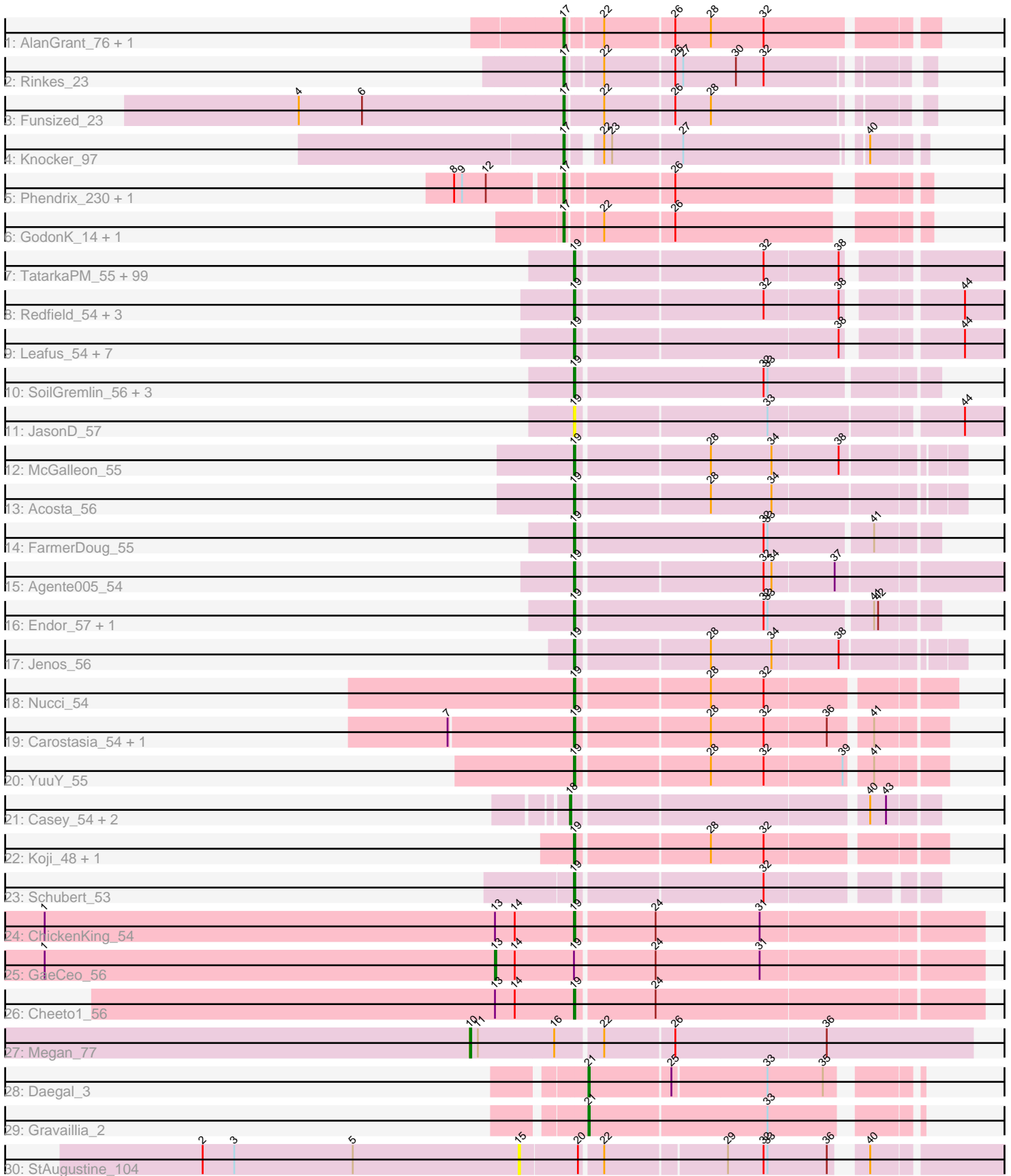


Pham 196340



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 196340 Report

This analysis was run 12/09/24 on database version 580.

Pham number 196340 has 150 members, 7 are drafts.

Phages represented in each track:

- Track 1 : AlanGrant_76, Vincenzo_75
- Track 2 : Rinkes_23
- Track 3 : Funsized_23
- Track 4 : Knocker_97
- Track 5 : Phendrix_230, Phendrix_14
- Track 6 : GodonK_14, GodonK_240
- Track 7 : TatarKaPM_55, Renzie_55, Lovelyunicorn_55, Den3_55, Vispistious_55, Benjalauren_55, Ioannes_55, PhredFlintston_55, Klimt_55, HanSolo_54, Erla_54, Inventa_55, Dothraki_55, Stanktossa_54, Aubergine_54, BonesMcCoy_55, Antoinette_55, Garey24_55, Bonino_54, Chamuel_54, Greys_55, Thorongil_55, Asta_54, SonOfLevi_55, Nattles_54, StirfryIV_54, Winzigespinne_54, TeddyBear_54, Gershwin_54, Alyxandracam_55, BeautPeep30_55, Peep_55, Superfresh_55, BigRedClifford_55, JeriBeth_56, Velene_55, AxiPup_55, Oxtober96_56, Phireproof_55, Baines_54, Espinosa_54, Convict_55, MillyPhilly_55, Raptor_55, AranulaLuti_54, HungryHenry_54, Dave_55, PapaFritta_54, SJay_55, Calix_54, Robinson_55, Rog141_54, WildNOut_55, Rapheph_55, Sedgewig_54, Ilzat_54, Gelo_54, Thompsone_55, Knox_55, KannH_54, Janus167_54, Strathdee_55, Clancy_54, Martin_56, Oats_54, TinSulphur_56, Pocket_54, Teagan_55, Byron23_56, ManRay_54, Pherferi_55, Zada_56, Figueroism_55, Gargoyle_55, Duocatuli_54, Phiderman_55, Christoph_54, MrWorldwide_55, Blage_55, AlexAdler_55, ShaiHulud_56, Shee_55, Etta_54, PuppyEggo_55, JasperRussell_54, Gubbabump_54, MaeLinda_55, StingRay_54, Kurt1_55, Riyhil_55, NickSell_55, Tenda_54, HankSprout_55, ParleG_55, Jerbirus_56, Ludgate_55, Kale_54, Bandik_55, Chako_54, Nagem_55
- Track 8 : Redfield_54, Etna_54, MonChoix_52, BeeBee8_55
- Track 9 : Leafus_54, Raccoon_54, Balsa_53, KingJulien_54, Stormbreaker8_53, Hamlet_54, Schnapsidee_54, Peppino_54
- Track 10 : SoilGremlin_56, Phriends_55, OldNelly_56, Delphidian_55
- Track 11 : JasonD_57
- Track 12 : McGalleon_55
- Track 13 : Acosta_56
- Track 14 : FarmerDoug_55
- Track 15 : Agente005_54
- Track 16 : Endor_57, GardenB_56
- Track 17 : Jenos_56
- Track 18 : Nucci_54
- Track 19 : Carostasia_54, Mandalorian_54

- Track 20 : YuuY_55
- Track 21 : Casey_54, Pajaza_54, Pikmin_54
- Track 22 : Koji_48, Kauala_48
- Track 23 : Schubert_53
- Track 24 : ChickenKing_54
- Track 25 : GaeCeo_56
- Track 26 : Cheeto1_56
- Track 27 : Megan_77
- Track 28 : Daegal_3
- Track 29 : Gravaillia_2
- Track 30 : StAugustine_104

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

The start number called the most often in the published annotations is 19, it was called in 127 of the 143 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acosta_56, Agente005_54, AlexAdler_55, Alyxandracam_55, 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, Carostasia_54, Chako_54, Chamuel_54, Cheeto1_56, ChickenKing_54, Christoph_54, Clancy_54, Convict_55, Dave_55, Delphidian_55, Den3_55, Dothraki_55, Duocatuli_54, Endor_57, Erla_54, Espinosa_54, Etna_54, Etta_54, FarmerDoug_55, Figueroism_55, GardenB_56, Garey24_55, Gargoyle_55, Gelo_54, Gershwin_54, Greys_55, Gubbabump_54, Hamlet_54, HanSolo_54, HankSprout_55, HungryHenry_54, Ilzat_54, Inventa_55, Ioannes_55, Janus167_54, JasonD_57, JasperRussell_54, Jenos_56, Jerbirus_56, JeriBeth_56, Kale_54, KannH_54, Kauala_48, KingJulien_54, Klimt_55, Knox_55, Koji_48, Kurt1_55, Leafus_54, Lovelyunicorn_55, Ludgate_55, MaeLinda_55, ManRay_54, Mandalorian_54, Martin_56, McGalleon_55, MillyPhilly_55, MonChoix_52, MrWorldwide_55, Nagem_55, Nattles_54, NickSell_55, Nucci_54, Oats_54, OldNelly_56, Oxtober96_56, Papafritta_54, ParleG_55, Peep_55, Peppino_54, Pherferi_55, Phiderman_55, Phireproof_55, PhredFlintston_55, Phriends_55, Pocket_54, PuppyEggo_55, Raccoon_54, Rapheph_55, Raptor_55, Redfield_54, Renzie_55, Rihhil_55, Robinson_55, Rog141_54, SJay_55, Schnapsidee_54, Schubert_53, Sedgewig_54, ShaiHulud_56, Shee_55, SoilGremlin_56, SonOfLevi_55, Stanktossa_54, StingRay_54, StirfryIV_54, Stormbreaker8_53, Strathdee_55, Superfresh_55, TatarkaPM_55, Teagan_55, TeddyBear_54, Tenda_54, Thompsone_55, Thorongil_55, TinSulphur_56, Velene_55, Vispitious_55, WildNOut_55, Winzigespinne_54, YuuY_55, Zada_56,

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

- GaeCeo_56,

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

- AlanGrant_76, Casey_54, Daegal_3, Funsized_23, GodonK_14, GodonK_240, Gravaillia_2, Knocker_97, Megan_77, Pajaza_54, Phendrix_14, Phendrix_230, Pikmin_54, Rinkes_23, StAugustine_104, Vincenzo_75,

Summary by start number:

Start 10:

- Found in 1 of 150 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 143
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Megan_77 (EC),

Start 13:

- Found in 3 of 150 (2.0%) of genes in pham
- Manual Annotations of this start: 1 of 143
- Called 33.3% of time when present
- Phage (with cluster) where this start called: GaeCeo_56 (EA9),

Start 15:

- Found in 1 of 150 (0.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: StAugustine_104 (singleton),

Start 17:

- Found in 9 of 150 (6.0%) of genes in pham
- Manual Annotations of this start: 9 of 143
- 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 18:

- Found in 3 of 150 (2.0%) of genes in pham
- Manual Annotations of this start: 3 of 143
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Casey_54 (EA3), Pajaza_54 (EA3), Pikmin_54 (EA3),

Start 19:

- Found in 134 of 150 (89.3%) of genes in pham
- Manual Annotations of this start: 127 of 143
- Called 99.3% of time when present
- Phage (with cluster) where this start called: Acosta_56 (EA1), Agente005_54 (EA1), AlexAdler_55 (EA1), Alyxandracam_55 (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), Carostasia_54 (EA10), Chako_54 (EA1), Chamuel_54 (EA1), Cheeto1_56 (EA9), ChickenKing_54 (EA9), Christoph_54 (EA1), Clancy_54 (EA1), Convict_55 (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), FarmerDoug_55 (EA1), Figueroism_55 (EA1), GardenB_56 (EA1), Garey24_55 (EA1), Gargoyle_55 (EA1), Gelo_54 (EA1), Gershwin_54 (EA1), Greys_55 (EA1), Gubbabump_54 (EA1), Hamlet_54 (EA1), HanSolo_54 (EA1), HankSprout_55 (EA1),

HungryHenry_54 (EA1), Ilzat_54 (EA1), Inventa_55 (EA1), Ioannes_55 (EA1), Janus167_54 (EA1), JasonD_57 (EA1), JasperRussell_54 (EA1), Jenos_56 (EA1), Jerbirus_56 (EA1), JeriBeth_56 (EA1), Kale_54 (EA1), KannH_54 (EA1), Kauala_48 (EA4), KingJulien_54 (EA1), Klimt_55 (EA1), Knox_55 (EA1), Koji_48 (EA4), 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), MillyPhilly_55 (EA1), 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), Papafritta_54 (EA1), ParleG_55 (EA1), Peep_55 (EA1), Peppino_54 (EA1), Pherferi_55 (EA1), Phiderman_55 (EA1), Phireproof_55 (EA1), PhredFlintston_55 (EA1), Phriends_55 (EA1), Pocket_54 (EA1), PuppyEggo_55 (EA1), Raccoon_54 (EA1), Rapheph_55 (EA1), Raptor_55 (EA1), Redfield_54 (EA1), Renzie_55 (EA1), Riyhil_55 (EA1), Robinson_55 (EA1), Rog141_54 (EA1), SJay_55 (EA1), Schnapsidee_54 (EA1), Schubert_53 (EA8), Sedgewig_54 (EA1), ShaiHulud_56 (EA1), Shee_55 (EA1), SoilGremlin_56 (EA1), SonOfLevi_55 (EA1), Stanktossa_54 (EA1), StingRay_54 (EA1), StirfryIV_54 (EA1), Stormbreaker8_53 (EA1), Strathdee_55 (EA1), Superfresh_55 (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 21:

- Found in 2 of 150 (1.3%) of genes in pham
- Manual Annotations of this start: 2 of 143
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Daegal_3 (Q), Gravallia_2 (Q),

Summary by clusters:

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

Info for manual annotations of cluster B4:

- Start number 17 was manually annotated 2 times for cluster B4.

Info for manual annotations of cluster B9:

- Start number 17 was manually annotated 3 times for cluster B9.

Info for manual annotations of cluster DK:

- Start number 17 was manually annotated 4 times for cluster DK.

Info for manual annotations of cluster EA1:

- Start number 19 was manually annotated 118 times for cluster EA1.

Info for manual annotations of cluster EA10:

- Start number 19 was manually annotated 4 times for cluster EA10.

Info for manual annotations of cluster EA3:

- Start number 18 was manually annotated 3 times for cluster EA3.

Info for manual annotations of cluster EA4:

- Start number 19 was manually annotated 2 times for cluster EA4.

Info for manual annotations of cluster EA8:

- Start number 19 was manually annotated 1 time for cluster EA8.

Info for manual annotations of cluster EA9:

- Start number 13 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 EC:

- Start number 10 was manually annotated 1 time for cluster EC.

Info for manual annotations of cluster Q:

- Start number 21 was manually annotated 2 times for cluster Q.

Gene Information:

Gene: Acosta_56 Start: 37827, Stop: 37555, Start Num: 19

Candidate Starts for Acosta_56:

(Start: 19 @37827 has 127 MA's), (28, 37731), (34, 37686),

Gene: Agente005_54 Start: 37813, Stop: 37499, Start Num: 19

Candidate Starts for Agente005_54:

(Start: 19 @37813 has 127 MA's), (32, 37678), (34, 37672), (37, 37627),

Gene: AlanGrant_76 Start: 63236, Stop: 62979, Start Num: 17

Candidate Starts for AlanGrant_76:

(Start: 17 @63236 has 9 MA's), (22, 63212), (26, 63161), (28, 63134), (32, 63095),

Gene: AlexAdler_55 Start: 38033, Stop: 37737, Start Num: 19

Candidate Starts for AlexAdler_55:

(Start: 19 @38033 has 127 MA's), (32, 37898), (38, 37844),

Gene: Alyxandracam_55 Start: 38007, Stop: 37705, Start Num: 19

Candidate Starts for Alyxandracam_55:

(Start: 19 @38007 has 127 MA's), (32, 37872), (38, 37818),

Gene: Antoinette_55 Start: 38058, Stop: 37762, Start Num: 19

Candidate Starts for Antoinette_55:

(Start: 19 @38058 has 127 MA's), (32, 37923), (38, 37869),

Gene: AranulaLuti_54 Start: 37751, Stop: 37449, Start Num: 19

Candidate Starts for AranulaLuti_54:

(Start: 19 @37751 has 127 MA's), (32, 37616), (38, 37562),

Gene: Asta_54 Start: 37755, Stop: 37459, Start Num: 19

Candidate Starts for Asta_54:

(Start: 19 @37755 has 127 MA's), (32, 37620), (38, 37566),

Gene: Aubergine_54 Start: 37755, Stop: 37459, Start Num: 19

Candidate Starts for Aubergine_54:

(Start: 19 @37755 has 127 MA's), (32, 37620), (38, 37566),

Gene: AxiPup_55 Start: 37970, Stop: 37674, Start Num: 19
Candidate Starts for AxiPup_55:
(Start: 19 @37970 has 127 MA's), (32, 37835), (38, 37781),

Gene: Baines_54 Start: 37755, Stop: 37453, Start Num: 19
Candidate Starts for Baines_54:
(Start: 19 @37755 has 127 MA's), (32, 37620), (38, 37566),

Gene: Balsa_53 Start: 37838, Stop: 37536, Start Num: 19
Candidate Starts for Balsa_53:
(Start: 19 @37838 has 127 MA's), (38, 37649), (44, 37574),

Gene: Bandik_55 Start: 38002, Stop: 37700, Start Num: 19
Candidate Starts for Bandik_55:
(Start: 19 @38002 has 127 MA's), (32, 37867), (38, 37813),

Gene: BeautPeep30_55 Start: 38008, Stop: 37706, Start Num: 19
Candidate Starts for BeautPeep30_55:
(Start: 19 @38008 has 127 MA's), (32, 37873), (38, 37819),

Gene: BeeBee8_55 Start: 38012, Stop: 37710, Start Num: 19
Candidate Starts for BeeBee8_55:
(Start: 19 @38012 has 127 MA's), (32, 37877), (38, 37823), (44, 37748),

Gene: Benjalauren_55 Start: 37761, Stop: 37465, Start Num: 19
Candidate Starts for Benjalauren_55:
(Start: 19 @37761 has 127 MA's), (32, 37626), (38, 37572),

Gene: BigRedClifford_55 Start: 37997, Stop: 37701, Start Num: 19
Candidate Starts for BigRedClifford_55:
(Start: 19 @37997 has 127 MA's), (32, 37862), (38, 37808),

Gene: Blage_55 Start: 37997, Stop: 37701, Start Num: 19
Candidate Starts for Blage_55:
(Start: 19 @37997 has 127 MA's), (32, 37862), (38, 37808),

Gene: BonesMcCoy_55 Start: 37997, Stop: 37701, Start Num: 19
Candidate Starts for BonesMcCoy_55:
(Start: 19 @37997 has 127 MA's), (32, 37862), (38, 37808),

Gene: Bonino_54 Start: 37734, Stop: 37438, Start Num: 19
Candidate Starts for Bonino_54:
(Start: 19 @37734 has 127 MA's), (32, 37599), (38, 37545),

Gene: Byron23_56 Start: 38005, Stop: 37703, Start Num: 19
Candidate Starts for Byron23_56:
(Start: 19 @38005 has 127 MA's), (32, 37870), (38, 37816),

Gene: Calix_54 Start: 37741, Stop: 37445, Start Num: 19
Candidate Starts for Calix_54:
(Start: 19 @37741 has 127 MA's), (32, 37606), (38, 37552),

Gene: Carostasia_54 Start: 36652, Stop: 36395, Start Num: 19
Candidate Starts for Carostasia_54:
(7, 36745), (Start: 19 @36652 has 127 MA's), (28, 36556), (32, 36517), (36, 36472), (41, 36445),

Gene: Casey_54 Start: 36538, Stop: 36284, Start Num: 18
Candidate Starts for Casey_54:
(Start: 18 @36538 has 3 MA's), (40, 36331), (43, 36319),

Gene: Chako_54 Start: 37751, Stop: 37449, Start Num: 19
Candidate Starts for Chako_54:
(Start: 19 @37751 has 127 MA's), (32, 37616), (38, 37562),

Gene: Chamuel_54 Start: 37767, Stop: 37471, Start Num: 19
Candidate Starts for Chamuel_54:
(Start: 19 @37767 has 127 MA's), (32, 37632), (38, 37578),

Gene: Cheeto1_56 Start: 38137, Stop: 37841, Start Num: 19
Candidate Starts for Cheeto1_56:
(Start: 13 @38197 has 1 MA's), (14, 38182), (Start: 19 @38137 has 127 MA's), (24, 38080),

Gene: ChickenKing_54 Start: 38291, Stop: 37995, Start Num: 19
Candidate Starts for ChickenKing_54:
(1, 38693), (Start: 13 @38351 has 1 MA's), (14, 38336), (Start: 19 @38291 has 127 MA's), (24, 38234), (31, 38156),

Gene: Christoph_54 Start: 37754, Stop: 37458, Start Num: 19
Candidate Starts for Christoph_54:
(Start: 19 @37754 has 127 MA's), (32, 37619), (38, 37565),

Gene: Clancy_54 Start: 37754, Stop: 37452, Start Num: 19
Candidate Starts for Clancy_54:
(Start: 19 @37754 has 127 MA's), (32, 37619), (38, 37565),

Gene: Convict_55 Start: 37997, Stop: 37701, Start Num: 19
Candidate Starts for Convict_55:
(Start: 19 @37997 has 127 MA's), (32, 37862), (38, 37808),

Gene: Daegal_3 Start: 1154, Stop: 930, Start Num: 21
Candidate Starts for Daegal_3:
(Start: 21 @1154 has 2 MA's), (25, 1094), (33, 1025), (35, 983),

Gene: Dave_55 Start: 38058, Stop: 37762, Start Num: 19
Candidate Starts for Dave_55:
(Start: 19 @38058 has 127 MA's), (32, 37923), (38, 37869),

Gene: Delphidian_55 Start: 37991, Stop: 37731, Start Num: 19
Candidate Starts for Delphidian_55:
(Start: 19 @37991 has 127 MA's), (32, 37853), (33, 37850),

Gene: Den3_55 Start: 38002, Stop: 37706, Start Num: 19
Candidate Starts for Den3_55:
(Start: 19 @38002 has 127 MA's), (32, 37867), (38, 37813),

Gene: Dothraki_55 Start: 38005, Stop: 37703, Start Num: 19

Candidate Starts for Dothraki_55:

(Start: 19 @38005 has 127 MA's), (32, 37870), (38, 37816),

Gene: Duocatuli_54 Start: 37751, Stop: 37449, Start Num: 19

Candidate Starts for Duocatuli_54:

(Start: 19 @37751 has 127 MA's), (32, 37616), (38, 37562),

Gene: Endor_57 Start: 38543, Stop: 38283, Start Num: 19

Candidate Starts for Endor_57:

(Start: 19 @38543 has 127 MA's), (32, 38405), (33, 38402), (41, 38327), (42, 38324),

Gene: Erla_54 Start: 37738, Stop: 37442, Start Num: 19

Candidate Starts for Erla_54:

(Start: 19 @37738 has 127 MA's), (32, 37603), (38, 37549),

Gene: Espinosa_54 Start: 37753, Stop: 37457, Start Num: 19

Candidate Starts for Espinosa_54:

(Start: 19 @37753 has 127 MA's), (32, 37618), (38, 37564),

Gene: Etna_54 Start: 37891, Stop: 37589, Start Num: 19

Candidate Starts for Etna_54:

(Start: 19 @37891 has 127 MA's), (32, 37756), (38, 37702), (44, 37627),

Gene: Etta_54 Start: 37742, Stop: 37446, Start Num: 19

Candidate Starts for Etta_54:

(Start: 19 @37742 has 127 MA's), (32, 37607), (38, 37553),

Gene: FarmerDoug_55 Start: 38067, Stop: 37807, Start Num: 19

Candidate Starts for FarmerDoug_55:

(Start: 19 @38067 has 127 MA's), (32, 37929), (33, 37926), (41, 37851),

Gene: Figueroism_55 Start: 37998, Stop: 37696, Start Num: 19

Candidate Starts for Figueroism_55:

(Start: 19 @37998 has 127 MA's), (32, 37863), (38, 37809),

Gene: Funsized_23 Start: 19544, Stop: 19296, Start Num: 17

Candidate Starts for Funsized_23:

(4, 19742), (6, 19694), (Start: 17 @19544 has 9 MA's), (22, 19517), (26, 19466), (28, 19439),

Gene: GaeCeo_56 Start: 38584, Stop: 38228, Start Num: 13

Candidate Starts for GaeCeo_56:

(1, 38926), (Start: 13 @38584 has 1 MA's), (14, 38569), (Start: 19 @38524 has 127 MA's), (24, 38467), (31, 38389),

Gene: GardenB_56 Start: 38320, Stop: 38060, Start Num: 19

Candidate Starts for GardenB_56:

(Start: 19 @38320 has 127 MA's), (32, 38182), (33, 38179), (41, 38104), (42, 38101),

Gene: Garey24_55 Start: 37721, Stop: 37425, Start Num: 19

Candidate Starts for Garey24_55:

(Start: 19 @37721 has 127 MA's), (32, 37586), (38, 37532),

Gene: Gargoyle_55 Start: 38002, Stop: 37706, Start Num: 19
Candidate Starts for Gargoyle_55:
(Start: 19 @38002 has 127 MA's), (32, 37867), (38, 37813),

Gene: Gelo_54 Start: 37748, Stop: 37452, Start Num: 19
Candidate Starts for Gelo_54:
(Start: 19 @37748 has 127 MA's), (32, 37613), (38, 37559),

Gene: Gershwin_54 Start: 37755, Stop: 37459, Start Num: 19
Candidate Starts for Gershwin_54:
(Start: 19 @37755 has 127 MA's), (32, 37620), (38, 37566),

Gene: GodonK_14 Start: 5550, Stop: 5308, Start Num: 17
Candidate Starts for GodonK_14:
(Start: 17 @5550 has 9 MA's), (22, 5526), (26, 5475),

Gene: GodonK_240 Start: 120532, Stop: 120290, Start Num: 17
Candidate Starts for GodonK_240:
(Start: 17 @120532 has 9 MA's), (22, 120508), (26, 120457),

Gene: Gravaillia_2 Start: 866, Stop: 639, Start Num: 21
Candidate Starts for Gravaillia_2:
(Start: 21 @866 has 2 MA's), (33, 734),

Gene: Greys_55 Start: 37998, Stop: 37702, Start Num: 19
Candidate Starts for Greys_55:
(Start: 19 @37998 has 127 MA's), (32, 37863), (38, 37809),

Gene: Gubbabump_54 Start: 37693, Stop: 37397, Start Num: 19
Candidate Starts for Gubbabump_54:
(Start: 19 @37693 has 127 MA's), (32, 37558), (38, 37504),

Gene: Hamlet_54 Start: 37931, Stop: 37629, Start Num: 19
Candidate Starts for Hamlet_54:
(Start: 19 @37931 has 127 MA's), (38, 37742), (44, 37667),

Gene: HanSolo_54 Start: 37703, Stop: 37407, Start Num: 19
Candidate Starts for HanSolo_54:
(Start: 19 @37703 has 127 MA's), (32, 37568), (38, 37514),

Gene: HankSprout_55 Start: 37622, Stop: 37326, Start Num: 19
Candidate Starts for HankSprout_55:
(Start: 19 @37622 has 127 MA's), (32, 37487), (38, 37433),

Gene: HungryHenry_54 Start: 37715, Stop: 37413, Start Num: 19
Candidate Starts for HungryHenry_54:
(Start: 19 @37715 has 127 MA's), (32, 37580), (38, 37526),

Gene: Ilzat_54 Start: 37725, Stop: 37423, Start Num: 19
Candidate Starts for Ilzat_54:
(Start: 19 @37725 has 127 MA's), (32, 37590), (38, 37536),

Gene: Inventa_55 Start: 38002, Stop: 37700, Start Num: 19

Candidate Starts for Inventa_55:
(Start: 19 @38002 has 127 MA's), (32, 37867), (38, 37813),

Gene: loannes_55 Start: 38080, Stop: 37784, Start Num: 19
Candidate Starts for loannes_55:
(Start: 19 @38080 has 127 MA's), (32, 37945), (38, 37891),

Gene: Janus167_54 Start: 37730, Stop: 37434, Start Num: 19
Candidate Starts for Janus167_54:
(Start: 19 @37730 has 127 MA's), (32, 37595), (38, 37541),

Gene: JasonD_57 Start: 37644, Stop: 37333, Start Num: 19
Candidate Starts for JasonD_57:
(Start: 19 @37644 has 127 MA's), (33, 37506), (44, 37371),

Gene: JasperRussell_54 Start: 37751, Stop: 37449, Start Num: 19
Candidate Starts for JasperRussell_54:
(Start: 19 @37751 has 127 MA's), (32, 37616), (38, 37562),

Gene: Jenos_56 Start: 38342, Stop: 38070, Start Num: 19
Candidate Starts for Jenos_56:
(Start: 19 @38342 has 127 MA's), (28, 38246), (34, 38201), (38, 38153),

Gene: Jerbirus_56 Start: 37745, Stop: 37449, Start Num: 19
Candidate Starts for Jerbirus_56:
(Start: 19 @37745 has 127 MA's), (32, 37610), (38, 37556),

Gene: JeriBeth_56 Start: 37633, Stop: 37337, Start Num: 19
Candidate Starts for JeriBeth_56:
(Start: 19 @37633 has 127 MA's), (32, 37498), (38, 37444),

Gene: Kale_54 Start: 37757, Stop: 37461, Start Num: 19
Candidate Starts for Kale_54:
(Start: 19 @37757 has 127 MA's), (32, 37622), (38, 37568),

Gene: KannH_54 Start: 37751, Stop: 37449, Start Num: 19
Candidate Starts for KannH_54:
(Start: 19 @37751 has 127 MA's), (32, 37616), (38, 37562),

Gene: Kauala_48 Start: 35372, Stop: 35127, Start Num: 19
Candidate Starts for Kauala_48:
(Start: 19 @35372 has 127 MA's), (28, 35276), (32, 35237),

Gene: KingJulien_54 Start: 37729, Stop: 37427, Start Num: 19
Candidate Starts for KingJulien_54:
(Start: 19 @37729 has 127 MA's), (38, 37540), (44, 37465),

Gene: Klimt_55 Start: 37773, Stop: 37477, Start Num: 19
Candidate Starts for Klimt_55:
(Start: 19 @37773 has 127 MA's), (32, 37638), (38, 37584),

Gene: Knocker_97 Start: 70879, Stop: 70643, Start Num: 17
Candidate Starts for Knocker_97:

(Start: 17 @70879 has 9 MA's), (22, 70861), (23, 70855), (27, 70804), (40, 70678),

Gene: Knox_55 Start: 37997, Stop: 37701, Start Num: 19

Candidate Starts for Knox_55:

(Start: 19 @37997 has 127 MA's), (32, 37862), (38, 37808),

Gene: Koji_48 Start: 35362, Stop: 35105, Start Num: 19

Candidate Starts for Koji_48:

(Start: 19 @35362 has 127 MA's), (28, 35266), (32, 35227),

Gene: Kurt1_55 Start: 38002, Stop: 37700, Start Num: 19

Candidate Starts for Kurt1_55:

(Start: 19 @38002 has 127 MA's), (32, 37867), (38, 37813),

Gene: Leafus_54 Start: 37994, Stop: 37692, Start Num: 19

Candidate Starts for Leafus_54:

(Start: 19 @37994 has 127 MA's), (38, 37805), (44, 37730),

Gene: Lovelyunicorn_55 Start: 37998, Stop: 37702, Start Num: 19

Candidate Starts for Lovelyunicorn_55:

(Start: 19 @37998 has 127 MA's), (32, 37863), (38, 37809),

Gene: Ludgate_55 Start: 37999, Stop: 37703, Start Num: 19

Candidate Starts for Ludgate_55:

(Start: 19 @37999 has 127 MA's), (32, 37864), (38, 37810),

Gene: MaeLinda_55 Start: 38006, Stop: 37704, Start Num: 19

Candidate Starts for MaeLinda_55:

(Start: 19 @38006 has 127 MA's), (32, 37871), (38, 37817),

Gene: ManRay_54 Start: 37755, Stop: 37459, Start Num: 19

Candidate Starts for ManRay_54:

(Start: 19 @37755 has 127 MA's), (32, 37620), (38, 37566),

Gene: Mandalorian_54 Start: 36663, Stop: 36406, Start Num: 19

Candidate Starts for Mandalorian_54:

(7, 36756), (Start: 19 @36663 has 127 MA's), (28, 36567), (32, 36528), (36, 36483), (41, 36456),

Gene: Martin_56 Start: 38011, Stop: 37709, Start Num: 19

Candidate Starts for Martin_56:

(Start: 19 @38011 has 127 MA's), (32, 37876), (38, 37822),

Gene: McGalleon_55 Start: 38480, Stop: 38208, Start Num: 19

Candidate Starts for McGalleon_55:

(Start: 19 @38480 has 127 MA's), (28, 38384), (34, 38339), (38, 38291),

Gene: Megan_77 Start: 50316, Stop: 50684, Start Num: 10

Candidate Starts for Megan_77:

(Start: 10 @50316 has 1 MA's), (11, 50322), (16, 50379), (22, 50412), (26, 50463), (36, 50574),

Gene: MillyPhilly_55 Start: 37999, Stop: 37697, Start Num: 19

Candidate Starts for MillyPhilly_55:

(Start: 19 @37999 has 127 MA's), (32, 37864), (38, 37810),

Gene: MonChoix_52 Start: 37644, Stop: 37339, Start Num: 19
Candidate Starts for MonChoix_52:
(Start: 19 @37644 has 127 MA's), (32, 37509), (38, 37455), (44, 37377),

Gene: MrWorldwide_55 Start: 38009, Stop: 37707, Start Num: 19
Candidate Starts for MrWorldwide_55:
(Start: 19 @38009 has 127 MA's), (32, 37874), (38, 37820),

Gene: Nagem_55 Start: 38045, Stop: 37743, Start Num: 19
Candidate Starts for Nagem_55:
(Start: 19 @38045 has 127 MA's), (32, 37910), (38, 37856),

Gene: Nattles_54 Start: 37742, Stop: 37446, Start Num: 19
Candidate Starts for Nattles_54:
(Start: 19 @37742 has 127 MA's), (32, 37607), (38, 37553),

Gene: NickSell_55 Start: 38012, Stop: 37710, Start Num: 19
Candidate Starts for NickSell_55:
(Start: 19 @38012 has 127 MA's), (32, 37877), (38, 37823),

Gene: Nucci_54 Start: 36629, Stop: 36366, Start Num: 19
Candidate Starts for Nucci_54:
(Start: 19 @36629 has 127 MA's), (28, 36533), (32, 36494),

Gene: Oats_54 Start: 37755, Stop: 37459, Start Num: 19
Candidate Starts for Oats_54:
(Start: 19 @37755 has 127 MA's), (32, 37620), (38, 37566),

Gene: OldNelly_56 Start: 37995, Stop: 37735, Start Num: 19
Candidate Starts for OldNelly_56:
(Start: 19 @37995 has 127 MA's), (32, 37857), (33, 37854),

Gene: Oxtober96_56 Start: 37998, Stop: 37702, Start Num: 19
Candidate Starts for Oxtober96_56:
(Start: 19 @37998 has 127 MA's), (32, 37863), (38, 37809),

Gene: Pajaza_54 Start: 36538, Stop: 36284, Start Num: 18
Candidate Starts for Pajaza_54:
(Start: 18 @36538 has 3 MA's), (40, 36331), (43, 36319),

Gene: Papafritta_54 Start: 37760, Stop: 37458, Start Num: 19
Candidate Starts for Papafritta_54:
(Start: 19 @37760 has 127 MA's), (32, 37625), (38, 37571),

Gene: ParleG_55 Start: 38009, Stop: 37707, Start Num: 19
Candidate Starts for ParleG_55:
(Start: 19 @38009 has 127 MA's), (32, 37874), (38, 37820),

Gene: Peep_55 Start: 38055, Stop: 37759, Start Num: 19
Candidate Starts for Peep_55:
(Start: 19 @38055 has 127 MA's), (32, 37920), (38, 37866),

Gene: Peppino_54 Start: 37824, Stop: 37522, Start Num: 19
Candidate Starts for Peppino_54:
(Start: 19 @37824 has 127 MA's), (38, 37635), (44, 37560),

Gene: Phendrix_230 Start: 119315, Stop: 119073, Start Num: 17
Candidate Starts for Phendrix_230:
(8, 119390), (9, 119384), (12, 119366), (Start: 17 @119315 has 9 MA's), (26, 119240),

Gene: Phendrix_14 Start: 5717, Stop: 5475, Start Num: 17
Candidate Starts for Phendrix_14:
(8, 5792), (9, 5786), (12, 5768), (Start: 17 @5717 has 9 MA's), (26, 5642),

Gene: Pherferi_55 Start: 38002, Stop: 37700, Start Num: 19
Candidate Starts for Pherferi_55:
(Start: 19 @38002 has 127 MA's), (32, 37867), (38, 37813),

Gene: Phiderman_55 Start: 37999, Stop: 37697, Start Num: 19
Candidate Starts for Phiderman_55:
(Start: 19 @37999 has 127 MA's), (32, 37864), (38, 37810),

Gene: Phireproof_55 Start: 38008, Stop: 37706, Start Num: 19
Candidate Starts for Phireproof_55:
(Start: 19 @38008 has 127 MA's), (32, 37873), (38, 37819),

Gene: PhredFlintston_55 Start: 38002, Stop: 37700, Start Num: 19
Candidate Starts for PhredFlintston_55:
(Start: 19 @38002 has 127 MA's), (32, 37867), (38, 37813),

Gene: Phriends_55 Start: 37999, Stop: 37739, Start Num: 19
Candidate Starts for Phriends_55:
(Start: 19 @37999 has 127 MA's), (32, 37861), (33, 37858),

Gene: Pikmin_54 Start: 36538, Stop: 36284, Start Num: 18
Candidate Starts for Pikmin_54:
(Start: 18 @36538 has 3 MA's), (40, 36331), (43, 36319),

Gene: Pocket_54 Start: 37782, Stop: 37486, Start Num: 19
Candidate Starts for Pocket_54:
(Start: 19 @37782 has 127 MA's), (32, 37647), (38, 37593),

Gene: PuppyEggo_55 Start: 38003, Stop: 37707, Start Num: 19
Candidate Starts for PuppyEggo_55:
(Start: 19 @38003 has 127 MA's), (32, 37868), (38, 37814),

Gene: Raccoon_54 Start: 37795, Stop: 37493, Start Num: 19
Candidate Starts for Raccoon_54:
(Start: 19 @37795 has 127 MA's), (38, 37606), (44, 37531),

Gene: Rapheph_55 Start: 38002, Stop: 37700, Start Num: 19
Candidate Starts for Rapheph_55:
(Start: 19 @38002 has 127 MA's), (32, 37867), (38, 37813),

Gene: Raptor_55 Start: 38000, Stop: 37704, Start Num: 19

Candidate Starts for Raptor_55:
(Start: 19 @38000 has 127 MA's), (32, 37865), (38, 37811),

Gene: Redfield_54 Start: 37837, Stop: 37535, Start Num: 19
Candidate Starts for Redfield_54:
(Start: 19 @37837 has 127 MA's), (32, 37702), (38, 37648), (44, 37573),

Gene: Renzie_55 Start: 38058, Stop: 37762, Start Num: 19
Candidate Starts for Renzie_55:
(Start: 19 @38058 has 127 MA's), (32, 37923), (38, 37869),

Gene: Rinkes_23 Start: 19467, Stop: 19222, Start Num: 17
Candidate Starts for Rinkes_23:
(Start: 17 @19467 has 9 MA's), (22, 19443), (26, 19392), (27, 19386), (30, 19347), (32, 19326),

Gene: Riyhil_55 Start: 38012, Stop: 37710, Start Num: 19
Candidate Starts for Riyhil_55:
(Start: 19 @38012 has 127 MA's), (32, 37877), (38, 37823),

Gene: Robinson_55 Start: 38074, Stop: 37778, Start Num: 19
Candidate Starts for Robinson_55:
(Start: 19 @38074 has 127 MA's), (32, 37939), (38, 37885),

Gene: Rog141_54 Start: 37745, Stop: 37449, Start Num: 19
Candidate Starts for Rog141_54:
(Start: 19 @37745 has 127 MA's), (32, 37610), (38, 37556),

Gene: SJay_55 Start: 38046, Stop: 37744, Start Num: 19
Candidate Starts for SJay_55:
(Start: 19 @38046 has 127 MA's), (32, 37911), (38, 37857),

Gene: Schnapsidee_54 Start: 37869, Stop: 37567, Start Num: 19
Candidate Starts for Schnapsidee_54:
(Start: 19 @37869 has 127 MA's), (38, 37680), (44, 37605),

Gene: Schubert_53 Start: 37310, Stop: 37065, Start Num: 19
Candidate Starts for Schubert_53:
(Start: 19 @37310 has 127 MA's), (32, 37175),

Gene: Sedgewig_54 Start: 37707, Stop: 37405, Start Num: 19
Candidate Starts for Sedgewig_54:
(Start: 19 @37707 has 127 MA's), (32, 37572), (38, 37518),

Gene: ShaiHulud_56 Start: 38012, Stop: 37716, Start Num: 19
Candidate Starts for ShaiHulud_56:
(Start: 19 @38012 has 127 MA's), (32, 37877), (38, 37823),

Gene: Shee_55 Start: 37999, Stop: 37697, Start Num: 19
Candidate Starts for Shee_55:
(Start: 19 @37999 has 127 MA's), (32, 37864), (38, 37810),

Gene: SoilGremlin_56 Start: 37992, Stop: 37732, Start Num: 19
Candidate Starts for SoilGremlin_56:

(Start: 19 @37992 has 127 MA's), (32, 37854), (33, 37851),

Gene: SonOfLevi_55 Start: 37773, Stop: 37477, Start Num: 19

Candidate Starts for SonOfLevi_55:

(Start: 19 @37773 has 127 MA's), (32, 37638), (38, 37584),

Gene: StAugustine_104 Start: 72844, Stop: 72515, Start Num: 15

Candidate Starts for StAugustine_104:

(2, 73084), (3, 73060), (5, 72970), (15, 72844), (20, 72802), (22, 72787), (29, 72700), (32, 72673), (33, 72670), (36, 72625), (40, 72610),

Gene: Stanktossa_54 Start: 38002, Stop: 37700, Start Num: 19

Candidate Starts for Stanktossa_54:

(Start: 19 @38002 has 127 MA's), (32, 37867), (38, 37813),

Gene: StingRay_54 Start: 37797, Stop: 37501, Start Num: 19

Candidate Starts for StingRay_54:

(Start: 19 @37797 has 127 MA's), (32, 37662), (38, 37608),

Gene: StirfryIV_54 Start: 37718, Stop: 37416, Start Num: 19

Candidate Starts for StirfryIV_54:

(Start: 19 @37718 has 127 MA's), (32, 37583), (38, 37529),

Gene: Stormbreaker8_53 Start: 37730, Stop: 37428, Start Num: 19

Candidate Starts for Stormbreaker8_53:

(Start: 19 @37730 has 127 MA's), (38, 37541), (44, 37466),

Gene: Strathdee_55 Start: 38002, Stop: 37706, Start Num: 19

Candidate Starts for Strathdee_55:

(Start: 19 @38002 has 127 MA's), (32, 37867), (38, 37813),

Gene: Superfresh_55 Start: 38058, Stop: 37762, Start Num: 19

Candidate Starts for Superfresh_55:

(Start: 19 @38058 has 127 MA's), (32, 37923), (38, 37869),

Gene: TatarkaPM_55 Start: 38012, Stop: 37710, Start Num: 19

Candidate Starts for TatarkaPM_55:

(Start: 19 @38012 has 127 MA's), (32, 37877), (38, 37823),

Gene: Teagan_55 Start: 37993, Stop: 37697, Start Num: 19

Candidate Starts for Teagan_55:

(Start: 19 @37993 has 127 MA's), (32, 37858), (38, 37804),

Gene: TeddyBear_54 Start: 37755, Stop: 37459, Start Num: 19

Candidate Starts for TeddyBear_54:

(Start: 19 @37755 has 127 MA's), (32, 37620), (38, 37566),

Gene: Tenda_54 Start: 37753, Stop: 37457, Start Num: 19

Candidate Starts for Tenda_54:

(Start: 19 @37753 has 127 MA's), (32, 37618), (38, 37564),

Gene: Thompsone_55 Start: 38000, Stop: 37704, Start Num: 19

Candidate Starts for Thompsone_55:

(Start: 19 @38000 has 127 MA's), (32, 37865), (38, 37811),

Gene: Thorongil_55 Start: 37517, Stop: 37221, Start Num: 19

Candidate Starts for Thorongil_55:

(Start: 19 @37517 has 127 MA's), (32, 37382), (38, 37328),

Gene: TinSulphur_56 Start: 38008, Stop: 37706, Start Num: 19

Candidate Starts for TinSulphur_56:

(Start: 19 @38008 has 127 MA's), (32, 37873), (38, 37819),

Gene: Velene_55 Start: 37998, Stop: 37702, Start Num: 19

Candidate Starts for Velene_55:

(Start: 19 @37998 has 127 MA's), (32, 37863), (38, 37809),

Gene: Vincenzo_75 Start: 63266, Stop: 63009, Start Num: 17

Candidate Starts for Vincenzo_75:

(Start: 17 @63266 has 9 MA's), (22, 63242), (26, 63191), (28, 63164), (32, 63125),

Gene: Vispitious_55 Start: 38003, Stop: 37707, Start Num: 19

Candidate Starts for Vispitious_55:

(Start: 19 @38003 has 127 MA's), (32, 37868), (38, 37814),

Gene: WildNOut_55 Start: 37996, Stop: 37700, Start Num: 19

Candidate Starts for WildNOut_55:

(Start: 19 @37996 has 127 MA's), (32, 37861), (38, 37807),

Gene: Winzigespinne_54 Start: 37741, Stop: 37445, Start Num: 19

Candidate Starts for Winzigespinne_54:

(Start: 19 @37741 has 127 MA's), (32, 37606), (38, 37552),

Gene: YuuY_55 Start: 37195, Stop: 36938, Start Num: 19

Candidate Starts for YuuY_55:

(Start: 19 @37195 has 127 MA's), (28, 37099), (32, 37060), (39, 37003), (41, 36988),

Gene: Zada_56 Start: 38015, Stop: 37719, Start Num: 19

Candidate Starts for Zada_56:

(Start: 19 @38015 has 127 MA's), (32, 37880), (38, 37826),