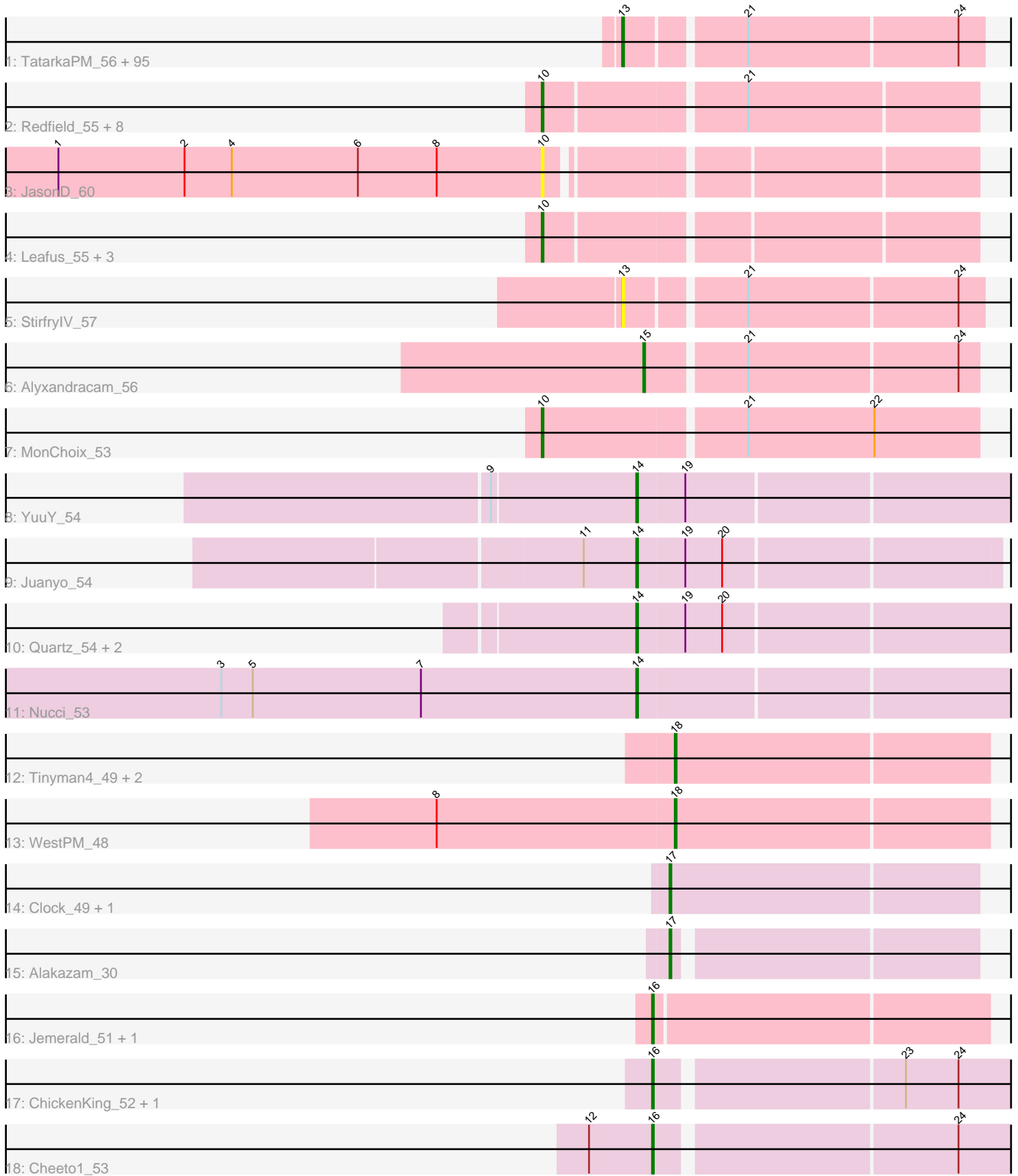


Pham 169807



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 169807 Report

This analysis was run 07/09/24 on database version 566.

Pham number 169807 has 131 members, 12 are drafts.

Phages represented in each track:

- Track 1 : TatarkaPM_56, Vispistious_57, Renzie_56, Den3_56, Ioannes_56, SJay_56, Benjal Lauren_56, BonesMcCoy_56, PhredFlintston_56, AranulaLuti_55, Thompsone_56, TinSulphur_57, Erla_55, Inventa_56, Dothraki_56, Stanktossa_55, Aubergine_55, Garey24_56, Bonino_55, Chamuel_55, Thorongil_56, Asta_55, Strathdee_56, Nattles_55, ParleG_56, ManRay_55, Blage_56, Winzigespinne_55, TeddyBear_55, Gershwin_55, Peep_56, BeautPeep30_56, BigRedClifford_56, Superfresh_56, Duocatuli_55, JeriBeth_57, AxiPup_56, Velene_56, Oxtober96_57, Gelo_55, Baines_55, MillyPhilly_56, Convict_56, Espinosa_55, Greys_56, Dave_56, HungryHenry_55, Papafritta_55, Calix_55, Robinson_56, Rog141_55, WildNOut_56, HanSolo_55, Rapheph_56, Sedgewig_55, Ilzat_55, Knox_56, Phireproof_56, Klimt_56, KannH_55, SonOfLevi_56, Janus167_55, Clancy_55, Oats_55, Lovelyunicorn_56, Pocket_55, Teagan_56, Byron23_57, Pherferi_56, Zada_57, Gargoyle_56, Christoph_55, Phiderman_56, MrWorldwide_56, AlexAdler_56, HankSprout_56, Nagem_56, Etta_55, Shee_56, PuppyEggo_56, ShaiHulud_57, JasperRussell_55, Raptor_56, Gubbabump_55, MaeLinda_56, StingRay_55, Riyhil_56, NickSell_58, Tenda_55, Martin_57, Jerbirus_57, Kurt1_56, Ludgate_56, Kale_55, Chako_55, Bandik_56
- Track 2 : Redfield_55, KingJulien_55, Raccoon_55, Balsa_54, Stormbreaker8_54, Hamlet_55, Figueroism_56, Peppino_55, BeeBee8_56
- Track 3 : JasonD_60
- Track 4 : Leafus_55, Agente005_55, Etna_55, Schnapsidee_55
- Track 5 : StirfryIV_57
- Track 6 : Alyxandracam_56
- Track 7 : MonChoix_53
- Track 8 : YuuY_54
- Track 9 : Juanyo_54
- Track 10 : Quartz_54, Carostasia_53, Mandalorian_53
- Track 11 : Nucci_53
- Track 12 : Tinyman4_49, Schimmels22_49, HerculesXL_50
- Track 13 : WestPM_48
- Track 14 : Clock_49, Nebulous_49
- Track 15 : Alakazam_30
- Track 16 : Jemerald_51, Juicer_51
- Track 17 : ChickenKing_52, GaeCeo_54
- Track 18 : Cheeto1_53

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

The start number called the most often in the published annotations is 13, it was called in 90 of the 119 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AlexAdler_56, AranulaLuti_55, Asta_55, Aubergine_55, AxiPup_56, Baines_55, Bandik_56, BeautPeep30_56, Benjalauren_56, BigRedClifford_56, Blage_56, BonesMcCoy_56, Bonino_55, Byron23_57, Calix_55, Chako_55, Chamuel_55, Christoph_55, Clancy_55, Convict_56, Dave_56, Den3_56, Dothraki_56, Duocatuli_55, Erla_55, Espinosa_55, Etta_55, Garey24_56, Gargoyle_56, Gelo_55, Gershwin_55, Greys_56, Gubbabump_55, HanSolo_55, HankSprout_56, HungryHenry_55, Ilzat_55, Inventa_56, Ioannes_56, Janus167_55, JasperRussell_55, Jerbirus_57, JeriBeth_57, Kale_55, KannH_55, Klimt_56, Knox_56, Kurt1_56, Lovelyunicorn_56, Ludgate_56, MaeLinda_56, ManRay_55, Martin_57, MillyPhilly_56, MrWorldwide_56, Nagem_56, Nattles_55, NickSell_58, Oats_55, Oxtober96_57, Papafritta_55, ParleG_56, Peep_56, Pherferi_56, Phiderman_56, Phireproof_56, PhredFlintston_56, Pocket_55, PuppyEggo_56, Rappheph_56, Raptor_56, Renzie_56, Rihhil_56, Robinson_56, Rog141_55, SJay_56, Sedgewig_55, ShaiHulud_57, Shee_56, SonOfLevi_56, Stanktossa_55, StingRay_55, StirfryIV_57, Strathdee_56, Superfresh_56, TatarkaPM_56, Teagan_56, TeddyBear_55, Tenda_55, Thompsone_56, Thorongil_56, TinSulphur_57, Velene_56, Vispistious_57, WildNOut_56, Winzigespinne_55, Zada_57,

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

-

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

- Agente005_55, Alakazam_30, Alyxandracam_56, Balsa_54, BeeBee8_56, Carostasia_53, Cheeto1_53, ChickenKing_52, Clock_49, Etna_55, Figueroism_56, GaeCeo_54, Hamlet_55, HerculesXL_50, JasonD_60, Jemerald_51, Juanyo_54, Juicer_51, KingJulien_55, Leafus_55, Mandalorian_53, MonChoix_53, Nebulous_49, Nucci_53, Peppino_55, Quartz_54, Raccoon_55, Redfield_55, Schimmels22_49, Schnapsidee_55, Stormbreaker8_54, Tinyman4_49, WestPM_48, YuuY_54,

Summary by start number:

Start 10:

- Found in 15 of 131 (11.5%) of genes in pham
- Manual Annotations of this start: 12 of 119
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agente005_55 (EA1), Balsa_54 (EA1), BeeBee8_56 (EA1), Etna_55 (EA1), Figueroism_56 (EA1), Hamlet_55 (EA1), JasonD_60 (EA1), KingJulien_55 (EA1), Leafus_55 (EA1), MonChoix_53 (EA1), Peppino_55 (EA1), Raccoon_55 (EA1), Redfield_55 (EA1), Schnapsidee_55 (EA1), Stormbreaker8_54 (EA1),

Start 13:

- Found in 97 of 131 (74.0%) of genes in pham
- Manual Annotations of this start: 90 of 119
- Called 100.0% of time when present

- Phage (with cluster) where this start called: AlexAdler_56 (EA1), AranulaLuti_55 (EA1), Asta_55 (EA1), Aubergine_55 (EA1), AxiPup_56 (EA1), Baines_55 (EA1), Bandik_56 (EA1), BeautPeep30_56 (EA1), Benjalauren_56 (EA1), BigRedClifford_56 (EA1), Blage_56 (EA1), BonesMcCoy_56 (EA1), Bonino_55 (EA1), Byron23_57 (EA1), Calix_55 (EA1), Chako_55 (EA1), Chamuel_55 (EA1), Christoph_55 (EA1), Clancy_55 (EA1), Convict_56 (EA1), Dave_56 (EA1), Den3_56 (EA1), Dothraki_56 (EA1), Duocatuli_55 (EA1), Erla_55 (EA1), Espinosa_55 (EA1), Etta_55 (EA1), Garey24_56 (EA1), Gargoyle_56 (EA1), Gelo_55 (EA1), Gershwin_55 (EA1), Greys_56 (EA1), Gubbabump_55 (EA1), HanSolo_55 (EA1), HankSprout_56 (EA1), HungryHenry_55 (EA1), Ilzat_55 (EA1), Inventa_56 (EA1), Ioannes_56 (EA1), Janus167_55 (EA1), JasperRussell_55 (EA1), Jerbirus_57 (EA1), JeriBeth_57 (EA1), Kale_55 (EA1), KannH_55 (EA1), Klimt_56 (EA1), Knox_56 (EA1), Kurt1_56 (EA1), Lovelyunicorn_56 (EA1), Ludgate_56 (EA1), MaeLinda_56 (EA1), ManRay_55 (EA1), Martin_57 (EA1), MillyPhilly_56 (EA1), MrWorldwide_56 (EA1), Nagem_56 (EA1), Nattles_55 (EA1), NickSell_58 (EA1), Oats_55 (EA1), Oxtober96_57 (EA1), Papafritta_55 (EA1), ParleG_56 (EA1), Peep_56 (EA1), Pherferi_56 (EA1), Phiderman_56 (EA1), Phireproof_56 (EA1), PhredFlintston_56 (EA1), Pocket_55 (EA1), PuppyEggo_56 (EA1), Rappheph_56 (EA1), Raptor_56 (EA1), Renzie_56 (EA1), Rihhil_56 (EA1), Robinson_56 (EA1), Rog141_55 (EA1), SJay_56 (EA1), Sedgewig_55 (EA1), ShaiHulud_57 (EA1), Shee_56 (EA1), SonOfLevi_56 (EA1), Stanktossa_55 (EA1), StingRay_55 (EA1), StirfryIV_57 (EA1), Strathdee_56 (EA1), Superfresh_56 (EA1), TatarkaPM_56 (EA1), Teagan_56 (EA1), TeddyBear_55 (EA1), Tenda_55 (EA1), Thompsone_56 (EA1), Thorongil_56 (EA1), TinSulphur_57 (EA1), Velene_56 (EA1), Vispistious_57 (EA1), WildNOut_56 (EA1), Winzigespinne_55 (EA1), Zada_57 (EA1),

Start 14:

- Found in 6 of 131 (4.6%) of genes in pham
- Manual Annotations of this start: 5 of 119
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Carostasia_53 (EA10), Juanyo_54 (EA10), Mandalorian_53 (EA10), Nucci_53 (EA10), Quartz_54 (EA10), YuuY_54 (EA10),

Start 15:

- Found in 1 of 131 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 119
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alyxandracam_56 (EA1),

Start 16:

- Found in 5 of 131 (3.8%) of genes in pham
- Manual Annotations of this start: 5 of 119
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cheeto1_53 (EA9), ChickenKing_52 (EA9), GaeCeo_54 (EA9), Jemerald_51 (EA6), Juicer_51 (EA6),

Start 17:

- Found in 3 of 131 (2.3%) of genes in pham
- Manual Annotations of this start: 2 of 119
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alakazam_30 (EA5), Clock_49 (EA5), Nebulous_49 (EA5),

Start 18:

- Found in 4 of 131 (3.1%) of genes in pham
- Manual Annotations of this start: 4 of 119
- Called 100.0% of time when present
- Phage (with cluster) where this start called: HerculesXL_50 (EA11), Schimmels22_49 (EA11), Tinyman4_49 (EA11), WestPM_48 (EA11),

Summary by clusters:

There are 6 clusters represented in this pham: EA11, EA10, EA9, EA1, EA5, EA6,

Info for manual annotations of cluster EA1:

- Start number 10 was manually annotated 12 times for cluster EA1.
- Start number 13 was manually annotated 90 times for cluster EA1.
- Start number 15 was manually annotated 1 time for cluster EA1.

Info for manual annotations of cluster EA10:

- Start number 14 was manually annotated 5 times for cluster EA10.

Info for manual annotations of cluster EA11:

- Start number 18 was manually annotated 4 times for cluster EA11.

Info for manual annotations of cluster EA5:

- Start number 17 was manually annotated 2 times for cluster EA5.

Info for manual annotations of cluster EA6:

- Start number 16 was manually annotated 2 times for cluster EA6.

Info for manual annotations of cluster EA9:

- Start number 16 was manually annotated 3 times for cluster EA9.

Gene Information:

Gene: Agente005_55 Start: 38139, Stop: 37906, Start Num: 10

Candidate Starts for Agente005_55:

(Start: 10 @38139 has 12 MA's),

Gene: Alakazam_30 Start: 21175, Stop: 21011, Start Num: 17

Candidate Starts for Alakazam_30:

(Start: 17 @21175 has 2 MA's),

Gene: AlexAdler_56 Start: 38319, Stop: 38125, Start Num: 13

Candidate Starts for AlexAdler_56:

(Start: 13 @38319 has 90 MA's), (21, 38256), (24, 38139),

Gene: Alyxandracam_56 Start: 38281, Stop: 38099, Start Num: 15

Candidate Starts for Alyxandracam_56:

(Start: 15 @38281 has 1 MA's), (21, 38227), (24, 38110),

Gene: AranulaLuti_55 Start: 38037, Stop: 37843, Start Num: 13

Candidate Starts for AranulaLuti_55:
(Start: 13 @38037 has 90 MA's), (21, 37974), (24, 37857),

Gene: Asta_55 Start: 38041, Stop: 37847, Start Num: 13
Candidate Starts for Asta_55:
(Start: 13 @38041 has 90 MA's), (21, 37978), (24, 37861),

Gene: Aubergine_55 Start: 38041, Stop: 37847, Start Num: 13
Candidate Starts for Aubergine_55:
(Start: 13 @38041 has 90 MA's), (21, 37978), (24, 37861),

Gene: AxiPup_56 Start: 38256, Stop: 38062, Start Num: 13
Candidate Starts for AxiPup_56:
(Start: 13 @38256 has 90 MA's), (21, 38193), (24, 38076),

Gene: Baines_55 Start: 38041, Stop: 37847, Start Num: 13
Candidate Starts for Baines_55:
(Start: 13 @38041 has 90 MA's), (21, 37978), (24, 37861),

Gene: Balsa_54 Start: 38170, Stop: 37931, Start Num: 10
Candidate Starts for Balsa_54:
(Start: 10 @38170 has 12 MA's), (21, 38059),

Gene: Bandik_56 Start: 38288, Stop: 38094, Start Num: 13
Candidate Starts for Bandik_56:
(Start: 13 @38288 has 90 MA's), (21, 38225), (24, 38108),

Gene: BeautPeep30_56 Start: 38294, Stop: 38100, Start Num: 13
Candidate Starts for BeautPeep30_56:
(Start: 13 @38294 has 90 MA's), (21, 38231), (24, 38114),

Gene: BeeBee8_56 Start: 38344, Stop: 38105, Start Num: 10
Candidate Starts for BeeBee8_56:
(Start: 10 @38344 has 12 MA's), (21, 38233),

Gene: Benjalauren_56 Start: 38047, Stop: 37853, Start Num: 13
Candidate Starts for Benjalauren_56:
(Start: 13 @38047 has 90 MA's), (21, 37984), (24, 37867),

Gene: BigRedClifford_56 Start: 38283, Stop: 38089, Start Num: 13
Candidate Starts for BigRedClifford_56:
(Start: 13 @38283 has 90 MA's), (21, 38220), (24, 38103),

Gene: Blage_56 Start: 38283, Stop: 38089, Start Num: 13
Candidate Starts for Blage_56:
(Start: 13 @38283 has 90 MA's), (21, 38220), (24, 38103),

Gene: BonesMcCoy_56 Start: 38283, Stop: 38089, Start Num: 13
Candidate Starts for BonesMcCoy_56:
(Start: 13 @38283 has 90 MA's), (21, 38220), (24, 38103),

Gene: Bonino_55 Start: 38020, Stop: 37826, Start Num: 13
Candidate Starts for Bonino_55:

(Start: 13 @38020 has 90 MA's), (21, 37957), (24, 37840),

Gene: Byron23_57 Start: 38291, Stop: 38097, Start Num: 13

Candidate Starts for Byron23_57:

(Start: 13 @38291 has 90 MA's), (21, 38228), (24, 38111),

Gene: Calix_55 Start: 38027, Stop: 37833, Start Num: 13

Candidate Starts for Calix_55:

(Start: 13 @38027 has 90 MA's), (21, 37964), (24, 37847),

Gene: Carostasia_53 Start: 36317, Stop: 36105, Start Num: 14

Candidate Starts for Carostasia_53:

(Start: 14 @36317 has 5 MA's), (19, 36290), (20, 36269),

Gene: Chako_55 Start: 38037, Stop: 37843, Start Num: 13

Candidate Starts for Chako_55:

(Start: 13 @38037 has 90 MA's), (21, 37974), (24, 37857),

Gene: Chamuel_55 Start: 38053, Stop: 37859, Start Num: 13

Candidate Starts for Chamuel_55:

(Start: 13 @38053 has 90 MA's), (21, 37990), (24, 37873),

Gene: Cheeto1_53 Start: 36803, Stop: 36609, Start Num: 16

Candidate Starts for Cheeto1_53:

(12, 36839), (Start: 16 @36803 has 5 MA's), (24, 36641),

Gene: ChickenKing_52 Start: 37132, Stop: 36938, Start Num: 16

Candidate Starts for ChickenKing_52:

(Start: 16 @37132 has 5 MA's), (23, 37000), (24, 36970),

Gene: Christoph_55 Start: 38040, Stop: 37846, Start Num: 13

Candidate Starts for Christoph_55:

(Start: 13 @38040 has 90 MA's), (21, 37977), (24, 37860),

Gene: Clancy_55 Start: 38040, Stop: 37846, Start Num: 13

Candidate Starts for Clancy_55:

(Start: 13 @38040 has 90 MA's), (21, 37977), (24, 37860),

Gene: Clock_49 Start: 37239, Stop: 37066, Start Num: 17

Candidate Starts for Clock_49:

(Start: 17 @37239 has 2 MA's),

Gene: Convict_56 Start: 38283, Stop: 38089, Start Num: 13

Candidate Starts for Convict_56:

(Start: 13 @38283 has 90 MA's), (21, 38220), (24, 38103),

Gene: Dave_56 Start: 38344, Stop: 38150, Start Num: 13

Candidate Starts for Dave_56:

(Start: 13 @38344 has 90 MA's), (21, 38281), (24, 38164),

Gene: Den3_56 Start: 38288, Stop: 38094, Start Num: 13

Candidate Starts for Den3_56:

(Start: 13 @38288 has 90 MA's), (21, 38225), (24, 38108),

Gene: Dothraki_56 Start: 38291, Stop: 38097, Start Num: 13
Candidate Starts for Dothraki_56:
(Start: 13 @38291 has 90 MA's), (21, 38228), (24, 38111),

Gene: Duocatuli_55 Start: 38037, Stop: 37843, Start Num: 13
Candidate Starts for Duocatuli_55:
(Start: 13 @38037 has 90 MA's), (21, 37974), (24, 37857),

Gene: Erla_55 Start: 38024, Stop: 37830, Start Num: 13
Candidate Starts for Erla_55:
(Start: 13 @38024 has 90 MA's), (21, 37961), (24, 37844),

Gene: Espinosa_55 Start: 38039, Stop: 37845, Start Num: 13
Candidate Starts for Espinosa_55:
(Start: 13 @38039 has 90 MA's), (21, 37976), (24, 37859),

Gene: Etna_55 Start: 38217, Stop: 37984, Start Num: 10
Candidate Starts for Etna_55:
(Start: 10 @38217 has 12 MA's),

Gene: Etta_55 Start: 38028, Stop: 37834, Start Num: 13
Candidate Starts for Etta_55:
(Start: 13 @38028 has 90 MA's), (21, 37965), (24, 37848),

Gene: Figueroism_56 Start: 38333, Stop: 38091, Start Num: 10
Candidate Starts for Figueroism_56:
(Start: 10 @38333 has 12 MA's), (21, 38222),

Gene: GaeCeo_54 Start: 37365, Stop: 37171, Start Num: 16
Candidate Starts for GaeCeo_54:
(Start: 16 @37365 has 5 MA's), (23, 37233), (24, 37203),

Gene: Garey24_56 Start: 38007, Stop: 37813, Start Num: 13
Candidate Starts for Garey24_56:
(Start: 13 @38007 has 90 MA's), (21, 37944), (24, 37827),

Gene: Gargoyle_56 Start: 38288, Stop: 38094, Start Num: 13
Candidate Starts for Gargoyle_56:
(Start: 13 @38288 has 90 MA's), (21, 38225), (24, 38108),

Gene: Gelo_55 Start: 38034, Stop: 37840, Start Num: 13
Candidate Starts for Gelo_55:
(Start: 13 @38034 has 90 MA's), (21, 37971), (24, 37854),

Gene: Gershwin_55 Start: 38041, Stop: 37847, Start Num: 13
Candidate Starts for Gershwin_55:
(Start: 13 @38041 has 90 MA's), (21, 37978), (24, 37861),

Gene: Greys_56 Start: 38284, Stop: 38090, Start Num: 13
Candidate Starts for Greys_56:
(Start: 13 @38284 has 90 MA's), (21, 38221), (24, 38104),

Gene: Gubbabump_55 Start: 37979, Stop: 37785, Start Num: 13
Candidate Starts for Gubbabump_55:
(Start: 13 @37979 has 90 MA's), (21, 37916), (24, 37799),

Gene: Hamlet_55 Start: 38263, Stop: 38024, Start Num: 10
Candidate Starts for Hamlet_55:
(Start: 10 @38263 has 12 MA's), (21, 38152),

Gene: HanSolo_55 Start: 37989, Stop: 37795, Start Num: 13
Candidate Starts for HanSolo_55:
(Start: 13 @37989 has 90 MA's), (21, 37926), (24, 37809),

Gene: HankSprout_56 Start: 37908, Stop: 37714, Start Num: 13
Candidate Starts for HankSprout_56:
(Start: 13 @37908 has 90 MA's), (21, 37845), (24, 37728),

Gene: HerculesXL_50 Start: 34968, Stop: 34792, Start Num: 18
Candidate Starts for HerculesXL_50:
(Start: 18 @34968 has 4 MA's),

Gene: HungryHenry_55 Start: 38001, Stop: 37807, Start Num: 13
Candidate Starts for HungryHenry_55:
(Start: 13 @38001 has 90 MA's), (21, 37938), (24, 37821),

Gene: Ilzat_55 Start: 38011, Stop: 37817, Start Num: 13
Candidate Starts for Ilzat_55:
(Start: 13 @38011 has 90 MA's), (21, 37948), (24, 37831),

Gene: Inventa_56 Start: 38288, Stop: 38094, Start Num: 13
Candidate Starts for Inventa_56:
(Start: 13 @38288 has 90 MA's), (21, 38225), (24, 38108),

Gene: Ioannes_56 Start: 38366, Stop: 38172, Start Num: 13
Candidate Starts for Ioannes_56:
(Start: 13 @38366 has 90 MA's), (21, 38303), (24, 38186),

Gene: Janus167_55 Start: 38016, Stop: 37822, Start Num: 13
Candidate Starts for Janus167_55:
(Start: 13 @38016 has 90 MA's), (21, 37953), (24, 37836),

Gene: JasonD_60 Start: 38752, Stop: 38525, Start Num: 10
Candidate Starts for JasonD_60:
(1, 39028), (2, 38956), (4, 38929), (6, 38857), (8, 38812), (Start: 10 @38752 has 12 MA's),

Gene: JasperRussell_55 Start: 38037, Stop: 37843, Start Num: 13
Candidate Starts for JasperRussell_55:
(Start: 13 @38037 has 90 MA's), (21, 37974), (24, 37857),

Gene: Jemerald_51 Start: 36354, Stop: 36169, Start Num: 16
Candidate Starts for Jemerald_51:
(Start: 16 @36354 has 5 MA's),

Gene: Jerbirus_57 Start: 38031, Stop: 37837, Start Num: 13

Candidate Starts for Jerbirus_57:
(Start: 13 @38031 has 90 MA's), (21, 37968), (24, 37851),

Gene: JeriBeth_57 Start: 37919, Stop: 37725, Start Num: 13
Candidate Starts for JeriBeth_57:
(Start: 13 @37919 has 90 MA's), (21, 37856), (24, 37739),

Gene: Juanyo_54 Start: 36796, Stop: 36596, Start Num: 14
Candidate Starts for Juanyo_54:
(11, 36826), (Start: 14 @36796 has 5 MA's), (19, 36769), (20, 36748),

Gene: Juicer_51 Start: 36354, Stop: 36169, Start Num: 16
Candidate Starts for Juicer_51:
(Start: 16 @36354 has 5 MA's),

Gene: Kale_55 Start: 38043, Stop: 37849, Start Num: 13
Candidate Starts for Kale_55:
(Start: 13 @38043 has 90 MA's), (21, 37980), (24, 37863),

Gene: KannH_55 Start: 38037, Stop: 37843, Start Num: 13
Candidate Starts for KannH_55:
(Start: 13 @38037 has 90 MA's), (21, 37974), (24, 37857),

Gene: KingJulien_55 Start: 38058, Stop: 37822, Start Num: 10
Candidate Starts for KingJulien_55:
(Start: 10 @38058 has 12 MA's), (21, 37950),

Gene: Klimt_56 Start: 38059, Stop: 37865, Start Num: 13
Candidate Starts for Klimt_56:
(Start: 13 @38059 has 90 MA's), (21, 37996), (24, 37879),

Gene: Knox_56 Start: 38283, Stop: 38089, Start Num: 13
Candidate Starts for Knox_56:
(Start: 13 @38283 has 90 MA's), (21, 38220), (24, 38103),

Gene: Kurt1_56 Start: 38288, Stop: 38094, Start Num: 13
Candidate Starts for Kurt1_56:
(Start: 13 @38288 has 90 MA's), (21, 38225), (24, 38108),

Gene: Leafus_55 Start: 38320, Stop: 38087, Start Num: 10
Candidate Starts for Leafus_55:
(Start: 10 @38320 has 12 MA's),

Gene: Lovelyunicorn_56 Start: 38284, Stop: 38090, Start Num: 13
Candidate Starts for Lovelyunicorn_56:
(Start: 13 @38284 has 90 MA's), (21, 38221), (24, 38104),

Gene: Ludgate_56 Start: 38285, Stop: 38091, Start Num: 13
Candidate Starts for Ludgate_56:
(Start: 13 @38285 has 90 MA's), (21, 38222), (24, 38105),

Gene: MaeLinda_56 Start: 38295, Stop: 38098, Start Num: 13
Candidate Starts for MaeLinda_56:

(Start: 13 @38295 has 90 MA's), (21, 38232), (24, 38112),

Gene: ManRay_55 Start: 38041, Stop: 37847, Start Num: 13

Candidate Starts for ManRay_55:

(Start: 13 @38041 has 90 MA's), (21, 37978), (24, 37861),

Gene: Mandalorian_53 Start: 36328, Stop: 36116, Start Num: 14

Candidate Starts for Mandalorian_53:

(Start: 14 @36328 has 5 MA's), (19, 36301), (20, 36280),

Gene: Martin_57 Start: 38297, Stop: 38103, Start Num: 13

Candidate Starts for Martin_57:

(Start: 13 @38297 has 90 MA's), (21, 38234), (24, 38117),

Gene: MillyPhilly_56 Start: 38285, Stop: 38091, Start Num: 13

Candidate Starts for MillyPhilly_56:

(Start: 13 @38285 has 90 MA's), (21, 38222), (24, 38105),

Gene: MonChoix_53 Start: 37979, Stop: 37737, Start Num: 10

Candidate Starts for MonChoix_53:

(Start: 10 @37979 has 12 MA's), (21, 37868), (22, 37796),

Gene: MrWorldwide_56 Start: 38295, Stop: 38101, Start Num: 13

Candidate Starts for MrWorldwide_56:

(Start: 13 @38295 has 90 MA's), (21, 38232), (24, 38115),

Gene: Nagem_56 Start: 38331, Stop: 38137, Start Num: 13

Candidate Starts for Nagem_56:

(Start: 13 @38331 has 90 MA's), (21, 38268), (24, 38151),

Gene: Nattles_55 Start: 38028, Stop: 37834, Start Num: 13

Candidate Starts for Nattles_55:

(Start: 13 @38028 has 90 MA's), (21, 37965), (24, 37848),

Gene: Nebulous_49 Start: 37420, Stop: 37247, Start Num: 17

Candidate Starts for Nebulous_49:

(Start: 17 @37420 has 2 MA's),

Gene: NickSell_58 Start: 38298, Stop: 38104, Start Num: 13

Candidate Starts for NickSell_58:

(Start: 13 @38298 has 90 MA's), (21, 38235), (24, 38118),

Gene: Nucci_53 Start: 36289, Stop: 36077, Start Num: 14

Candidate Starts for Nucci_53:

(3, 36526), (5, 36508), (7, 36412), (Start: 14 @36289 has 5 MA's),

Gene: Oats_55 Start: 38041, Stop: 37847, Start Num: 13

Candidate Starts for Oats_55:

(Start: 13 @38041 has 90 MA's), (21, 37978), (24, 37861),

Gene: Oxtober96_57 Start: 38284, Stop: 38090, Start Num: 13

Candidate Starts for Oxtober96_57:

(Start: 13 @38284 has 90 MA's), (21, 38221), (24, 38104),

Gene: Papafritta_55 Start: 38046, Stop: 37852, Start Num: 13
Candidate Starts for Papafritta_55:
(Start: 13 @38046 has 90 MA's), (21, 37983), (24, 37866),

Gene: ParleG_56 Start: 38295, Stop: 38101, Start Num: 13
Candidate Starts for ParleG_56:
(Start: 13 @38295 has 90 MA's), (21, 38232), (24, 38115),

Gene: Peep_56 Start: 38341, Stop: 38147, Start Num: 13
Candidate Starts for Peep_56:
(Start: 13 @38341 has 90 MA's), (21, 38278), (24, 38161),

Gene: Peppino_55 Start: 38156, Stop: 37917, Start Num: 10
Candidate Starts for Peppino_55:
(Start: 10 @38156 has 12 MA's), (21, 38045),

Gene: Pherferi_56 Start: 38288, Stop: 38094, Start Num: 13
Candidate Starts for Pherferi_56:
(Start: 13 @38288 has 90 MA's), (21, 38225), (24, 38108),

Gene: Phiderman_56 Start: 38285, Stop: 38091, Start Num: 13
Candidate Starts for Phiderman_56:
(Start: 13 @38285 has 90 MA's), (21, 38222), (24, 38105),

Gene: Phireproof_56 Start: 38294, Stop: 38100, Start Num: 13
Candidate Starts for Phireproof_56:
(Start: 13 @38294 has 90 MA's), (21, 38231), (24, 38114),

Gene: PhredFlintston_56 Start: 38288, Stop: 38094, Start Num: 13
Candidate Starts for PhredFlintston_56:
(Start: 13 @38288 has 90 MA's), (21, 38225), (24, 38108),

Gene: Pocket_55 Start: 38068, Stop: 37874, Start Num: 13
Candidate Starts for Pocket_55:
(Start: 13 @38068 has 90 MA's), (21, 38005), (24, 37888),

Gene: PuppyEggo_56 Start: 38289, Stop: 38095, Start Num: 13
Candidate Starts for PuppyEggo_56:
(Start: 13 @38289 has 90 MA's), (21, 38226), (24, 38109),

Gene: Quartz_54 Start: 36441, Stop: 36229, Start Num: 14
Candidate Starts for Quartz_54:
(Start: 14 @36441 has 5 MA's), (19, 36414), (20, 36393),

Gene: Raccoon_55 Start: 38127, Stop: 37888, Start Num: 10
Candidate Starts for Raccoon_55:
(Start: 10 @38127 has 12 MA's), (21, 38016),

Gene: Rapheph_56 Start: 38288, Stop: 38094, Start Num: 13
Candidate Starts for Rapheph_56:
(Start: 13 @38288 has 90 MA's), (21, 38225), (24, 38108),

Gene: Raptor_56 Start: 38286, Stop: 38092, Start Num: 13
Candidate Starts for Raptor_56:
(Start: 13 @38286 has 90 MA's), (21, 38223), (24, 38106),

Gene: Redfield_55 Start: 38166, Stop: 37930, Start Num: 10
Candidate Starts for Redfield_55:
(Start: 10 @38166 has 12 MA's), (21, 38058),

Gene: Renzie_56 Start: 38344, Stop: 38150, Start Num: 13
Candidate Starts for Renzie_56:
(Start: 13 @38344 has 90 MA's), (21, 38281), (24, 38164),

Gene: Riyhil_56 Start: 38298, Stop: 38104, Start Num: 13
Candidate Starts for Riyhil_56:
(Start: 13 @38298 has 90 MA's), (21, 38235), (24, 38118),

Gene: Robinson_56 Start: 38360, Stop: 38166, Start Num: 13
Candidate Starts for Robinson_56:
(Start: 13 @38360 has 90 MA's), (21, 38297), (24, 38180),

Gene: Rog141_55 Start: 38031, Stop: 37837, Start Num: 13
Candidate Starts for Rog141_55:
(Start: 13 @38031 has 90 MA's), (21, 37968), (24, 37851),

Gene: SJay_56 Start: 38332, Stop: 38138, Start Num: 13
Candidate Starts for SJay_56:
(Start: 13 @38332 has 90 MA's), (21, 38269), (24, 38152),

Gene: Schimmels22_49 Start: 35268, Stop: 35092, Start Num: 18
Candidate Starts for Schimmels22_49:
(Start: 18 @35268 has 4 MA's),

Gene: Schnapsidee_55 Start: 38192, Stop: 37962, Start Num: 10
Candidate Starts for Schnapsidee_55:
(Start: 10 @38192 has 12 MA's),

Gene: Sedgewig_55 Start: 37993, Stop: 37799, Start Num: 13
Candidate Starts for Sedgewig_55:
(Start: 13 @37993 has 90 MA's), (21, 37930), (24, 37813),

Gene: ShaiHulud_57 Start: 38298, Stop: 38104, Start Num: 13
Candidate Starts for ShaiHulud_57:
(Start: 13 @38298 has 90 MA's), (21, 38235), (24, 38118),

Gene: Shee_56 Start: 38285, Stop: 38091, Start Num: 13
Candidate Starts for Shee_56:
(Start: 13 @38285 has 90 MA's), (21, 38222), (24, 38105),

Gene: SonOfLevi_56 Start: 38059, Stop: 37865, Start Num: 13
Candidate Starts for SonOfLevi_56:
(Start: 13 @38059 has 90 MA's), (21, 37996), (24, 37879),

Gene: Stanktossa_55 Start: 38288, Stop: 38094, Start Num: 13

Candidate Starts for Stanktossa_55:
(Start: 13 @38288 has 90 MA's), (21, 38225), (24, 38108),

Gene: StingRay_55 Start: 38083, Stop: 37889, Start Num: 13
Candidate Starts for StingRay_55:
(Start: 13 @38083 has 90 MA's), (21, 38020), (24, 37903),

Gene: StirfryIV_57 Start: 38004, Stop: 37810, Start Num: 13
Candidate Starts for StirfryIV_57:
(Start: 13 @38004 has 90 MA's), (21, 37941), (24, 37824),

Gene: Stormbreaker8_54 Start: 38059, Stop: 37823, Start Num: 10
Candidate Starts for Stormbreaker8_54:
(Start: 10 @38059 has 12 MA's), (21, 37951),

Gene: Strathdee_56 Start: 38288, Stop: 38094, Start Num: 13
Candidate Starts for Strathdee_56:
(Start: 13 @38288 has 90 MA's), (21, 38225), (24, 38108),

Gene: Superfresh_56 Start: 38344, Stop: 38150, Start Num: 13
Candidate Starts for Superfresh_56:
(Start: 13 @38344 has 90 MA's), (21, 38281), (24, 38164),

Gene: TatarkaPM_56 Start: 38298, Stop: 38104, Start Num: 13
Candidate Starts for TatarkaPM_56:
(Start: 13 @38298 has 90 MA's), (21, 38235), (24, 38118),

Gene: Teagan_56 Start: 38279, Stop: 38085, Start Num: 13
Candidate Starts for Teagan_56:
(Start: 13 @38279 has 90 MA's), (21, 38216), (24, 38099),

Gene: TeddyBear_55 Start: 38041, Stop: 37847, Start Num: 13
Candidate Starts for TeddyBear_55:
(Start: 13 @38041 has 90 MA's), (21, 37978), (24, 37861),

Gene: Tenda_55 Start: 38039, Stop: 37845, Start Num: 13
Candidate Starts for Tenda_55:
(Start: 13 @38039 has 90 MA's), (21, 37976), (24, 37859),

Gene: Thompsone_56 Start: 38286, Stop: 38092, Start Num: 13
Candidate Starts for Thompsone_56:
(Start: 13 @38286 has 90 MA's), (21, 38223), (24, 38106),

Gene: Thorongil_56 Start: 37803, Stop: 37609, Start Num: 13
Candidate Starts for Thorongil_56:
(Start: 13 @37803 has 90 MA's), (21, 37740), (24, 37623),

Gene: TinSulphur_57 Start: 38294, Stop: 38100, Start Num: 13
Candidate Starts for TinSulphur_57:
(Start: 13 @38294 has 90 MA's), (21, 38231), (24, 38114),

Gene: Tinyman4_49 Start: 34964, Stop: 34788, Start Num: 18
Candidate Starts for Tinyman4_49:

(Start: 18 @34964 has 4 MA's),

Gene: Velene_56 Start: 38284, Stop: 38090, Start Num: 13

Candidate Starts for Velene_56:

(Start: 13 @38284 has 90 MA's), (21, 38221), (24, 38104),

Gene: Vispistious_57 Start: 38289, Stop: 38095, Start Num: 13

Candidate Starts for Vispistious_57:

(Start: 13 @38289 has 90 MA's), (21, 38226), (24, 38109),

Gene: WestPM_48 Start: 35040, Stop: 34864, Start Num: 18

Candidate Starts for WestPM_48:

(8, 35175), (Start: 18 @35040 has 4 MA's),

Gene: WildNOut_56 Start: 38282, Stop: 38088, Start Num: 13

Candidate Starts for WildNOut_56:

(Start: 13 @38282 has 90 MA's), (21, 38219), (24, 38102),

Gene: Winzigespinne_55 Start: 38027, Stop: 37833, Start Num: 13

Candidate Starts for Winzigespinne_55:

(Start: 13 @38027 has 90 MA's), (21, 37964), (24, 37847),

Gene: YuuY_54 Start: 36860, Stop: 36654, Start Num: 14

Candidate Starts for YuuY_54:

(9, 36941), (Start: 14 @36860 has 5 MA's), (19, 36833),

Gene: Zada_57 Start: 38301, Stop: 38107, Start Num: 13

Candidate Starts for Zada_57:

(Start: 13 @38301 has 90 MA's), (21, 38238), (24, 38121),