Pham 347293


1: StAugustine_99
2: Causa_100
3: AlanGrant_76 + 1
4: Rinkes_23
5: Funsized_23
6: Knocker_97
7: Phendrix_230 + 1
8: GodonK_14 + 1
9: TatarkaPM_55 + 106
10: Redfield_54 + 3
11: Soror1_53 + 9
12: SoilGremlin_56 + 5
13: GoneGirl_57 + 2
14: JasonD_55
15: McGalleon_55
16: Acosta_56 + 1
17: CarisSwetlik_54
18: Anilorac_53
19: Agente005_54 + 1
20: Jenos_56
21: FarmerDoug_55
22: MiniVolent_55
23: Nucci_54
24: HairyMan_53
25: Juanyo_56
26: Carostasia_54 + 1
27: YuuY_55
28: Quartz_55
29: Casey_54 + 2
30: Koji_48 + 1
31: Jingles_50
32: RenegadeRaider_51
33: Schubert_53
34: ChickenKing_54
35: GaeCeo_56
36: Cheeto1_56
37: Mireles_28
38: ChipsNGuac_48 + 6
39: Makima_28
40: TMaxx_29
41: Studio_51
42: Daegal_3
43: Gravaillia_2

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 347293 Report

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

Pham number 347293 has 183 members, 14 are drafts.

Phages represented in each track:
• Track 1 : StAugustine_99
• Track 2 : Causa_100
• Track 3 : AlanGrant_76, Vincenzo_75
• Track 4 : Rinkes_23
• Track 5 : Funsized_23
• Track 6 : Knocker_97
• Track 7 : Phendrix_230, Phendrix_14
• Track 8 : GodonK_14, GodonK_240
• Track 9 : TatarkaPM_55, Renzie_55, Lovelyunicorn_55, Den3_55, Vispistious_55, Benjalauren_55, Ioannes_55, PhredFlintston_55, Klimt_55, AranulaLuti_54, Erla_54, Kouch_55, Inventa_55, Dothraki_55, Stanktossa_54, Aubergine_54, BonesMcCoy_55, Antoinette_55, Exploradora_54, Garey24_55, Bonino_54, Chamuel_54, Greys_55, KellyGreen_56, Asta_54, CoraRita_54, SonOfLevi_55, Nattles_54, StirfryIV_54, Winzigespinne_54, TeddyBear_54, Gershwin_54, Alyxandracam_55, BeautPeep30_55, Peep_55, Pherferi_55, Superfresh_55, BigRedClifford_55, JeriBeth_54, Velene_55, AxiPup_55, Oxtober96_56, Phireproof_55, Baines_54, Symere_54, Convict_55, MillyPhilly_55, Raptor_55, HungryHenry_54, Dave_55, Papafritta_54, SJay_55, Calix_54, Robinson_55, Rog141_54, RosieMae_54, WildNOut_55, Rapheph_55, HanSolo_54, Sedgewig_54, Ilzat_54, Gelo_54, Thompsone_55, Knox_55, KannH_54, Janus167_54, Strathdee_55, Clancy_54, Martin_56, Espinosa_54, Oats_54, Christoph_54, Thorongil_55, TinSulphur_56, Pocket_54, Teagan_55, Byron23_56, ManRay_54, Zada_56, Figueroism_55, Gargoyle_55, Duocatuli_54, Phiderman_55, MrWorldwide_55, Blage_55, AlexAdler_55, ShaiHulud_55, Etta_54, Shee_55, HankSprout_55, PuppyEggo_55, JasperRussell_54, GoingMerry_55, Gubbabump_54, MaeLinda_55, StingRay_54, Kale_54, Riyhil_55, NickSell_55, Tenda_54, ParleG_55, Jerbirus_56, Ludgate_55, Kurt1_55, Bandik_55, Chako_54, Nagem_55
• Track 10 : Redfield_54, MonChoix_52, BeeBee8_55, Etna_54
• Track 11 : Soror1_53, Leafus_54, KingJulien_53, Raccoon_54, Balsa_53, Stormbreaker8_53, Hamlet_54, Schnapsidee_54, PhillyPhantom_54, Peppino_54
• Track 12 : SoilGremlin_56, SolidSnake_57, Phriends_55, OldNelly_56, Merida02_57, Delphidian_55
• Track 13 : GoneGirl_57, Endor_57, GardenB_56
• Track 14 : JasonD_55
• Track 15 : McGalleon_55
• Track 16 : Acosta_56, HavenFinLeoSun_56

• Track 17 : CarisSwetlik_54
• Track 18 : Anilorac_53
• Track 19 : Agente005_54, Aleyra_54
• Track 20 : Jenos_56
• Track 21 : FarmerDoug_55
• Track 22 : MiniVolent_55
• Track 23 : Nucci_54
• Track 24 : HairyMan_53
• Track 25 : Juanyo_56
• Track 26 : Carostasia_54, Mandalorian_54
• Track 27 : YuuY_55
• Track 28 : Quartz_55
• Track 29 : Casey_54, Pajaza_54, Pikmin_54
• Track 30 : Koji_48, Kauala_48
• Track 31 : Jingles_50
• Track 32 : RenegadeRaider_51
• Track 33 : Schubert_53
• Track 34 : ChickenKing_54
• Track 35 : GaeCeo_56
• Track 36 : Cheeto1_56
• Track 37 : Mireles_28
• Track 38 : ChipsNGuac_48, Neuvillette_47, CardboardBox_48, Roberts_48, ChamoyPickle_49, AnnabelLee_48, Gerri43_47
• Track 39 : Makima_28
• Track 40 : TMaxx_29
• Track 41 : Studio_51
• Track 42 : Daegal_3
• Track 43 : Gravaillia_2

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

The start number called the most often in the published annotations is 17, it was called in 143 of the 169 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Acosta_56, Agente005_54, AlexAdler_55, Aleyra_54, Alyxandracam_55, Anilorac_53, Antoinette_55, AranulaLuti_54, Asta_54, Aubergine_54, AxiPup_55, Baines_54, Balsa_53, Bandik_55, BeautPeep30_55, BeeBee8_55, Benjalauren_55, BigRedClifford_55, Blage_55, BonesMcCoy_55, Bonino_54, Byron23_56, Calix_54, CarisSwetlik_54, Carostasia_54, Casey_54, Chako_54, Chamuel_54, Christoph_54, Clancy_54, Convict_55, CoraRita_54, Dave_55, Delphidian_55, Den3_55, Dothraki_55, Duocatuli_54, Endor_57, Erla_54, Espinosa_54, Etna_54, Etta_54, Exploradora_54, FarmerDoug_55, Figueroism_55, GardenB_56, Garey24_55, Gargoyle_55, Gelo_54, Gershwin_54, GoingMerry_55, GoneGirl_57, Greys_55, Gubbabump_54, HairyMan_53, Hamlet_54, HanSolo_54, HankSprout_55, HavenFinLeoSun_56, HungryHenry_54, Ilzat_54, Inventa_55, Ioannes_55, Janus167_54, JasonD_55, JasperRussell_54, Jenos_56, Jerbirus_56, JeriBeth_54, Kale_54, KannH_54, Kauala_48, KellyGreen_56, KingJulien_53, Klimt_55, Knox_55, Koji_48, Kouch_55, Kurt1_55, Leafus_54, Lovelyunicorn_55, Ludgate_55, MaeLinda_55, ManRay_54, Mandalorian_54, Martin_56, McGalleon_55,

Merida02_57, MillyPhilly_55, MiniVolent_55, MonChoix_52, MrWorldwide_55, Nagem_55, Nattles_54, NickSell_55, Nucci_54, Oats_54, OldNelly_56, Oxtober96_56, Pajaza_54, Papafritta_54, ParleG_55, Peep_55, Peppino_54, Pherferi_55, Phiderman_55, PhillyPhantom_54, Phireproof_55, PhredFlintston_55, Phriends_55, Pikmin_54, Pocket_54, PuppyEggo_55, Raccoon_54, Rapheph_55, Raptor_55, Redfield_54, RenegadeRaider_51, Renzie_55, Riyhil_55, Robinson_55, Rog141_54, RosieMae_54, SJay_55, Schnapsidee_54, Schubert_53, Sedgewig_54, ShaiHulud_55, Shee_55, SoilGremlin_56, SolidSnake_57, SonOfLevi_55, Soror1_53, Stanktossa_54, StingRay_54, StirfryIV_54, Stormbreaker8_53, Strathdee_55, Studio_51, Superfresh_55, Symere_54, TatarkaPM_55, Teagan_55, TeddyBear_54, Tenda_54, Thompsone_55, Thorongil_55, TinSulphur_56, Velene_55, Vispistious_55, WildNOut_55, Winzigespinne_54, YuuY_55, Zada_56,

Genes that have the "Most Annotated" start but do not call it:
• Juanyo_56, Quartz_55,

Genes that do not have the "Most Annotated" start:
• AlanGrant_76, AnnabelLee_48, CardboardBox_48, Causa_100, ChamoyPickle_49, Cheeto1_56, ChickenKing_54, ChipsNGuac_48, Daegal_3, Funsized_23, GaeCeo_56, Gerri43_47, GodonK_14, GodonK_240, Gravaillia_2, Jingles_50, Knocker_97, Makima_28, Mireles_28, Neuvillette_47, Phendrix_14, Phendrix_230, Rinkes_23, Roberts_48, StAugustine_99, TMaxx_29, Vincenzo_75,

Summary by start number:

Start 7:
• Found in 3 of 183 (1.6%) of genes in pham
• Manual Annotations of this start: 1 of 169
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Quartz_55 (EA10),

Start 8:
• Found in 2 of 183 (1.1%) of genes in pham
• Manual Annotations of this start: 1 of 169
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Juanyo_56 (EA10),

Start 12:
• Found in 3 of 183 (1.6%) of genes in pham
• Manual Annotations of this start: 1 of 169
• Called 33.3% of time when present
• Phage (with cluster) where this start called: GaeCeo_56 (EA9),

Start 14:
• Found in 2 of 183 (1.1%) of genes in pham
• Manual Annotations of this start: 1 of 169
• Called 50.0% of time when present
• Phage (with cluster) where this start called: StAugustine_99 (AI),

Start 16:
• Found in 9 of 183 (4.9%) of genes in pham
• Manual Annotations of this start: 9 of 169
• Called 100.0% of time when present

• Phage (with cluster) where this start called: AlanGrant_76 (B4), Funsized_23 (B9), GodonK_14 (DK), GodonK_240 (DK), Knocker_97 (B9), Phendrix_14 (DK), Phendrix_230 (DK), Rinkes_23 (B9), Vincenzo_75 (B4),

Start 17:
• Found in 156 of 183 (85.2%) of genes in pham
• Manual Annotations of this start: 143 of 169
• Called 98.7% of time when present
• Phage (with cluster) where this start called: Acosta_56 (EA1), Agente005_54 (EA1), AlexAdler_55 (EA1), Aleyra_54 (EA1), Alyxandracam_55 (EA1), Anilorac_53 (EA1), Antoinette_55 (EA1), AranulaLuti_54 (EA1), Asta_54 (EA1), Aubergine_54 (EA1), AxiPup_55 (EA1), Baines_54 (EA1), Balsa_53 (EA1), Bandik_55 (EA1), BeautPeep30_55 (EA1), BeeBee8_55 (EA1), Benjalauren_55 (EA1), BigRedClifford_55 (EA1), Blage_55 (EA1), BonesMcCoy_55 (EA1), Bonino_54 (EA1), Byron23_56 (EA1), Calix_54 (EA1), CarisSwetlik_54 (EA1), Carostasia_54 (EA10), Casey_54 (EA3), Chako_54 (EA1), Chamuel_54 (EA1), Christoph_54 (EA1), Clancy_54 (EA1), Convict_55 (EA1), CoraRita_54 (EA1), Dave_55 (EA1), Delphidian_55 (EA1), Den3_55 (EA1), Dothraki_55 (EA1), Duocatuli_54 (EA1), Endor_57 (EA1), Erla_54 (EA1), Espinosa_54 (EA1), Etna_54 (EA1), Etta_54 (EA1), Exploradora_54 (EA1), FarmerDoug_55 (EA1), Figueroism_55 (EA1), GardenB_56 (EA1), Garey24_55 (EA1), Gargoyle_55 (EA1), Gelo_54 (EA1), Gershwin_54 (EA1), GoingMerry_55 (EA1), GoneGirl_57 (EA1), Greys_55 (EA1), Gubbabump_54 (EA1), HairyMan_53 (EA10), Hamlet_54 (EA1), HanSolo_54 (EA1), HankSprout_55 (EA1), HavenFinLeoSun_56 (EA1), HungryHenry_54 (EA1), Ilzat_54 (EA1), Inventa_55 (EA1), Ioannes_55 (EA1), Janus167_54 (EA1), JasonD_55 (EA1), JasperRussell_54 (EA1), Jenos_56 (EA1), Jerbirus_56 (EA1), JeriBeth_54 (EA1), Kale_54 (EA1), KannH_54 (EA1), Kauala_48 (EA4), KellyGreen_56 (EA1), KingJulien_53 (EA1), Klimt_55 (EA1), Knox_55 (EA1), Koji_48 (EA4), Kouch_55 (EA1), Kurt1_55 (EA1), Leafus_54 (EA1), Lovelyunicorn_55 (EA1), Ludgate_55 (EA1), MaeLinda_55 (EA1), ManRay_54 (EA1), Mandalorian_54 (EA10), Martin_56 (EA1), McGalleon_55 (EA1), Merida02_57 (EA1), MillyPhilly_55 (EA1), MiniVolent_55 (EA10), MonChoix_52 (EA1), MrWorldwide_55 (EA1), Nagem_55 (EA1), Nattles_54 (EA1), NickSell_55 (EA1), Nucci_54 (EA10), Oats_54 (EA1), OldNelly_56 (EA1), Oxtober96_56 (EA1), Pajaza_54 (EA3), Papafritta_54 (EA1), ParleG_55 (EA1), Peep_55 (EA1), Peppino_54 (EA1), Pherferi_55 (EA1), Phiderman_55 (EA1), PhillyPhantom_54 (EA1), Phireproof_55 (EA1), PhredFlintston_55 (EA1), Phriends_55 (EA1), Pikmin_54 (EA3), Pocket_54 (EA1), PuppyEggo_55 (EA1), Raccoon_54 (EA1), Rapheph_55 (EA1), Raptor_55 (EA1), Redfield_54 (EA1), RenegadeRaider_51 (EA4), Renzie_55 (EA1), Riyhil_55 (EA1), Robinson_55 (EA1), Rog141_54 (EA1), RosieMae_54 (EA1), SJay_55 (EA1), Schnapsidee_54 (EA1), Schubert_53 (EA8), Sedgewig_54 (EA1), ShaiHulud_55 (EA1), Shee_55 (EA1), SoilGremlin_56 (EA1), SolidSnake_57 (EA1), SonOfLevi_55 (EA1), Soror1_53 (EA1), Stanktossa_54 (EA1), StingRay_54 (EA1), StirfryIV_54 (EA1), Stormbreaker8_53 (EA1), Strathdee_55 (EA1), Studio_51 (FR), Superfresh_55 (EA1), Symere_54 (EA1), TatarkaPM_55 (EA1), Teagan_55 (EA1), TeddyBear_54 (EA1), Tenda_54 (EA1), Thompsone_55 (EA1), Thorongil_55 (EA1), TinSulphur_56 (EA1), Velene_55 (EA1), Vispistious_55 (EA1), WildNOut_55 (EA1), Winzigespinne_54 (EA1), YuuY_55 (EA10), Zada_56 (EA1),

Start 18:
• Found in 2 of 183 (1.1%) of genes in pham
• Manual Annotations of this start: 1 of 169
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Causa_100 (AI),

Start 19:
• Found in 4 of 183 (2.2%) of genes in pham
• Manual Annotations of this start: 3 of 169
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Cheeto1_56 (EA9), ChickenKing_54 (EA9), Jingles_50 (EA4),

Start 20:
• Found in 12 of 183 (6.6%) of genes in pham
• Manual Annotations of this start: 9 of 169
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AnnabelLee_48 (FR), CardboardBox_48 (FR), ChamoyPickle_49 (FR), ChipsNGuac_48 (FR), Daegal_3 (Q), Gerri43_47 (FR), Gravaillia_2 (Q), Makima_28 (FR), Mireles_28 (FR), Neuvillette_47 (FR), Roberts_48 (FR), TMaxx_29 (FR),

Summary by clusters:

There are 12 clusters represented in this pham: Q, FR, EA9, DK, AI, EA4, B4, EA8, EA1, EA3, B9, EA10,

Info for manual annotations of cluster AI:
•Start number 14 was manually annotated 1 time for cluster AI.
•Start number 18 was manually annotated 1 time for cluster AI.

Info for manual annotations of cluster B4:
•Start number 16 was manually annotated 2 times for cluster B4.

Info for manual annotations of cluster B9:
•Start number 16 was manually annotated 3 times for cluster B9.

Info for manual annotations of cluster DK:
•Start number 16 was manually annotated 4 times for cluster DK.

Info for manual annotations of cluster EA1:
•Start number 17 was manually annotated 132 times for cluster EA1.

Info for manual annotations of cluster EA10:
•Start number 7 was manually annotated 1 time for cluster EA10.
•Start number 8 was manually annotated 1 time for cluster EA10.
•Start number 17 was manually annotated 5 times for cluster EA10.

Info for manual annotations of cluster EA3:
•Start number 17 was manually annotated 3 times for cluster EA3.

Info for manual annotations of cluster EA4:
•Start number 17 was manually annotated 2 times for cluster EA4.
•Start number 19 was manually annotated 1 time for cluster EA4.

Info for manual annotations of cluster EA8:
•Start number 17 was manually annotated 1 time for cluster EA8.

Info for manual annotations of cluster EA9:
•Start number 12 was manually annotated 1 time for cluster EA9.
•Start number 19 was manually annotated 2 times for cluster EA9.

Info for manual annotations of cluster FR:
•Start number 20 was manually annotated 7 times for cluster FR.

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

Gene Information:

Gene: Acosta_56 Start: 37827, Stop: 37555, Start Num: 17
Candidate Starts for Acosta_56:
(Start: 17 @37827 has 143 MA's), (28, 37731), (35, 37686),

Gene: Agente005_54 Start: 37813, Stop: 37499, Start Num: 17
Candidate Starts for Agente005_54:
(Start: 17 @37813 has 143 MA's), (33, 37678), (35, 37672), (39, 37627),

Gene: AlanGrant_76 Start: 63236, Stop: 62979, Start Num: 16
Candidate Starts for AlanGrant_76:
(Start: 16 @63236 has 9 MA's), (21, 63212), (25, 63161), (28, 63134), (33, 63095),

Gene: AlexAdler_55 Start: 38033, Stop: 37737, Start Num: 17
Candidate Starts for AlexAdler_55:
(Start: 17 @38033 has 143 MA's), (33, 37898), (40, 37844),

Gene: Aleyra_54 Start: 37818, Stop: 37504, Start Num: 17
Candidate Starts for Aleyra_54:
(Start: 17 @37818 has 143 MA's), (33, 37683), (35, 37677), (39, 37632),

Gene: Alyxandracam_55 Start: 38007, Stop: 37705, Start Num: 17
Candidate Starts for Alyxandracam_55:
(Start: 17 @38007 has 143 MA's), (33, 37872), (40, 37818),

Gene: Anilorac_53 Start: 37720, Stop: 37409, Start Num: 17
Candidate Starts for Anilorac_53:
(Start: 17 @37720 has 143 MA's), (33, 37585), (35, 37579), (39, 37534), (47, 37447),

Gene: AnnabelLee_48 Start: 31169, Stop: 30939, Start Num: 20
Candidate Starts for AnnabelLee_48:
(Start: 20 @31169 has 9 MA's), (29, 31070), (36, 31028),

Gene: Antoinette_55 Start: 38058, Stop: 37762, Start Num: 17
Candidate Starts for Antoinette_55:
(Start: 17 @38058 has 143 MA's), (33, 37923), (40, 37869),

Gene: AranulaLuti_54 Start: 37751, Stop: 37449, Start Num: 17
Candidate Starts for AranulaLuti_54:
(Start: 17 @37751 has 143 MA's), (33, 37616), (40, 37562),

Gene: Asta_54 Start: 37755, Stop: 37459, Start Num: 17
Candidate Starts for Asta_54:
(Start: 17 @37755 has 143 MA's), (33, 37620), (40, 37566),

Gene: Aubergine_54 Start: 37755, Stop: 37459, Start Num: 17
Candidate Starts for Aubergine_54:
(Start: 17 @37755 has 143 MA's), (33, 37620), (40, 37566),

Gene: AxiPup_55 Start: 37970, Stop: 37674, Start Num: 17
Candidate Starts for AxiPup_55:
(Start: 17 @37970 has 143 MA's), (33, 37835), (40, 37781),

Gene: Baines_54 Start: 37755, Stop: 37453, Start Num: 17
Candidate Starts for Baines_54:
(Start: 17 @37755 has 143 MA's), (33, 37620), (40, 37566),

Gene: Balsa_53 Start: 37838, Stop: 37536, Start Num: 17
Candidate Starts for Balsa_53:
(Start: 17 @37838 has 143 MA's), (40, 37649), (47, 37574),

Gene: Bandik_55 Start: 38002, Stop: 37700, Start Num: 17
Candidate Starts for Bandik_55:
(Start: 17 @38002 has 143 MA's), (33, 37867), (40, 37813),

Gene: BeautPeep30_55 Start: 38008, Stop: 37706, Start Num: 17
Candidate Starts for BeautPeep30_55:
(Start: 17 @38008 has 143 MA's), (33, 37873), (40, 37819),

Gene: BeeBee8_55 Start: 38012, Stop: 37710, Start Num: 17
Candidate Starts for BeeBee8_55:
(Start: 17 @38012 has 143 MA's), (33, 37877), (40, 37823), (47, 37748),

Gene: Benjalauren_55 Start: 37761, Stop: 37465, Start Num: 17
Candidate Starts for Benjalauren_55:
(Start: 17 @37761 has 143 MA's), (33, 37626), (40, 37572),

Gene: BigRedClifford_55 Start: 37997, Stop: 37701, Start Num: 17
Candidate Starts for BigRedClifford_55:
(Start: 17 @37997 has 143 MA's), (33, 37862), (40, 37808),

Gene: Blage_55 Start: 37997, Stop: 37701, Start Num: 17
Candidate Starts for Blage_55:
(Start: 17 @37997 has 143 MA's), (33, 37862), (40, 37808),

Gene: BonesMcCoy_55 Start: 37997, Stop: 37701, Start Num: 17
Candidate Starts for BonesMcCoy_55:
(Start: 17 @37997 has 143 MA's), (33, 37862), (40, 37808),

Gene: Bonino_54 Start: 37734, Stop: 37438, Start Num: 17
Candidate Starts for Bonino_54:
(Start: 17 @37734 has 143 MA's), (33, 37599), (40, 37545),

Gene: Byron23_56 Start: 38005, Stop: 37703, Start Num: 17
Candidate Starts for Byron23_56:
(Start: 17 @38005 has 143 MA's), (33, 37870), (40, 37816),

Gene: Calix_54 Start: 37741, Stop: 37445, Start Num: 17
Candidate Starts for Calix_54:
(Start: 17 @37741 has 143 MA's), (33, 37606), (40, 37552),

Gene: CardboardBox_48 Start: 31172, Stop: 30942, Start Num: 20
Candidate Starts for CardboardBox_48:
(Start: 20 @31172 has 9 MA's), (29, 31073), (36, 31031),

Gene: CarisSwetlik_54 Start: 37811, Stop: 37500, Start Num: 17
Candidate Starts for CarisSwetlik_54:
(Start: 17 @37811 has 143 MA's), (34, 37673), (47, 37538),

Gene: Carostasia_54 Start: 36652, Stop: 36395, Start Num: 17
Candidate Starts for Carostasia_54:
(Start: 7 @36745 has 1 MA's), (Start: 17 @36652 has 143 MA's), (28, 36556), (33, 36517), (38, 36472), (44, 36445),

Gene: Casey_54 Start: 36538, Stop: 36284, Start Num: 17
Candidate Starts for Casey_54:
(Start: 17 @36538 has 143 MA's), (42, 36331), (46, 36319),

Gene: Causa_100 Start: 71095, Stop: 70808, Start Num: 18
Candidate Starts for Causa_100:
(Start: 14 @71137 has 1 MA's), (Start: 18 @71095 has 1 MA's), (21, 71080), (30, 70993), (33, 70966), (34, 70963), (38, 70918), (44, 70903),

Gene: Chako_54 Start: 37751, Stop: 37449, Start Num: 17
Candidate Starts for Chako_54:
(Start: 17 @37751 has 143 MA's), (33, 37616), (40, 37562),

Gene: ChamoyPickle_49 Start: 31712, Stop: 31482, Start Num: 20
Candidate Starts for ChamoyPickle_49:
(Start: 20 @31712 has 9 MA's), (29, 31613), (36, 31571),

Gene: Chamuel_54 Start: 37767, Stop: 37471, Start Num: 17
Candidate Starts for Chamuel_54:
(Start: 17 @37767 has 143 MA's), (33, 37632), (40, 37578),

Gene: Cheeto1_56 Start: 38137, Stop: 37841, Start Num: 19
Candidate Starts for Cheeto1_56:
(Start: 12 @38197 has 1 MA's), (13, 38182), (Start: 19 @38137 has 3 MA's), (23, 38080),

Gene: ChickenKing_54 Start: 38291, Stop: 37995, Start Num: 19
Candidate Starts for ChickenKing_54:
(1, 38693), (Start: 12 @38351 has 1 MA's), (13, 38336), (Start: 19 @38291 has 3 MA's), (23, 38234), (32, 38156),

Gene: ChipsNGuac_48 Start: 31172, Stop: 30942, Start Num: 20
Candidate Starts for ChipsNGuac_48:

(Start: 20 @31172 has 9 MA's), (29, 31073), (36, 31031),

Gene: Christoph_54 Start: 37754, Stop: 37458, Start Num: 17
Candidate Starts for Christoph_54:
(Start: 17 @37754 has 143 MA's), (33, 37619), (40, 37565),

Gene: Clancy_54 Start: 37754, Stop: 37452, Start Num: 17
Candidate Starts for Clancy_54:
(Start: 17 @37754 has 143 MA's), (33, 37619), (40, 37565),

Gene: Convict_55 Start: 37997, Stop: 37701, Start Num: 17
Candidate Starts for Convict_55:
(Start: 17 @37997 has 143 MA's), (33, 37862), (40, 37808),

Gene: CoraRita_54 Start: 37724, Stop: 37422, Start Num: 17
Candidate Starts for CoraRita_54:
(Start: 17 @37724 has 143 MA's), (33, 37589), (40, 37535),

Gene: Daegal_3 Start: 1154, Stop: 930, Start Num: 20
Candidate Starts for Daegal_3:
(Start: 20 @1154 has 9 MA's), (24, 1094), (34, 1025), (37, 983),

Gene: Dave_55 Start: 38058, Stop: 37762, Start Num: 17
Candidate Starts for Dave_55:
(Start: 17 @38058 has 143 MA's), (33, 37923), (40, 37869),

Gene: Delphidian_55 Start: 37991, Stop: 37731, Start Num: 17
Candidate Starts for Delphidian_55:
(Start: 17 @37991 has 143 MA's), (33, 37853), (34, 37850),

Gene: Den3_55 Start: 38002, Stop: 37706, Start Num: 17
Candidate Starts for Den3_55:
(Start: 17 @38002 has 143 MA's), (33, 37867), (40, 37813),

Gene: Dothraki_55 Start: 38005, Stop: 37703, Start Num: 17
Candidate Starts for Dothraki_55:
(Start: 17 @38005 has 143 MA's), (33, 37870), (40, 37816),

Gene: Duocatuli_54 Start: 37751, Stop: 37449, Start Num: 17
Candidate Starts for Duocatuli_54:
(Start: 17 @37751 has 143 MA's), (33, 37616), (40, 37562),

Gene: Endor_57 Start: 38543, Stop: 38283, Start Num: 17
Candidate Starts for Endor_57:
(Start: 17 @38543 has 143 MA's), (33, 38405), (34, 38402), (43, 38327), (44, 38324),

Gene: Erla_54 Start: 37738, Stop: 37442, Start Num: 17
Candidate Starts for Erla_54:
(Start: 17 @37738 has 143 MA's), (33, 37603), (40, 37549),

Gene: Espinosa_54 Start: 37753, Stop: 37457, Start Num: 17
Candidate Starts for Espinosa_54:
(Start: 17 @37753 has 143 MA's), (33, 37618), (40, 37564),

Gene: Etna_54 Start: 37891, Stop: 37589, Start Num: 17
Candidate Starts for Etna_54:
(Start: 17 @37891 has 143 MA's), (33, 37756), (40, 37702), (47, 37627),

Gene: Etta_54 Start: 37742, Stop: 37446, Start Num: 17
Candidate Starts for Etta_54:
(Start: 17 @37742 has 143 MA's), (33, 37607), (40, 37553),

Gene: Exploradora_54 Start: 37703, Stop: 37407, Start Num: 17
Candidate Starts for Exploradora_54:
(Start: 17 @37703 has 143 MA's), (33, 37568), (40, 37514),

Gene: FarmerDoug_55 Start: 38067, Stop: 37807, Start Num: 17
Candidate Starts for FarmerDoug_55:
(Start: 17 @38067 has 143 MA's), (33, 37929), (34, 37926), (43, 37851),

Gene: Figueroism_55 Start: 37998, Stop: 37696, Start Num: 17
Candidate Starts for Figueroism_55:
(Start: 17 @37998 has 143 MA's), (33, 37863), (40, 37809),

Gene: Funsized_23 Start: 19544, Stop: 19296, Start Num: 16
Candidate Starts for Funsized_23:
(4, 19742), (6, 19694), (Start: 16 @19544 has 9 MA's), (21, 19517), (25, 19466), (28, 19439),

Gene: GaeCeo_56 Start: 38584, Stop: 38228, Start Num: 12
Candidate Starts for GaeCeo_56:
(1, 38926), (Start: 12 @38584 has 1 MA's), (13, 38569), (Start: 19 @38524 has 3 MA's), (23, 38467), (32, 38389),

Gene: GardenB_56 Start: 38320, Stop: 38060, Start Num: 17
Candidate Starts for GardenB_56:
(Start: 17 @38320 has 143 MA's), (33, 38182), (34, 38179), (43, 38104), (44, 38101),

Gene: Garey24_55 Start: 37721, Stop: 37425, Start Num: 17
Candidate Starts for Garey24_55:
(Start: 17 @37721 has 143 MA's), (33, 37586), (40, 37532),

Gene: Gargoyle_55 Start: 38002, Stop: 37706, Start Num: 17
Candidate Starts for Gargoyle_55:
(Start: 17 @38002 has 143 MA's), (33, 37867), (40, 37813),

Gene: Gelo_54 Start: 37748, Stop: 37452, Start Num: 17
Candidate Starts for Gelo_54:
(Start: 17 @37748 has 143 MA's), (33, 37613), (40, 37559),

Gene: Gerri43_47 Start: 31172, Stop: 30942, Start Num: 20
Candidate Starts for Gerri43_47:
(Start: 20 @31172 has 9 MA's), (29, 31073), (36, 31031),

Gene: Gershwin_54 Start: 37755, Stop: 37459, Start Num: 17
Candidate Starts for Gershwin_54:
(Start: 17 @37755 has 143 MA's), (33, 37620), (40, 37566),

Gene: GodonK_14 Start: 5550, Stop: 5308, Start Num: 16
Candidate Starts for GodonK_14:
(Start: 16 @5550 has 9 MA's), (21, 5526), (25, 5475),

Gene: GodonK_240 Start: 120532, Stop: 120290, Start Num: 16
Candidate Starts for GodonK_240:
(Start: 16 @120532 has 9 MA's), (21, 120508), (25, 120457),

Gene: GoingMerry_55 Start: 37980, Stop: 37684, Start Num: 17
Candidate Starts for GoingMerry_55:
(Start: 17 @37980 has 143 MA's), (33, 37845), (40, 37791),

Gene: GoneGirl_57 Start: 38307, Stop: 38047, Start Num: 17
Candidate Starts for GoneGirl_57:
(Start: 17 @38307 has 143 MA's), (33, 38169), (34, 38166), (43, 38091), (44, 38088),

Gene: Gravaillia_2 Start: 866, Stop: 639, Start Num: 20
Candidate Starts for Gravaillia_2:
(Start: 20 @866 has 9 MA's), (34, 734),

Gene: Greys_55 Start: 37998, Stop: 37702, Start Num: 17
Candidate Starts for Greys_55:
(Start: 17 @37998 has 143 MA's), (33, 37863), (40, 37809),

Gene: Gubbabump_54 Start: 37693, Stop: 37397, Start Num: 17
Candidate Starts for Gubbabump_54:
(Start: 17 @37693 has 143 MA's), (33, 37558), (40, 37504),

Gene: HairyMan_53 Start: 37770, Stop: 37519, Start Num: 17
Candidate Starts for HairyMan_53:
(Start: 17 @37770 has 143 MA's), (27, 37686), (32, 37638), (33, 37635),

Gene: Hamlet_54 Start: 37931, Stop: 37629, Start Num: 17
Candidate Starts for Hamlet_54:
(Start: 17 @37931 has 143 MA's), (40, 37742), (47, 37667),

Gene: HanSolo_54 Start: 37703, Stop: 37407, Start Num: 17
Candidate Starts for HanSolo_54:
(Start: 17 @37703 has 143 MA's), (33, 37568), (40, 37514),

Gene: HankSprout_55 Start: 37622, Stop: 37326, Start Num: 17
Candidate Starts for HankSprout_55:
(Start: 17 @37622 has 143 MA's), (33, 37487), (40, 37433),

Gene: HavenFinLeoSun_56 Start: 37773, Stop: 37501, Start Num: 17
Candidate Starts for HavenFinLeoSun_56:
(Start: 17 @37773 has 143 MA's), (28, 37677), (35, 37632),

Gene: HungryHenry_54 Start: 37715, Stop: 37413, Start Num: 17
Candidate Starts for HungryHenry_54:
(Start: 17 @37715 has 143 MA's), (33, 37580), (40, 37526),

Gene: Ilzat_54 Start: 37725, Stop: 37423, Start Num: 17
Candidate Starts for Ilzat_54:
(Start: 17 @37725 has 143 MA's), (33, 37590), (40, 37536),

Gene: Inventa_55 Start: 38002, Stop: 37700, Start Num: 17
Candidate Starts for Inventa_55:
(Start: 17 @38002 has 143 MA's), (33, 37867), (40, 37813),

Gene: Ioannes_55 Start: 38080, Stop: 37784, Start Num: 17
Candidate Starts for Ioannes_55:
(Start: 17 @38080 has 143 MA's), (33, 37945), (40, 37891),

Gene: Janus167_54 Start: 37730, Stop: 37434, Start Num: 17
Candidate Starts for Janus167_54:
(Start: 17 @37730 has 143 MA's), (33, 37595), (40, 37541),

Gene: JasonD_55 Start: 37644, Stop: 37333, Start Num: 17
Candidate Starts for JasonD_55:
(Start: 17 @37644 has 143 MA's), (34, 37506), (47, 37371),

Gene: JasperRussell_54 Start: 37751, Stop: 37449, Start Num: 17
Candidate Starts for JasperRussell_54:
(Start: 17 @37751 has 143 MA's), (33, 37616), (40, 37562),

Gene: Jenos_56 Start: 38342, Stop: 38070, Start Num: 17
Candidate Starts for Jenos_56:
(Start: 17 @38342 has 143 MA's), (28, 38246), (35, 38201), (40, 38153),

Gene: Jerbirus_56 Start: 37745, Stop: 37449, Start Num: 17
Candidate Starts for Jerbirus_56:
(Start: 17 @37745 has 143 MA's), (33, 37610), (40, 37556),

Gene: JeriBeth_54 Start: 37633, Stop: 37337, Start Num: 17
Candidate Starts for JeriBeth_54:
(Start: 17 @37633 has 143 MA's), (33, 37498), (40, 37444),

Gene: Jingles_50 Start: 35268, Stop: 34969, Start Num: 19
Candidate Starts for Jingles_50:
(Start: 19 @35268 has 3 MA's),

Gene: Juanyo_56 Start: 37419, Stop: 37084, Start Num: 8
Candidate Starts for Juanyo_56:
(Start: 8 @37419 has 1 MA's), (Start: 17 @37326 has 143 MA's), (28, 37230), (33, 37206), (44, 37134),

Gene: Kale_54 Start: 37757, Stop: 37461, Start Num: 17
Candidate Starts for Kale_54:
(Start: 17 @37757 has 143 MA's), (33, 37622), (40, 37568),

Gene: KannH_54 Start: 37751, Stop: 37449, Start Num: 17
Candidate Starts for KannH_54:
(Start: 17 @37751 has 143 MA's), (33, 37616), (40, 37562),

Gene: Kauala_48 Start: 35372, Stop: 35127, Start Num: 17

Candidate Starts for Kauala_48:
(Start: 17 @35372 has 143 MA's), (28, 35276), (33, 35237),

Gene: KellyGreen_56 Start: 37739, Stop: 37443, Start Num: 17
Candidate Starts for KellyGreen_56:
(Start: 17 @37739 has 143 MA's), (33, 37604), (40, 37550),

Gene: KingJulien_53 Start: 37729, Stop: 37427, Start Num: 17
Candidate Starts for KingJulien_53:
(Start: 17 @37729 has 143 MA's), (40, 37540), (47, 37465),

Gene: Klimt_55 Start: 37773, Stop: 37477, Start Num: 17
Candidate Starts for Klimt_55:
(Start: 17 @37773 has 143 MA's), (33, 37638), (40, 37584),

Gene: Knocker_97 Start: 70879, Stop: 70643, Start Num: 16
Candidate Starts for Knocker_97:
(Start: 16 @70879 has 9 MA's), (21, 70861), (22, 70855), (26, 70804), (44, 70678),

Gene: Knox_55 Start: 37997, Stop: 37701, Start Num: 17
Candidate Starts for Knox_55:
(Start: 17 @37997 has 143 MA's), (33, 37862), (40, 37808),

Gene: Koji_48 Start: 35362, Stop: 35105, Start Num: 17
Candidate Starts for Koji_48:
(Start: 17 @35362 has 143 MA's), (28, 35266), (33, 35227),

Gene: Kouch_55 Start: 37703, Stop: 37407, Start Num: 17
Candidate Starts for Kouch_55:
(Start: 17 @37703 has 143 MA's), (33, 37568), (40, 37514),

Gene: Kurt1_55 Start: 38002, Stop: 37700, Start Num: 17
Candidate Starts for Kurt1_55:
(Start: 17 @38002 has 143 MA's), (33, 37867), (40, 37813),

Gene: Leafus_54 Start: 37994, Stop: 37692, Start Num: 17
Candidate Starts for Leafus_54:
(Start: 17 @37994 has 143 MA's), (40, 37805), (47, 37730),

Gene: Lovelyunicorn_55 Start: 37998, Stop: 37702, Start Num: 17
Candidate Starts for Lovelyunicorn_55:
(Start: 17 @37998 has 143 MA's), (33, 37863), (40, 37809),

Gene: Ludgate_55 Start: 37999, Stop: 37703, Start Num: 17
Candidate Starts for Ludgate_55:
(Start: 17 @37999 has 143 MA's), (33, 37864), (40, 37810),

Gene: MaeLinda_55 Start: 38006, Stop: 37704, Start Num: 17
Candidate Starts for MaeLinda_55:
(Start: 17 @38006 has 143 MA's), (33, 37871), (40, 37817),

Gene: Makima_28 Start: 19515, Stop: 19291, Start Num: 20
Candidate Starts for Makima_28:

(Start: 20 @19515 has 9 MA's), (36, 19377), (38, 19341),

Gene: ManRay_54 Start: 37755, Stop: 37459, Start Num: 17
Candidate Starts for ManRay_54:
(Start: 17 @37755 has 143 MA's), (33, 37620), (40, 37566),

Gene: Mandalorian_54 Start: 36663, Stop: 36406, Start Num: 17
Candidate Starts for Mandalorian_54:
(Start: 7 @36756 has 1 MA's), (Start: 17 @36663 has 143 MA's), (28, 36567), (33, 36528), (38, 36483), (44, 36456),

Gene: Martin_56 Start: 38011, Stop: 37709, Start Num: 17
Candidate Starts for Martin_56:
(Start: 17 @38011 has 143 MA's), (33, 37876), (40, 37822),

Gene: McGalleon_55 Start: 38480, Stop: 38208, Start Num: 17
Candidate Starts for McGalleon_55:
(Start: 17 @38480 has 143 MA's), (28, 38384), (35, 38339), (40, 38291),

Gene: Merida02_57 Start: 37998, Stop: 37738, Start Num: 17
Candidate Starts for Merida02_57:
(Start: 17 @37998 has 143 MA's), (33, 37860), (34, 37857),

Gene: MillyPhilly_55 Start: 37999, Stop: 37697, Start Num: 17
Candidate Starts for MillyPhilly_55:
(Start: 17 @37999 has 143 MA's), (33, 37864), (40, 37810),

Gene: MiniVolent_55 Start: 37294, Stop: 37037, Start Num: 17
Candidate Starts for MiniVolent_55:
(Start: 8 @37387 has 1 MA's), (Start: 17 @37294 has 143 MA's), (33, 37159), (44, 37087),

Gene: Mireles_28 Start: 18449, Stop: 18216, Start Num: 20
Candidate Starts for Mireles_28:
(15, 18485), (Start: 20 @18449 has 9 MA's), (36, 18311), (45, 18254),

Gene: MonChoix_52 Start: 37644, Stop: 37339, Start Num: 17
Candidate Starts for MonChoix_52:
(Start: 17 @37644 has 143 MA's), (33, 37509), (40, 37455), (47, 37377),

Gene: MrWorldwide_55 Start: 38009, Stop: 37707, Start Num: 17
Candidate Starts for MrWorldwide_55:
(Start: 17 @38009 has 143 MA's), (33, 37874), (40, 37820),

Gene: Nagem_55 Start: 38045, Stop: 37743, Start Num: 17
Candidate Starts for Nagem_55:
(Start: 17 @38045 has 143 MA's), (33, 37910), (40, 37856),

Gene: Nattles_54 Start: 37742, Stop: 37446, Start Num: 17
Candidate Starts for Nattles_54:
(Start: 17 @37742 has 143 MA's), (33, 37607), (40, 37553),

Gene: Neuvillette_47 Start: 31172, Stop: 30942, Start Num: 20
Candidate Starts for Neuvillette_47:

(Start: 20 @31172 has 9 MA's), (29, 31073), (36, 31031),

Gene: NickSell_55 Start: 38012, Stop: 37710, Start Num: 17
Candidate Starts for NickSell_55:
(Start: 17 @38012 has 143 MA's), (33, 37877), (40, 37823),

Gene: Nucci_54 Start: 36629, Stop: 36366, Start Num: 17
Candidate Starts for Nucci_54:
(Start: 17 @36629 has 143 MA's), (28, 36533), (33, 36494),

Gene: Oats_54 Start: 37755, Stop: 37459, Start Num: 17
Candidate Starts for Oats_54:
(Start: 17 @37755 has 143 MA's), (33, 37620), (40, 37566),

Gene: OldNelly_56 Start: 37995, Stop: 37735, Start Num: 17
Candidate Starts for OldNelly_56:
(Start: 17 @37995 has 143 MA's), (33, 37857), (34, 37854),

Gene: Oxtober96_56 Start: 37998, Stop: 37702, Start Num: 17
Candidate Starts for Oxtober96_56:
(Start: 17 @37998 has 143 MA's), (33, 37863), (40, 37809),

Gene: Pajaza_54 Start: 36538, Stop: 36284, Start Num: 17
Candidate Starts for Pajaza_54:
(Start: 17 @36538 has 143 MA's), (42, 36331), (46, 36319),

Gene: Papafritta_54 Start: 37760, Stop: 37458, Start Num: 17
Candidate Starts for Papafritta_54:
(Start: 17 @37760 has 143 MA's), (33, 37625), (40, 37571),

Gene: ParleG_55 Start: 38009, Stop: 37707, Start Num: 17
Candidate Starts for ParleG_55:
(Start: 17 @38009 has 143 MA's), (33, 37874), (40, 37820),

Gene: Peep_55 Start: 38055, Stop: 37759, Start Num: 17
Candidate Starts for Peep_55:
(Start: 17 @38055 has 143 MA's), (33, 37920), (40, 37866),

Gene: Peppino_54 Start: 37824, Stop: 37522, Start Num: 17
Candidate Starts for Peppino_54:
(Start: 17 @37824 has 143 MA's), (40, 37635), (47, 37560),

Gene: Phendrix_230 Start: 119315, Stop: 119073, Start Num: 16
Candidate Starts for Phendrix_230:
(9, 119390), (10, 119384), (11, 119366), (Start: 16 @119315 has 9 MA's), (25, 119240),

Gene: Phendrix_14 Start: 5717, Stop: 5475, Start Num: 16
Candidate Starts for Phendrix_14:
(9, 5792), (10, 5786), (11, 5768), (Start: 16 @5717 has 9 MA's), (25, 5642),

Gene: Pherferi_55 Start: 38002, Stop: 37700, Start Num: 17
Candidate Starts for Pherferi_55:
(Start: 17 @38002 has 143 MA's), (33, 37867), (40, 37813),

Gene: Phiderman_55 Start: 37999, Stop: 37697, Start Num: 17
Candidate Starts for Phiderman_55:
(Start: 17 @37999 has 143 MA's), (33, 37864), (40, 37810),

Gene: PhillyPhantom_54 Start: 37825, Stop: 37523, Start Num: 17
Candidate Starts for PhillyPhantom_54:
(Start: 17 @37825 has 143 MA's), (40, 37636), (47, 37561),

Gene: Phireproof_55 Start: 38008, Stop: 37706, Start Num: 17
Candidate Starts for Phireproof_55:
(Start: 17 @38008 has 143 MA's), (33, 37873), (40, 37819),

Gene: PhredFlintston_55 Start: 38002, Stop: 37700, Start Num: 17
Candidate Starts for PhredFlintston_55:
(Start: 17 @38002 has 143 MA's), (33, 37867), (40, 37813),

Gene: Phriends_55 Start: 37999, Stop: 37739, Start Num: 17
Candidate Starts for Phriends_55:
(Start: 17 @37999 has 143 MA's), (33, 37861), (34, 37858),

Gene: Pikmin_54 Start: 36538, Stop: 36284, Start Num: 17
Candidate Starts for Pikmin_54:
(Start: 17 @36538 has 143 MA's), (42, 36331), (46, 36319),

Gene: Pocket_54 Start: 37782, Stop: 37486, Start Num: 17
Candidate Starts for Pocket_54:
(Start: 17 @37782 has 143 MA's), (33, 37647), (40, 37593),

Gene: PuppyEggo_55 Start: 38003, Stop: 37707, Start Num: 17
Candidate Starts for PuppyEggo_55:
(Start: 17 @38003 has 143 MA's), (33, 37868), (40, 37814),

Gene: Quartz_55 Start: 36869, Stop: 36519, Start Num: 7
Candidate Starts for Quartz_55:
(Start: 7 @36869 has 1 MA's), (Start: 17 @36776 has 143 MA's), (28, 36680), (33, 36641), (38, 36596), (44, 36569),

Gene: Raccoon_54 Start: 37795, Stop: 37493, Start Num: 17
Candidate Starts for Raccoon_54:
(Start: 17 @37795 has 143 MA's), (40, 37606), (47, 37531),

Gene: Rapheph_55 Start: 38002, Stop: 37700, Start Num: 17
Candidate Starts for Rapheph_55:
(Start: 17 @38002 has 143 MA's), (33, 37867), (40, 37813),

Gene: Raptor_55 Start: 38000, Stop: 37704, Start Num: 17
Candidate Starts for Raptor_55:
(Start: 17 @38000 has 143 MA's), (33, 37865), (40, 37811),

Gene: Redfield_54 Start: 37837, Stop: 37535, Start Num: 17
Candidate Starts for Redfield_54:
(Start: 17 @37837 has 143 MA's), (33, 37702), (40, 37648), (47, 37573),

Gene: RenegadeRaider_51 Start: 35067, Stop: 34810, Start Num: 17
Candidate Starts for RenegadeRaider_51:
(Start: 17 @35067 has 143 MA's), (28, 34971), (33, 34932),

Gene: Renzie_55 Start: 38058, Stop: 37762, Start Num: 17
Candidate Starts for Renzie_55:
(Start: 17 @38058 has 143 MA's), (33, 37923), (40, 37869),

Gene: Rinkes_23 Start: 19467, Stop: 19222, Start Num: 16
Candidate Starts for Rinkes_23:
(Start: 16 @19467 has 9 MA's), (21, 19443), (25, 19392), (26, 19386), (31, 19347), (33, 19326),

Gene: Riyhil_55 Start: 38012, Stop: 37710, Start Num: 17
Candidate Starts for Riyhil_55:
(Start: 17 @38012 has 143 MA's), (33, 37877), (40, 37823),

Gene: Roberts_48 Start: 31172, Stop: 30942, Start Num: 20
Candidate Starts for Roberts_48:
(Start: 20 @31172 has 9 MA's), (29, 31073), (36, 31031),

Gene: Robinson_55 Start: 38074, Stop: 37778, Start Num: 17
Candidate Starts for Robinson_55:
(Start: 17 @38074 has 143 MA's), (33, 37939), (40, 37885),

Gene: Rog141_54 Start: 37745, Stop: 37449, Start Num: 17
Candidate Starts for Rog141_54:
(Start: 17 @37745 has 143 MA's), (33, 37610), (40, 37556),

Gene: RosieMae_54 Start: 37806, Stop: 37504, Start Num: 17
Candidate Starts for RosieMae_54:
(Start: 17 @37806 has 143 MA's), (33, 37671), (40, 37617),

Gene: SJay_55 Start: 38046, Stop: 37744, Start Num: 17
Candidate Starts for SJay_55:
(Start: 17 @38046 has 143 MA's), (33, 37911), (40, 37857),

Gene: Schnapsidee_54 Start: 37869, Stop: 37567, Start Num: 17
Candidate Starts for Schnapsidee_54:
(Start: 17 @37869 has 143 MA's), (40, 37680), (47, 37605),

Gene: Schubert_53 Start: 37310, Stop: 37065, Start Num: 17
Candidate Starts for Schubert_53:
(Start: 17 @37310 has 143 MA's), (33, 37175),

Gene: Sedgewig_54 Start: 37707, Stop: 37405, Start Num: 17
Candidate Starts for Sedgewig_54:
(Start: 17 @37707 has 143 MA's), (33, 37572), (40, 37518),

Gene: ShaiHulud_55 Start: 38012, Stop: 37716, Start Num: 17
Candidate Starts for ShaiHulud_55:
(Start: 17 @38012 has 143 MA's), (33, 37877), (40, 37823),

Gene: Shee_55 Start: 37999, Stop: 37697, Start Num: 17
Candidate Starts for Shee_55:
(Start: 17 @37999 has 143 MA's), (33, 37864), (40, 37810),

Gene: SoilGremlin_56 Start: 37992, Stop: 37732, Start Num: 17
Candidate Starts for SoilGremlin_56:
(Start: 17 @37992 has 143 MA's), (33, 37854), (34, 37851),

Gene: SolidSnake_57 Start: 37991, Stop: 37731, Start Num: 17
Candidate Starts for SolidSnake_57:
(Start: 17 @37991 has 143 MA's), (33, 37853), (34, 37850),

Gene: SonOfLevi_55 Start: 37773, Stop: 37477, Start Num: 17
Candidate Starts for SonOfLevi_55:
(Start: 17 @37773 has 143 MA's), (33, 37638), (40, 37584),

Gene: Soror1_53 Start: 37744, Stop: 37442, Start Num: 17
Candidate Starts for Soror1_53:
(Start: 17 @37744 has 143 MA's), (40, 37555), (47, 37480),

Gene: StAugustine_99 Start: 72844, Stop: 72515, Start Num: 14
Candidate Starts for StAugustine_99:
(2, 73084), (3, 73060), (5, 72970), (Start: 14 @72844 has 1 MA's), (Start: 18 @72802 has 1 MA's), (21, 72787), (30, 72700), (33, 72673), (34, 72670), (38, 72625), (44, 72610),

Gene: Stanktossa_54 Start: 38002, Stop: 37700, Start Num: 17
Candidate Starts for Stanktossa_54:
(Start: 17 @38002 has 143 MA's), (33, 37867), (40, 37813),

Gene: StingRay_54 Start: 37797, Stop: 37501, Start Num: 17
Candidate Starts for StingRay_54:
(Start: 17 @37797 has 143 MA's), (33, 37662), (40, 37608),

Gene: StirfryIV_54 Start: 37718, Stop: 37416, Start Num: 17
Candidate Starts for StirfryIV_54:
(Start: 17 @37718 has 143 MA's), (33, 37583), (40, 37529),

Gene: Stormbreaker8_53 Start: 37730, Stop: 37428, Start Num: 17
Candidate Starts for Stormbreaker8_53:
(Start: 17 @37730 has 143 MA's), (40, 37541), (47, 37466),

Gene: Strathdee_55 Start: 38002, Stop: 37706, Start Num: 17
Candidate Starts for Strathdee_55:
(Start: 17 @38002 has 143 MA's), (33, 37867), (40, 37813),

Gene: Studio_51 Start: 32697, Stop: 32470, Start Num: 17
Candidate Starts for Studio_51:
(Start: 17 @32697 has 143 MA's), (29, 32592), (36, 32553),

Gene: Superfresh_55 Start: 38058, Stop: 37762, Start Num: 17
Candidate Starts for Superfresh_55:
(Start: 17 @38058 has 143 MA's), (33, 37923), (40, 37869),

Gene: Symere_54 Start: 37717, Stop: 37415, Start Num: 17
Candidate Starts for Symere_54:
(Start: 17 @37717 has 143 MA's), (33, 37582), (40, 37528),

Gene: TMaxx_29 Start: 18671, Stop: 18444, Start Num: 20
Candidate Starts for TMaxx_29:
(Start: 20 @18671 has 9 MA's), (36, 18533), (45, 18476),

Gene: TatarkaPM_55 Start: 38012, Stop: 37710, Start Num: 17
Candidate Starts for TatarkaPM_55:
(Start: 17 @38012 has 143 MA's), (33, 37877), (40, 37823),

Gene: Teagan_55 Start: 37993, Stop: 37697, Start Num: 17
Candidate Starts for Teagan_55:
(Start: 17 @37993 has 143 MA's), (33, 37858), (40, 37804),

Gene: TeddyBear_54 Start: 37755, Stop: 37459, Start Num: 17
Candidate Starts for TeddyBear_54:
(Start: 17 @37755 has 143 MA's), (33, 37620), (40, 37566),

Gene: Tenda_54 Start: 37753, Stop: 37457, Start Num: 17
Candidate Starts for Tenda_54:
(Start: 17 @37753 has 143 MA's), (33, 37618), (40, 37564),

Gene: Thompsone_55 Start: 38000, Stop: 37704, Start Num: 17
Candidate Starts for Thompsone_55:
(Start: 17 @38000 has 143 MA's), (33, 37865), (40, 37811),

Gene: Thorongil_55 Start: 37517, Stop: 37221, Start Num: 17
Candidate Starts for Thorongil_55:
(Start: 17 @37517 has 143 MA's), (33, 37382), (40, 37328),

Gene: TinSulphur_56 Start: 38008, Stop: 37706, Start Num: 17
Candidate Starts for TinSulphur_56:
(Start: 17 @38008 has 143 MA's), (33, 37873), (40, 37819),

Gene: Velene_55 Start: 37998, Stop: 37702, Start Num: 17
Candidate Starts for Velene_55:
(Start: 17 @37998 has 143 MA's), (33, 37863), (40, 37809),

Gene: Vincenzo_75 Start: 63266, Stop: 63009, Start Num: 16
Candidate Starts for Vincenzo_75:
(Start: 16 @63266 has 9 MA's), (21, 63242), (25, 63191), (28, 63164), (33, 63125),

Gene: Vispistious_55 Start: 38003, Stop: 37707, Start Num: 17
Candidate Starts for Vispistious_55:
(Start: 17 @38003 has 143 MA's), (33, 37868), (40, 37814),

Gene: WildNOut_55 Start: 37996, Stop: 37700, Start Num: 17
Candidate Starts for WildNOut_55:
(Start: 17 @37996 has 143 MA's), (33, 37861), (40, 37807),

Gene: Winzigespinne_54 Start: 37741, Stop: 37445, Start Num: 17

Candidate Starts for Winzigespinne_54:
(Start: 17 @37741 has 143 MA's), (33, 37606), (40, 37552),

Gene: YuuY_55 Start: 37195, Stop: 36938, Start Num: 17
Candidate Starts for YuuY_55:
(Start: 17 @37195 has 143 MA's), (28, 37099), (33, 37060), (41, 37003), (44, 36988),

Gene: Zada_56 Start: 38015, Stop: 37719, Start Num: 17
Candidate Starts for Zada_56:
(Start: 17 @38015 has 143 MA's), (33, 37880), (40, 37826),