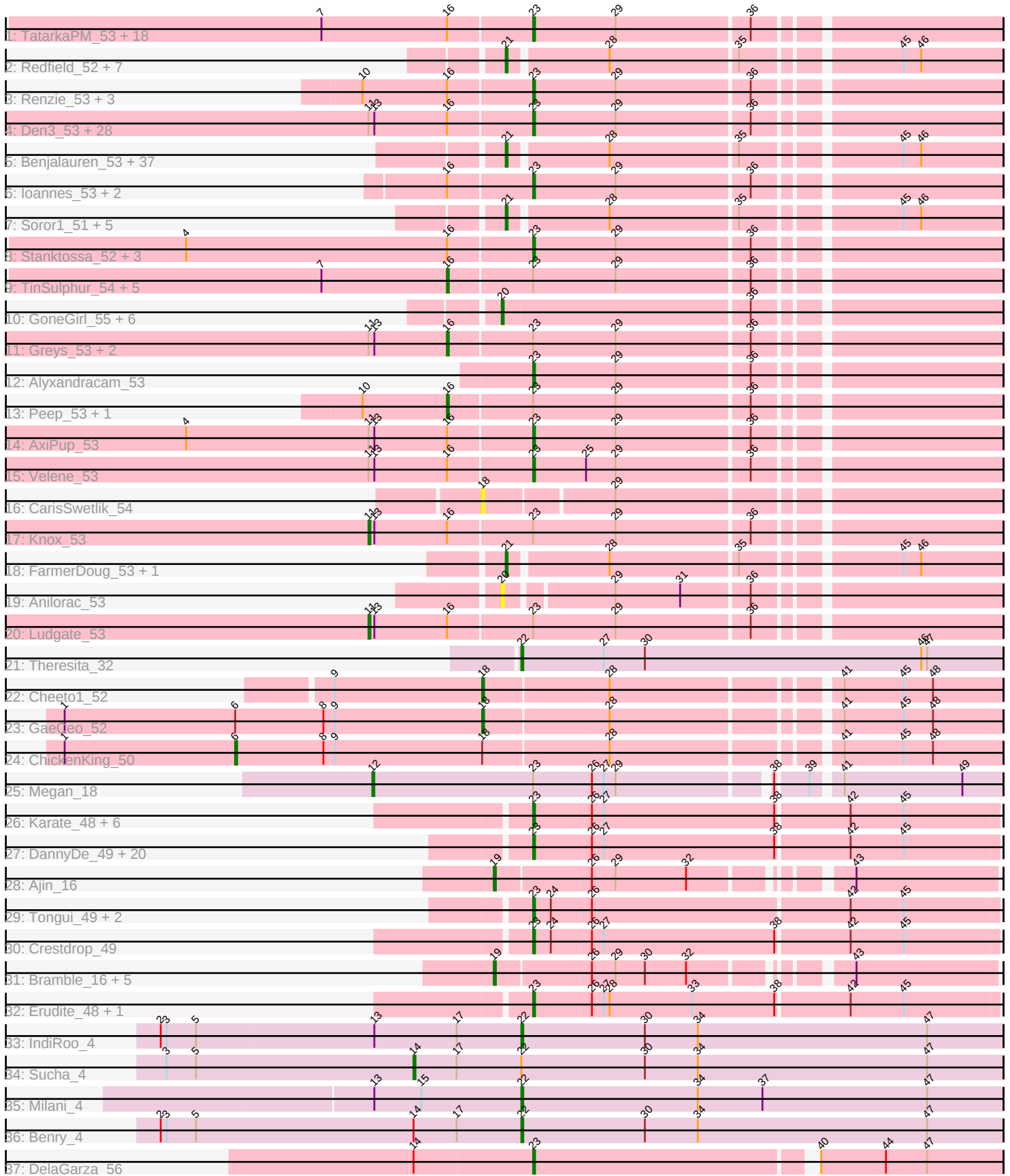


Pham 277893



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 277893 Report

This analysis was run 02/07/26 on database version 634.

Pham number 277893 has 189 members, 17 are drafts.

Phages represented in each track:

- Track 1 : TatarkaPM_53, Byron23_54, SolidSnake_55, BeautPeep30_53, Phireproof_53, PhredFlintston_53, Rapheph_53, Inventa_53, Phriends_53, Delphidian_53, Merida02_55, Pherferi_53, ParleG_53, Phiderman_53, MrWorldwide_53, Kurt1_53, NickSell_53, OldNelly_54, Martin_54
- Track 2 : Redfield_52, Balsa_51, Hamlet_52, Etna_52, Raccoon_52, PhillyPhantom_52, Peppino_52, BeeBee8_53
- Track 3 : Renzie_53, JeriBeth_54, Dave_53, Antoinette_53
- Track 4 : Den3_53, Raptor_53, Kouch_54, BonesMcCoy_53, Exploradora_52, Strathdee_53, Blage_53, Vispistious_53, BigRedClifford_53, Convict_53, Symere_52, Papafritta_52, HungryHenry_52, WildNOut_53, Sedgewig_52, HanSolo_52, Ilzat_52, Thorongil_53, Clancy_52, Janus167_52, GoingMerry_54, Thompsons_53, Lovelyunicorn_53, Teagan_53, StirfryIV_52, Gargoyle_53, ShaiHulud_53, Gubbabump_52, CoraRita_54
- Track 5 : Benjalauren_53, Klimt_53, Erla_52, Aubergine_52, Garey24_53, Bonino_52, KellyGreen_54, Chamuel_52, Asta_52, Nattles_52, SonOfLevi_53, ManRay_52, Gershwin_52, TeddyBear_52, Winzigespinne_52, SJay_53, Espinosa_52, Baines_52, Calix_52, Rog141_52, RosieMae_52, Gelo_52, KannH_52, Pocket_52, Oats_52, Zada_54, AranulaLuti_52, Christoph_52, AlexAdler_53, Nagem_53, Etta_52, JasperRussell_52, Kale_52, HankSprout_53, Tenda_52, Jerbirus_54, Duocatuli_52, Chako_52
- Track 6 : Ioannes_53, Robinson_53, StingRay_52
- Track 7 : Soror1_51, Leafus_52, KingJulien_51, Stormbreaker8_51, Endor_55, Schnapsidee_52
- Track 8 : Stanktossa_52, Dothraki_53, Figueroism_53, MaeLinda_53
- Track 9 : TinSulphur_54, MillyPhilly_53, SoilGremlin_54, Shee_53, Riylhil_53, Bandik_53
- Track 10 : GoneGirl_55, McGalleon_54, Agente005_53, Acosta_55, GardenB_54, Jenos_55, JasonD_54
- Track 11 : Greys_53, Oxtober96_54, PuppyEggo_53
- Track 12 : Alyxandracam_53
- Track 13 : Peep_53, Superfresh_53
- Track 14 : AxiPup_53
- Track 15 : Velene_53
- Track 16 : CarisSwetlik_54
- Track 17 : Knox_53
- Track 18 : FarmerDoug_53, MonChoix_50
- Track 19 : Anilorac_53

- Track 20 : Ludgate_53
- Track 21 : Theresita_32
- Track 22 : Cheeto1_52
- Track 23 : GaeCeo_52
- Track 24 : ChickenKing_50
- Track 25 : Megan_18
- Track 26 : Karate_48, MortySmith_47, JingleBells_49, Tedro_49, SilentWarrior_49, Haunter_49, Hager_50
- Track 27 : DannyDe_49, Snakehole_49, AnnaSerena_49, Pharpay_49, NarutoRun_49, JDawG_48, Cybele_49, Hiddenleaf_49, Gilda_49, CoolCookie_49, Anakin_49, Neptune_49, Rachella_49, Krampus_49, FreddieHg_49, OhDear_49, Aesir_48, Annapurna_49, Chivey_49, PhunaPhoke_49, Artiphact_49
- Track 28 : Ajin_16
- Track 29 : Tongui_49, FountainFog_48, Rie18_49
- Track 30 : Crestdrop_49
- Track 31 : Bramble_16, LordBart_16, TinyMiny_16, RikSengupta_16, Sparcetus_16, Kors_16
- Track 32 : Erudite_48, Dauntless_48
- Track 33 : IndiRoo_4
- Track 34 : Sucha_4
- Track 35 : Milani_4
- Track 36 : Benry_4
- Track 37 : DelaGarza_56

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

The start number called the most often in the published annotations is 23, it was called in 87 of the 172 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aesir_48, Alyxandracam_53, Anakin_49, AnnaSerena_49, Annapurna_49, Antoinette_53, Artiphact_49, AxiPup_53, BeautPeep30_53, BigRedClifford_53, Blage_53, BonesMcCoy_53, Byron23_54, Chivey_49, Clancy_52, Convict_53, CoolCookie_49, CoraRita_54, Crestdrop_49, Cybele_49, DannyDe_49, Dauntless_48, Dave_53, DelaGarza_56, Delphidian_53, Den3_53, Dothraki_53, Erudite_48, Exploradora_52, Figueroism_53, FountainFog_48, FreddieHg_49, Gargoyle_53, Gilda_49, GoingMerry_54, Gubbabump_52, Hager_50, HanSolo_52, Haunter_49, Hiddenleaf_49, HungryHenry_52, Ilzat_52, Inventa_53, Ioannes_53, JDawG_48, Janus167_52, JeriBeth_54, JingleBells_49, Karate_48, Kouch_54, Krampus_49, Kurt1_53, Lovelyunicorn_53, MaeLinda_53, Martin_54, Merida02_55, MortySmith_47, MrWorldwide_53, NarutoRun_49, Neptune_49, NickSell_53, OhDear_49, OldNelly_54, Papafritta_52, ParleG_53, Pharpay_49, Pherferi_53, Phiderman_53, Phireproof_53, PhredFlintston_53, Phriends_53, PhunaPhoke_49, Rachella_49, Rappheph_53, Raptor_53, Renzie_53, Rie18_49, Robinson_53, Sedgewig_52, ShaiHulud_53, SilentWarrior_49, Snakehole_49, SolidSnake_55, Stanktossa_52, StingRay_52, StirfryIV_52, Strathdee_53, Symere_52, TatarkaPM_53, Teagan_53, Tedro_49, Thompsone_53, Thorongil_53, Tongui_49, Velene_53, Vispistious_53, WildNOut_53,

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

- Bandik_53, Greys_53, Knox_53, Ludgate_53, Megan_18, MillyPhilly_53, Oxtob96_54, Peep_53, PuppyEggo_53, Riyhil_53, Shee_53, SoilGremlin_54, Superfresh_53, TinSulphur_54,

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

- Acosta_55, Agente005_53, Ajin_16, AlexAdler_53, Anilorac_53, AranulaLuti_52, Asta_52, Aubergine_52, Baines_52, Balsa_51, BeeBee8_53, Benjalauren_53, Benry_4, Bonino_52, Bramble_16, Calix_52, CarisSwetlik_54, Chako_52, Chamuel_52, Cheeto1_52, ChickenKing_50, Christoph_52, Duocatuli_52, Endor_55, Erla_52, Espinosa_52, Etna_52, Etta_52, FarmerDoug_53, GaeCeo_52, GardenB_54, Garey24_53, Gelo_52, Gershwin_52, GoneGirl_55, Hamlet_52, HankSprout_53, IndiRoo_4, JasonD_54, JasperRussell_52, Jenos_55, Jerbirus_54, Kale_52, KannH_52, KellyGreen_54, KingJulien_51, Klimt_53, Kors_16, Leafus_52, LordBart_16, ManRay_52, McGalleon_54, Milani_4, MonChoix_50, Nagem_53, Nattles_52, Oats_52, Peppino_52, PhillyPhantom_52, Pocket_52, Raccoon_52, Redfield_52, RikSengupta_16, Rog141_52, RosieMae_52, SJay_53, Schnapsidee_52, SonOfLevi_53, Soror1_51, Sparcetis_16, Stormbreaker8_51, Sucha_4, TeddyBear_52, Tenda_52, Theresita_32, TinyMiny_16, Winzigespinne_52, Zada_54,

Summary by start number:

Start 6:

- Found in 2 of 189 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 172
- Called 50.0% of time when present
- Phage (with cluster) where this start called: ChickenKing_50 (EA9),

Start 11:

- Found in 36 of 189 (19.0%) of genes in pham
- Manual Annotations of this start: 2 of 172
- Called 5.6% of time when present
- Phage (with cluster) where this start called: Knox_53 (EA1), Ludgate_53 (EA1),

Start 12:

- Found in 1 of 189 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 172
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Megan_18 (EC),

Start 14:

- Found in 3 of 189 (1.6%) of genes in pham
- Manual Annotations of this start: 1 of 172
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Sucha_4 (EJ),

Start 16:

- Found in 74 of 189 (39.2%) of genes in pham
- Manual Annotations of this start: 11 of 172
- Called 14.9% of time when present
- Phage (with cluster) where this start called: Bandik_53 (EA1), Greys_53 (EA1), MillyPhilly_53 (EA1), Oxtob96_54 (EA1), Peep_53 (EA1), PuppyEggo_53 (EA1), Riyhil_53 (EA1), Shee_53 (EA1), SoilGremlin_54 (EA1), Superfresh_53 (EA1),

TinSulphur_54 (EA1),

Start 18:

- Found in 4 of 189 (2.1%) of genes in pham
- Manual Annotations of this start: 2 of 172
- Called 75.0% of time when present
- Phage (with cluster) where this start called: CarisSwetlik_54 (EA1), Cheeto1_52 (EA9), GaeCeo_52 (EA9),

Start 19:

- Found in 7 of 189 (3.7%) of genes in pham
- Manual Annotations of this start: 7 of 172
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ajin_16 (EF), Bramble_16 (EF), Kors_16 (EF), LordBart_16 (EF), RikSengupta_16 (EF), Sparcetus_16 (EF), TinyMiny_16 (EF),

Start 20:

- Found in 8 of 189 (4.2%) of genes in pham
- Manual Annotations of this start: 6 of 172
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acosta_55 (EA1), Agente005_53 (EA1), Anilorac_53 (EA1), GardenB_54 (EA1), GoneGirl_55 (EA1), JasonD_54 (EA1), Jenos_55 (EA1), McGalleon_54 (EA1),

Start 21:

- Found in 54 of 189 (28.6%) of genes in pham
- Manual Annotations of this start: 50 of 172
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AlexAdler_53 (EA1), AranulaLuti_52 (EA1), Asta_52 (EA1), Aubergine_52 (EA1), Baines_52 (EA1), Balsa_51 (EA1), BeeBee8_53 (EA1), Benjalauren_53 (EA1), Bonino_52 (EA1), Calix_52 (EA1), Chako_52 (EA1), Chamuel_52 (EA1), Christoph_52 (EA1), Duocatuli_52 (EA1), Endor_55 (EA1), Erla_52 (EA1), Espinosa_52 (EA1), Etna_52 (EA1), Etta_52 (EA1), FarmerDoug_53 (EA1), Garey24_53 (EA1), Gelo_52 (EA1), Gershwin_52 (EA1), Hamlet_52 (EA1), HankSprout_53 (EA1), JasperRussell_52 (EA1), Jerbirus_54 (EA1), Kale_52 (EA1), KannH_52 (EA1), KellyGreen_54 (EA1), KingJulien_51 (EA1), Klimt_53 (EA1), Leafus_52 (EA1), ManRay_52 (EA1), MonChoix_50 (EA1), Nagem_53 (EA1), Nattles_52 (EA1), Oats_52 (EA1), Peppino_52 (EA1), PhillyPhantom_52 (EA1), Pocket_52 (EA1), Raccoon_52 (EA1), Redfield_52 (EA1), Rog141_52 (EA1), RosieMae_52 (EA1), SJay_53 (EA1), Schnapsidee_52 (EA1), SonOfLevi_53 (EA1), Soror1_51 (EA1), Stormbreaker8_51 (EA1), TeddyBear_52 (EA1), Tenda_52 (EA1), Winzigespinne_52 (EA1), Zada_54 (EA1),

Start 22:

- Found in 5 of 189 (2.6%) of genes in pham
- Manual Annotations of this start: 4 of 172
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Benry_4 (EJ), IndiRoo_4 (EJ), Milani_4 (EJ), Theresita_32 (EA7),

Start 23:

- Found in 111 of 189 (58.7%) of genes in pham
- Manual Annotations of this start: 87 of 172

- Called 87.4% of time when present
- Phage (with cluster) where this start called: Aesir_48 (EF), Alyxandracam_53 (EA1), Anakin_49 (EF), AnnaSerena_49 (EF), Annapurna_49 (EF), Antoinette_53 (EA1), Artiphact_49 (EF), AxiPup_53 (EA1), BeautPeep30_53 (EA1), BigRedClifford_53 (EA1), Blage_53 (EA1), BonesMcCoy_53 (EA1), Byron23_54 (EA1), Chivey_49 (EF), Clancy_52 (EA1), Convict_53 (EA1), CoolCookie_49 (EF), CoraRita_54 (EA1), Crestdrop_49 (EF), Cybele_49 (EF), DannyDe_49 (EF), Dauntless_48 (EF), Dave_53 (EA1), DelaGarza_56 (GF), Delphidian_53 (EA1), Den3_53 (EA1), Dothraki_53 (EA1), Erudite_48 (EF), Exploradora_52 (EA1), Figueroism_53 (EA1), FountainFog_48 (EF), FreddieHg_49 (EF), Gargoyle_53 (EA1), Gilda_49 (EF), GoingMerry_54 (EA1), Gubbabump_52 (EA1), Hager_50 (EF), HanSolo_52 (EA1), Haunter_49 (EF), Hiddenleaf_49 (EF), HungryHenry_52 (EA1), Ilzat_52 (EA1), Inventa_53 (EA1), Ioannes_53 (EA1), JDawG_48 (EF), Janus167_52 (EA1), JeriBeth_54 (EA1), JingleBells_49 (EF), Karate_48 (EF), Kouch_54 (EA1), Krampus_49 (EF), Kurt1_53 (EA1), Lovelyunicorn_53 (EA1), MaeLinda_53 (EA1), Martin_54 (EA1), Merida02_55 (EA1), MortySmith_47 (EF), MrWorldwide_53 (EA1), NarutoRun_49 (EF), Neptune_49 (EF), NickSell_53 (EA1), OhDear_49 (EF), OldNelly_54 (EA1), Papafritta_52 (EA1), ParleG_53 (EA1), Pharpay_49 (EF), Pherferi_53 (EA1), Phiderman_53 (EA1), Phireproof_53 (EA1), PhredFlintston_53 (EA1), Phriends_53 (EA1), PhunaPhoke_49 (EF), Rachella_49 (EF), Rapheph_53 (EA1), Raptor_53 (EA1), Renzie_53 (EA1), Rie18_49 (EF), Robinson_53 (EA1), Sedgewig_52 (EA1), ShaiHulud_53 (EA1), SilentWarrior_49 (EF), Snakehole_49 (EF), SolidSnake_55 (EA1), Stanktossa_52 (EA1), StingRay_52 (EA1), StirfryIV_52 (EA1), Strathdee_53 (EA1), Symere_52 (EA1), TatarkaPM_53 (EA1), Teagan_53 (EA1), Tedro_49 (EF), Thompsons_53 (EA1), Thorongil_53 (EA1), Tongui_49 (EF), Velene_53 (EA1), Vispitious_53 (EA1), WildNOut_53 (EA1),

Summary by clusters:

There are 7 clusters represented in this pham: EJ, EF, EC, EA9, GF, EA1, EA7,

Info for manual annotations of cluster EA1:

- Start number 11 was manually annotated 2 times for cluster EA1.
- Start number 16 was manually annotated 11 times for cluster EA1.
- Start number 20 was manually annotated 6 times for cluster EA1.
- Start number 21 was manually annotated 50 times for cluster EA1.
- Start number 23 was manually annotated 56 times for cluster EA1.

Info for manual annotations of cluster EA7:

- Start number 22 was manually annotated 1 time for cluster EA7.

Info for manual annotations of cluster EA9:

- Start number 6 was manually annotated 1 time for cluster EA9.
- Start number 18 was manually annotated 2 times for cluster EA9.

Info for manual annotations of cluster EC:

- Start number 12 was manually annotated 1 time for cluster EC.

Info for manual annotations of cluster EF:

- Start number 19 was manually annotated 7 times for cluster EF.
- Start number 23 was manually annotated 30 times for cluster EF.

Info for manual annotations of cluster EJ:

- Start number 14 was manually annotated 1 time for cluster EJ.
- Start number 22 was manually annotated 3 times for cluster EJ.

Info for manual annotations of cluster GF:

- Start number 23 was manually annotated 1 time for cluster GF.

Gene Information:

Gene: Acosta_55 Start: 37463, Stop: 37224, Start Num: 20

Candidate Starts for Acosta_55:

(Start: 20 @37463 has 6 MA's), (36, 37340),

Gene: Aesir_48 Start: 35323, Stop: 35556, Start Num: 23

Candidate Starts for Aesir_48:

(Start: 23 @35323 has 87 MA's), (26, 35353), (27, 35359), (38, 35446), (42, 35482), (45, 35509),

Gene: Agente005_53 Start: 37359, Stop: 37120, Start Num: 20

Candidate Starts for Agente005_53:

(Start: 20 @37359 has 6 MA's), (36, 37236),

Gene: Ajin_16 Start: 8002, Stop: 8235, Start Num: 19

Candidate Starts for Ajin_16:

(Start: 19 @8002 has 7 MA's), (26, 8050), (29, 8062), (32, 8098), (43, 8164),

Gene: AlexAdler_53 Start: 37305, Stop: 37072, Start Num: 21

Candidate Starts for AlexAdler_53:

(Start: 21 @37305 has 50 MA's), (28, 37257), (35, 37194), (45, 37122), (46, 37113),

Gene: Alyxandracam_53 Start: 37301, Stop: 37077, Start Num: 23

Candidate Starts for Alyxandracam_53:

(Start: 23 @37301 has 87 MA's), (29, 37259), (36, 37193),

Gene: Anakin_49 Start: 35682, Stop: 35915, Start Num: 23

Candidate Starts for Anakin_49:

(Start: 23 @35682 has 87 MA's), (26, 35712), (27, 35718), (38, 35805), (42, 35841), (45, 35868),

Gene: Anilorac_53 Start: 37312, Stop: 37079, Start Num: 20

Candidate Starts for Anilorac_53:

(Start: 20 @37312 has 6 MA's), (29, 37261), (31, 37228), (36, 37195),

Gene: AnnaSerena_49 Start: 35716, Stop: 35949, Start Num: 23

Candidate Starts for AnnaSerena_49:

(Start: 23 @35716 has 87 MA's), (26, 35746), (27, 35752), (38, 35839), (42, 35875), (45, 35902),

Gene: Annapurna_49 Start: 34952, Stop: 35185, Start Num: 23

Candidate Starts for Annapurna_49:

(Start: 23 @34952 has 87 MA's), (26, 34982), (27, 34988), (38, 35075), (42, 35111), (45, 35138),

Gene: Antoinette_53 Start: 37292, Stop: 37068, Start Num: 23

Candidate Starts for Antoinette_53:

(10, 37376), (Start: 16 @37334 has 11 MA's), (Start: 23 @37292 has 87 MA's), (29, 37250), (36, 37184),

Gene: AranulaLuti_52 Start: 37017, Stop: 36784, Start Num: 21

Candidate Starts for AranulaLuti_52:

(Start: 21 @37017 has 50 MA's), (28, 36969), (35, 36906), (45, 36834), (46, 36825),

Gene: Artiphact_49 Start: 35706, Stop: 35939, Start Num: 23

Candidate Starts for Artiphact_49:

(Start: 23 @35706 has 87 MA's), (26, 35736), (27, 35742), (38, 35829), (42, 35865), (45, 35892),

Gene: Asta_52 Start: 37027, Stop: 36794, Start Num: 21

Candidate Starts for Asta_52:

(Start: 21 @37027 has 50 MA's), (28, 36979), (35, 36916), (45, 36844), (46, 36835),

Gene: Aubergine_52 Start: 37027, Stop: 36794, Start Num: 21

Candidate Starts for Aubergine_52:

(Start: 21 @37027 has 50 MA's), (28, 36979), (35, 36916), (45, 36844), (46, 36835),

Gene: AxiPup_53 Start: 37271, Stop: 37047, Start Num: 23

Candidate Starts for AxiPup_53:

(4, 37445), (Start: 11 @37352 has 2 MA's), (13, 37349), (Start: 16 @37313 has 11 MA's), (Start: 23 @37271 has 87 MA's), (29, 37229), (36, 37163),

Gene: Baines_52 Start: 37020, Stop: 36787, Start Num: 21

Candidate Starts for Baines_52:

(Start: 21 @37020 has 50 MA's), (28, 36972), (35, 36909), (45, 36837), (46, 36828),

Gene: Balsa_51 Start: 37115, Stop: 36882, Start Num: 21

Candidate Starts for Balsa_51:

(Start: 21 @37115 has 50 MA's), (28, 37067), (35, 37004), (45, 36932), (46, 36923),

Gene: Bandik_53 Start: 37339, Stop: 37073, Start Num: 16

Candidate Starts for Bandik_53:

(7, 37402), (Start: 16 @37339 has 11 MA's), (Start: 23 @37297 has 87 MA's), (29, 37255), (36, 37189),

Gene: BeautPeep30_53 Start: 37303, Stop: 37079, Start Num: 23

Candidate Starts for BeautPeep30_53:

(7, 37408), (Start: 16 @37345 has 11 MA's), (Start: 23 @37303 has 87 MA's), (29, 37261), (36, 37195),

Gene: BeeBee8_53 Start: 37294, Stop: 37061, Start Num: 21

Candidate Starts for BeeBee8_53:

(Start: 21 @37294 has 50 MA's), (28, 37246), (35, 37183), (45, 37111), (46, 37102),

Gene: Benjalauren_53 Start: 37033, Stop: 36800, Start Num: 21

Candidate Starts for Benjalauren_53:

(Start: 21 @37033 has 50 MA's), (28, 36985), (35, 36922), (45, 36850), (46, 36841),

Gene: Benry_4 Start: 2527, Stop: 2282, Start Num: 22

Candidate Starts for Benry_4:

(2, 2710), (3, 2707), (5, 2692), (Start: 14 @2581 has 1 MA's), (17, 2560), (Start: 22 @2527 has 4 MA's), (30, 2464), (34, 2437), (47, 2320),

Gene: BigRedClifford_53 Start: 37298, Stop: 37074, Start Num: 23
Candidate Starts for BigRedClifford_53:
(Start: 11 @37379 has 2 MA's), (13, 37376), (Start: 16 @37340 has 11 MA's), (Start: 23 @37298 has 87 MA's), (29, 37256), (36, 37190),

Gene: Blage_53 Start: 37298, Stop: 37074, Start Num: 23
Candidate Starts for Blage_53:
(Start: 11 @37379 has 2 MA's), (13, 37376), (Start: 16 @37340 has 11 MA's), (Start: 23 @37298 has 87 MA's), (29, 37256), (36, 37190),

Gene: BonesMcCoy_53 Start: 37298, Stop: 37074, Start Num: 23
Candidate Starts for BonesMcCoy_53:
(Start: 11 @37379 has 2 MA's), (13, 37376), (Start: 16 @37340 has 11 MA's), (Start: 23 @37298 has 87 MA's), (29, 37256), (36, 37190),

Gene: Bonino_52 Start: 37006, Stop: 36773, Start Num: 21
Candidate Starts for Bonino_52:
(Start: 21 @37006 has 50 MA's), (28, 36958), (35, 36895), (45, 36823), (46, 36814),

Gene: Bramble_16 Start: 7969, Stop: 8202, Start Num: 19
Candidate Starts for Bramble_16:
(Start: 19 @7969 has 7 MA's), (26, 8017), (29, 8029), (30, 8044), (32, 8065), (43, 8131),

Gene: Byron23_54 Start: 37300, Stop: 37076, Start Num: 23
Candidate Starts for Byron23_54:
(7, 37405), (Start: 16 @37342 has 11 MA's), (Start: 23 @37300 has 87 MA's), (29, 37258), (36, 37192),

Gene: Calix_52 Start: 37013, Stop: 36780, Start Num: 21
Candidate Starts for Calix_52:
(Start: 21 @37013 has 50 MA's), (28, 36965), (35, 36902), (45, 36830), (46, 36821),

Gene: CarisSwetlik_54 Start: 37410, Stop: 37165, Start Num: 18
Candidate Starts for CarisSwetlik_54:
(Start: 18 @37410 has 2 MA's), (29, 37347),

Gene: Chako_52 Start: 37017, Stop: 36784, Start Num: 21
Candidate Starts for Chako_52:
(Start: 21 @37017 has 50 MA's), (28, 36969), (35, 36906), (45, 36834), (46, 36825),

Gene: Chamuel_52 Start: 37039, Stop: 36806, Start Num: 21
Candidate Starts for Chamuel_52:
(Start: 21 @37039 has 50 MA's), (28, 36991), (35, 36928), (45, 36856), (46, 36847),

Gene: Cheeto1_52 Start: 36491, Stop: 36243, Start Num: 18
Candidate Starts for Cheeto1_52:
(9, 36566), (Start: 18 @36491 has 2 MA's), (28, 36428), (41, 36323), (45, 36293), (48, 36278),

Gene: ChickenKing_50 Start: 36510, Stop: 36136, Start Num: 6
Candidate Starts for ChickenKing_50:
(1, 36597), (Start: 6 @36510 has 1 MA's), (8, 36465), (9, 36459), (Start: 18 @36384 has 2 MA's), (28, 36321), (41, 36216), (45, 36186), (48, 36171),

Gene: Chivey_49 Start: 34913, Stop: 35146, Start Num: 23

Candidate Starts for Chivey_49:

(Start: 23 @34913 has 87 MA's), (26, 34943), (27, 34949), (38, 35036), (42, 35072), (45, 35099),

Gene: Christoph_52 Start: 37026, Stop: 36793, Start Num: 21

Candidate Starts for Christoph_52:

(Start: 21 @37026 has 50 MA's), (28, 36978), (35, 36915), (45, 36843), (46, 36834),

Gene: Clancy_52 Start: 37049, Stop: 36825, Start Num: 23

Candidate Starts for Clancy_52:

(Start: 11 @37130 has 2 MA's), (13, 37127), (Start: 16 @37091 has 11 MA's), (Start: 23 @37049 has 87 MA's), (29, 37007), (36, 36941),

Gene: Convict_53 Start: 37298, Stop: 37074, Start Num: 23

Candidate Starts for Convict_53:

(Start: 11 @37379 has 2 MA's), (13, 37376), (Start: 16 @37340 has 11 MA's), (Start: 23 @37298 has 87 MA's), (29, 37256), (36, 37190),

Gene: CoolCookie_49 Start: 35709, Stop: 35942, Start Num: 23

Candidate Starts for CoolCookie_49:

(Start: 23 @35709 has 87 MA's), (26, 35739), (27, 35745), (38, 35832), (42, 35868), (45, 35895),

Gene: CoraRita_54 Start: 37019, Stop: 36795, Start Num: 23

Candidate Starts for CoraRita_54:

(Start: 11 @37100 has 2 MA's), (13, 37097), (Start: 16 @37061 has 11 MA's), (Start: 23 @37019 has 87 MA's), (29, 36977), (36, 36911),

Gene: Crestdrop_49 Start: 34931, Stop: 35164, Start Num: 23

Candidate Starts for Crestdrop_49:

(Start: 23 @34931 has 87 MA's), (24, 34940), (26, 34961), (27, 34967), (38, 35054), (42, 35090), (45, 35117),

Gene: Cybele_49 Start: 35682, Stop: 35915, Start Num: 23

Candidate Starts for Cybele_49:

(Start: 23 @35682 has 87 MA's), (26, 35712), (27, 35718), (38, 35805), (42, 35841), (45, 35868),

Gene: DannyDe_49 Start: 34907, Stop: 35140, Start Num: 23

Candidate Starts for DannyDe_49:

(Start: 23 @34907 has 87 MA's), (26, 34937), (27, 34943), (38, 35030), (42, 35066), (45, 35093),

Gene: Dauntless_48 Start: 35258, Stop: 35491, Start Num: 23

Candidate Starts for Dauntless_48:

(Start: 23 @35258 has 87 MA's), (26, 35288), (27, 35294), (28, 35297), (33, 35339), (38, 35381), (42, 35417), (45, 35444),

Gene: Dave_53 Start: 37292, Stop: 37068, Start Num: 23

Candidate Starts for Dave_53:

(10, 37376), (Start: 16 @37334 has 11 MA's), (Start: 23 @37292 has 87 MA's), (29, 37250), (36, 37184),

Gene: DelaGarza_56 Start: 32254, Stop: 32481, Start Num: 23

Candidate Starts for DelaGarza_56:

(Start: 14 @32194 has 1 MA's), (Start: 23 @32254 has 87 MA's), (40, 32389), (44, 32422), (47, 32443),

Gene: Delphidian_53 Start: 37326, Stop: 37102, Start Num: 23
Candidate Starts for Delphidian_53:
(7, 37431), (Start: 16 @37368 has 11 MA's), (Start: 23 @37326 has 87 MA's), (29, 37284), (36, 37218),

Gene: Den3_53 Start: 37303, Stop: 37079, Start Num: 23
Candidate Starts for Den3_53:
(Start: 11 @37384 has 2 MA's), (13, 37381), (Start: 16 @37345 has 11 MA's), (Start: 23 @37303 has 87 MA's), (29, 37261), (36, 37195),

Gene: Dothraki_53 Start: 37300, Stop: 37076, Start Num: 23
Candidate Starts for Dothraki_53:
(4, 37474), (Start: 16 @37342 has 11 MA's), (Start: 23 @37300 has 87 MA's), (29, 37258), (36, 37192),

Gene: Duocatuli_52 Start: 37017, Stop: 36784, Start Num: 21
Candidate Starts for Duocatuli_52:
(Start: 21 @37017 has 50 MA's), (28, 36969), (35, 36906), (45, 36834), (46, 36825),

Gene: Endor_55 Start: 37862, Stop: 37629, Start Num: 21
Candidate Starts for Endor_55:
(Start: 21 @37862 has 50 MA's), (28, 37814), (35, 37751), (45, 37679), (46, 37670),

Gene: Erla_52 Start: 37010, Stop: 36777, Start Num: 21
Candidate Starts for Erla_52:
(Start: 21 @37010 has 50 MA's), (28, 36962), (35, 36899), (45, 36827), (46, 36818),

Gene: Erudite_48 Start: 35258, Stop: 35491, Start Num: 23
Candidate Starts for Erudite_48:
(Start: 23 @35258 has 87 MA's), (26, 35288), (27, 35294), (28, 35297), (33, 35339), (38, 35381), (42, 35417), (45, 35444),

Gene: Espinosa_52 Start: 37025, Stop: 36792, Start Num: 21
Candidate Starts for Espinosa_52:
(Start: 21 @37025 has 50 MA's), (28, 36977), (35, 36914), (45, 36842), (46, 36833),

Gene: Etna_52 Start: 37162, Stop: 36929, Start Num: 21
Candidate Starts for Etna_52:
(Start: 21 @37162 has 50 MA's), (28, 37114), (35, 37051), (45, 36979), (46, 36970),

Gene: Etta_52 Start: 37014, Stop: 36781, Start Num: 21
Candidate Starts for Etta_52:
(Start: 21 @37014 has 50 MA's), (28, 36966), (35, 36903), (45, 36831), (46, 36822),

Gene: Exploradora_52 Start: 37004, Stop: 36780, Start Num: 23
Candidate Starts for Exploradora_52:
(Start: 11 @37085 has 2 MA's), (13, 37082), (Start: 16 @37046 has 11 MA's), (Start: 23 @37004 has 87 MA's), (29, 36962), (36, 36896),

Gene: FarmerDoug_53 Start: 37391, Stop: 37158, Start Num: 21
Candidate Starts for FarmerDoug_53:
(Start: 21 @37391 has 50 MA's), (28, 37343), (35, 37280), (45, 37208), (46, 37199),

Gene: Figueroism_53 Start: 37293, Stop: 37069, Start Num: 23
Candidate Starts for Figueroism_53:

(4, 37467), (Start: 16 @37335 has 11 MA's), (Start: 23 @37293 has 87 MA's), (29, 37251), (36, 37185),

Gene: FountainFog_48 Start: 34943, Stop: 35176, Start Num: 23

Candidate Starts for FountainFog_48:

(Start: 23 @34943 has 87 MA's), (24, 34952), (26, 34973), (42, 35102), (45, 35129),

Gene: FreddieHg_49 Start: 34923, Stop: 35156, Start Num: 23

Candidate Starts for FreddieHg_49:

(Start: 23 @34923 has 87 MA's), (26, 34953), (27, 34959), (38, 35046), (42, 35082), (45, 35109),

Gene: GaeCeo_52 Start: 36617, Stop: 36369, Start Num: 18

Candidate Starts for GaeCeo_52:

(1, 36830), (Start: 6 @36743 has 1 MA's), (8, 36698), (9, 36692), (Start: 18 @36617 has 2 MA's), (28, 36554), (41, 36449), (45, 36419), (48, 36404),

Gene: GardenB_54 Start: 37643, Stop: 37404, Start Num: 20

Candidate Starts for GardenB_54:

(Start: 20 @37643 has 6 MA's), (36, 37520),

Gene: Garey24_53 Start: 36993, Stop: 36760, Start Num: 21

Candidate Starts for Garey24_53:

(Start: 21 @36993 has 50 MA's), (28, 36945), (35, 36882), (45, 36810), (46, 36801),

Gene: Gargoyle_53 Start: 37303, Stop: 37079, Start Num: 23

Candidate Starts for Gargoyle_53:

(Start: 11 @37384 has 2 MA's), (13, 37381), (Start: 16 @37345 has 11 MA's), (Start: 23 @37303 has 87 MA's), (29, 37261), (36, 37195),

Gene: Gelo_52 Start: 37020, Stop: 36787, Start Num: 21

Candidate Starts for Gelo_52:

(Start: 21 @37020 has 50 MA's), (28, 36972), (35, 36909), (45, 36837), (46, 36828),

Gene: Gershwin_52 Start: 37027, Stop: 36794, Start Num: 21

Candidate Starts for Gershwin_52:

(Start: 21 @37027 has 50 MA's), (28, 36979), (35, 36916), (45, 36844), (46, 36835),

Gene: Gilda_49 Start: 35703, Stop: 35936, Start Num: 23

Candidate Starts for Gilda_49:

(Start: 23 @35703 has 87 MA's), (26, 35733), (27, 35739), (38, 35826), (42, 35862), (45, 35889),

Gene: GoingMerry_54 Start: 37281, Stop: 37057, Start Num: 23

Candidate Starts for GoingMerry_54:

(Start: 11 @37362 has 2 MA's), (13, 37359), (Start: 16 @37323 has 11 MA's), (Start: 23 @37281 has 87 MA's), (29, 37239), (36, 37173),

Gene: GoneGirl_55 Start: 37630, Stop: 37391, Start Num: 20

Candidate Starts for GoneGirl_55:

(Start: 20 @37630 has 6 MA's), (36, 37507),

Gene: Greys_53 Start: 37341, Stop: 37075, Start Num: 16

Candidate Starts for Greys_53:

(Start: 11 @37380 has 2 MA's), (13, 37377), (Start: 16 @37341 has 11 MA's), (Start: 23 @37299 has 87 MA's), (29, 37257), (36, 37191),

Gene: Gubbabump_52 Start: 36994, Stop: 36770, Start Num: 23

Candidate Starts for Gubbabump_52:

(Start: 11 @37075 has 2 MA's), (13, 37072), (Start: 16 @37036 has 11 MA's), (Start: 23 @36994 has 87 MA's), (29, 36952), (36, 36886),

Gene: Hager_50 Start: 35123, Stop: 35356, Start Num: 23

Candidate Starts for Hager_50:

(Start: 23 @35123 has 87 MA's), (26, 35153), (27, 35159), (38, 35246), (42, 35282), (45, 35309),

Gene: Hamlet_52 Start: 37107, Stop: 36874, Start Num: 21

Candidate Starts for Hamlet_52:

(Start: 21 @37107 has 50 MA's), (28, 37059), (35, 36996), (45, 36924), (46, 36915),

Gene: HanSolo_52 Start: 37004, Stop: 36780, Start Num: 23

Candidate Starts for HanSolo_52:

(Start: 11 @37085 has 2 MA's), (13, 37082), (Start: 16 @37046 has 11 MA's), (Start: 23 @37004 has 87 MA's), (29, 36962), (36, 36896),

Gene: HankSprout_53 Start: 36894, Stop: 36661, Start Num: 21

Candidate Starts for HankSprout_53:

(Start: 21 @36894 has 50 MA's), (28, 36846), (35, 36783), (45, 36711), (46, 36702),

Gene: Haunter_49 Start: 35085, Stop: 35318, Start Num: 23

Candidate Starts for Haunter_49:

(Start: 23 @35085 has 87 MA's), (26, 35115), (27, 35121), (38, 35208), (42, 35244), (45, 35271),

Gene: Hiddenleaf_49 Start: 34913, Stop: 35146, Start Num: 23

Candidate Starts for Hiddenleaf_49:

(Start: 23 @34913 has 87 MA's), (26, 34943), (27, 34949), (38, 35036), (42, 35072), (45, 35099),

Gene: HungryHenry_52 Start: 37009, Stop: 36785, Start Num: 23

Candidate Starts for HungryHenry_52:

(Start: 11 @37090 has 2 MA's), (13, 37087), (Start: 16 @37051 has 11 MA's), (Start: 23 @37009 has 87 MA's), (29, 36967), (36, 36901),

Gene: Ilzat_52 Start: 37020, Stop: 36796, Start Num: 23

Candidate Starts for Ilzat_52:

(Start: 11 @37101 has 2 MA's), (13, 37098), (Start: 16 @37062 has 11 MA's), (Start: 23 @37020 has 87 MA's), (29, 36978), (36, 36912),

Gene: IndiRoo_4 Start: 2526, Stop: 2281, Start Num: 22

Candidate Starts for IndiRoo_4:

(2, 2709), (3, 2706), (5, 2691), (13, 2601), (17, 2559), (Start: 22 @2526 has 4 MA's), (30, 2463), (34, 2436), (47, 2319),

Gene: Inventa_53 Start: 37297, Stop: 37073, Start Num: 23

Candidate Starts for Inventa_53:

(7, 37402), (Start: 16 @37339 has 11 MA's), (Start: 23 @37297 has 87 MA's), (29, 37255), (36, 37189),

Gene: Ioannes_53 Start: 37301, Stop: 37077, Start Num: 23

Candidate Starts for Ioannes_53:

(Start: 16 @37343 has 11 MA's), (Start: 23 @37301 has 87 MA's), (29, 37259), (36, 37193),

Gene: JDawG_48 Start: 35318, Stop: 35551, Start Num: 23

Candidate Starts for JDawG_48:

(Start: 23 @35318 has 87 MA's), (26, 35348), (27, 35354), (38, 35441), (42, 35477), (45, 35504),

Gene: Janus167_52 Start: 37031, Stop: 36807, Start Num: 23

Candidate Starts for Janus167_52:

(Start: 11 @37112 has 2 MA's), (13, 37109), (Start: 16 @37073 has 11 MA's), (Start: 23 @37031 has 87 MA's), (29, 36989), (36, 36923),

Gene: JasonD_54 Start: 37244, Stop: 37005, Start Num: 20

Candidate Starts for JasonD_54:

(Start: 20 @37244 has 6 MA's), (36, 37121),

Gene: JasperRussell_52 Start: 37017, Stop: 36784, Start Num: 21

Candidate Starts for JasperRussell_52:

(Start: 21 @37017 has 50 MA's), (28, 36969), (35, 36906), (45, 36834), (46, 36825),

Gene: Jenos_55 Start: 37977, Stop: 37738, Start Num: 20

Candidate Starts for Jenos_55:

(Start: 20 @37977 has 6 MA's), (36, 37854),

Gene: Jerbirus_54 Start: 37017, Stop: 36784, Start Num: 21

Candidate Starts for Jerbirus_54:

(Start: 21 @37017 has 50 MA's), (28, 36969), (35, 36906), (45, 36834), (46, 36825),

Gene: JeriBeth_54 Start: 36867, Stop: 36643, Start Num: 23

Candidate Starts for JeriBeth_54:

(10, 36951), (Start: 16 @36909 has 11 MA's), (Start: 23 @36867 has 87 MA's), (29, 36825), (36, 36759),

Gene: JingleBells_49 Start: 35048, Stop: 35281, Start Num: 23

Candidate Starts for JingleBells_49:

(Start: 23 @35048 has 87 MA's), (26, 35078), (27, 35084), (38, 35171), (42, 35207), (45, 35234),

Gene: Kale_52 Start: 37029, Stop: 36796, Start Num: 21

Candidate Starts for Kale_52:

(Start: 21 @37029 has 50 MA's), (28, 36981), (35, 36918), (45, 36846), (46, 36837),

Gene: KannH_52 Start: 37017, Stop: 36784, Start Num: 21

Candidate Starts for KannH_52:

(Start: 21 @37017 has 50 MA's), (28, 36969), (35, 36906), (45, 36834), (46, 36825),

Gene: Karate_48 Start: 35703, Stop: 35936, Start Num: 23

Candidate Starts for Karate_48:

(Start: 23 @35703 has 87 MA's), (26, 35733), (27, 35739), (38, 35826), (42, 35862), (45, 35889),

Gene: KellyGreen_54 Start: 37011, Stop: 36778, Start Num: 21

Candidate Starts for KellyGreen_54:

(Start: 21 @37011 has 50 MA's), (28, 36963), (35, 36900), (45, 36828), (46, 36819),

Gene: KingJulien_51 Start: 36998, Stop: 36765, Start Num: 21

Candidate Starts for KingJulien_51:

(Start: 21 @36998 has 50 MA's), (28, 36950), (35, 36887), (45, 36815), (46, 36806),

Gene: Klimt_53 Start: 37045, Stop: 36812, Start Num: 21

Candidate Starts for Klimt_53:

(Start: 21 @37045 has 50 MA's), (28, 36997), (35, 36934), (45, 36862), (46, 36853),

Gene: Knox_53 Start: 37379, Stop: 37074, Start Num: 11

Candidate Starts for Knox_53:

(Start: 11 @37379 has 2 MA's), (13, 37376), (Start: 16 @37340 has 11 MA's), (Start: 23 @37298 has 87 MA's), (29, 37256), (36, 37190),

Gene: Kors_16 Start: 8032, Stop: 8265, Start Num: 19

Candidate Starts for Kors_16:

(Start: 19 @8032 has 7 MA's), (26, 8080), (29, 8092), (30, 8107), (32, 8128), (43, 8194),

Gene: Kouch_54 Start: 37004, Stop: 36780, Start Num: 23

Candidate Starts for Kouch_54:

(Start: 11 @37085 has 2 MA's), (13, 37082), (Start: 16 @37046 has 11 MA's), (Start: 23 @37004 has 87 MA's), (29, 36962), (36, 36896),

Gene: Krampus_49 Start: 35717, Stop: 35950, Start Num: 23

Candidate Starts for Krampus_49:

(Start: 23 @35717 has 87 MA's), (26, 35747), (27, 35753), (38, 35840), (42, 35876), (45, 35903),

Gene: Kurt1_53 Start: 37297, Stop: 37073, Start Num: 23

Candidate Starts for Kurt1_53:

(7, 37402), (Start: 16 @37339 has 11 MA's), (Start: 23 @37297 has 87 MA's), (29, 37255), (36, 37189),

Gene: Leafus_52 Start: 37262, Stop: 37029, Start Num: 21

Candidate Starts for Leafus_52:

(Start: 21 @37262 has 50 MA's), (28, 37214), (35, 37151), (45, 37079), (46, 37070),

Gene: LordBart_16 Start: 8005, Stop: 8238, Start Num: 19

Candidate Starts for LordBart_16:

(Start: 19 @8005 has 7 MA's), (26, 8053), (29, 8065), (30, 8080), (32, 8101), (43, 8167),

Gene: Lovelyunicorn_53 Start: 37299, Stop: 37075, Start Num: 23

Candidate Starts for Lovelyunicorn_53:

(Start: 11 @37380 has 2 MA's), (13, 37377), (Start: 16 @37341 has 11 MA's), (Start: 23 @37299 has 87 MA's), (29, 37257), (36, 37191),

Gene: Ludgate_53 Start: 37381, Stop: 37076, Start Num: 11

Candidate Starts for Ludgate_53:

(Start: 11 @37381 has 2 MA's), (13, 37378), (Start: 16 @37342 has 11 MA's), (Start: 23 @37300 has 87 MA's), (29, 37258), (36, 37192),

Gene: MaeLinda_53 Start: 37301, Stop: 37077, Start Num: 23

Candidate Starts for MaeLinda_53:

(4, 37475), (Start: 16 @37343 has 11 MA's), (Start: 23 @37301 has 87 MA's), (29, 37259), (36, 37193),

Gene: ManRay_52 Start: 37027, Stop: 36794, Start Num: 21

Candidate Starts for ManRay_52:

(Start: 21 @37027 has 50 MA's), (28, 36979), (35, 36916), (45, 36844), (46, 36835),

Gene: Martin_54 Start: 37306, Stop: 37082, Start Num: 23

Candidate Starts for Martin_54:

(7, 37411), (Start: 16 @37348 has 11 MA's), (Start: 23 @37306 has 87 MA's), (29, 37264), (36, 37198),

Gene: McGalleon_54 Start: 38115, Stop: 37876, Start Num: 20

Candidate Starts for McGalleon_54:

(Start: 20 @38115 has 6 MA's), (36, 37992),

Gene: Megan_18 Start: 12368, Stop: 12670, Start Num: 12

Candidate Starts for Megan_18:

(Start: 12 @12368 has 1 MA's), (Start: 23 @12449 has 87 MA's), (26, 12479), (27, 12485), (29, 12491), (38, 12563), (39, 12578), (41, 12590), (49, 12650),

Gene: Merida02_55 Start: 37326, Stop: 37102, Start Num: 23

Candidate Starts for Merida02_55:

(7, 37431), (Start: 16 @37368 has 11 MA's), (Start: 23 @37326 has 87 MA's), (29, 37284), (36, 37218),

Gene: Milani_4 Start: 2526, Stop: 2281, Start Num: 22

Candidate Starts for Milani_4:

(13, 2601), (15, 2577), (Start: 22 @2526 has 4 MA's), (34, 2436), (37, 2403), (47, 2319),

Gene: MillyPhilly_53 Start: 37336, Stop: 37070, Start Num: 16

Candidate Starts for MillyPhilly_53:

(7, 37399), (Start: 16 @37336 has 11 MA's), (Start: 23 @37294 has 87 MA's), (29, 37252), (36, 37186),

Gene: MonChoix_50 Start: 36925, Stop: 36692, Start Num: 21

Candidate Starts for MonChoix_50:

(Start: 21 @36925 has 50 MA's), (28, 36877), (35, 36814), (45, 36742), (46, 36733),

Gene: MortySmith_47 Start: 34735, Stop: 34968, Start Num: 23

Candidate Starts for MortySmith_47:

(Start: 23 @34735 has 87 MA's), (26, 34765), (27, 34771), (38, 34858), (42, 34894), (45, 34921),

Gene: MrWorldwide_53 Start: 37304, Stop: 37080, Start Num: 23

Candidate Starts for MrWorldwide_53:

(7, 37409), (Start: 16 @37346 has 11 MA's), (Start: 23 @37304 has 87 MA's), (29, 37262), (36, 37196),

Gene: Nagem_53 Start: 37310, Stop: 37077, Start Num: 21

Candidate Starts for Nagem_53:

(Start: 21 @37310 has 50 MA's), (28, 37262), (35, 37199), (45, 37127), (46, 37118),

Gene: NarutoRun_49 Start: 35682, Stop: 35915, Start Num: 23

Candidate Starts for NarutoRun_49:

(Start: 23 @35682 has 87 MA's), (26, 35712), (27, 35718), (38, 35805), (42, 35841), (45, 35868),

Gene: Nattles_52 Start: 37014, Stop: 36781, Start Num: 21

Candidate Starts for Nattles_52:

(Start: 21 @37014 has 50 MA's), (28, 36966), (35, 36903), (45, 36831), (46, 36822),

Gene: Neptune_49 Start: 35682, Stop: 35915, Start Num: 23

Candidate Starts for Neptune_49:

(Start: 23 @35682 has 87 MA's), (26, 35712), (27, 35718), (38, 35805), (42, 35841), (45, 35868),

Gene: NickSell_53 Start: 37307, Stop: 37083, Start Num: 23

Candidate Starts for NickSell_53:

(7, 37412), (Start: 16 @37349 has 11 MA's), (Start: 23 @37307 has 87 MA's), (29, 37265), (36, 37199),

Gene: Oats_52 Start: 37027, Stop: 36794, Start Num: 21

Candidate Starts for Oats_52:

(Start: 21 @37027 has 50 MA's), (28, 36979), (35, 36916), (45, 36844), (46, 36835),

Gene: OhDear_49 Start: 35680, Stop: 35913, Start Num: 23

Candidate Starts for OhDear_49:

(Start: 23 @35680 has 87 MA's), (26, 35710), (27, 35716), (38, 35803), (42, 35839), (45, 35866),

Gene: OldNelly_54 Start: 37329, Stop: 37105, Start Num: 23

Candidate Starts for OldNelly_54:

(7, 37434), (Start: 16 @37371 has 11 MA's), (Start: 23 @37329 has 87 MA's), (29, 37287), (36, 37221),

Gene: Oxtobor96_54 Start: 37341, Stop: 37075, Start Num: 16

Candidate Starts for Oxtobor96_54:

(Start: 11 @37380 has 2 MA's), (13, 37377), (Start: 16 @37341 has 11 MA's), (Start: 23 @37299 has 87 MA's), (29, 37257), (36, 37191),

Gene: Papafritta_52 Start: 37055, Stop: 36831, Start Num: 23

Candidate Starts for Papafritta_52:

(Start: 11 @37136 has 2 MA's), (13, 37133), (Start: 16 @37097 has 11 MA's), (Start: 23 @37055 has 87 MA's), (29, 37013), (36, 36947),

Gene: ParleG_53 Start: 37304, Stop: 37080, Start Num: 23

Candidate Starts for ParleG_53:

(7, 37409), (Start: 16 @37346 has 11 MA's), (Start: 23 @37304 has 87 MA's), (29, 37262), (36, 37196),

Gene: Peep_53 Start: 37331, Stop: 37065, Start Num: 16

Candidate Starts for Peep_53:

(10, 37373), (Start: 16 @37331 has 11 MA's), (Start: 23 @37289 has 87 MA's), (29, 37247), (36, 37181),

Gene: Peppino_52 Start: 37101, Stop: 36868, Start Num: 21

Candidate Starts for Peppino_52:

(Start: 21 @37101 has 50 MA's), (28, 37053), (35, 36990), (45, 36918), (46, 36909),

Gene: Pharpay_49 Start: 35727, Stop: 35960, Start Num: 23

Candidate Starts for Pharpay_49:

(Start: 23 @35727 has 87 MA's), (26, 35757), (27, 35763), (38, 35850), (42, 35886), (45, 35913),

Gene: Pherferi_53 Start: 37297, Stop: 37073, Start Num: 23

Candidate Starts for Pherferi_53:

(7, 37402), (Start: 16 @37339 has 11 MA's), (Start: 23 @37297 has 87 MA's), (29, 37255), (36, 37189),

Gene: Phiderman_53 Start: 37294, Stop: 37070, Start Num: 23

Candidate Starts for Phiderman_53:

(7, 37399), (Start: 16 @37336 has 11 MA's), (Start: 23 @37294 has 87 MA's), (29, 37252), (36, 37186),

Gene: PhillyPhantom_52 Start: 37097, Stop: 36864, Start Num: 21

Candidate Starts for PhillyPhantom_52:

(Start: 21 @37097 has 50 MA's), (28, 37049), (35, 36986), (45, 36914), (46, 36905),

Gene: Phireproof_53 Start: 37303, Stop: 37079, Start Num: 23

Candidate Starts for Phireproof_53:

(7, 37408), (Start: 16 @37345 has 11 MA's), (Start: 23 @37303 has 87 MA's), (29, 37261), (36, 37195),

Gene: PhredFlintston_53 Start: 37297, Stop: 37073, Start Num: 23

Candidate Starts for PhredFlintston_53:

(7, 37402), (Start: 16 @37339 has 11 MA's), (Start: 23 @37297 has 87 MA's), (29, 37255), (36, 37189),

Gene: Phriends_53 Start: 37329, Stop: 37105, Start Num: 23

Candidate Starts for Phriends_53:

(7, 37434), (Start: 16 @37371 has 11 MA's), (Start: 23 @37329 has 87 MA's), (29, 37287), (36, 37221),

Gene: PhunaPhoke_49 Start: 35697, Stop: 35930, Start Num: 23

Candidate Starts for PhunaPhoke_49:

(Start: 23 @35697 has 87 MA's), (26, 35727), (27, 35733), (38, 35820), (42, 35856), (45, 35883),

Gene: Pocket_52 Start: 37054, Stop: 36821, Start Num: 21

Candidate Starts for Pocket_52:

(Start: 21 @37054 has 50 MA's), (28, 37006), (35, 36943), (45, 36871), (46, 36862),

Gene: PuppyEggo_53 Start: 37346, Stop: 37080, Start Num: 16

Candidate Starts for PuppyEggo_53:

(Start: 11 @37385 has 2 MA's), (13, 37382), (Start: 16 @37346 has 11 MA's), (Start: 23 @37304 has 87 MA's), (29, 37262), (36, 37196),

Gene: Raccoon_52 Start: 37064, Stop: 36831, Start Num: 21

Candidate Starts for Raccoon_52:

(Start: 21 @37064 has 50 MA's), (28, 37016), (35, 36953), (45, 36881), (46, 36872),

Gene: Rachella_49 Start: 35708, Stop: 35941, Start Num: 23

Candidate Starts for Rachella_49:

(Start: 23 @35708 has 87 MA's), (26, 35738), (27, 35744), (38, 35831), (42, 35867), (45, 35894),

Gene: Rapheph_53 Start: 37297, Stop: 37073, Start Num: 23

Candidate Starts for Rapheph_53:

(7, 37402), (Start: 16 @37339 has 11 MA's), (Start: 23 @37297 has 87 MA's), (29, 37255), (36, 37189),

Gene: Raptor_53 Start: 37301, Stop: 37077, Start Num: 23

Candidate Starts for Raptor_53:

(Start: 11 @37382 has 2 MA's), (13, 37379), (Start: 16 @37343 has 11 MA's), (Start: 23 @37301 has 87 MA's), (29, 37259), (36, 37193),

Gene: Redfield_52 Start: 37109, Stop: 36876, Start Num: 21

Candidate Starts for Redfield_52:

(Start: 21 @37109 has 50 MA's), (28, 37061), (35, 36998), (45, 36926), (46, 36917),

Gene: Renzie_53 Start: 37292, Stop: 37068, Start Num: 23

Candidate Starts for Renzie_53:

(10, 37376), (Start: 16 @37334 has 11 MA's), (Start: 23 @37292 has 87 MA's), (29, 37250), (36, 37184),

Gene: Rie18_49 Start: 35208, Stop: 35441, Start Num: 23

Candidate Starts for Rie18_49:

(Start: 23 @35208 has 87 MA's), (24, 35217), (26, 35238), (42, 35367), (45, 35394),

Gene: RikSengupta_16 Start: 8084, Stop: 8317, Start Num: 19

Candidate Starts for RikSengupta_16:

(Start: 19 @8084 has 7 MA's), (26, 8132), (29, 8144), (30, 8159), (32, 8180), (43, 8246),

Gene: Riyhil_53 Start: 37349, Stop: 37083, Start Num: 16

Candidate Starts for Riyhil_53:

(7, 37412), (Start: 16 @37349 has 11 MA's), (Start: 23 @37307 has 87 MA's), (29, 37265), (36, 37199),

Gene: Robinson_53 Start: 37295, Stop: 37071, Start Num: 23

Candidate Starts for Robinson_53:

(Start: 16 @37337 has 11 MA's), (Start: 23 @37295 has 87 MA's), (29, 37253), (36, 37187),

Gene: Rog141_52 Start: 37017, Stop: 36784, Start Num: 21

Candidate Starts for Rog141_52:

(Start: 21 @37017 has 50 MA's), (28, 36969), (35, 36906), (45, 36834), (46, 36825),

Gene: RosieMae_52 Start: 37072, Stop: 36839, Start Num: 21

Candidate Starts for RosieMae_52:

(Start: 21 @37072 has 50 MA's), (28, 37024), (35, 36961), (45, 36889), (46, 36880),

Gene: SJay_53 Start: 37311, Stop: 37078, Start Num: 21

Candidate Starts for SJay_53:

(Start: 21 @37311 has 50 MA's), (28, 37263), (35, 37200), (45, 37128), (46, 37119),

Gene: Schnapsidee_52 Start: 37138, Stop: 36905, Start Num: 21

Candidate Starts for Schnapsidee_52:

(Start: 21 @37138 has 50 MA's), (28, 37090), (35, 37027), (45, 36955), (46, 36946),

Gene: Sedgewig_52 Start: 37002, Stop: 36778, Start Num: 23

Candidate Starts for Sedgewig_52:

(Start: 11 @37083 has 2 MA's), (13, 37080), (Start: 16 @37044 has 11 MA's), (Start: 23 @37002 has 87 MA's), (29, 36960), (36, 36894),

Gene: ShaiHulud_53 Start: 37313, Stop: 37089, Start Num: 23

Candidate Starts for ShaiHulud_53:

(Start: 11 @37394 has 2 MA's), (13, 37391), (Start: 16 @37355 has 11 MA's), (Start: 23 @37313 has 87 MA's), (29, 37271), (36, 37205),

Gene: Shee_53 Start: 37336, Stop: 37070, Start Num: 16

Candidate Starts for Shee_53:

(7, 37399), (Start: 16 @37336 has 11 MA's), (Start: 23 @37294 has 87 MA's), (29, 37252), (36, 37186),

Gene: SilentWarrior_49 Start: 34916, Stop: 35149, Start Num: 23

Candidate Starts for SilentWarrior_49:

(Start: 23 @34916 has 87 MA's), (26, 34946), (27, 34952), (38, 35039), (42, 35075), (45, 35102),

Gene: Snakehole_49 Start: 34891, Stop: 35124, Start Num: 23

Candidate Starts for Snakehole_49:

(Start: 23 @34891 has 87 MA's), (26, 34921), (27, 34927), (38, 35014), (42, 35050), (45, 35077),

Gene: SoilGremlin_54 Start: 37368, Stop: 37102, Start Num: 16

Candidate Starts for SoilGremlin_54:

(7, 37431), (Start: 16 @37368 has 11 MA's), (Start: 23 @37326 has 87 MA's), (29, 37284), (36, 37218),

Gene: SolidSnake_55 Start: 37329, Stop: 37105, Start Num: 23

Candidate Starts for SolidSnake_55:

(7, 37434), (Start: 16 @37371 has 11 MA's), (Start: 23 @37329 has 87 MA's), (29, 37287), (36, 37221),

Gene: SonOfLevi_53 Start: 37045, Stop: 36812, Start Num: 21

Candidate Starts for SonOfLevi_53:

(Start: 21 @37045 has 50 MA's), (28, 36997), (35, 36934), (45, 36862), (46, 36853),

Gene: Soror1_51 Start: 37013, Stop: 36780, Start Num: 21

Candidate Starts for Soror1_51:

(Start: 21 @37013 has 50 MA's), (28, 36965), (35, 36902), (45, 36830), (46, 36821),

Gene: Sparcetus_16 Start: 7963, Stop: 8196, Start Num: 19

Candidate Starts for Sparcetus_16:

(Start: 19 @7963 has 7 MA's), (26, 8011), (29, 8023), (30, 8038), (32, 8059), (43, 8125),

Gene: Stanktossa_52 Start: 37297, Stop: 37073, Start Num: 23

Candidate Starts for Stanktossa_52:

(4, 37471), (Start: 16 @37339 has 11 MA's), (Start: 23 @37297 has 87 MA's), (29, 37255), (36, 37189),

Gene: StingRay_52 Start: 37018, Stop: 36794, Start Num: 23

Candidate Starts for StingRay_52:

(Start: 16 @37060 has 11 MA's), (Start: 23 @37018 has 87 MA's), (29, 36976), (36, 36910),

Gene: StirfryIV_52 Start: 37013, Stop: 36789, Start Num: 23

Candidate Starts for StirfryIV_52:

(Start: 11 @37094 has 2 MA's), (13, 37091), (Start: 16 @37055 has 11 MA's), (Start: 23 @37013 has 87 MA's), (29, 36971), (36, 36905),

Gene: Stormbreaker8_51 Start: 36999, Stop: 36766, Start Num: 21

Candidate Starts for Stormbreaker8_51:

(Start: 21 @36999 has 50 MA's), (28, 36951), (35, 36888), (45, 36816), (46, 36807),

Gene: Strathdee_53 Start: 37303, Stop: 37079, Start Num: 23

Candidate Starts for Strathdee_53:

(Start: 11 @37384 has 2 MA's), (13, 37381), (Start: 16 @37345 has 11 MA's), (Start: 23 @37303 has 87 MA's), (29, 37261), (36, 37195),

Gene: Sucha_4 Start: 2581, Stop: 2282, Start Num: 14

Candidate Starts for Sucha_4:

(3, 2707), (5, 2692), (Start: 14 @2581 has 1 MA's), (17, 2560), (Start: 22 @2527 has 4 MA's), (30, 2464), (34, 2437), (47, 2320),

Gene: Superfresh_53 Start: 37334, Stop: 37068, Start Num: 16

Candidate Starts for Superfresh_53:

(10, 37376), (Start: 16 @37334 has 11 MA's), (Start: 23 @37292 has 87 MA's), (29, 37250), (36, 37184),

Gene: Symere_52 Start: 37012, Stop: 36788, Start Num: 23

Candidate Starts for Symere_52:

(Start: 11 @37093 has 2 MA's), (13, 37090), (Start: 16 @37054 has 11 MA's), (Start: 23 @37012 has 87 MA's), (29, 36970), (36, 36904),

Gene: TatarkaPM_53 Start: 37307, Stop: 37083, Start Num: 23

Candidate Starts for TatarkaPM_53:

(7, 37412), (Start: 16 @37349 has 11 MA's), (Start: 23 @37307 has 87 MA's), (29, 37265), (36, 37199),

Gene: Teagan_53 Start: 37294, Stop: 37070, Start Num: 23

Candidate Starts for Teagan_53:

(Start: 11 @37375 has 2 MA's), (13, 37372), (Start: 16 @37336 has 11 MA's), (Start: 23 @37294 has 87 MA's), (29, 37252), (36, 37186),

Gene: TeddyBear_52 Start: 37027, Stop: 36794, Start Num: 21

Candidate Starts for TeddyBear_52:

(Start: 21 @37027 has 50 MA's), (28, 36979), (35, 36916), (45, 36844), (46, 36835),

Gene: Tedro_49 Start: 35141, Stop: 35374, Start Num: 23

Candidate Starts for Tedro_49:

(Start: 23 @35141 has 87 MA's), (26, 35171), (27, 35177), (38, 35264), (42, 35300), (45, 35327),

Gene: Tenda_52 Start: 37025, Stop: 36792, Start Num: 21

Candidate Starts for Tenda_52:

(Start: 21 @37025 has 50 MA's), (28, 36977), (35, 36914), (45, 36842), (46, 36833),

Gene: Theresita_32 Start: 22955, Stop: 22710, Start Num: 22

Candidate Starts for Theresita_32:

(Start: 22 @22955 has 4 MA's), (27, 22913), (30, 22892), (46, 22751), (47, 22748),

Gene: Thompsone_53 Start: 37301, Stop: 37077, Start Num: 23

Candidate Starts for Thompsone_53:

(Start: 11 @37382 has 2 MA's), (13, 37379), (Start: 16 @37343 has 11 MA's), (Start: 23 @37301 has 87 MA's), (29, 37259), (36, 37193),

Gene: Thorongil_53 Start: 36818, Stop: 36594, Start Num: 23

Candidate Starts for Thorongil_53:

(Start: 11 @36899 has 2 MA's), (13, 36896), (Start: 16 @36860 has 11 MA's), (Start: 23 @36818 has 87 MA's), (29, 36776), (36, 36710),

Gene: TinSulphur_54 Start: 37345, Stop: 37079, Start Num: 16

Candidate Starts for TinSulphur_54:

(7, 37408), (Start: 16 @37345 has 11 MA's), (Start: 23 @37303 has 87 MA's), (29, 37261), (36, 37195),

Gene: TinyMiny_16 Start: 7982, Stop: 8215, Start Num: 19

Candidate Starts for TinyMiny_16:

(Start: 19 @7982 has 7 MA's), (26, 8030), (29, 8042), (30, 8057), (32, 8078), (43, 8144),

Gene: Tongui_49 Start: 35268, Stop: 35501, Start Num: 23

Candidate Starts for Tongui_49:

(Start: 23 @35268 has 87 MA's), (24, 35277), (26, 35298), (42, 35427), (45, 35454),

Gene: Velene_53 Start: 37299, Stop: 37075, Start Num: 23

Candidate Starts for Velene_53:

(Start: 11 @37380 has 2 MA's), (13, 37377), (Start: 16 @37341 has 11 MA's), (Start: 23 @37299 has 87 MA's), (25, 37272), (29, 37257), (36, 37191),

Gene: Vispistious_53 Start: 37304, Stop: 37080, Start Num: 23

Candidate Starts for Vispistious_53:

(Start: 11 @37385 has 2 MA's), (13, 37382), (Start: 16 @37346 has 11 MA's), (Start: 23 @37304 has 87 MA's), (29, 37262), (36, 37196),

Gene: WildNOut_53 Start: 37297, Stop: 37073, Start Num: 23

Candidate Starts for WildNOut_53:

(Start: 11 @37378 has 2 MA's), (13, 37375), (Start: 16 @37339 has 11 MA's), (Start: 23 @37297 has 87 MA's), (29, 37255), (36, 37189),

Gene: Winzigespinne_52 Start: 37013, Stop: 36780, Start Num: 21

Candidate Starts for Winzigespinne_52:

(Start: 21 @37013 has 50 MA's), (28, 36965), (35, 36902), (45, 36830), (46, 36821),

Gene: Zada_54 Start: 37287, Stop: 37054, Start Num: 21

Candidate Starts for Zada_54:

(Start: 21 @37287 has 50 MA's), (28, 37239), (35, 37176), (45, 37104), (46, 37095),