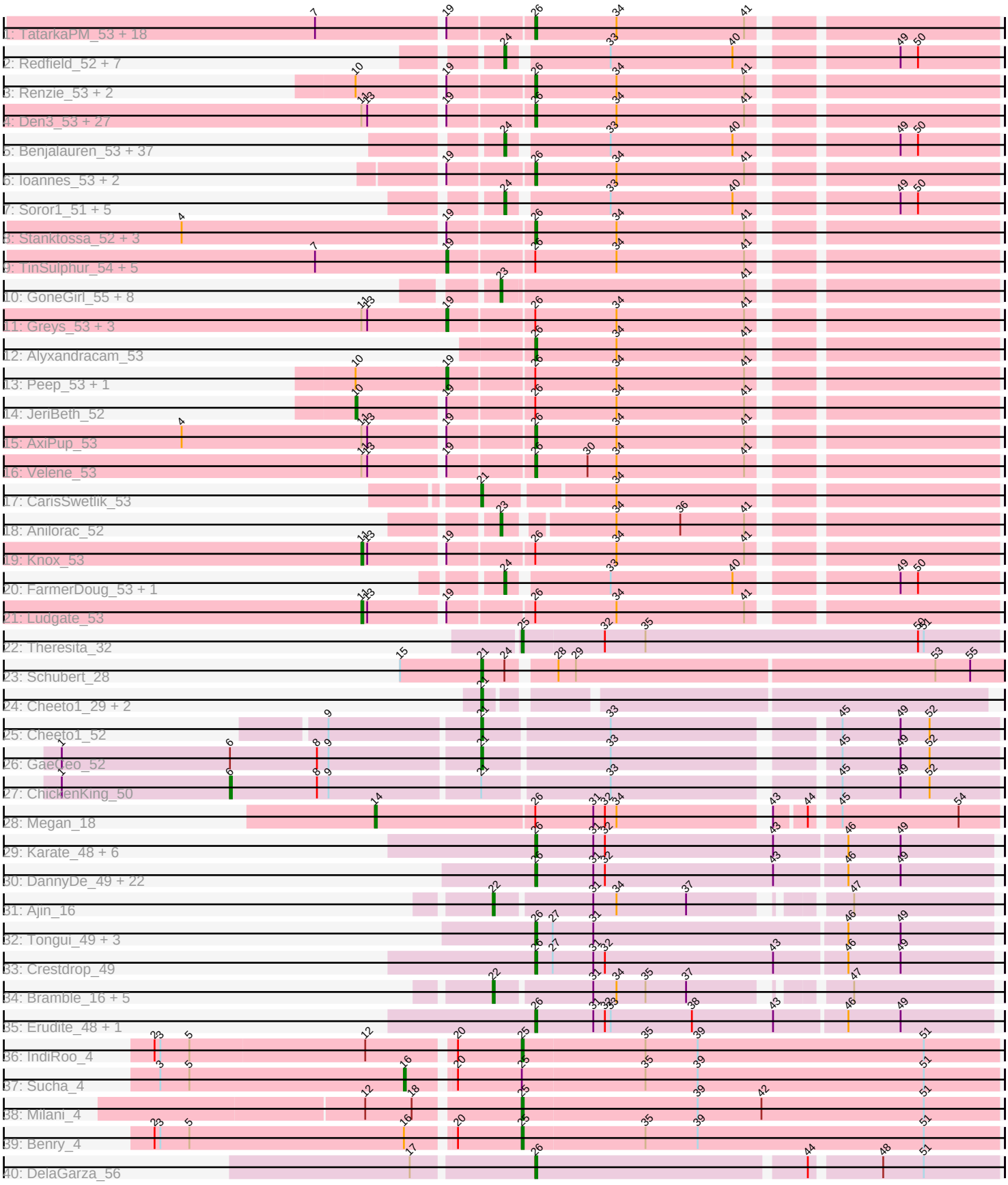
Pham 347280


1: TatarkaPM_53 + 18
2: Redfield_52 + 7
3: Renzie_53 + 2
4: Den3_53 + 27
5: Benjalauren_53 + 37
6: Ioannes_53 + 2
7: Soror1_51 + 5
8: Stanktossa_52 + 3
9: TinSulphur_54 + 5
10: GoneGirl_55 + 8
11: Greys_53 + 3
12: Alyxandracam_53
13: Peep_53 + 1
14: JeriBeth_52
15: AxlPup_53
16: Velene_53
17: CarisSwetlik_53
18: Anilorac_52
19: Knox_53
20: FarmerDoug_53 + 1
21: Ludgate_53
22: Theresita_32
23: Schubert_28
24: Cheeto1_29 + 2
25: Cheeto1_52
26: GaeOeo_52
27: ChickenKing_50
28: Megan_18
29: Karate_48 + 6
30: DannyDe_49 + 22
31: Ajin_16
32: Tongui_49 + 3
33: Crestdrop_49
34: Bramble_16 + 5
35: Erudite_48 + 1
36: IndiRoo_4
37: Sucha_4
38: Milani_4
39: Benry_4
40: DelaGarza_56

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 347280 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347280 has 198 members, 12 are drafts.

Phages represented in each track:
• Track 1 : TatarkaPM_53, Byron23_54, SolidSnake_55, BeautPeep30_53, Phireproof_53, PhredFlintston_53, Inventa_53, Rapheph_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, Dave_53, Antoinette_53
• Track 4 : Den3_53, Raptor_53, Kouch_53, BonesMcCoy_53, Exploradora_52, Strathdee_53, Blage_53, Vispistious_53, BigRedClifford_53, CoraRita_52, Convict_53, Symere_52, Papafritta_52, HungryHenry_52, WildNOut_53, Sedgewig_52, HanSolo_52, Ilzat_52, Thorongil_53, Clancy_52, Janus167_52, Thompsone_53, Lovelyunicorn_53, Teagan_53, StirfryIV_52, Gargoyle_53, ShaiHulud_53, Gubbabump_52
• 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, Riyhil_53, Bandik_53
• Track 10 : GoneGirl_55, McGalleon_54, Agente005_53, Acosta_55, GardenB_54, HavenFinLeoSun_55, Jenos_55, JasonD_54, Aleyra_53
• Track 11 : Greys_53, Oxtober96_54, GoingMerry_53, PuppyEggo_53
• Track 12 : Alyxandracam_53
• Track 13 : Peep_53, Superfresh_53
• Track 14 : JeriBeth_52
• Track 15 : AxiPup_53
• Track 16 : Velene_53
• Track 17 : CarisSwetlik_53
• Track 18 : Anilorac_52
• Track 19 : Knox_53

• Track 20 : FarmerDoug_53, MonChoix_50
• Track 21 : Ludgate_53
• Track 22 : Theresita_32
• Track 23 : Schubert_28
• Track 24 : Cheeto1_29, GaeCeo_29, ChickenKing_28
• Track 25 : Cheeto1_52
• Track 26 : GaeCeo_52
• Track 27 : ChickenKing_50
• Track 28 : Megan_18
• Track 29 : Karate_48, MortySmith_47, JingleBells_49, Tedro_49, SilentWarrior_49, Haunter_49, Hager_50
• Track 30 : DannyDe_49, Snakehole_49, AnnaSerena_49, Pharpay_49, NarutoRun_49, JDawG_48, Cybele_49, Hiddenleaf_49, Gilda_49, Tiggy93_49, CoolCookie_49, Anakin_49, Neptune_49, Rachella_49, Krampus_49, FreddieHg_49, OhDear_49, Aesir_48, SafetyGuy_49, Annapurna_49, Chivey_49, PhunaPhoke_49, Artiphact_49
• Track 31 : Ajin_16
• Track 32 : Tongui_49, FountainFog_48, WinnieLou_50, Rie18_49
• Track 33 : Crestdrop_49
• Track 34 : Bramble_16, LordBart_16, TinyMiny_16, RikSengupta_16, Sparcetus_16, Kors_16
• Track 35 : Erudite_48, Dauntless_48
• Track 36 : IndiRoo_4
• Track 37 : Sucha_4
• Track 38 : Milani_4
• Track 39 : Benry_4
• Track 40 : 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 26, it was called in 92 of the 186 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_52, 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, Gubbabump_52, Hager_50, HanSolo_52, Haunter_49, Hiddenleaf_49, HungryHenry_52, Ilzat_52, Inventa_53, Ioannes_53, JDawG_48, Janus167_52, JingleBells_49, Karate_48, Kouch_53, 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, Rapheph_53, Raptor_53, Renzie_53, Rie18_49, Robinson_53, SafetyGuy_49, 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, Tiggy93_49, Tongui_49, Velene_53, Vispistious_53, WildNOut_53, WinnieLou_50,

Genes that have the "Most Annotated" start but do not call it:
• Bandik_53, GoingMerry_53, Greys_53, JeriBeth_52, Knox_53, Ludgate_53, Megan_18, MillyPhilly_53, Oxtober96_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, Aleyra_53, Anilorac_52, AranulaLuti_52, Asta_52, Aubergine_52, Baines_52, Balsa_51, BeeBee8_53, Benjalauren_53, Benry_4, Bonino_52, Bramble_16, Calix_52, CarisSwetlik_53, Chako_52, Chamuel_52, Cheeto1_29, Cheeto1_52, ChickenKing_28, ChickenKing_50, Christoph_52, Duocatuli_52, Endor_55, Erla_52, Espinosa_52, Etna_52, Etta_52, FarmerDoug_53, GaeCeo_29, GaeCeo_52, GardenB_54, Garey24_53, Gelo_52, Gershwin_52, GoneGirl_55, Hamlet_52, HankSprout_53, HavenFinLeoSun_55, 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, Schubert_28, SonOfLevi_53, Soror1_51, Sparcetus_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 198 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 186
• Called 50.0% of time when present
• Phage (with cluster) where this start called: ChickenKing_50 (EA9),

Start 10:
• Found in 6 of 198 (3.0%) of genes in pham
• Manual Annotations of this start: 1 of 186
• Called 16.7% of time when present
• Phage (with cluster) where this start called: JeriBeth_52 (EA1),

Start 11:
• Found in 36 of 198 (18.2%) of genes in pham
• Manual Annotations of this start: 2 of 186
• Called 5.6% of time when present
• Phage (with cluster) where this start called: Knox_53 (EA1), Ludgate_53 (EA1),

Start 14:
• Found in 1 of 198 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 186
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Megan_18 (EC),

Start 16:
• Found in 2 of 198 (1.0%) of genes in pham

• Manual Annotations of this start: 1 of 186
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Sucha_4 (EJ),

Start 19:
• Found in 74 of 198 (37.4%) of genes in pham
• Manual Annotations of this start: 12 of 186
• Called 16.2% of time when present
• Phage (with cluster) where this start called: Bandik_53 (EA1), GoingMerry_53 (EA1), Greys_53 (EA1), MillyPhilly_53 (EA1), Oxtober96_54 (EA1), Peep_53 (EA1), PuppyEggo_53 (EA1), Riyhil_53 (EA1), Shee_53 (EA1), SoilGremlin_54 (EA1), Superfresh_53 (EA1), TinSulphur_54 (EA1),

Start 21:
• Found in 8 of 198 (4.0%) of genes in pham
• Manual Annotations of this start: 7 of 186
• Called 87.5% of time when present
• Phage (with cluster) where this start called: CarisSwetlik_53 (EA1), Cheeto1_29 (EA9), Cheeto1_52 (EA9), ChickenKing_28 (EA9), GaeCeo_29 (EA9), GaeCeo_52 (EA9), Schubert_28 (EA8),

Start 22:
• Found in 7 of 198 (3.5%) of genes in pham
• Manual Annotations of this start: 7 of 186
• 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 23:
• Found in 10 of 198 (5.1%) of genes in pham
• Manual Annotations of this start: 7 of 186
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Acosta_55 (EA1), Agente005_53 (EA1), Aleyra_53 (EA1), Anilorac_52 (EA1), GardenB_54 (EA1), GoneGirl_55 (EA1), HavenFinLeoSun_55 (EA1), JasonD_54 (EA1), Jenos_55 (EA1), McGalleon_54 (EA1),

Start 24:
• Found in 55 of 198 (27.8%) of genes in pham
• Manual Annotations of this start: 51 of 186
• Called 98.2% 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 25:
• Found in 5 of 198 (2.5%) of genes in pham
• Manual Annotations of this start: 4 of 186
• 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 26:
• Found in 114 of 198 (57.6%) of genes in pham
• Manual Annotations of this start: 92 of 186
• Called 86.0% 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_52 (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), 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), JingleBells_49 (EF), Karate_48 (EF), Kouch_53 (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), SafetyGuy_49 (EF), 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), Thompsone_53 (EA1), Thorongil_53 (EA1), Tiggy93_49 (EF), Tongui_49 (EF), Velene_53 (EA1), Vispistious_53 (EA1), WildNOut_53 (EA1), WinnieLou_50 (EF),

Summary by clusters:

There are 8 clusters represented in this pham: EA8, EJ, EF, EC, EA9, GF, EA1, EA7,

Info for manual annotations of cluster EA1:
•Start number 10 was manually annotated 1 time for cluster EA1.
•Start number 11 was manually annotated 2 times for cluster EA1.
•Start number 19 was manually annotated 12 times for cluster EA1.
•Start number 21 was manually annotated 1 time for cluster EA1.
•Start number 23 was manually annotated 7 times for cluster EA1.
•Start number 24 was manually annotated 51 times for cluster EA1.
•Start number 26 was manually annotated 58 times for cluster EA1.

Info for manual annotations of cluster EA7:
•Start number 25 was manually annotated 1 time for cluster EA7.

Info for manual annotations of cluster EA8:
•Start number 21 was manually annotated 1 time for cluster EA8.

Info for manual annotations of cluster EA9:
•Start number 6 was manually annotated 1 time for cluster EA9.
•Start number 21 was manually annotated 5 times for cluster EA9.

Info for manual annotations of cluster EC:
•Start number 14 was manually annotated 1 time for cluster EC.

Info for manual annotations of cluster EF:
•Start number 22 was manually annotated 7 times for cluster EF.
•Start number 26 was manually annotated 33 times for cluster EF.

Info for manual annotations of cluster EJ:
•Start number 16 was manually annotated 1 time for cluster EJ.
•Start number 25 was manually annotated 3 times for cluster EJ.

Info for manual annotations of cluster GF:
•Start number 26 was manually annotated 1 time for cluster GF.

Gene Information:

Gene: Acosta_55 Start: 37463, Stop: 37224, Start Num: 23
Candidate Starts for Acosta_55:
(Start: 23 @37463 has 7 MA's), (41, 37340),

Gene: Aesir_48 Start: 35323, Stop: 35556, Start Num: 26
Candidate Starts for Aesir_48:
(Start: 26 @35323 has 92 MA's), (31, 35353), (32, 35359), (43, 35446), (46, 35482), (49, 35509),

Gene: Agente005_53 Start: 37359, Stop: 37120, Start Num: 23
Candidate Starts for Agente005_53:
(Start: 23 @37359 has 7 MA's), (41, 37236),

Gene: Ajin_16 Start: 8002, Stop: 8235, Start Num: 22
Candidate Starts for Ajin_16:
(Start: 22 @8002 has 7 MA's), (31, 8050), (34, 8062), (37, 8098), (47, 8164),

Gene: AlexAdler_53 Start: 37305, Stop: 37072, Start Num: 24
Candidate Starts for AlexAdler_53:
(Start: 24 @37305 has 51 MA's), (33, 37257), (40, 37194), (49, 37122), (50, 37113),

Gene: Aleyra_53 Start: 37364, Stop: 37125, Start Num: 23
Candidate Starts for Aleyra_53:
(Start: 23 @37364 has 7 MA's), (41, 37241),

Gene: Alyxandracam_53 Start: 37301, Stop: 37077, Start Num: 26

Candidate Starts for Alyxandracam_53:
(Start: 26 @37301 has 92 MA's), (34, 37259), (41, 37193),

Gene: Anakin_49 Start: 35682, Stop: 35915, Start Num: 26
Candidate Starts for Anakin_49:
(Start: 26 @35682 has 92 MA's), (31, 35712), (32, 35718), (43, 35805), (46, 35841), (49, 35868),

Gene: Anilorac_52 Start: 37312, Stop: 37079, Start Num: 23
Candidate Starts for Anilorac_52:
(Start: 23 @37312 has 7 MA's), (34, 37261), (36, 37228), (41, 37195),

Gene: AnnaSerena_49 Start: 35716, Stop: 35949, Start Num: 26
Candidate Starts for AnnaSerena_49:
(Start: 26 @35716 has 92 MA's), (31, 35746), (32, 35752), (43, 35839), (46, 35875), (49, 35902),

Gene: Annapurna_49 Start: 34952, Stop: 35185, Start Num: 26
Candidate Starts for Annapurna_49:
(Start: 26 @34952 has 92 MA's), (31, 34982), (32, 34988), (43, 35075), (46, 35111), (49, 35138),

Gene: Antoinette_53 Start: 37292, Stop: 37068, Start Num: 26
Candidate Starts for Antoinette_53:
(Start: 10 @37376 has 1 MA's), (Start: 19 @37334 has 12 MA's), (Start: 26 @37292 has 92 MA's), (34, 37250), (41, 37184),

Gene: AranulaLuti_52 Start: 37017, Stop: 36784, Start Num: 24
Candidate Starts for AranulaLuti_52:
(Start: 24 @37017 has 51 MA's), (33, 36969), (40, 36906), (49, 36834), (50, 36825),

Gene: Artiphact_49 Start: 35706, Stop: 35939, Start Num: 26
Candidate Starts for Artiphact_49:
(Start: 26 @35706 has 92 MA's), (31, 35736), (32, 35742), (43, 35829), (46, 35865), (49, 35892),

Gene: Asta_52 Start: 37027, Stop: 36794, Start Num: 24
Candidate Starts for Asta_52:
(Start: 24 @37027 has 51 MA's), (33, 36979), (40, 36916), (49, 36844), (50, 36835),

Gene: Aubergine_52 Start: 37027, Stop: 36794, Start Num: 24
Candidate Starts for Aubergine_52:
(Start: 24 @37027 has 51 MA's), (33, 36979), (40, 36916), (49, 36844), (50, 36835),

Gene: AxiPup_53 Start: 37271, Stop: 37047, Start Num: 26
Candidate Starts for AxiPup_53:
(4, 37445), (Start: 11 @37352 has 2 MA's), (13, 37349), (Start: 19 @37313 has 12 MA's), (Start: 26 @37271 has 92 MA's), (34, 37229), (41, 37163),

Gene: Baines_52 Start: 37020, Stop: 36787, Start Num: 24
Candidate Starts for Baines_52:
(Start: 24 @37020 has 51 MA's), (33, 36972), (40, 36909), (49, 36837), (50, 36828),

Gene: Balsa_51 Start: 37115, Stop: 36882, Start Num: 24
Candidate Starts for Balsa_51:
(Start: 24 @37115 has 51 MA's), (33, 37067), (40, 37004), (49, 36932), (50, 36923),

Gene: Bandik_53 Start: 37339, Stop: 37073, Start Num: 19
Candidate Starts for Bandik_53:
(7, 37402), (Start: 19 @37339 has 12 MA's), (Start: 26 @37297 has 92 MA's), (34, 37255), (41, 37189),

Gene: BeautPeep30_53 Start: 37303, Stop: 37079, Start Num: 26
Candidate Starts for BeautPeep30_53:
(7, 37408), (Start: 19 @37345 has 12 MA's), (Start: 26 @37303 has 92 MA's), (34, 37261), (41, 37195),

Gene: BeeBee8_53 Start: 37294, Stop: 37061, Start Num: 24
Candidate Starts for BeeBee8_53:
(Start: 24 @37294 has 51 MA's), (33, 37246), (40, 37183), (49, 37111), (50, 37102),

Gene: Benjalauren_53 Start: 37033, Stop: 36800, Start Num: 24
Candidate Starts for Benjalauren_53:
(Start: 24 @37033 has 51 MA's), (33, 36985), (40, 36922), (49, 36850), (50, 36841),

Gene: Benry_4 Start: 2527, Stop: 2282, Start Num: 25
Candidate Starts for Benry_4:
(2, 2710), (3, 2707), (5, 2692), (Start: 16 @2581 has 1 MA's), (20, 2560), (Start: 25 @2527 has 4 MA's), (35, 2464), (39, 2437), (51, 2320),

Gene: BigRedClifford_53 Start: 37298, Stop: 37074, Start Num: 26
Candidate Starts for BigRedClifford_53:
(Start: 11 @37379 has 2 MA's), (13, 37376), (Start: 19 @37340 has 12 MA's), (Start: 26 @37298 has 92 MA's), (34, 37256), (41, 37190),

Gene: Blage_53 Start: 37298, Stop: 37074, Start Num: 26
Candidate Starts for Blage_53:
(Start: 11 @37379 has 2 MA's), (13, 37376), (Start: 19 @37340 has 12 MA's), (Start: 26 @37298 has 92 MA's), (34, 37256), (41, 37190),

Gene: BonesMcCoy_53 Start: 37298, Stop: 37074, Start Num: 26
Candidate Starts for BonesMcCoy_53:
(Start: 11 @37379 has 2 MA's), (13, 37376), (Start: 19 @37340 has 12 MA's), (Start: 26 @37298 has 92 MA's), (34, 37256), (41, 37190),

Gene: Bonino_52 Start: 37006, Stop: 36773, Start Num: 24
Candidate Starts for Bonino_52:
(Start: 24 @37006 has 51 MA's), (33, 36958), (40, 36895), (49, 36823), (50, 36814),

Gene: Bramble_16 Start: 7969, Stop: 8202, Start Num: 22
Candidate Starts for Bramble_16:
(Start: 22 @7969 has 7 MA's), (31, 8017), (34, 8029), (35, 8044), (37, 8065), (47, 8131),

Gene: Byron23_54 Start: 37300, Stop: 37076, Start Num: 26
Candidate Starts for Byron23_54:
(7, 37405), (Start: 19 @37342 has 12 MA's), (Start: 26 @37300 has 92 MA's), (34, 37258), (41, 37192),

Gene: Calix_52 Start: 37013, Stop: 36780, Start Num: 24
Candidate Starts for Calix_52:
(Start: 24 @37013 has 51 MA's), (33, 36965), (40, 36902), (49, 36830), (50, 36821),

Gene: CarisSwetlik_53 Start: 37410, Stop: 37165, Start Num: 21

Candidate Starts for CarisSwetlik_53:
(Start: 21 @37410 has 7 MA's), (34, 37347),

Gene: Chako_52 Start: 37017, Stop: 36784, Start Num: 24
Candidate Starts for Chako_52:
(Start: 24 @37017 has 51 MA's), (33, 36969), (40, 36906), (49, 36834), (50, 36825),

Gene: Chamuel_52 Start: 37039, Stop: 36806, Start Num: 24
Candidate Starts for Chamuel_52:
(Start: 24 @37039 has 51 MA's), (33, 36991), (40, 36928), (49, 36856), (50, 36847),

Gene: Cheeto1_29 Start: 21021, Stop: 20779, Start Num: 21
Candidate Starts for Cheeto1_29:
(Start: 21 @21021 has 7 MA's),

Gene: Cheeto1_52 Start: 36491, Stop: 36243, Start Num: 21
Candidate Starts for Cheeto1_52:
(9, 36566), (Start: 21 @36491 has 7 MA's), (33, 36428), (45, 36323), (49, 36293), (52, 36278),

Gene: ChickenKing_28 Start: 20922, Stop: 20677, Start Num: 21
Candidate Starts for ChickenKing_28:
(Start: 21 @20922 has 7 MA's),

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: 21 @36384 has 7 MA's), (33, 36321), (45, 36216), (49, 36186), (52, 36171),

Gene: Chivey_49 Start: 34913, Stop: 35146, Start Num: 26
Candidate Starts for Chivey_49:
(Start: 26 @34913 has 92 MA's), (31, 34943), (32, 34949), (43, 35036), (46, 35072), (49, 35099),

Gene: Christoph_52 Start: 37026, Stop: 36793, Start Num: 24
Candidate Starts for Christoph_52:
(Start: 24 @37026 has 51 MA's), (33, 36978), (40, 36915), (49, 36843), (50, 36834),

Gene: Clancy_52 Start: 37049, Stop: 36825, Start Num: 26
Candidate Starts for Clancy_52:
(Start: 11 @37130 has 2 MA's), (13, 37127), (Start: 19 @37091 has 12 MA's), (Start: 26 @37049 has 92 MA's), (34, 37007), (41, 36941),

Gene: Convict_53 Start: 37298, Stop: 37074, Start Num: 26
Candidate Starts for Convict_53:
(Start: 11 @37379 has 2 MA's), (13, 37376), (Start: 19 @37340 has 12 MA's), (Start: 26 @37298 has 92 MA's), (34, 37256), (41, 37190),

Gene: CoolCookie_49 Start: 35709, Stop: 35942, Start Num: 26
Candidate Starts for CoolCookie_49:
(Start: 26 @35709 has 92 MA's), (31, 35739), (32, 35745), (43, 35832), (46, 35868), (49, 35895),

Gene: CoraRita_52 Start: 37019, Stop: 36795, Start Num: 26
Candidate Starts for CoraRita_52:

(Start: 11 @37100 has 2 MA's), (13, 37097), (Start: 19 @37061 has 12 MA's), (Start: 26 @37019 has 92 MA's), (34, 36977), (41, 36911),

Gene: Crestdrop_49 Start: 34931, Stop: 35164, Start Num: 26
Candidate Starts for Crestdrop_49:
(Start: 26 @34931 has 92 MA's), (27, 34940), (31, 34961), (32, 34967), (43, 35054), (46, 35090), (49, 35117),

Gene: Cybele_49 Start: 35682, Stop: 35915, Start Num: 26
Candidate Starts for Cybele_49:
(Start: 26 @35682 has 92 MA's), (31, 35712), (32, 35718), (43, 35805), (46, 35841), (49, 35868),

Gene: DannyDe_49 Start: 34907, Stop: 35140, Start Num: 26
Candidate Starts for DannyDe_49:
(Start: 26 @34907 has 92 MA's), (31, 34937), (32, 34943), (43, 35030), (46, 35066), (49, 35093),

Gene: Dauntless_48 Start: 35258, Stop: 35491, Start Num: 26
Candidate Starts for Dauntless_48:
(Start: 26 @35258 has 92 MA's), (31, 35288), (32, 35294), (33, 35297), (38, 35339), (43, 35381), (46, 35417), (49, 35444),

Gene: Dave_53 Start: 37292, Stop: 37068, Start Num: 26
Candidate Starts for Dave_53:
(Start: 10 @37376 has 1 MA's), (Start: 19 @37334 has 12 MA's), (Start: 26 @37292 has 92 MA's), (34, 37250), (41, 37184),

Gene: DelaGarza_56 Start: 32254, Stop: 32481, Start Num: 26
Candidate Starts for DelaGarza_56:
(17, 32194), (Start: 26 @32254 has 92 MA's), (44, 32389), (48, 32422), (51, 32443),

Gene: Delphidian_53 Start: 37326, Stop: 37102, Start Num: 26
Candidate Starts for Delphidian_53:
(7, 37431), (Start: 19 @37368 has 12 MA's), (Start: 26 @37326 has 92 MA's), (34, 37284), (41, 37218),

Gene: Den3_53 Start: 37303, Stop: 37079, Start Num: 26
Candidate Starts for Den3_53:
(Start: 11 @37384 has 2 MA's), (13, 37381), (Start: 19 @37345 has 12 MA's), (Start: 26 @37303 has 92 MA's), (34, 37261), (41, 37195),

Gene: Dothraki_53 Start: 37300, Stop: 37076, Start Num: 26
Candidate Starts for Dothraki_53:
(4, 37474), (Start: 19 @37342 has 12 MA's), (Start: 26 @37300 has 92 MA's), (34, 37258), (41, 37192),

Gene: Duocatuli_52 Start: 37017, Stop: 36784, Start Num: 24
Candidate Starts for Duocatuli_52:
(Start: 24 @37017 has 51 MA's), (33, 36969), (40, 36906), (49, 36834), (50, 36825),

Gene: Endor_55 Start: 37862, Stop: 37629, Start Num: 24
Candidate Starts for Endor_55:
(Start: 24 @37862 has 51 MA's), (33, 37814), (40, 37751), (49, 37679), (50, 37670),

Gene: Erla_52 Start: 37010, Stop: 36777, Start Num: 24
Candidate Starts for Erla_52:

(Start: 24 @37010 has 51 MA's), (33, 36962), (40, 36899), (49, 36827), (50, 36818),

Gene: Erudite_48 Start: 35258, Stop: 35491, Start Num: 26
Candidate Starts for Erudite_48:
(Start: 26 @35258 has 92 MA's), (31, 35288), (32, 35294), (33, 35297), (38, 35339), (43, 35381), (46, 35417), (49, 35444),

Gene: Espinosa_52 Start: 37025, Stop: 36792, Start Num: 24
Candidate Starts for Espinosa_52:
(Start: 24 @37025 has 51 MA's), (33, 36977), (40, 36914), (49, 36842), (50, 36833),

Gene: Etna_52 Start: 37162, Stop: 36929, Start Num: 24
Candidate Starts for Etna_52:
(Start: 24 @37162 has 51 MA's), (33, 37114), (40, 37051), (49, 36979), (50, 36970),

Gene: Etta_52 Start: 37014, Stop: 36781, Start Num: 24
Candidate Starts for Etta_52:
(Start: 24 @37014 has 51 MA's), (33, 36966), (40, 36903), (49, 36831), (50, 36822),

Gene: Exploradora_52 Start: 37004, Stop: 36780, Start Num: 26
Candidate Starts for Exploradora_52:
(Start: 11 @37085 has 2 MA's), (13, 37082), (Start: 19 @37046 has 12 MA's), (Start: 26 @37004 has 92 MA's), (34, 36962), (41, 36896),

Gene: FarmerDoug_53 Start: 37391, Stop: 37158, Start Num: 24
Candidate Starts for FarmerDoug_53:
(Start: 24 @37391 has 51 MA's), (33, 37343), (40, 37280), (49, 37208), (50, 37199),

Gene: Figueroism_53 Start: 37293, Stop: 37069, Start Num: 26
Candidate Starts for Figueroism_53:
(4, 37467), (Start: 19 @37335 has 12 MA's), (Start: 26 @37293 has 92 MA's), (34, 37251), (41, 37185),

Gene: FountainFog_48 Start: 34943, Stop: 35176, Start Num: 26
Candidate Starts for FountainFog_48:
(Start: 26 @34943 has 92 MA's), (27, 34952), (31, 34973), (46, 35102), (49, 35129),

Gene: FreddieHg_49 Start: 34923, Stop: 35156, Start Num: 26
Candidate Starts for FreddieHg_49:
(Start: 26 @34923 has 92 MA's), (31, 34953), (32, 34959), (43, 35046), (46, 35082), (49, 35109),

Gene: GaeCeo_29 Start: 21095, Stop: 20850, Start Num: 21
Candidate Starts for GaeCeo_29:
(Start: 21 @21095 has 7 MA's),

Gene: GaeCeo_52 Start: 36617, Stop: 36369, Start Num: 21
Candidate Starts for GaeCeo_52:
(1, 36830), (Start: 6 @36743 has 1 MA's), (8, 36698), (9, 36692), (Start: 21 @36617 has 7 MA's), (33, 36554), (45, 36449), (49, 36419), (52, 36404),

Gene: GardenB_54 Start: 37643, Stop: 37404, Start Num: 23
Candidate Starts for GardenB_54:
(Start: 23 @37643 has 7 MA's), (41, 37520),

Gene: Garey24_53 Start: 36993, Stop: 36760, Start Num: 24
Candidate Starts for Garey24_53:
(Start: 24 @36993 has 51 MA's), (33, 36945), (40, 36882), (49, 36810), (50, 36801),

Gene: Gargoyle_53 Start: 37303, Stop: 37079, Start Num: 26
Candidate Starts for Gargoyle_53:
(Start: 11 @37384 has 2 MA's), (13, 37381), (Start: 19 @37345 has 12 MA's), (Start: 26 @37303 has 92 MA's), (34, 37261), (41, 37195),

Gene: Gelo_52 Start: 37020, Stop: 36787, Start Num: 24
Candidate Starts for Gelo_52:
(Start: 24 @37020 has 51 MA's), (33, 36972), (40, 36909), (49, 36837), (50, 36828),

Gene: Gershwin_52 Start: 37027, Stop: 36794, Start Num: 24
Candidate Starts for Gershwin_52:
(Start: 24 @37027 has 51 MA's), (33, 36979), (40, 36916), (49, 36844), (50, 36835),

Gene: Gilda_49 Start: 35703, Stop: 35936, Start Num: 26
Candidate Starts for Gilda_49:
(Start: 26 @35703 has 92 MA's), (31, 35733), (32, 35739), (43, 35826), (46, 35862), (49, 35889),

Gene: GoingMerry_53 Start: 37323, Stop: 37057, Start Num: 19
Candidate Starts for GoingMerry_53:
(Start: 11 @37362 has 2 MA's), (13, 37359), (Start: 19 @37323 has 12 MA's), (Start: 26 @37281 has 92 MA's), (34, 37239), (41, 37173),

Gene: GoneGirl_55 Start: 37630, Stop: 37391, Start Num: 23
Candidate Starts for GoneGirl_55:
(Start: 23 @37630 has 7 MA's), (41, 37507),

Gene: Greys_53 Start: 37341, Stop: 37075, Start Num: 19
Candidate Starts for Greys_53:
(Start: 11 @37380 has 2 MA's), (13, 37377), (Start: 19 @37341 has 12 MA's), (Start: 26 @37299 has 92 MA's), (34, 37257), (41, 37191),

Gene: Gubbabump_52 Start: 36994, Stop: 36770, Start Num: 26
Candidate Starts for Gubbabump_52:
(Start: 11 @37075 has 2 MA's), (13, 37072), (Start: 19 @37036 has 12 MA's), (Start: 26 @36994 has 92 MA's), (34, 36952), (41, 36886),

Gene: Hager_50 Start: 35123, Stop: 35356, Start Num: 26
Candidate Starts for Hager_50:
(Start: 26 @35123 has 92 MA's), (31, 35153), (32, 35159), (43, 35246), (46, 35282), (49, 35309),

Gene: Hamlet_52 Start: 37107, Stop: 36874, Start Num: 24
Candidate Starts for Hamlet_52:
(Start: 24 @37107 has 51 MA's), (33, 37059), (40, 36996), (49, 36924), (50, 36915),

Gene: HanSolo_52 Start: 37004, Stop: 36780, Start Num: 26
Candidate Starts for HanSolo_52:
(Start: 11 @37085 has 2 MA's), (13, 37082), (Start: 19 @37046 has 12 MA's), (Start: 26 @37004 has 92 MA's), (34, 36962), (41, 36896),

Gene: HankSprout_53 Start: 36894, Stop: 36661, Start Num: 24
Candidate Starts for HankSprout_53:
(Start: 24 @36894 has 51 MA's), (33, 36846), (40, 36783), (49, 36711), (50, 36702),

Gene: Haunter_49 Start: 35085, Stop: 35318, Start Num: 26
Candidate Starts for Haunter_49:
(Start: 26 @35085 has 92 MA's), (31, 35115), (32, 35121), (43, 35208), (46, 35244), (49, 35271),

Gene: HavenFinLeoSun_55 Start: 37409, Stop: 37170, Start Num: 23
Candidate Starts for HavenFinLeoSun_55:
(Start: 23 @37409 has 7 MA's), (41, 37286),

Gene: Hiddenleaf_49 Start: 34913, Stop: 35146, Start Num: 26
Candidate Starts for Hiddenleaf_49:
(Start: 26 @34913 has 92 MA's), (31, 34943), (32, 34949), (43, 35036), (46, 35072), (49, 35099),

Gene: HungryHenry_52 Start: 37009, Stop: 36785, Start Num: 26
Candidate Starts for HungryHenry_52:
(Start: 11 @37090 has 2 MA's), (13, 37087), (Start: 19 @37051 has 12 MA's), (Start: 26 @37009 has 92 MA's), (34, 36967), (41, 36901),

Gene: Ilzat_52 Start: 37020, Stop: 36796, Start Num: 26
Candidate Starts for Ilzat_52:
(Start: 11 @37101 has 2 MA's), (13, 37098), (Start: 19 @37062 has 12 MA's), (Start: 26 @37020 has 92 MA's), (34, 36978), (41, 36912),

Gene: IndiRoo_4 Start: 2526, Stop: 2281, Start Num: 25
Candidate Starts for IndiRoo_4:
(2, 2709), (3, 2706), (5, 2691), (12, 2601), (20, 2559), (Start: 25 @2526 has 4 MA's), (35, 2463), (39, 2436), (51, 2319),

Gene: Inventa_53 Start: 37297, Stop: 37073, Start Num: 26
Candidate Starts for Inventa_53:
(7, 37402), (Start: 19 @37339 has 12 MA's), (Start: 26 @37297 has 92 MA's), (34, 37255), (41, 37189),

Gene: Ioannes_53 Start: 37301, Stop: 37077, Start Num: 26
Candidate Starts for Ioannes_53:
(Start: 19 @37343 has 12 MA's), (Start: 26 @37301 has 92 MA's), (34, 37259), (41, 37193),

Gene: JDawG_48 Start: 35318, Stop: 35551, Start Num: 26
Candidate Starts for JDawG_48:
(Start: 26 @35318 has 92 MA's), (31, 35348), (32, 35354), (43, 35441), (46, 35477), (49, 35504),

Gene: Janus167_52 Start: 37031, Stop: 36807, Start Num: 26
Candidate Starts for Janus167_52:
(Start: 11 @37112 has 2 MA's), (13, 37109), (Start: 19 @37073 has 12 MA's), (Start: 26 @37031 has 92 MA's), (34, 36989), (41, 36923),

Gene: JasonD_54 Start: 37244, Stop: 37005, Start Num: 23
Candidate Starts for JasonD_54:
(Start: 23 @37244 has 7 MA's), (41, 37121),

Gene: JasperRussell_52 Start: 37017, Stop: 36784, Start Num: 24

Candidate Starts for JasperRussell_52:
(Start: 24 @37017 has 51 MA's), (33, 36969), (40, 36906), (49, 36834), (50, 36825),

Gene: Jenos_55 Start: 37977, Stop: 37738, Start Num: 23
Candidate Starts for Jenos_55:
(Start: 23 @37977 has 7 MA's), (41, 37854),

Gene: Jerbirus_54 Start: 37017, Stop: 36784, Start Num: 24
Candidate Starts for Jerbirus_54:
(Start: 24 @37017 has 51 MA's), (33, 36969), (40, 36906), (49, 36834), (50, 36825),

Gene: JeriBeth_52 Start: 36951, Stop: 36643, Start Num: 10
Candidate Starts for JeriBeth_52:
(Start: 10 @36951 has 1 MA's), (Start: 19 @36909 has 12 MA's), (Start: 26 @36867 has 92 MA's), (34, 36825), (41, 36759),

Gene: JingleBells_49 Start: 35048, Stop: 35281, Start Num: 26
Candidate Starts for JingleBells_49:
(Start: 26 @35048 has 92 MA's), (31, 35078), (32, 35084), (43, 35171), (46, 35207), (49, 35234),

Gene: Kale_52 Start: 37029, Stop: 36796, Start Num: 24
Candidate Starts for Kale_52:
(Start: 24 @37029 has 51 MA's), (33, 36981), (40, 36918), (49, 36846), (50, 36837),

Gene: KannH_52 Start: 37017, Stop: 36784, Start Num: 24
Candidate Starts for KannH_52:
(Start: 24 @37017 has 51 MA's), (33, 36969), (40, 36906), (49, 36834), (50, 36825),

Gene: Karate_48 Start: 35703, Stop: 35936, Start Num: 26
Candidate Starts for Karate_48:
(Start: 26 @35703 has 92 MA's), (31, 35733), (32, 35739), (43, 35826), (46, 35862), (49, 35889),

Gene: KellyGreen_54 Start: 37011, Stop: 36778, Start Num: 24
Candidate Starts for KellyGreen_54:
(Start: 24 @37011 has 51 MA's), (33, 36963), (40, 36900), (49, 36828), (50, 36819),

Gene: KingJulien_51 Start: 36998, Stop: 36765, Start Num: 24
Candidate Starts for KingJulien_51:
(Start: 24 @36998 has 51 MA's), (33, 36950), (40, 36887), (49, 36815), (50, 36806),

Gene: Klimt_53 Start: 37045, Stop: 36812, Start Num: 24
Candidate Starts for Klimt_53:
(Start: 24 @37045 has 51 MA's), (33, 36997), (40, 36934), (49, 36862), (50, 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: 19 @37340 has 12 MA's), (Start: 26 @37298 has 92 MA's), (34, 37256), (41, 37190),

Gene: Kors_16 Start: 8032, Stop: 8265, Start Num: 22
Candidate Starts for Kors_16:
(Start: 22 @8032 has 7 MA's), (31, 8080), (34, 8092), (35, 8107), (37, 8128), (47, 8194),

Gene: Kouch_53 Start: 37004, Stop: 36780, Start Num: 26
Candidate Starts for Kouch_53:
(Start: 11 @37085 has 2 MA's), (13, 37082), (Start: 19 @37046 has 12 MA's), (Start: 26 @37004 has 92 MA's), (34, 36962), (41, 36896),

Gene: Krampus_49 Start: 35717, Stop: 35950, Start Num: 26
Candidate Starts for Krampus_49:
(Start: 26 @35717 has 92 MA's), (31, 35747), (32, 35753), (43, 35840), (46, 35876), (49, 35903),

Gene: Kurt1_53 Start: 37297, Stop: 37073, Start Num: 26
Candidate Starts for Kurt1_53:
(7, 37402), (Start: 19 @37339 has 12 MA's), (Start: 26 @37297 has 92 MA's), (34, 37255), (41, 37189),

Gene: Leafus_52 Start: 37262, Stop: 37029, Start Num: 24
Candidate Starts for Leafus_52:
(Start: 24 @37262 has 51 MA's), (33, 37214), (40, 37151), (49, 37079), (50, 37070),

Gene: LordBart_16 Start: 8005, Stop: 8238, Start Num: 22
Candidate Starts for LordBart_16:
(Start: 22 @8005 has 7 MA's), (31, 8053), (34, 8065), (35, 8080), (37, 8101), (47, 8167),

Gene: Lovelyunicorn_53 Start: 37299, Stop: 37075, Start Num: 26
Candidate Starts for Lovelyunicorn_53:
(Start: 11 @37380 has 2 MA's), (13, 37377), (Start: 19 @37341 has 12 MA's), (Start: 26 @37299 has 92 MA's), (34, 37257), (41, 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: 19 @37342 has 12 MA's), (Start: 26 @37300 has 92 MA's), (34, 37258), (41, 37192),

Gene: MaeLinda_53 Start: 37301, Stop: 37077, Start Num: 26
Candidate Starts for MaeLinda_53:
(4, 37475), (Start: 19 @37343 has 12 MA's), (Start: 26 @37301 has 92 MA's), (34, 37259), (41, 37193),

Gene: ManRay_52 Start: 37027, Stop: 36794, Start Num: 24
Candidate Starts for ManRay_52:
(Start: 24 @37027 has 51 MA's), (33, 36979), (40, 36916), (49, 36844), (50, 36835),

Gene: Martin_54 Start: 37306, Stop: 37082, Start Num: 26
Candidate Starts for Martin_54:
(7, 37411), (Start: 19 @37348 has 12 MA's), (Start: 26 @37306 has 92 MA's), (34, 37264), (41, 37198),

Gene: McGalleon_54 Start: 38115, Stop: 37876, Start Num: 23
Candidate Starts for McGalleon_54:
(Start: 23 @38115 has 7 MA's), (41, 37992),

Gene: Megan_18 Start: 12368, Stop: 12670, Start Num: 14
Candidate Starts for Megan_18:
(Start: 14 @12368 has 1 MA's), (Start: 26 @12449 has 92 MA's), (31, 12479), (32, 12485), (34, 12491), (43, 12563), (44, 12578), (45, 12590), (54, 12650),

Gene: Merida02_55 Start: 37326, Stop: 37102, Start Num: 26

Candidate Starts for Merida02_55:
(7, 37431), (Start: 19 @37368 has 12 MA's), (Start: 26 @37326 has 92 MA's), (34, 37284), (41, 37218),

Gene: Milani_4 Start: 2526, Stop: 2281, Start Num: 25
Candidate Starts for Milani_4:
(12, 2601), (18, 2577), (Start: 25 @2526 has 4 MA's), (39, 2436), (42, 2403), (51, 2319),

Gene: MillyPhilly_53 Start: 37336, Stop: 37070, Start Num: 19
Candidate Starts for MillyPhilly_53:
(7, 37399), (Start: 19 @37336 has 12 MA's), (Start: 26 @37294 has 92 MA's), (34, 37252), (41, 37186),

Gene: MonChoix_50 Start: 36925, Stop: 36692, Start Num: 24
Candidate Starts for MonChoix_50:
(Start: 24 @36925 has 51 MA's), (33, 36877), (40, 36814), (49, 36742), (50, 36733),

Gene: MortySmith_47 Start: 34735, Stop: 34968, Start Num: 26
Candidate Starts for MortySmith_47:
(Start: 26 @34735 has 92 MA's), (31, 34765), (32, 34771), (43, 34858), (46, 34894), (49, 34921),

Gene: MrWorldwide_53 Start: 37304, Stop: 37080, Start Num: 26
Candidate Starts for MrWorldwide_53:
(7, 37409), (Start: 19 @37346 has 12 MA's), (Start: 26 @37304 has 92 MA's), (34, 37262), (41, 37196),

Gene: Nagem_53 Start: 37310, Stop: 37077, Start Num: 24
Candidate Starts for Nagem_53:
(Start: 24 @37310 has 51 MA's), (33, 37262), (40, 37199), (49, 37127), (50, 37118),

Gene: NarutoRun_49 Start: 35682, Stop: 35915, Start Num: 26
Candidate Starts for NarutoRun_49:
(Start: 26 @35682 has 92 MA's), (31, 35712), (32, 35718), (43, 35805), (46, 35841), (49, 35868),

Gene: Nattles_52 Start: 37014, Stop: 36781, Start Num: 24
Candidate Starts for Nattles_52:
(Start: 24 @37014 has 51 MA's), (33, 36966), (40, 36903), (49, 36831), (50, 36822),

Gene: Neptune_49 Start: 35682, Stop: 35915, Start Num: 26
Candidate Starts for Neptune_49:
(Start: 26 @35682 has 92 MA's), (31, 35712), (32, 35718), (43, 35805), (46, 35841), (49, 35868),

Gene: NickSell_53 Start: 37307, Stop: 37083, Start Num: 26
Candidate Starts for NickSell_53:
(7, 37412), (Start: 19 @37349 has 12 MA's), (Start: 26 @37307 has 92 MA's), (34, 37265), (41, 37199),

Gene: Oats_52 Start: 37027, Stop: 36794, Start Num: 24
Candidate Starts for Oats_52:
(Start: 24 @37027 has 51 MA's), (33, 36979), (40, 36916), (49, 36844), (50, 36835),

Gene: OhDear_49 Start: 35680, Stop: 35913, Start Num: 26
Candidate Starts for OhDear_49:
(Start: 26 @35680 has 92 MA's), (31, 35710), (32, 35716), (43, 35803), (46, 35839), (49, 35866),

Gene: OldNelly_54 Start: 37329, Stop: 37105, Start Num: 26
Candidate Starts for OldNelly_54:

(7, 37434), (Start: 19 @37371 has 12 MA's), (Start: 26 @37329 has 92 MA's), (34, 37287), (41, 37221),

Gene: Oxtober96_54 Start: 37341, Stop: 37075, Start Num: 19
Candidate Starts for Oxtober96_54:
(Start: 11 @37380 has 2 MA's), (13, 37377), (Start: 19 @37341 has 12 MA's), (Start: 26 @37299 has 92 MA's), (34, 37257), (41, 37191),

Gene: Papafritta_52 Start: 37055, Stop: 36831, Start Num: 26
Candidate Starts for Papafritta_52:
(Start: 11 @37136 has 2 MA's), (13, 37133), (Start: 19 @37097 has 12 MA's), (Start: 26 @37055 has 92 MA's), (34, 37013), (41, 36947),

Gene: ParleG_53 Start: 37304, Stop: 37080, Start Num: 26
Candidate Starts for ParleG_53:
(7, 37409), (Start: 19 @37346 has 12 MA's), (Start: 26 @37304 has 92 MA's), (34, 37262), (41, 37196),

Gene: Peep_53 Start: 37331, Stop: 37065, Start Num: 19
Candidate Starts for Peep_53:
(Start: 10 @37373 has 1 MA's), (Start: 19 @37331 has 12 MA's), (Start: 26 @37289 has 92 MA's), (34, 37247), (41, 37181),

Gene: Peppino_52 Start: 37101, Stop: 36868, Start Num: 24
Candidate Starts for Peppino_52:
(Start: 24 @37101 has 51 MA's), (33, 37053), (40, 36990), (49, 36918), (50, 36909),

Gene: Pharpay_49 Start: 35727, Stop: 35960, Start Num: 26
Candidate Starts for Pharpay_49:
(Start: 26 @35727 has 92 MA's), (31, 35757), (32, 35763), (43, 35850), (46, 35886), (49, 35913),

Gene: Pherferi_53 Start: 37297, Stop: 37073, Start Num: 26
Candidate Starts for Pherferi_53:
(7, 37402), (Start: 19 @37339 has 12 MA's), (Start: 26 @37297 has 92 MA's), (34, 37255), (41, 37189),

Gene: Phiderman_53 Start: 37294, Stop: 37070, Start Num: 26
Candidate Starts for Phiderman_53:
(7, 37399), (Start: 19 @37336 has 12 MA's), (Start: 26 @37294 has 92 MA's), (34, 37252), (41, 37186),

Gene: PhillyPhantom_52 Start: 37097, Stop: 36864, Start Num: 24
Candidate Starts for PhillyPhantom_52:
(Start: 24 @37097 has 51 MA's), (33, 37049), (40, 36986), (49, 36914), (50, 36905),

Gene: Phireproof_53 Start: 37303, Stop: 37079, Start Num: 26
Candidate Starts for Phireproof_53:
(7, 37408), (Start: 19 @37345 has 12 MA's), (Start: 26 @37303 has 92 MA's), (34, 37261), (41, 37195),

Gene: PhredFlintston_53 Start: 37297, Stop: 37073, Start Num: 26
Candidate Starts for PhredFlintston_53:
(7, 37402), (Start: 19 @37339 has 12 MA's), (Start: 26 @37297 has 92 MA's), (34, 37255), (41, 37189),

Gene: Phriends_53 Start: 37329, Stop: 37105, Start Num: 26
Candidate Starts for Phriends_53:
(7, 37434), (Start: 19 @37371 has 12 MA's), (Start: 26 @37329 has 92 MA's), (34, 37287), (41, 37221),

Gene: PhunaPhoke_49 Start: 35697, Stop: 35930, Start Num: 26
Candidate Starts for PhunaPhoke_49:
(Start: 26 @35697 has 92 MA's), (31, 35727), (32, 35733), (43, 35820), (46, 35856), (49, 35883),

Gene: Pocket_52 Start: 37054, Stop: 36821, Start Num: 24
Candidate Starts for Pocket_52:
(Start: 24 @37054 has 51 MA's), (33, 37006), (40, 36943), (49, 36871), (50, 36862),

Gene: PuppyEggo_53 Start: 37346, Stop: 37080, Start Num: 19
Candidate Starts for PuppyEggo_53:
(Start: 11 @37385 has 2 MA's), (13, 37382), (Start: 19 @37346 has 12 MA's), (Start: 26 @37304 has 92 MA's), (34, 37262), (41, 37196),

Gene: Raccoon_52 Start: 37064, Stop: 36831, Start Num: 24
Candidate Starts for Raccoon_52:
(Start: 24 @37064 has 51 MA's), (33, 37016), (40, 36953), (49, 36881), (50, 36872),

Gene: Rachella_49 Start: 35708, Stop: 35941, Start Num: 26
Candidate Starts for Rachella_49:
(Start: 26 @35708 has 92 MA's), (31, 35738), (32, 35744), (43, 35831), (46, 35867), (49, 35894),

Gene: Rapheph_53 Start: 37297, Stop: 37073, Start Num: 26
Candidate Starts for Rapheph_53:
(7, 37402), (Start: 19 @37339 has 12 MA's), (Start: 26 @37297 has 92 MA's), (34, 37255), (41, 37189),

Gene: Raptor_53 Start: 37301, Stop: 37077, Start Num: 26
Candidate Starts for Raptor_53:
(Start: 11 @37382 has 2 MA's), (13, 37379), (Start: 19 @37343 has 12 MA's), (Start: 26 @37301 has 92 MA's), (34, 37259), (41, 37193),

Gene: Redfield_52 Start: 37109, Stop: 36876, Start Num: 24
Candidate Starts for Redfield_52:
(Start: 24 @37109 has 51 MA's), (33, 37061), (40, 36998), (49, 36926), (50, 36917),

Gene: Renzie_53 Start: 37292, Stop: 37068, Start Num: 26
Candidate Starts for Renzie_53:
(Start: 10 @37376 has 1 MA's), (Start: 19 @37334 has 12 MA's), (Start: 26 @37292 has 92 MA's), (34, 37250), (41, 37184),

Gene: Rie18_49 Start: 35208, Stop: 35441, Start Num: 26
Candidate Starts for Rie18_49:
(Start: 26 @35208 has 92 MA's), (27, 35217), (31, 35238), (46, 35367), (49, 35394),

Gene: RikSengupta_16 Start: 8084, Stop: 8317, Start Num: 22
Candidate Starts for RikSengupta_16:
(Start: 22 @8084 has 7 MA's), (31, 8132), (34, 8144), (35, 8159), (37, 8180), (47, 8246),

Gene: Riyhil_53 Start: 37349, Stop: 37083, Start Num: 19
Candidate Starts for Riyhil_53:
(7, 37412), (Start: 19 @37349 has 12 MA's), (Start: 26 @37307 has 92 MA's), (34, 37265), (41, 37199),

Gene: Robinson_53 Start: 37295, Stop: 37071, Start Num: 26
Candidate Starts for Robinson_53:

(Start: 19 @37337 has 12 MA's), (Start: 26 @37295 has 92 MA's), (34, 37253), (41, 37187),

Gene: Rog141_52 Start: 37017, Stop: 36784, Start Num: 24
Candidate Starts for Rog141_52:
(Start: 24 @37017 has 51 MA's), (33, 36969), (40, 36906), (49, 36834), (50, 36825),

Gene: RosieMae_52 Start: 37072, Stop: 36839, Start Num: 24
Candidate Starts for RosieMae_52:
(Start: 24 @37072 has 51 MA's), (33, 37024), (40, 36961), (49, 36889), (50, 36880),

Gene: SJay_53 Start: 37311, Stop: 37078, Start Num: 24
Candidate Starts for SJay_53:
(Start: 24 @37311 has 51 MA's), (33, 37263), (40, 37200), (49, 37128), (50, 37119),

Gene: SafetyGuy_49 Start: 35688, Stop: 35921, Start Num: 26
Candidate Starts for SafetyGuy_49:
(Start: 26 @35688 has 92 MA's), (31, 35718), (32, 35724), (43, 35811), (46, 35847), (49, 35874),

Gene: Schnapsidee_52 Start: 37138, Stop: 36905, Start Num: 24
Candidate Starts for Schnapsidee_52:
(Start: 24 @37138 has 51 MA's), (33, 37090), (40, 37027), (49, 36955), (50, 36946),

Gene: Schubert_28 Start: 21198, Stop: 20938, Start Num: 21
Candidate Starts for Schubert_28:
(15, 21240), (Start: 21 @21198 has 7 MA's), (Start: 24 @21186 has 51 MA's), (28, 21165), (29, 21156), (53, 20973), (55, 20955),

Gene: Sedgewig_52 Start: 37002, Stop: 36778, Start Num: 26
Candidate Starts for Sedgewig_52:
(Start: 11 @37083 has 2 MA's), (13, 37080), (Start: 19 @37044 has 12 MA's), (Start: 26 @37002 has 92 MA's), (34, 36960), (41, 36894),

Gene: ShaiHulud_53 Start: 37313, Stop: 37089, Start Num: 26
Candidate Starts for ShaiHulud_53:
(Start: 11 @37394 has 2 MA's), (13, 37391), (Start: 19 @37355 has 12 MA's), (Start: 26 @37313 has 92 MA's), (34, 37271), (41, 37205),

Gene: Shee_53 Start: 37336, Stop: 37070, Start Num: 19
Candidate Starts for Shee_53:
(7, 37399), (Start: 19 @37336 has 12 MA's), (Start: 26 @37294 has 92 MA's), (34, 37252), (41, 37186),

Gene: SilentWarrior_49 Start: 34916, Stop: 35149, Start Num: 26
Candidate Starts for SilentWarrior_49:
(Start: 26 @34916 has 92 MA's), (31, 34946), (32, 34952), (43, 35039), (46, 35075), (49, 35102),

Gene: Snakehole_49 Start: 34891, Stop: 35124, Start Num: 26
Candidate Starts for Snakehole_49:
(Start: 26 @34891 has 92 MA's), (31, 34921), (32, 34927), (43, 35014), (46, 35050), (49, 35077),

Gene: SoilGremlin_54 Start: 37368, Stop: 37102, Start Num: 19
Candidate Starts for SoilGremlin_54:
(7, 37431), (Start: 19 @37368 has 12 MA's), (Start: 26 @37326 has 92 MA's), (34, 37284), (41, 37218),

Gene: SolidSnake_55 Start: 37329, Stop: 37105, Start Num: 26
Candidate Starts for SolidSnake_55:
(7, 37434), (Start: 19 @37371 has 12 MA's), (Start: 26 @37329 has 92 MA's), (34, 37287), (41, 37221),

Gene: SonOfLevi_53 Start: 37045, Stop: 36812, Start Num: 24
Candidate Starts for SonOfLevi_53:
(Start: 24 @37045 has 51 MA's), (33, 36997), (40, 36934), (49, 36862), (50, 36853),

Gene: Soror1_51 Start: 37013, Stop: 36780, Start Num: 24
Candidate Starts for Soror1_51:
(Start: 24 @37013 has 51 MA's), (33, 36965), (40, 36902), (49, 36830), (50, 36821),

Gene: Sparcetus_16 Start: 7963, Stop: 8196, Start Num: 22
Candidate Starts for Sparcetus_16:
(Start: 22 @7963 has 7 MA's), (31, 8011), (34, 8023), (35, 8038), (37, 8059), (47, 8125),

Gene: Stanktossa_52 Start: 37297, Stop: 37073, Start Num: 26
Candidate Starts for Stanktossa_52:
(4, 37471), (Start: 19 @37339 has 12 MA's), (Start: 26 @37297 has 92 MA's), (34, 37255), (41, 37189),

Gene: StingRay_52 Start: 37018, Stop: 36794, Start Num: 26
Candidate Starts for StingRay_52:
(Start: 19 @37060 has 12 MA's), (Start: 26 @37018 has 92 MA's), (34, 36976), (41, 36910),

Gene: StirfryIV_52 Start: 37013, Stop: 36789, Start Num: 26
Candidate Starts for StirfryIV_52:
(Start: 11 @37094 has 2 MA's), (13, 37091), (Start: 19 @37055 has 12 MA's), (Start: 26 @37013 has 92 MA's), (34, 36971), (41, 36905),

Gene: Stormbreaker8_51 Start: 36999, Stop: 36766, Start Num: 24
Candidate Starts for Stormbreaker8_51:
(Start: 24 @36999 has 51 MA's), (33, 36951), (40, 36888), (49, 36816), (50, 36807),

Gene: Strathdee_53 Start: 37303, Stop: 37079, Start Num: 26
Candidate Starts for Strathdee_53:
(Start: 11 @37384 has 2 MA's), (13, 37381), (Start: 19 @37345 has 12 MA's), (Start: 26 @37303 has 92 MA's), (34, 37261), (41, 37195),

Gene: Sucha_4 Start: 2581, Stop: 2282, Start Num: 16
Candidate Starts for Sucha_4:
(3, 2707), (5, 2692), (Start: 16 @2581 has 1 MA's), (20, 2560), (Start: 25 @2527 has 4 MA's), (35, 2464), (39, 2437), (51, 2320),

Gene: Superfresh_53 Start: 37334, Stop: 37068, Start Num: 19
Candidate Starts for Superfresh_53:
(Start: 10 @37376 has 1 MA's), (Start: 19 @37334 has 12 MA's), (Start: 26 @37292 has 92 MA's), (34, 37250), (41, 37184),

Gene: Symere_52 Start: 37012, Stop: 36788, Start Num: 26
Candidate Starts for Symere_52:
(Start: 11 @37093 has 2 MA's), (13, 37090), (Start: 19 @37054 has 12 MA's), (Start: 26 @37012 has 92 MA's), (34, 36970), (41, 36904),

Gene: TatarkaPM_53 Start: 37307, Stop: 37083, Start Num: 26
Candidate Starts for TatarkaPM_53:
(7, 37412), (Start: 19 @37349 has 12 MA's), (Start: 26 @37307 has 92 MA's), (34, 37265), (41, 37199),

Gene: Teagan_53 Start: 37294, Stop: 37070, Start Num: 26
Candidate Starts for Teagan_53:
(Start: 11 @37375 has 2 MA's), (13, 37372), (Start: 19 @37336 has 12 MA's), (Start: 26 @37294 has 92 MA's), (34, 37252), (41, 37186),

Gene: TeddyBear_52 Start: 37027, Stop: 36794, Start Num: 24
Candidate Starts for TeddyBear_52:
(Start: 24 @37027 has 51 MA's), (33, 36979), (40, 36916), (49, 36844), (50, 36835),

Gene: Tedro_49 Start: 35141, Stop: 35374, Start Num: 26
Candidate Starts for Tedro_49:
(Start: 26 @35141 has 92 MA's), (31, 35171), (32, 35177), (43, 35264), (46, 35300), (49, 35327),

Gene: Tenda_52 Start: 37025, Stop: 36792, Start Num: 24
Candidate Starts for Tenda_52:
(Start: 24 @37025 has 51 MA's), (33, 36977), (40, 36914), (49, 36842), (50, 36833),

Gene: Theresita_32 Start: 22955, Stop: 22710, Start Num: 25
Candidate Starts for Theresita_32:
(Start: 25 @22955 has 4 MA's), (32, 22913), (35, 22892), (50, 22751), (51, 22748),

Gene: Thompsone_53 Start: 37301, Stop: 37077, Start Num: 26
Candidate Starts for Thompsone_53:
(Start: 11 @37382 has 2 MA's), (13, 37379), (Start: 19 @37343 has 12 MA's), (Start: 26 @37301 has 92 MA's), (34, 37259), (41, 37193),

Gene: Thorongil_53 Start: 36818, Stop: 36594, Start Num: 26
Candidate Starts for Thorongil_53:
(Start: 11 @36899 has 2 MA's), (13, 36896), (Start: 19 @36860 has 12 MA's), (Start: 26 @36818 has 92 MA's), (34, 36776), (41, 36710),

Gene: Tiggy93_49 Start: 35708, Stop: 35941, Start Num: 26
Candidate Starts for Tiggy93_49:
(Start: 26 @35708 has 92 MA's), (31, 35738), (32, 35744), (43, 35831), (46, 35867), (49, 35894),

Gene: TinSulphur_54 Start: 37345, Stop: 37079, Start Num: 19
Candidate Starts for TinSulphur_54:
(7, 37408), (Start: 19 @37345 has 12 MA's), (Start: 26 @37303 has 92 MA's), (34, 37261), (41, 37195),

Gene: TinyMiny_16 Start: 7982, Stop: 8215, Start Num: 22
Candidate Starts for TinyMiny_16:
(Start: 22 @7982 has 7 MA's), (31, 8030), (34, 8042), (35, 8057), (37, 8078), (47, 8144),

Gene: Tongui_49 Start: 35268, Stop: 35501, Start Num: 26
Candidate Starts for Tongui_49:
(Start: 26 @35268 has 92 MA's), (27, 35277), (31, 35298), (46, 35427), (49, 35454),

Gene: Velene_53 Start: 37299, Stop: 37075, Start Num: 26
Candidate Starts for Velene_53:

(Start: 11 @37380 has 2 MA's), (13, 37377), (Start: 19 @37341 has 12 MA's), (Start: 26 @37299 has 92 MA's), (30, 37272), (34, 37257), (41, 37191),

Gene: Vispistious_53 Start: 37304, Stop: 37080, Start Num: 26
Candidate Starts for Vispistious_53:
(Start: 11 @37385 has 2 MA's), (13, 37382), (Start: 19 @37346 has 12 MA's), (Start: 26 @37304 has 92 MA's), (34, 37262), (41, 37196),

Gene: WildNOut_53 Start: 37297, Stop: 37073, Start Num: 26
Candidate Starts for WildNOut_53:
(Start: 11 @37378 has 2 MA's), (13, 37375), (Start: 19 @37339 has 12 MA's), (Start: 26 @37297 has 92 MA's), (34, 37255), (41, 37189),

Gene: WinnieLou_50 Start: 35253, Stop: 35486, Start Num: 26
Candidate Starts for WinnieLou_50:
(Start: 26 @35253 has 92 MA's), (27, 35262), (31, 35283), (46, 35412), (49, 35439),

Gene: Winzigespinne_52 Start: 37013, Stop: 36780, Start Num: 24
Candidate Starts for Winzigespinne_52:
(Start: 24 @37013 has 51 MA's), (33, 36965), (40, 36902), (49, 36830), (50, 36821),

Gene: Zada_54 Start: 37287, Stop: 37054, Start Num: 24
Candidate Starts for Zada_54:
(Start: 24 @37287 has 51 MA's), (33, 37239), (40, 37176), (49, 37104), (50, 37095),