

Pham 171311



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 171311 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171311 has 118 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Knocker_97
- Track 2 : TatarkaPM_55, Renzie_55, Den3_55, Duocatuli_54, Benjalauren_55, Ioannes_55, PhredFlintston_55, Thompsone_55, AranulaLuti_54, TinSulphur_56, Erla_54, Inventa_55, Dothraki_55, Stanktossa_54, Aubergine_54, BonesMcCoy_55, Antoinette_55, Garey24_55, Bonino_54, Greys_55, Thorongil_55, Asta_54, SonOfLevi_55, Strathdee_55, Nattles_54, ManRay_54, StirfryIV_56, Blage_55, Winzigespinne_54, TeddyBear_54, Gershwin_54, Alyxandracam_55, BeautPeep30_55, Peep_55, Vispistious_56, Superfresh_55, BigRedClifford_55, JeriBeth_56, Velene_55, AxiPup_55, Oxtober96_56, Phireproof_55, Baines_54, Espinosa_54, Convict_55, MillyPhilly_55, Raptor_55, Chamuel_54, HungryHenry_54, Dave_55, Pocket_54, SJay_55, Calix_54, Robinson_55, Rog141_54, WildNOut_55, Rappheph_55, HanSolo_54, Sedgewig_54, Ilzat_54, Gelo_54, Klimt_55, Knox_55, KannH_54, Janus167_54, Clancy_54, Oats_54, Lovelyunicorn_55, Teagan_55, Byron23_56, ParleG_55, Pherferi_55, Zada_56, Figueroism_55, Gargoyle_55, Phiderman_55, Christoph_54, MrWorldwide_55, AlexAdler_55, ShaiHulud_56, Shee_55, Etta_54, PuppyEggo_55, JasperRussell_54, Gubbabump_54, MaeLinda_55, StingRay_54, Kurt1_55, Riyhil_55, NickSell_57, Papafritta_54, Tenda_54, Martin_56, HankSprout_55, Jerbirus_56, Ludgate_55, Kale_54, Bandik_55, Chako_54, Nagem_55
- Track 3 : Redfield_54, Etna_54, MonChoix_52
- Track 4 : KingJulien_54, Stormbreaker8_53
- Track 5 : McGalleon_55
- Track 6 : Acosta_56
- Track 7 : Jenos_56
- Track 8 : YuuY_55
- Track 9 : Juanyo_56
- Track 10 : Carostasia_54, Mandalorian_54
- Track 11 : Quartz_55
- Track 12 : Nucci_54
- Track 13 : Koji_48, Kauala_48
- Track 14 : Schubert_53

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

The start number called the most often in the published annotations is 3, it was called in 106 of the 108 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acosta_56, AlexAdler_55, Alyxandracam_55, Antoinette_55, AranulaLuti_54, Asta_54, Aubergine_54, AxiPup_55, Baines_54, Bandik_55, BeautPeep30_55, Benjalauren_55, BigRedClifford_55, Blage_55, BonesMcCoy_55, Bonino_54, Byron23_56, Calix_54, Carostasia_54, Chako_54, Chamuel_54, Christoph_54, Clancy_54, Convict_55, Dave_55, Den3_55, Dothraki_55, Duocatuli_54, Erla_54, Espinosa_54, Etna_54, Etta_54, Figueroism_55, Garey24_55, Gargoyle_55, Gelo_54, Gershwin_54, Greys_55, Gubbabump_54, HanSolo_54, HankSprout_55, HungryHenry_54, Ilzat_54, Inventa_55, Ioannes_55, Janus167_54, JasperRussell_54, Jenos_56, Jerbirus_56, JeriBeth_56, Kale_54, KannH_54, Kauala_48, KingJulien_54, Klimt_55, Knocker_97, Knox_55, Koji_48, Kurt1_55, 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_57, Nucci_54, Oats_54, Oxtober96_56, Papafritta_54, ParleG_55, Peep_55, Pherferi_55, Phiderman_55, Phireproof_55, PhredFlintston_55, Pocket_54, PuppyEggo_55, Rapheph_55, Raptor_55, Redfield_54, Renzie_55, Rihhil_55, Robinson_55, Rog141_54, SJay_55, Schubert_53, Sedgewig_54, ShaiHulud_56, Shee_55, SonOfLevi_55, Stanktossa_54, StingRay_54, StirfryIV_56, Stormbreaker8_53, Strathdee_55, Superfresh_55, TatarkaPM_55, Teagan_55, TeddyBear_54, Tenda_54, Thompsone_55, Thorongil_55, TinSulphur_56, Velene_55, Vispitious_56, 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:

-

Summary by start number:

Start 1:

- Found in 3 of 118 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 108
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Quartz_55 (EA10),

Start 2:

- Found in 1 of 118 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Juanyo_56 (EA10),

Start 3:

- Found in 118 of 118 (100.0%) of genes in pham
- Manual Annotations of this start: 106 of 108
- Called 98.3% of time when present
- Phage (with cluster) where this start called: Acosta_56 (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), Bandik_55 (EA1),

BeautPeep30_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), Christoph_54 (EA1), Clancy_54 (EA1), Convict_55 (EA1), Dave_55 (EA1), Den3_55 (EA1), Dothraki_55 (EA1), Duocatuli_54 (EA1), Erla_54 (EA1), Espinosa_54 (EA1), Etna_54 (EA1), Etta_54 (EA1), Figueroism_55 (EA1), Garey24_55 (EA1), Gargoyle_55 (EA1), Gelo_54 (EA1), Gershwin_54 (EA1), Greys_55 (EA1), Gubbabump_54 (EA1), HanSolo_54 (EA1), HankSprout_55 (EA1), HungryHenry_54 (EA1), Ilzat_54 (EA1), Inventa_55 (EA1), Ioannes_55 (EA1), Janus167_54 (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), Knocker_97 (B9), Knox_55 (EA1), Koji_48 (EA4), Kurt1_55 (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_57 (EA1), Nucci_54 (EA10), Oats_54 (EA1), Oxtober96_56 (EA1), Papafritta_54 (EA1), ParleG_55 (EA1), Peep_55 (EA1), Pherferi_55 (EA1), Phiderman_55 (EA1), Phireproof_55 (EA1), PhredFlintston_55 (EA1), Pocket_54 (EA1), PuppyEggo_55 (EA1), Rappheph_55 (EA1), Raptor_55 (EA1), Redfield_54 (EA1), Renzie_55 (EA1), Riyhil_55 (EA1), Robinson_55 (EA1), Rog141_54 (EA1), SJay_55 (EA1), Schubert_53 (EA8), Sedgewig_54 (EA1), ShaiHulud_56 (EA1), Shee_55 (EA1), SonOfLevi_55 (EA1), Stanktossa_54 (EA1), StingRay_54 (EA1), StirfryIV_56 (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_56 (EA1), WildNOut_55 (EA1), Winzigespinne_54 (EA1), YuuY_55 (EA10), Zada_56 (EA1),

Summary by clusters:

There are 5 clusters represented in this pham: EA1, EA8, B9, EA4, EA10,

Info for manual annotations of cluster B9:

- Start number 3 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster EA1:

- Start number 3 was manually annotated 99 times for cluster EA1.

Info for manual annotations of cluster EA10:

- Start number 1 was manually annotated 1 time for cluster EA10.
- Start number 2 was manually annotated 1 time for cluster EA10.
- Start number 3 was manually annotated 3 times for cluster EA10.

Info for manual annotations of cluster EA4:

- Start number 3 was manually annotated 2 times for cluster EA4.

Info for manual annotations of cluster EA8:

- Start number 3 was manually annotated 1 time for cluster EA8.

Gene Information:

Gene: Acosta_56 Start: 37827, Stop: 37555, Start Num: 3
Candidate Starts for Acosta_56:
(Start: 3 @37827 has 106 MA's), (7, 37731), (9, 37686),

Gene: AlexAdler_55 Start: 38033, Stop: 37737, Start Num: 3
Candidate Starts for AlexAdler_55:
(Start: 3 @38033 has 106 MA's), (8, 37898), (11, 37844),

Gene: Alyxandracam_55 Start: 38007, Stop: 37705, Start Num: 3
Candidate Starts for Alyxandracam_55:
(Start: 3 @38007 has 106 MA's), (8, 37872), (11, 37818),

Gene: Antoinette_55 Start: 38058, Stop: 37762, Start Num: 3
Candidate Starts for Antoinette_55:
(Start: 3 @38058 has 106 MA's), (8, 37923), (11, 37869),

Gene: AranulaLuti_54 Start: 37751, Stop: 37449, Start Num: 3
Candidate Starts for AranulaLuti_54:
(Start: 3 @37751 has 106 MA's), (8, 37616), (11, 37562),

Gene: Asta_54 Start: 37755, Stop: 37459, Start Num: 3
Candidate Starts for Asta_54:
(Start: 3 @37755 has 106 MA's), (8, 37620), (11, 37566),

Gene: Aubergine_54 Start: 37755, Stop: 37459, Start Num: 3
Candidate Starts for Aubergine_54:
(Start: 3 @37755 has 106 MA's), (8, 37620), (11, 37566),

Gene: AxiPup_55 Start: 37970, Stop: 37674, Start Num: 3
Candidate Starts for AxiPup_55:
(Start: 3 @37970 has 106 MA's), (8, 37835), (11, 37781),

Gene: Baines_54 Start: 37755, Stop: 37453, Start Num: 3
Candidate Starts for Baines_54:
(Start: 3 @37755 has 106 MA's), (8, 37620), (11, 37566),

Gene: Bandik_55 Start: 38002, Stop: 37700, Start Num: 3
Candidate Starts for Bandik_55:
(Start: 3 @38002 has 106 MA's), (8, 37867), (11, 37813),

Gene: BeautPeep30_55 Start: 38008, Stop: 37706, Start Num: 3
Candidate Starts for BeautPeep30_55:
(Start: 3 @38008 has 106 MA's), (8, 37873), (11, 37819),

Gene: Benjalauren_55 Start: 37761, Stop: 37465, Start Num: 3
Candidate Starts for Benjalauren_55:
(Start: 3 @37761 has 106 MA's), (8, 37626), (11, 37572),

Gene: BigRedClifford_55 Start: 37997, Stop: 37701, Start Num: 3
Candidate Starts for BigRedClifford_55:
(Start: 3 @37997 has 106 MA's), (8, 37862), (11, 37808),

Gene: Blage_55 Start: 37997, Stop: 37701, Start Num: 3

Candidate Starts for Blage_55:
(Start: 3 @37997 has 106 MA's), (8, 37862), (11, 37808),

Gene: BonesMcCoy_55 Start: 37997, Stop: 37701, Start Num: 3
Candidate Starts for BonesMcCoy_55:
(Start: 3 @37997 has 106 MA's), (8, 37862), (11, 37808),

Gene: Bonino_54 Start: 37734, Stop: 37438, Start Num: 3
Candidate Starts for Bonino_54:
(Start: 3 @37734 has 106 MA's), (8, 37599), (11, 37545),

Gene: Byron23_56 Start: 38005, Stop: 37703, Start Num: 3
Candidate Starts for Byron23_56:
(Start: 3 @38005 has 106 MA's), (8, 37870), (11, 37816),

Gene: Calix_54 Start: 37741, Stop: 37445, Start Num: 3
Candidate Starts for Calix_54:
(Start: 3 @37741 has 106 MA's), (8, 37606), (11, 37552),

Gene: Carostasia_54 Start: 36652, Stop: 36395, Start Num: 3
Candidate Starts for Carostasia_54:
(Start: 1 @36745 has 1 MA's), (Start: 3 @36652 has 106 MA's), (7, 36556), (8, 36517), (10, 36472),
(14, 36445),

Gene: Chako_54 Start: 37751, Stop: 37449, Start Num: 3
Candidate Starts for Chako_54:
(Start: 3 @37751 has 106 MA's), (8, 37616), (11, 37562),

Gene: Chamuel_54 Start: 37767, Stop: 37471, Start Num: 3
Candidate Starts for Chamuel_54:
(Start: 3 @37767 has 106 MA's), (8, 37632), (11, 37578),

Gene: Christoph_54 Start: 37754, Stop: 37458, Start Num: 3
Candidate Starts for Christoph_54:
(Start: 3 @37754 has 106 MA's), (8, 37619), (11, 37565),

Gene: Clancy_54 Start: 37754, Stop: 37452, Start Num: 3
Candidate Starts for Clancy_54:
(Start: 3 @37754 has 106 MA's), (8, 37619), (11, 37565),

Gene: Convict_55 Start: 37997, Stop: 37701, Start Num: 3
Candidate Starts for Convict_55:
(Start: 3 @37997 has 106 MA's), (8, 37862), (11, 37808),

Gene: Dave_55 Start: 38058, Stop: 37762, Start Num: 3
Candidate Starts for Dave_55:
(Start: 3 @38058 has 106 MA's), (8, 37923), (11, 37869),

Gene: Den3_55 Start: 38002, Stop: 37706, Start Num: 3
Candidate Starts for Den3_55:
(Start: 3 @38002 has 106 MA's), (8, 37867), (11, 37813),

Gene: Dothraki_55 Start: 38005, Stop: 37703, Start Num: 3

Candidate Starts for Dothraki_55:
(Start: 3 @38005 has 106 MA's), (8, 37870), (11, 37816),

Gene: Duocatuli_54 Start: 37751, Stop: 37449, Start Num: 3
Candidate Starts for Duocatuli_54:
(Start: 3 @37751 has 106 MA's), (8, 37616), (11, 37562),

Gene: Erla_54 Start: 37738, Stop: 37442, Start Num: 3
Candidate Starts for Erla_54:
(Start: 3 @37738 has 106 MA's), (8, 37603), (11, 37549),

Gene: Espinosa_54 Start: 37753, Stop: 37457, Start Num: 3
Candidate Starts for Espinosa_54:
(Start: 3 @37753 has 106 MA's), (8, 37618), (11, 37564),

Gene: Etna_54 Start: 37891, Stop: 37589, Start Num: 3
Candidate Starts for Etna_54:
(Start: 3 @37891 has 106 MA's), (8, 37756), (11, 37702), (15, 37627),

Gene: Etta_54 Start: 37742, Stop: 37446, Start Num: 3
Candidate Starts for Etta_54:
(Start: 3 @37742 has 106 MA's), (8, 37607), (11, 37553),

Gene: Figueroism_55 Start: 37998, Stop: 37696, Start Num: 3
Candidate Starts for Figueroism_55:
(Start: 3 @37998 has 106 MA's), (8, 37863), (11, 37809),

Gene: Garey24_55 Start: 37721, Stop: 37425, Start Num: 3
Candidate Starts for Garey24_55:
(Start: 3 @37721 has 106 MA's), (8, 37586), (11, 37532),

Gene: Gargoyle_55 Start: 38002, Stop: 37706, Start Num: 3
Candidate Starts for Gargoyle_55:
(Start: 3 @38002 has 106 MA's), (8, 37867), (11, 37813),

Gene: Gelo_54 Start: 37748, Stop: 37452, Start Num: 3
Candidate Starts for Gelo_54:
(Start: 3 @37748 has 106 MA's), (8, 37613), (11, 37559),

Gene: Gershwin_54 Start: 37755, Stop: 37459, Start Num: 3
Candidate Starts for Gershwin_54:
(Start: 3 @37755 has 106 MA's), (8, 37620), (11, 37566),

Gene: Greys_55 Start: 37998, Stop: 37702, Start Num: 3
Candidate Starts for Greys_55:
(Start: 3 @37998 has 106 MA's), (8, 37863), (11, 37809),

Gene: Gubbabump_54 Start: 37693, Stop: 37397, Start Num: 3
Candidate Starts for Gubbabump_54:
(Start: 3 @37693 has 106 MA's), (8, 37558), (11, 37504),

Gene: HanSolo_54 Start: 37703, Stop: 37407, Start Num: 3
Candidate Starts for HanSolo_54:

(Start: 3 @37703 has 106 MA's), (8, 37568), (11, 37514),

Gene: HankSprout_55 Start: 37622, Stop: 37326, Start Num: 3

Candidate Starts for HankSprout_55:

(Start: 3 @37622 has 106 MA's), (8, 37487), (11, 37433),

Gene: HungryHenry_54 Start: 37715, Stop: 37413, Start Num: 3

Candidate Starts for HungryHenry_54:

(Start: 3 @37715 has 106 MA's), (8, 37580), (11, 37526),

Gene: Ilzat_54 Start: 37725, Stop: 37423, Start Num: 3

Candidate Starts for Ilzat_54:

(Start: 3 @37725 has 106 MA's), (8, 37590), (11, 37536),

Gene: Inventa_55 Start: 38002, Stop: 37700, Start Num: 3

Candidate Starts for Inventa_55:

(Start: 3 @38002 has 106 MA's), (8, 37867), (11, 37813),

Gene: loannes_55 Start: 38080, Stop: 37784, Start Num: 3

Candidate Starts for loannes_55:

(Start: 3 @38080 has 106 MA's), (8, 37945), (11, 37891),

Gene: Janus167_54 Start: 37730, Stop: 37434, Start Num: 3

Candidate Starts for Janus167_54:

(Start: 3 @37730 has 106 MA's), (8, 37595), (11, 37541),

Gene: JasperRussell_54 Start: 37751, Stop: 37449, Start Num: 3

Candidate Starts for JasperRussell_54:

(Start: 3 @37751 has 106 MA's), (8, 37616), (11, 37562),

Gene: Jenos_56 Start: 38342, Stop: 38070, Start Num: 3

Candidate Starts for Jenos_56:

(Start: 3 @38342 has 106 MA's), (7, 38246), (9, 38201), (11, 38153),

Gene: Jerbirus_56 Start: 37745, Stop: 37449, Start Num: 3

Candidate Starts for Jerbirus_56:

(Start: 3 @37745 has 106 MA's), (8, 37610), (11, 37556),

Gene: JeriBeth_56 Start: 37633, Stop: 37337, Start Num: 3

Candidate Starts for JeriBeth_56:

(Start: 3 @37633 has 106 MA's), (8, 37498), (11, 37444),

Gene: Juanyo_56 Start: 37419, Stop: 37084, Start Num: 2

Candidate Starts for Juanyo_56:

(Start: 2 @37419 has 1 MA's), (Start: 3 @37326 has 106 MA's), (7, 37230), (8, 37206), (14, 37134),

Gene: Kale_54 Start: 37757, Stop: 37461, Start Num: 3

Candidate Starts for Kale_54:

(Start: 3 @37757 has 106 MA's), (8, 37622), (11, 37568),

Gene: KannH_54 Start: 37751, Stop: 37449, Start Num: 3

Candidate Starts for KannH_54:

(Start: 3 @37751 has 106 MA's), (8, 37616), (11, 37562),

Gene: Kauala_48 Start: 35372, Stop: 35127, Start Num: 3
Candidate Starts for Kauala_48:
(Start: 3 @35372 has 106 MA's), (7, 35276), (8, 35237),

Gene: KingJulien_54 Start: 37729, Stop: 37427, Start Num: 3
Candidate Starts for KingJulien_54:
(Start: 3 @37729 has 106 MA's), (11, 37540), (15, 37465),

Gene: Klimt_55 Start: 37773, Stop: 37477, Start Num: 3
Candidate Starts for Klimt_55:
(Start: 3 @37773 has 106 MA's), (8, 37638), (11, 37584),

Gene: Knocker_97 Start: 70879, Stop: 70643, Start Num: 3
Candidate Starts for Knocker_97:
(Start: 3 @70879 has 106 MA's), (4, 70861), (5, 70855), (6, 70804), (13, 70678),

Gene: Knox_55 Start: 37997, Stop: 37701, Start Num: 3
Candidate Starts for Knox_55:
(Start: 3 @37997 has 106 MA's), (8, 37862), (11, 37808),

Gene: Koji_48 Start: 35362, Stop: 35105, Start Num: 3
Candidate Starts for Koji_48:
(Start: 3 @35362 has 106 MA's), (7, 35266), (8, 35227),

Gene: Kurt1_55 Start: 38002, Stop: 37700, Start Num: 3
Candidate Starts for Kurt1_55:
(Start: 3 @38002 has 106 MA's), (8, 37867), (11, 37813),

Gene: Lovelyunicorn_55 Start: 37998, Stop: 37702, Start Num: 3
Candidate Starts for Lovelyunicorn_55:
(Start: 3 @37998 has 106 MA's), (8, 37863), (11, 37809),

Gene: Ludgate_55 Start: 37999, Stop: 37703, Start Num: 3
Candidate Starts for Ludgate_55:
(Start: 3 @37999 has 106 MA's), (8, 37864), (11, 37810),

Gene: MaeLinda_55 Start: 38006, Stop: 37704, Start Num: 3
Candidate Starts for MaeLinda_55:
(Start: 3 @38006 has 106 MA's), (8, 37871), (11, 37817),

Gene: ManRay_54 Start: 37755, Stop: 37459, Start Num: 3
Candidate Starts for ManRay_54:
(Start: 3 @37755 has 106 MA's), (8, 37620), (11, 37566),

Gene: Mandalorian_54 Start: 36663, Stop: 36406, Start Num: 3
Candidate Starts for Mandalorian_54:
(Start: 1 @36756 has 1 MA's), (Start: 3 @36663 has 106 MA's), (7, 36567), (8, 36528), (10, 36483),
(14, 36456),

Gene: Martin_56 Start: 38011, Stop: 37709, Start Num: 3
Candidate Starts for Martin_56:
(Start: 3 @38011 has 106 MA's), (8, 37876), (11, 37822),

Gene: McGalleon_55 Start: 38480, Stop: 38208, Start Num: 3
Candidate Starts for McGalleon_55:
(Start: 3 @38480 has 106 MA's), (7, 38384), (9, 38339), (11, 38291),

Gene: MillyPhilly_55 Start: 37999, Stop: 37697, Start Num: 3
Candidate Starts for MillyPhilly_55:
(Start: 3 @37999 has 106 MA's), (8, 37864), (11, 37810),

Gene: MonChoix_52 Start: 37644, Stop: 37339, Start Num: 3
Candidate Starts for MonChoix_52:
(Start: 3 @37644 has 106 MA's), (8, 37509), (11, 37455), (15, 37377),

Gene: MrWorldwide_55 Start: 38009, Stop: 37707, Start Num: 3
Candidate Starts for MrWorldwide_55:
(Start: 3 @38009 has 106 MA's), (8, 37874), (11, 37820),

Gene: Nagem_55 Start: 38045, Stop: 37743, Start Num: 3
Candidate Starts for Nagem_55:
(Start: 3 @38045 has 106 MA's), (8, 37910), (11, 37856),

Gene: Nattles_54 Start: 37742, Stop: 37446, Start Num: 3
Candidate Starts for Nattles_54:
(Start: 3 @37742 has 106 MA's), (8, 37607), (11, 37553),

Gene: NickSell_57 Start: 38012, Stop: 37710, Start Num: 3
Candidate Starts for NickSell_57:
(Start: 3 @38012 has 106 MA's), (8, 37877), (11, 37823),

Gene: Nucci_54 Start: 36629, Stop: 36366, Start Num: 3
Candidate Starts for Nucci_54:
(Start: 3 @36629 has 106 MA's), (7, 36533), (8, 36494),

Gene: Oats_54 Start: 37755, Stop: 37459, Start Num: 3
Candidate Starts for Oats_54:
(Start: 3 @37755 has 106 MA's), (8, 37620), (11, 37566),

Gene: Oxtober96_56 Start: 37998, Stop: 37702, Start Num: 3
Candidate Starts for Oxtober96_56:
(Start: 3 @37998 has 106 MA's), (8, 37863), (11, 37809),

Gene: Papafritta_54 Start: 37760, Stop: 37458, Start Num: 3
Candidate Starts for Papafritta_54:
(Start: 3 @37760 has 106 MA's), (8, 37625), (11, 37571),

Gene: ParleG_55 Start: 38009, Stop: 37707, Start Num: 3
Candidate Starts for ParleG_55:
(Start: 3 @38009 has 106 MA's), (8, 37874), (11, 37820),

Gene: Peep_55 Start: 38055, Stop: 37759, Start Num: 3
Candidate Starts for Peep_55:
(Start: 3 @38055 has 106 MA's), (8, 37920), (11, 37866),

Gene: Pherferi_55 Start: 38002, Stop: 37700, Start Num: 3
Candidate Starts for Pherferi_55:
(Start: 3 @38002 has 106 MA's), (8, 37867), (11, 37813),

Gene: Phiderman_55 Start: 37999, Stop: 37697, Start Num: 3
Candidate Starts for Phiderman_55:
(Start: 3 @37999 has 106 MA's), (8, 37864), (11, 37810),

Gene: Phireproof_55 Start: 38008, Stop: 37706, Start Num: 3
Candidate Starts for Phireproof_55:
(Start: 3 @38008 has 106 MA's), (8, 37873), (11, 37819),

Gene: PhredFlintston_55 Start: 38002, Stop: 37700, Start Num: 3
Candidate Starts for PhredFlintston_55:
(Start: 3 @38002 has 106 MA's), (8, 37867), (11, 37813),

Gene: Pocket_54 Start: 37782, Stop: 37486, Start Num: 3
Candidate Starts for Pocket_54:
(Start: 3 @37782 has 106 MA's), (8, 37647), (11, 37593),

Gene: PuppyEggo_55 Start: 38003, Stop: 37707, Start Num: 3
Candidate Starts for PuppyEggo_55:
(Start: 3 @38003 has 106 MA's), (8, 37868), (11, 37814),

Gene: Quartz_55 Start: 36869, Stop: 36519, Start Num: 1
Candidate Starts for Quartz_55:
(Start: 1 @36869 has 1 MA's), (Start: 3 @36776 has 106 MA's), (7, 36680), (8, 36641), (10, 36596),
(14, 36569),

Gene: Rapheph_55 Start: 38002, Stop: 37700, Start Num: 3
Candidate Starts for Rapheph_55:
(Start: 3 @38002 has 106 MA's), (8, 37867), (11, 37813),

Gene: Raptor_55 Start: 38000, Stop: 37704, Start Num: 3
Candidate Starts for Raptor_55:
(Start: 3 @38000 has 106 MA's), (8, 37865), (11, 37811),

Gene: Redfield_54 Start: 37837, Stop: 37535, Start Num: 3
Candidate Starts for Redfield_54:
(Start: 3 @37837 has 106 MA's), (8, 37702), (11, 37648), (15, 37573),

Gene: Renzie_55 Start: 38058, Stop: 37762, Start Num: 3
Candidate Starts for Renzie_55:
(Start: 3 @38058 has 106 MA's), (8, 37923), (11, 37869),

Gene: Riyhil_55 Start: 38012, Stop: 37710, Start Num: 3
Candidate Starts for Riyhil_55:
(Start: 3 @38012 has 106 MA's), (8, 37877), (11, 37823),

Gene: Robinson_55 Start: 38074, Stop: 37778, Start Num: 3
Candidate Starts for Robinson_55:
(Start: 3 @38074 has 106 MA's), (8, 37939), (11, 37885),

Gene: Rog141_54 Start: 37745, Stop: 37449, Start Num: 3
Candidate Starts for Rog141_54:
(Start: 3 @37745 has 106 MA's), (8, 37610), (11, 37556),

Gene: SJay_55 Start: 38046, Stop: 37744, Start Num: 3
Candidate Starts for SJay_55:
(Start: 3 @38046 has 106 MA's), (8, 37911), (11, 37857),

Gene: Schubert_53 Start: 37310, Stop: 37065, Start Num: 3
Candidate Starts for Schubert_53:
(Start: 3 @37310 has 106 MA's), (8, 37175),

Gene: Sedgewig_54 Start: 37707, Stop: 37405, Start Num: 3
Candidate Starts for Sedgewig_54:
(Start: 3 @37707 has 106 MA's), (8, 37572), (11, 37518),

Gene: ShaiHulud_56 Start: 38012, Stop: 37716, Start Num: 3
Candidate Starts for ShaiHulud_56:
(Start: 3 @38012 has 106 MA's), (8, 37877), (11, 37823),

Gene: Shee_55 Start: 37999, Stop: 37697, Start Num: 3
Candidate Starts for Shee_55:
(Start: 3 @37999 has 106 MA's), (8, 37864), (11, 37810),

Gene: SonOfLevi_55 Start: 37773, Stop: 37477, Start Num: 3
Candidate Starts for SonOfLevi_55:
(Start: 3 @37773 has 106 MA's), (8, 37638), (11, 37584),

Gene: Stanktossa_54 Start: 38002, Stop: 37700, Start Num: 3
Candidate Starts for Stanktossa_54:
(Start: 3 @38002 has 106 MA's), (8, 37867), (11, 37813),

Gene: StingRay_54 Start: 37797, Stop: 37501, Start Num: 3
Candidate Starts for StingRay_54:
(Start: 3 @37797 has 106 MA's), (8, 37662), (11, 37608),

Gene: StirfryIV_56 Start: 37718, Stop: 37416, Start Num: 3
Candidate Starts for StirfryIV_56:
(Start: 3 @37718 has 106 MA's), (8, 37583), (11, 37529),

Gene: Stormbreaker8_53 Start: 37730, Stop: 37428, Start Num: 3
Candidate Starts for Stormbreaker8_53:
(Start: 3 @37730 has 106 MA's), (11, 37541), (15, 37466),

Gene: Strathdee_55 Start: 38002, Stop: 37706, Start Num: 3
Candidate Starts for Strathdee_55:
(Start: 3 @38002 has 106 MA's), (8, 37867), (11, 37813),

Gene: Superfresh_55 Start: 38058, Stop: 37762, Start Num: 3
Candidate Starts for Superfresh_55:
(Start: 3 @38058 has 106 MA's), (8, 37923), (11, 37869),

Gene: TatarkaPM_55 Start: 38012, Stop: 37710, Start Num: 3

Candidate Starts for TatarkaPM_55:
(Start: 3 @38012 has 106 MA's), (8, 37877), (11, 37823),

Gene: Teagan_55 Start: 37993, Stop: 37697, Start Num: 3
Candidate Starts for Teagan_55:
(Start: 3 @37993 has 106 MA's), (8, 37858), (11, 37804),

Gene: TeddyBear_54 Start: 37755, Stop: 37459, Start Num: 3
Candidate Starts for TeddyBear_54:
(Start: 3 @37755 has 106 MA's), (8, 37620), (11, 37566),

Gene: Tenda_54 Start: 37753, Stop: 37457, Start Num: 3
Candidate Starts for Tenda_54:
(Start: 3 @37753 has 106 MA's), (8, 37618), (11, 37564),

Gene: Thompsone_55 Start: 38000, Stop: 37704, Start Num: 3
Candidate Starts for Thompsone_55:
(Start: 3 @38000 has 106 MA's), (8, 37865), (11, 37811),

Gene: Thorongil_55 Start: 37517, Stop: 37221, Start Num: 3
Candidate Starts for Thorongil_55:
(Start: 3 @37517 has 106 MA's), (8, 37382), (11, 37328),

Gene: TinSulphur_56 Start: 38008, Stop: 37706, Start Num: 3
Candidate Starts for TinSulphur_56:
(Start: 3 @38008 has 106 MA's), (8, 37873), (11, 37819),

Gene: Velene_55 Start: 37998, Stop: 37702, Start Num: 3
Candidate Starts for Velene_55:
(Start: 3 @37998 has 106 MA's), (8, 37863), (11, 37809),

Gene: Vispitious_56 Start: 38003, Stop: 37707, Start Num: 3
Candidate Starts for Vispitious_56:
(Start: 3 @38003 has 106 MA's), (8, 37868), (11, 37814),

Gene: WildNOut_55 Start: 37996, Stop: 37700, Start Num: 3
Candidate Starts for WildNOut_55:
(Start: 3 @37996 has 106 MA's), (8, 37861), (11, 37807),

Gene: Winzigespinne_54 Start: 37741, Stop: 37445, Start Num: 3
Candidate Starts for Winzigespinne_54:
(Start: 3 @37741 has 106 MA's), (8, 37606), (11, 37552),

Gene: YuuY_55 Start: 37195, Stop: 36938, Start Num: 3
Candidate Starts for YuuY_55:
(Start: 3 @37195 has 106 MA's), (7, 37099), (8, 37060), (12, 37003), (14, 36988),

Gene: Zada_56 Start: 38015, Stop: 37719, Start Num: 3
Candidate Starts for Zada_56:
(Start: 3 @38015 has 106 MA's), (8, 37880), (11, 37826),