(26, 356), (Start: 52 @536 has 121 MA's), (64, 722),

Gene: Phontbonne_1 Start: 536, Stop: 763, Start Num: 52
Candidate Starts for Phontbonne_1:
(Start: 52 @536 has 121 MA's), (64, 722),

Gene: Pipcraft_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Pipcraft_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Pollux_82 Start: 52125, Stop: 52415, Start Num: 47
Candidate Starts for Pollux_82:
(3, 51612), (10, 51762), (11, 51771), (12, 51798), (14, 51816), (16, 51840), (19, 51879), (20, 51891), (21, 51894), (31, 52029), (Start: 47 @52125 has 18 MA's),

Gene: Polymorphads_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Polymorphads_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Posh_79 Start: 51944, Stop: 52234, Start Num: 47
Candidate Starts for Posh_79:
(35, 51887), (37, 51893), (Start: 47 @51944 has 18 MA's),

Gene: Pumbaa_1 Start: 536, Stop: 763, Start Num: 52
Candidate Starts for Pumbaa_1:
(26, 356), (Start: 52 @536 has 121 MA's), (64, 722),

Gene: Pytheas_83 Start: 53170, Stop: 53460, Start Num: 47
Candidate Starts for Pytheas_83:
(35, 53113), (37, 53119), (Start: 47 @53170 has 18 MA's),

Gene: Ravana_4 Start: 2368, Stop: 2574, Start Num: 53
Candidate Starts for Ravana_4:
(45, 2278), (Start: 53 @2368 has 1 MA's),

Gene: Relief_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Relief_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Renaud18_112 Start: 57550, Stop: 57837, Start Num: 47
Candidate Starts for Renaud18_112:
(8, 57079), (17, 57280), (22, 57319), (24, 57385), (25, 57388), (37, 57499), (Start: 47 @57550 has 18 MA's),

Gene: Romney_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Romney_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Roosevelt_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Roosevelt_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Ruin_1 Start: 537, Stop: 764, Start Num: 52
Candidate Starts for Ruin_1:
(Start: 52 @537 has 121 MA's), (64, 723),

Gene: Sabertooth_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Sabertooth_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Sandaddy_1 Start: 722, Stop: 895, Start Num: 55
Candidate Starts for Sandaddy_1:
(33, 536), (36, 572), (38, 581), (42, 599), (48, 632), (Start: 55 @722 has 1 MA's), (62, 812), (64, 848),

Gene: Scamp_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Scamp_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: SenorClean_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for SenorClean_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: SheldonCooper_1 Start: 536, Stop: 763, Start Num: 52
Candidate Starts for SheldonCooper_1:
(41, 461), (Start: 52 @536 has 121 MA's), (64, 722),

Gene: Shygu2_1 Start: 542, Stop: 769, Start Num: 52
Candidate Starts for Shygu2_1:
(Start: 52 @542 has 121 MA's), (64, 728),

Gene: Skipitt_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Skipitt_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: SoYo_1 Start: 592, Stop: 819, Start Num: 52
Candidate Starts for SoYo_1:
(43, 517), (46, 526), (Start: 52 @592 has 121 MA's),

Gene: Sparky_95 Start: 62955, Stop: 63257, Start Num: 47
Candidate Starts for Sparky_95:
(23, 62730), (29, 62826), (30, 62841), (32, 62859), (35, 62895), (37, 62901), (Start: 47 @62955 has 18 MA's), (50, 62988), (69, 63246),

Gene: Sparxx_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Sparxx_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Spino_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Spino_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Stasia_1 Start: 544, Stop: 771, Start Num: 52
Candidate Starts for Stasia_1:
(Start: 52 @544 has 121 MA's), (64, 730),

Gene: Stellammi_191 Start: 80430, Stop: 80594, Start Num: 57
Candidate Starts for Stellammi_191:
(Start: 47 @80295 has 18 MA's), (Start: 52 @80352 has 121 MA's), (57, 80430), (59, 80484), (60, 80490), (61, 80493), (63, 80535), (65, 80556), (66, 80565),

Gene: Sultana_1 Start: 539, Stop: 766, Start Num: 52
Candidate Starts for Sultana_1:

(Start: 52 @539 has 121 MA's), (64, 725),

Gene: TChen_101 Start: 57213, Stop: 57500, Start Num: 47
Candidate Starts for TChen_101:
(8, 56742), (17, 56943), (22, 56982), (24, 57048), (25, 57051), (37, 57162), (Start: 47 @57213 has 18 MA's),

Gene: Taquarus_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Taquarus_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Thanksgivukkah_1 Start: 539, Stop: 766, Start Num: 52
Candidate Starts for Thanksgivukkah_1:
(Start: 52 @539 has 121 MA's), (64, 725),

Gene: TinaFeyge_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for TinaFeyge_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: TroyPia_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for TroyPia_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: TygerBlood_1 Start: 540, Stop: 767, Start Num: 52
Candidate Starts for TygerBlood_1:
(Start: 52 @540 has 121 MA's), (64, 726),

Gene: Wander_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Wander_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Wilbur_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for Wilbur_1:
(Start: 52 @538 has 121 MA's), (64, 724),

Gene: Wile_1 Start: 543, Stop: 770, Start Num: 52
Candidate Starts for Wile_1:
(Start: 52 @543 has 121 MA's), (56, 609), (64, 729),

Gene: Wizard007_1 Start: 540, Stop: 767, Start Num: 52
Candidate Starts for Wizard007_1:
(Start: 52 @540 has 121 MA's), (64, 726),

Gene: Wrigley_81 Start: 51527, Stop: 51817, Start Num: 47
Candidate Starts for Wrigley_81:
(35, 51470), (37, 51476), (Start: 47 @51527 has 18 MA's),

Gene: Xena_1 Start: 542, Stop: 769, Start Num: 52
Candidate Starts for Xena_1:
(Start: 52 @542 has 121 MA's), (56, 608), (64, 728),

Gene: YoSam321_1 Start: 538, Stop: 765, Start Num: 52
Candidate Starts for YoSam321_1:

(Start: 52 @538 has 121 MA's), (64, 724),