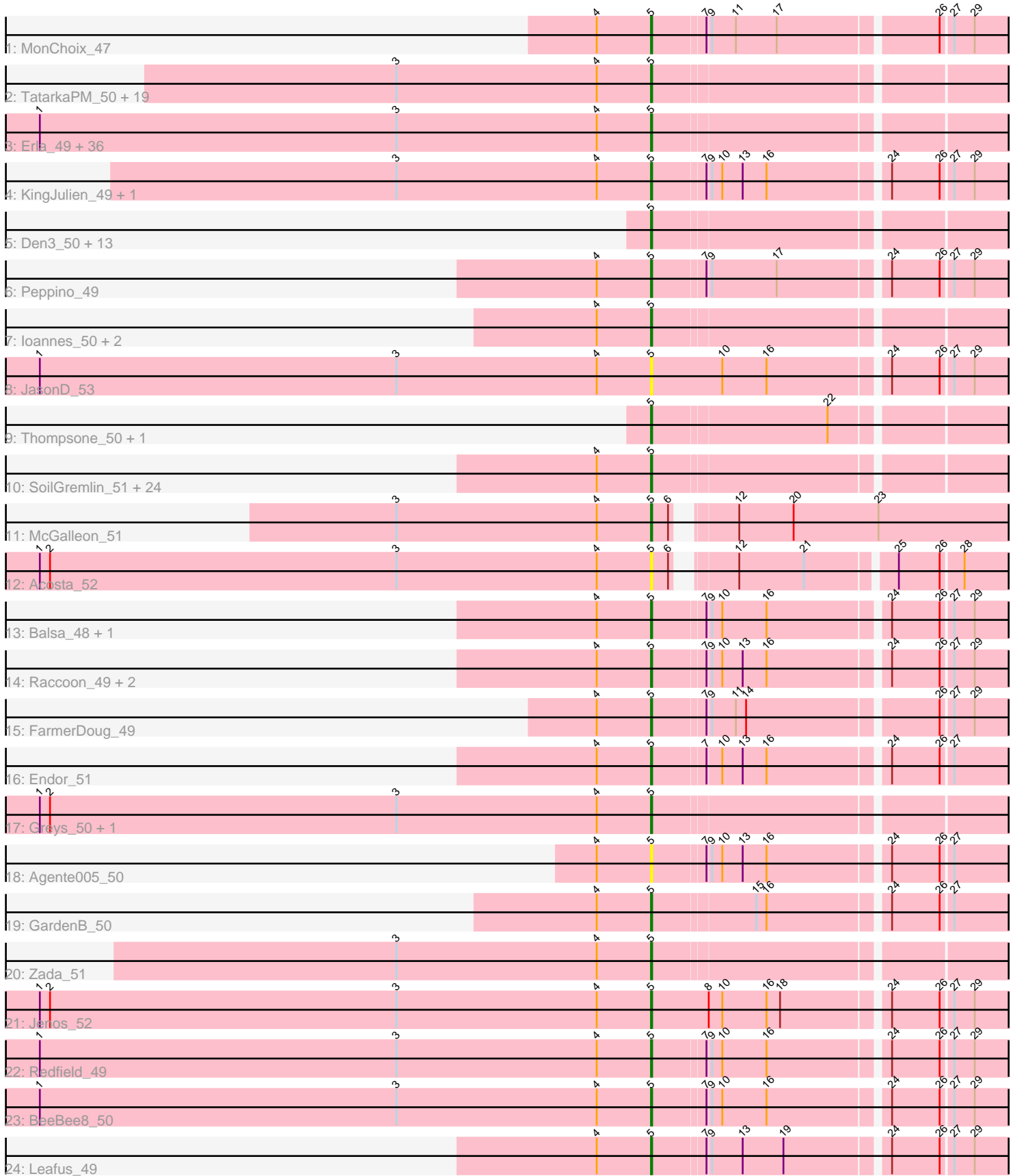


Pham 169827



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 169827 Report

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

Pham number 169827 has 124 members, 13 are drafts.

Phages represented in each track:

- Track 1 : MonChoix_47
- Track 2 : TatarkaPM_50, PhredFlintston_50, TinSulphur_51, Dothraki_50, Inventa_50, ParleG_50, BeautPeep30_50, MillyPhilly_50, Stanktossa_49, Rapheph_50, Byron23_51, Pherferi_50, Phiderman_50, MrWorldwide_50, Shee_50, Riyhil_50, NickSell_52, Martin_51, Bandik_50, Kurt1_50
- Track 3 : Erla_49, StingRay_49, Pocket_49, Aubergine_49, SJay_50, Kale_49, TeddyBear_49, Papafritta_49, Winzigespinne_49, ManRay_49, Benjalauren_50, Garey24_50, Espinosa_49, Baines_49, Chamuel_49, JeriBeth_51, Nattles_49, SonOfLevi_50, AranulaLuti_49, Rog141_49, Asta_49, Gershwin_49, KannH_49, Calix_49, Klimt_50, Christoph_49, Etta_49, Gelo_49, Janus167_49, Oats_49, Nagem_50, Tenda_49, Chako_49, HankSprout_50, Bonino_49, JasperRussell_49, Jerbirus_51
- Track 4 : KingJulien_49, Stormbreaker8_48
- Track 5 : Den3_50, BonesMcCoy_50, Blage_50, Phireproof_50, BigRedClifford_50, Velene_50, AxiPup_50, Convict_50, WildNOut_50, Knox_50, Lovelyunicorn_50, Teagan_50, Oxtober96_51, Raptor_50
- Track 6 : Peppino_49
- Track 7 : Ioannes_50, Duocatuli_49, HanSolo_49
- Track 8 : JasonD_53
- Track 9 : Thompsone_50, Gargoyle_50
- Track 10 : SoilGremlin_51, Renzie_50, MaeLinda_50, Thorongil_50, Strathdee_50, StirfryIV_51, Alyxandracam_50, Peep_50, Ilzat_49, Dave_50, Clancy_49, Robinson_50, Antoinette_50, HungryHenry_49, Superfresh_50, Phriends_50, Delphidian_52, Figueroism_50, AlexAdler_50, ShaiHulud_51, PuppyEggo_50, OldNelly_51, Ludgate_50, Gubbabump_49, Vispistious_51
- Track 11 : McGalleon_51
- Track 12 : Acosta_52
- Track 13 : Balsa_48, Schnapsidee_49
- Track 14 : Raccoon_49, Etna_49, Hamlet_49
- Track 15 : FarmerDoug_49
- Track 16 : Endor_51
- Track 17 : Greys_50, Sedgewig_49
- Track 18 : Agente005_50
- Track 19 : GardenB_50
- Track 20 : Zada_51
- Track 21 : Jenos_52
- Track 22 : Redfield_49

- Track 23 : BeeBee8_50
- Track 24 : Leafus_49

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

The start number called the most often in the published annotations is 5, it was called in 111 of the 111 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acosta_52, Agente005_50, AlexAdler_50, Alyxandracam_50, Antoinette_50, AranulaLuti_49, Asta_49, Aubergine_49, AxiPup_50, Baines_49, Balsa_48, Bandik_50, BeautPeep30_50, BeeBee8_50, Benjalauren_50, BigRedClifford_50, Blage_50, BonesMcCoy_50, Bonino_49, Byron23_51, Calix_49, Chako_49, Chamuel_49, Christoph_49, Clancy_49, Convict_50, Dave_50, Delphidian_52, Den3_50, Dothraki_50, Duocatuli_49, Endor_51, Erla_49, Espinosa_49, Etna_49, Etta_49, FarmerDoug_49, Figueroism_50, GardenB_50, Garey24_50, Gargoyle_50, Gelo_49, Gershwin_49, Greys_50, Gubbabump_49, Hamlet_49, HanSolo_49, HankSprout_50, HungryHenry_49, Ilzat_49, Inventa_50, Ioannes_50, Janus167_49, JasonD_53, JasperRussell_49, Jenos_52, Jerbirus_51, JeriBeth_51, Kale_49, KannH_49, KingJulien_49, Klimt_50, Knox_50, Kurt1_50, Leafus_49, Lovelyunicorn_50, Ludgate_50, MaeLinda_50, ManRay_49, Martin_51, McGalleon_51, MillyPhilly_50, MonChoix_47, MrWorldwide_50, Nagem_50, Nattles_49, NickSell_52, Oats_49, OldNelly_51, Oxtober96_51, Papafritta_49, ParleG_50, Peep_50, Peppino_49, Pherferi_50, Phiderman_50, Phireproof_50, PhredFlintston_50, Phriends_50, Pocket_49, PuppyEggo_50, Raccoon_49, Rappheph_50, Raptor_50, Redfield_49, Renzie_50, Riyhil_50, Robinson_50, Rog141_49, SJay_50, Schnapsidee_49, Sedgewig_49, ShaiHulud_51, Shee_50, SoilGremlin_51, SonOfLevi_50, Stanktossa_49, StingRay_49, StirfryIV_51, Stormbreaker8_48, Strathdee_50, Superfresh_50, TatarkaPM_50, Teagan_50, TeddyBear_49, Tenda_49, Thompsone_50, Thorongil_50, TinSulphur_51, Velene_50, Vispistious_51, WildNOut_50, Winzigespinne_49, Zada_51,

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

-

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

-

Summary by start number:

Start 5:

- Found in 124 of 124 (100.0%) of genes in pham
- Manual Annotations of this start: 111 of 111
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acosta_52 (EA1), Agente005_50 (EA1), AlexAdler_50 (EA1), Alyxandracam_50 (EA1), Antoinette_50 (EA1), AranulaLuti_49 (EA1), Asta_49 (EA1), Aubergine_49 (EA1), AxiPup_50 (EA1), Baines_49 (EA1), Balsa_48 (EA1), Bandik_50 (EA1), BeautPeep30_50 (EA1), BeeBee8_50 (EA1), Benjalauren_50 (EA1), BigRedClifford_50 (EA1), Blage_50 (EA1), BonesMcCoy_50 (EA1), Bonino_49 (EA1), Byron23_51 (EA1), Calix_49 (EA1), Chako_49 (EA1),

Chamuel_49 (EA1), Christoph_49 (EA1), Clancy_49 (EA1), Convict_50 (EA1), Dave_50 (EA1), Delphidian_52 (EA1), Den3_50 (EA1), Dothraki_50 (EA1), Duocatuli_49 (EA1), Endor_51 (EA1), Erla_49 (EA1), Espinosa_49 (EA1), Etna_49 (EA1), Etta_49 (EA1), FarmerDoug_49 (EA1), Figueroism_50 (EA1), GardenB_50 (EA1), Garey24_50 (EA1), Gargoyle_50 (EA1), Gelo_49 (EA1), Gershwin_49 (EA1), Greys_50 (EA1), Gubbabump_49 (EA1), Hamlet_49 (EA1), HanSolo_49 (EA1), HankSprout_50 (EA1), HungryHenry_49 (EA1), Ilzat_49 (EA1), Inventa_50 (EA1), Ioannes_50 (EA1), Janus167_49 (EA1), JasonD_53 (EA1), JasperRussell_49 (EA1), Jenos_52 (EA1), Jerbirus_51 (EA1), JeriBeth_51 (EA1), Kale_49 (EA1), KannH_49 (EA1), KingJulien_49 (EA1), Klimt_50 (EA1), Knox_50 (EA1), Kurt1_50 (EA1), Leafus_49 (EA1), Lovelyunicorn_50 (EA1), Ludgate_50 (EA1), MaeLinda_50 (EA1), ManRay_49 (EA1), Martin_51 (EA1), McGalleon_51 (EA1), MillyPhilly_50 (EA1), MonChoix_47 (EA1), MrWorldwide_50 (EA1), Nagem_50 (EA1), Nattles_49 (EA1), NickSell_52 (EA1), Oats_49 (EA1), OldNelly_51 (EA1), Oxtober96_51 (EA1), Papafritta_49 (EA1), ParleG_50 (EA1), Peep_50 (EA1), Peppino_49 (EA1), Pherferi_50 (EA1), Phiderman_50 (EA1), Phireproof_50 (EA1), PhredFlintston_50 (EA1), Phriends_50 (EA1), Pocket_49 (EA1), PuppyEggo_50 (EA1), Raccoon_49 (EA1), Rapheph_50 (EA1), Raptor_50 (EA1), Redfield_49 (EA1), Renzie_50 (EA1), Riyhil_50 (EA1), Robinson_50 (EA1), Rog141_49 (EA1), SJay_50 (EA1), Schnapsidee_49 (EA1), Sedgewig_49 (EA1), ShaiHulud_51 (EA1), Shee_50 (EA1), SoilGremlin_51 (EA1), SonOfLevi_50 (EA1), Stanktossa_49 (EA1), StingRay_49 (EA1), StirfryIV_51 (EA1), Stormbreaker8_48 (EA1), Strathdee_50 (EA1), Superfresh_50 (EA1), TatarkaPM_50 (EA1), Teagan_50 (EA1), TeddyBear_49 (EA1), Tenda_49 (EA1), Thompsone_50 (EA1), Thorongil_50 (EA1), TinSulphur_51 (EA1), Velene_50 (EA1), Vispistious_51 (EA1), WildNOut_50 (EA1), Winzigespinne_49 (EA1), Zada_51 (EA1),

Summary by clusters:

There is one cluster represented in this pham: EA1

Info for manual annotations of cluster EA1:

- Start number 5 was manually annotated 111 times for cluster EA1.

Gene Information:

Gene: Acosta_52 Start: 36041, Stop: 35763, Start Num: 5

Candidate Starts for Acosta_52:

(1, 36581), (2, 36572), (3, 36266), (4, 36089), (Start: 5 @36041 has 111 MA's), (6, 36026), (12, 35987), (21, 35930), (25, 35858), (26, 35822), (28, 35804),

Gene: Agente005_50 Start: 35925, Stop: 35587, Start Num: 5

Candidate Starts for Agente005_50:

(4, 35973), (Start: 5 @35925 has 111 MA's), (7, 35880), (9, 35877), (10, 35868), (13, 35850), (16, 35829), (24, 35730), (26, 35688), (27, 35679),

Gene: AlexAdler_50 Start: 35893, Stop: 35597, Start Num: 5

Candidate Starts for AlexAdler_50:

(4, 35941), (Start: 5 @35893 has 111 MA's),

Gene: Alyxandracam_50 Start: 35903, Stop: 35607, Start Num: 5

Candidate Starts for Alyxandracam_50:
(4, 35951), (Start: 5 @35903 has 111 MA's),

Gene: Antoinette_50 Start: 35893, Stop: 35597, Start Num: 5
Candidate Starts for Antoinette_50:
(4, 35941), (Start: 5 @35893 has 111 MA's),

Gene: AranulaLuti_49 Start: 35605, Stop: 35309, Start Num: 5
Candidate Starts for AranulaLuti_49:
(1, 36145), (3, 35830), (4, 35653), (Start: 5 @35605 has 111 MA's),

Gene: Asta_49 Start: 35615, Stop: 35319, Start Num: 5
Candidate Starts for Asta_49:
(1, 36155), (3, 35840), (4, 35663), (Start: 5 @35615 has 111 MA's),

Gene: Aubergine_49 Start: 35615, Stop: 35319, Start Num: 5
Candidate Starts for Aubergine_49:
(1, 36155), (3, 35840), (4, 35663), (Start: 5 @35615 has 111 MA's),

Gene: AxiPup_50 Start: 35872, Stop: 35576, Start Num: 5
Candidate Starts for AxiPup_50:
(Start: 5 @35872 has 111 MA's),

Gene: Baines_49 Start: 35608, Stop: 35312, Start Num: 5
Candidate Starts for Baines_49:
(1, 36148), (3, 35833), (4, 35656), (Start: 5 @35608 has 111 MA's),

Gene: Balsa_48 Start: 35687, Stop: 35349, Start Num: 5
Candidate Starts for Balsa_48:
(4, 35735), (Start: 5 @35687 has 111 MA's), (7, 35642), (9, 35639), (10, 35630), (16, 35591), (24, 35492), (26, 35450), (27, 35441), (29, 35423),

Gene: Bandik_50 Start: 35898, Stop: 35602, Start Num: 5
Candidate Starts for Bandik_50:
(3, 36123), (4, 35946), (Start: 5 @35898 has 111 MA's),

Gene: BeautPeep30_50 Start: 35904, Stop: 35608, Start Num: 5
Candidate Starts for BeautPeep30_50:
(3, 36129), (4, 35952), (Start: 5 @35904 has 111 MA's),

Gene: BeeBee8_50 Start: 35858, Stop: 35520, Start Num: 5
Candidate Starts for BeeBee8_50:
(1, 36398), (3, 36083), (4, 35906), (Start: 5 @35858 has 111 MA's), (7, 35813), (9, 35810), (10, 35801), (16, 35762), (24, 35663), (26, 35621), (27, 35612), (29, 35594),

Gene: Benjalauren_50 Start: 35621, Stop: 35325, Start Num: 5
Candidate Starts for Benjalauren_50:
(1, 36161), (3, 35846), (4, 35669), (Start: 5 @35621 has 111 MA's),

Gene: BigRedClifford_50 Start: 35899, Stop: 35603, Start Num: 5
Candidate Starts for BigRedClifford_50:
(Start: 5 @35899 has 111 MA's),

Gene: Blage_50 Start: 35899, Stop: 35603, Start Num: 5
Candidate Starts for Blage_50:
(Start: 5 @35899 has 111 MA's),

Gene: BonesMcCoy_50 Start: 35899, Stop: 35603, Start Num: 5
Candidate Starts for BonesMcCoy_50:
(Start: 5 @35899 has 111 MA's),

Gene: Bonino_49 Start: 35594, Stop: 35298, Start Num: 5
Candidate Starts for Bonino_49:
(1, 36134), (3, 35819), (4, 35642), (Start: 5 @35594 has 111 MA's),

Gene: Byron23_51 Start: 35901, Stop: 35605, Start Num: 5
Candidate Starts for Byron23_51:
(3, 36126), (4, 35949), (Start: 5 @35901 has 111 MA's),

Gene: Calix_49 Start: 35601, Stop: 35305, Start Num: 5
Candidate Starts for Calix_49:
(1, 36141), (3, 35826), (4, 35649), (Start: 5 @35601 has 111 MA's),

Gene: Chako_49 Start: 35605, Stop: 35309, Start Num: 5
Candidate Starts for Chako_49:
(1, 36145), (3, 35830), (4, 35653), (Start: 5 @35605 has 111 MA's),

Gene: Chamuel_49 Start: 35627, Stop: 35331, Start Num: 5
Candidate Starts for Chamuel_49:
(1, 36167), (3, 35852), (4, 35675), (Start: 5 @35627 has 111 MA's),

Gene: Christoph_49 Start: 35614, Stop: 35318, Start Num: 5
Candidate Starts for Christoph_49:
(1, 36154), (3, 35839), (4, 35662), (Start: 5 @35614 has 111 MA's),

Gene: Clancy_49 Start: 35650, Stop: 35354, Start Num: 5
Candidate Starts for Clancy_49:
(4, 35698), (Start: 5 @35650 has 111 MA's),

Gene: Convict_50 Start: 35899, Stop: 35603, Start Num: 5
Candidate Starts for Convict_50:
(Start: 5 @35899 has 111 MA's),

Gene: Dave_50 Start: 35893, Stop: 35597, Start Num: 5
Candidate Starts for Dave_50:
(4, 35941), (Start: 5 @35893 has 111 MA's),

Gene: Delphidian_52 Start: 35901, Stop: 35605, Start Num: 5
Candidate Starts for Delphidian_52:
(4, 35949), (Start: 5 @35901 has 111 MA's),

Gene: Den3_50 Start: 35904, Stop: 35608, Start Num: 5
Candidate Starts for Den3_50:
(Start: 5 @35904 has 111 MA's),

Gene: Dothraki_50 Start: 35901, Stop: 35605, Start Num: 5

Candidate Starts for Dothraki_50:
(3, 36126), (4, 35949), (Start: 5 @35901 has 111 MA's),

Gene: Duocatuli_49 Start: 35605, Stop: 35309, Start Num: 5
Candidate Starts for Duocatuli_49:
(4, 35653), (Start: 5 @35605 has 111 MA's),

Gene: Endor_51 Start: 36129, Stop: 35791, Start Num: 5
Candidate Starts for Endor_51:
(4, 36177), (Start: 5 @36129 has 111 MA's), (7, 36084), (10, 36072), (13, 36054), (16, 36033), (24, 35934), (26, 35892), (27, 35883),

Gene: Erla_49 Start: 35598, Stop: 35302, Start Num: 5
Candidate Starts for Erla_49:
(1, 36138), (3, 35823), (4, 35646), (Start: 5 @35598 has 111 MA's),

Gene: Espinosa_49 Start: 35613, Stop: 35317, Start Num: 5
Candidate Starts for Espinosa_49:
(1, 36153), (3, 35838), (4, 35661), (Start: 5 @35613 has 111 MA's),

Gene: Etna_49 Start: 35734, Stop: 35396, Start Num: 5
Candidate Starts for Etna_49:
(4, 35782), (Start: 5 @35734 has 111 MA's), (7, 35689), (9, 35686), (10, 35677), (13, 35659), (16, 35638), (24, 35539), (26, 35497), (27, 35488), (29, 35470),

Gene: Etta_49 Start: 35602, Stop: 35306, Start Num: 5
Candidate Starts for Etta_49:
(1, 36142), (3, 35827), (4, 35650), (Start: 5 @35602 has 111 MA's),

Gene: FarmerDoug_49 Start: 35636, Stop: 35298, Start Num: 5
Candidate Starts for FarmerDoug_49:
(4, 35684), (Start: 5 @35636 has 111 MA's), (7, 35591), (9, 35588), (11, 35567), (14, 35558), (26, 35399), (27, 35390), (29, 35372),

Gene: Figueroism_50 Start: 35892, Stop: 35596, Start Num: 5
Candidate Starts for Figueroism_50:
(4, 35940), (Start: 5 @35892 has 111 MA's),

Gene: GardenB_50 Start: 35899, Stop: 35561, Start Num: 5
Candidate Starts for GardenB_50:
(4, 35947), (Start: 5 @35899 has 111 MA's), (15, 35812), (16, 35803), (24, 35704), (26, 35662), (27, 35653),

Gene: Garey24_50 Start: 35581, Stop: 35285, Start Num: 5
Candidate Starts for Garey24_50:
(1, 36121), (3, 35806), (4, 35629), (Start: 5 @35581 has 111 MA's),

Gene: Gargoyle_50 Start: 35904, Stop: 35608, Start Num: 5
Candidate Starts for Gargoyle_50:
(Start: 5 @35904 has 111 MA's), (22, 35754),

Gene: Gelo_49 Start: 35608, Stop: 35312, Start Num: 5
Candidate Starts for Gelo_49:

(1, 36148), (3, 35833), (4, 35656), (Start: 5 @35608 has 111 MA's),

Gene: Gershwin_49 Start: 35615, Stop: 35319, Start Num: 5

Candidate Starts for Gershwin_49:

(1, 36155), (3, 35840), (4, 35663), (Start: 5 @35615 has 111 MA's),

Gene: Greys_50 Start: 35900, Stop: 35604, Start Num: 5

Candidate Starts for Greys_50:

(1, 36440), (2, 36431), (3, 36125), (4, 35948), (Start: 5 @35900 has 111 MA's),

Gene: Gubbabump_49 Start: 35595, Stop: 35299, Start Num: 5

Candidate Starts for Gubbabump_49:

(4, 35643), (Start: 5 @35595 has 111 MA's),

Gene: Hamlet_49 Start: 35679, Stop: 35341, Start Num: 5

Candidate Starts for Hamlet_49:

(4, 35727), (Start: 5 @35679 has 111 MA's), (7, 35634), (9, 35631), (10, 35622), (13, 35604), (16, 35583), (24, 35484), (26, 35442), (27, 35433), (29, 35415),

Gene: HanSolo_49 Start: 35605, Stop: 35309, Start Num: 5

Candidate Starts for HanSolo_49:

(4, 35653), (Start: 5 @35605 has 111 MA's),

Gene: HankSprout_50 Start: 35482, Stop: 35186, Start Num: 5

Candidate Starts for HankSprout_50:

(1, 36022), (3, 35707), (4, 35530), (Start: 5 @35482 has 111 MA's),

Gene: HungryHenry_49 Start: 35610, Stop: 35314, Start Num: 5

Candidate Starts for HungryHenry_49:

(4, 35658), (Start: 5 @35610 has 111 MA's),

Gene: Ilzat_49 Start: 35621, Stop: 35325, Start Num: 5

Candidate Starts for Ilzat_49:

(4, 35669), (Start: 5 @35621 has 111 MA's),

Gene: Inventa_50 Start: 35898, Stop: 35602, Start Num: 5

Candidate Starts for Inventa_50:

(3, 36123), (4, 35946), (Start: 5 @35898 has 111 MA's),

Gene: Ioannes_50 Start: 35902, Stop: 35606, Start Num: 5

Candidate Starts for Ioannes_50:

(4, 35950), (Start: 5 @35902 has 111 MA's),

Gene: Janus167_49 Start: 35632, Stop: 35336, Start Num: 5

Candidate Starts for Janus167_49:

(1, 36172), (3, 35857), (4, 35680), (Start: 5 @35632 has 111 MA's),

Gene: JasonD_53 Start: 35820, Stop: 35476, Start Num: 5

Candidate Starts for JasonD_53:

(1, 36360), (3, 36045), (4, 35868), (Start: 5 @35820 has 111 MA's), (10, 35757), (16, 35718), (24, 35619), (26, 35577), (27, 35568), (29, 35550),

Gene: JasperRussell_49 Start: 35605, Stop: 35309, Start Num: 5

Candidate Starts for JasperRussell_49:

(1, 36145), (3, 35830), (4, 35653), (Start: 5 @35605 has 111 MA's),

Gene: Jenos_52 Start: 36555, Stop: 36211, Start Num: 5

Candidate Starts for Jenos_52:

(1, 37095), (2, 37086), (3, 36780), (4, 36603), (Start: 5 @36555 has 111 MA's), (8, 36504), (10, 36492), (16, 36453), (18, 36441), (24, 36354), (26, 36312), (27, 36303), (29, 36285),

Gene: Jerbirus_51 Start: 35605, Stop: 35309, Start Num: 5

Candidate Starts for Jerbirus_51:

(1, 36145), (3, 35830), (4, 35653), (Start: 5 @35605 has 111 MA's),

Gene: JeriBeth_51 Start: 35468, Stop: 35172, Start Num: 5

Candidate Starts for JeriBeth_51:

(1, 36008), (3, 35693), (4, 35516), (Start: 5 @35468 has 111 MA's),

Gene: Kale_49 Start: 35617, Stop: 35321, Start Num: 5

Candidate Starts for Kale_49:

(1, 36157), (3, 35842), (4, 35665), (Start: 5 @35617 has 111 MA's),

Gene: KannH_49 Start: 35605, Stop: 35309, Start Num: 5

Candidate Starts for KannH_49:

(1, 36145), (3, 35830), (4, 35653), (Start: 5 @35605 has 111 MA's),

Gene: KingJulien_49 Start: 35570, Stop: 35232, Start Num: 5

Candidate Starts for KingJulien_49:

(3, 35795), (4, 35618), (Start: 5 @35570 has 111 MA's), (7, 35525), (9, 35522), (10, 35513), (13, 35495), (16, 35474), (24, 35375), (26, 35333), (27, 35324), (29, 35306),

Gene: Klimt_50 Start: 35633, Stop: 35337, Start Num: 5

Candidate Starts for Klimt_50:

(1, 36173), (3, 35858), (4, 35681), (Start: 5 @35633 has 111 MA's),

Gene: Knox_50 Start: 35899, Stop: 35603, Start Num: 5

Candidate Starts for Knox_50:

(Start: 5 @35899 has 111 MA's),

Gene: Kurt1_50 Start: 35898, Stop: 35602, Start Num: 5

Candidate Starts for Kurt1_50:

(3, 36123), (4, 35946), (Start: 5 @35898 has 111 MA's),

Gene: Leafus_49 Start: 35833, Stop: 35495, Start Num: 5

Candidate Starts for Leafus_49:

(4, 35881), (Start: 5 @35833 has 111 MA's), (7, 35788), (9, 35785), (13, 35758), (19, 35722), (24, 35638), (26, 35596), (27, 35587), (29, 35569),

Gene: Lovelyunicorn_50 Start: 35900, Stop: 35604, Start Num: 5

Candidate Starts for Lovelyunicorn_50:

(Start: 5 @35900 has 111 MA's),

Gene: Ludgate_50 Start: 35901, Stop: 35605, Start Num: 5

Candidate Starts for Ludgate_50:

(4, 35949), (Start: 5 @35901 has 111 MA's),

Gene: MaeLinda_50 Start: 35902, Stop: 35606, Start Num: 5
Candidate Starts for MaeLinda_50:
(4, 35950), (Start: 5 @35902 has 111 MA's),

Gene: ManRay_49 Start: 35615, Stop: 35319, Start Num: 5
Candidate Starts for ManRay_49:
(1, 36155), (3, 35840), (4, 35663), (Start: 5 @35615 has 111 MA's),

Gene: Martin_51 Start: 35907, Stop: 35611, Start Num: 5
Candidate Starts for Martin_51:
(3, 36132), (4, 35955), (Start: 5 @35907 has 111 MA's),

Gene: McGalleon_51 Start: 36692, Stop: 36399, Start Num: 5
Candidate Starts for McGalleon_51:
(3, 36917), (4, 36740), (Start: 5 @36692 has 111 MA's), (6, 36677), (12, 36638), (20, 36590), (23, 36515),

Gene: MillyPhilly_50 Start: 35895, Stop: 35599, Start Num: 5
Candidate Starts for MillyPhilly_50:
(3, 36120), (4, 35943), (Start: 5 @35895 has 111 MA's),

Gene: MonChoix_47 Start: 35482, Stop: 35144, Start Num: 5
Candidate Starts for MonChoix_47:
(4, 35530), (Start: 5 @35482 has 111 MA's), (7, 35437), (9, 35434), (11, 35413), (17, 35377), (26, 35245), (27, 35236), (29, 35218),

Gene: MrWorldwide_50 Start: 35905, Stop: 35609, Start Num: 5
Candidate Starts for MrWorldwide_50:
(3, 36130), (4, 35953), (Start: 5 @35905 has 111 MA's),

Gene: Nagem_50 Start: 35898, Stop: 35602, Start Num: 5
Candidate Starts for Nagem_50:
(1, 36438), (3, 36123), (4, 35946), (Start: 5 @35898 has 111 MA's),

Gene: Nattles_49 Start: 35602, Stop: 35306, Start Num: 5
Candidate Starts for Nattles_49:
(1, 36142), (3, 35827), (4, 35650), (Start: 5 @35602 has 111 MA's),

Gene: NickSell_52 Start: 35908, Stop: 35612, Start Num: 5
Candidate Starts for NickSell_52:
(3, 36133), (4, 35956), (Start: 5 @35908 has 111 MA's),

Gene: Oats_49 Start: 35615, Stop: 35319, Start Num: 5
Candidate Starts for Oats_49:
(1, 36155), (3, 35840), (4, 35663), (Start: 5 @35615 has 111 MA's),

Gene: OldNelly_51 Start: 35904, Stop: 35608, Start Num: 5
Candidate Starts for OldNelly_51:
(4, 35952), (Start: 5 @35904 has 111 MA's),

Gene: Oxtober96_51 Start: 35900, Stop: 35604, Start Num: 5
Candidate Starts for Oxtober96_51:

(Start: 5 @35900 has 111 MA's),

Gene: Papafritta_49 Start: 35656, Stop: 35360, Start Num: 5

Candidate Starts for Papafritta_49:

(1, 36196), (3, 35881), (4, 35704), (Start: 5 @35656 has 111 MA's),

Gene: ParleG_50 Start: 35905, Stop: 35609, Start Num: 5

Candidate Starts for ParleG_50:

(3, 36130), (4, 35953), (Start: 5 @35905 has 111 MA's),

Gene: Peep_50 Start: 35890, Stop: 35594, Start Num: 5

Candidate Starts for Peep_50:

(4, 35938), (Start: 5 @35890 has 111 MA's),

Gene: Peppino_49 Start: 35679, Stop: 35341, Start Num: 5

Candidate Starts for Peppino_49:

(4, 35727), (Start: 5 @35679 has 111 MA's), (7, 35634), (9, 35631), (17, 35574), (24, 35484), (26, 35442), (27, 35433), (29, 35415),

Gene: Pherferi_50 Start: 35898, Stop: 35602, Start Num: 5

Candidate Starts for Pherferi_50:

(3, 36123), (4, 35946), (Start: 5 @35898 has 111 MA's),

Gene: Phiderman_50 Start: 35895, Stop: 35599, Start Num: 5

Candidate Starts for Phiderman_50:

(3, 36120), (4, 35943), (Start: 5 @35895 has 111 MA's),

Gene: Phireproof_50 Start: 35904, Stop: 35608, Start Num: 5

Candidate Starts for Phireproof_50:

(Start: 5 @35904 has 111 MA's),

Gene: PhredFlintston_50 Start: 35898, Stop: 35602, Start Num: 5

Candidate Starts for PhredFlintston_50:

(3, 36123), (4, 35946), (Start: 5 @35898 has 111 MA's),

Gene: Phriends_50 Start: 35904, Stop: 35608, Start Num: 5

Candidate Starts for Phriends_50:

(4, 35952), (Start: 5 @35904 has 111 MA's),

Gene: Pocket_49 Start: 35642, Stop: 35346, Start Num: 5

Candidate Starts for Pocket_49:

(1, 36182), (3, 35867), (4, 35690), (Start: 5 @35642 has 111 MA's),

Gene: PuppyEggo_50 Start: 35905, Stop: 35609, Start Num: 5

Candidate Starts for PuppyEggo_50:

(4, 35953), (Start: 5 @35905 has 111 MA's),

Gene: Raccoon_49 Start: 35636, Stop: 35298, Start Num: 5

Candidate Starts for Raccoon_49:

(4, 35684), (Start: 5 @35636 has 111 MA's), (7, 35591), (9, 35588), (10, 35579), (13, 35561), (16, 35540), (24, 35441), (26, 35399), (27, 35390), (29, 35372),

Gene: Rapheph_50 Start: 35898, Stop: 35602, Start Num: 5

Candidate Starts for Rapheph_50:
(3, 36123), (4, 35946), (Start: 5 @35898 has 111 MA's),

Gene: Raptor_50 Start: 35902, Stop: 35606, Start Num: 5
Candidate Starts for Raptor_50:
(Start: 5 @35902 has 111 MA's),

Gene: Redfield_49 Start: 35687, Stop: 35349, Start Num: 5
Candidate Starts for Redfield_49:
(1, 36227), (3, 35912), (4, 35735), (Start: 5 @35687 has 111 MA's), (7, 35642), (9, 35639), (10, 35630), (16, 35591), (24, 35492), (26, 35450), (27, 35441), (29, 35423),

Gene: Renzie_50 Start: 35893, Stop: 35597, Start Num: 5
Candidate Starts for Renzie_50:
(4, 35941), (Start: 5 @35893 has 111 MA's),

Gene: Riyhil_50 Start: 35908, Stop: 35612, Start Num: 5
Candidate Starts for Riyhil_50:
(3, 36133), (4, 35956), (Start: 5 @35908 has 111 MA's),

Gene: Robinson_50 Start: 35896, Stop: 35600, Start Num: 5
Candidate Starts for Robinson_50:
(4, 35944), (Start: 5 @35896 has 111 MA's),

Gene: Rog141_49 Start: 35605, Stop: 35309, Start Num: 5
Candidate Starts for Rog141_49:
(1, 36145), (3, 35830), (4, 35653), (Start: 5 @35605 has 111 MA's),

Gene: SJay_50 Start: 35899, Stop: 35603, Start Num: 5
Candidate Starts for SJay_50:
(1, 36439), (3, 36124), (4, 35947), (Start: 5 @35899 has 111 MA's),

Gene: Schnapsidee_49 Start: 35694, Stop: 35356, Start Num: 5
Candidate Starts for Schnapsidee_49:
(4, 35742), (Start: 5 @35694 has 111 MA's), (7, 35649), (9, 35646), (10, 35637), (16, 35598), (24, 35499), (26, 35457), (27, 35448), (29, 35430),

Gene: Sedgewig_49 Start: 35603, Stop: 35307, Start Num: 5
Candidate Starts for Sedgewig_49:
(1, 36143), (2, 36134), (3, 35828), (4, 35651), (Start: 5 @35603 has 111 MA's),

Gene: ShaiHulud_51 Start: 35914, Stop: 35618, Start Num: 5
Candidate Starts for ShaiHulud_51:
(4, 35962), (Start: 5 @35914 has 111 MA's),

Gene: Shee_50 Start: 35895, Stop: 35599, Start Num: 5
Candidate Starts for Shee_50:
(3, 36120), (4, 35943), (Start: 5 @35895 has 111 MA's),

Gene: SoilGremlin_51 Start: 35901, Stop: 35605, Start Num: 5
Candidate Starts for SoilGremlin_51:
(4, 35949), (Start: 5 @35901 has 111 MA's),

Gene: SonOfLevi_50 Start: 35633, Stop: 35337, Start Num: 5
Candidate Starts for SonOfLevi_50:
(1, 36173), (3, 35858), (4, 35681), (Start: 5 @35633 has 111 MA's),

Gene: Stanktossa_49 Start: 35898, Stop: 35602, Start Num: 5
Candidate Starts for Stanktossa_49:
(3, 36123), (4, 35946), (Start: 5 @35898 has 111 MA's),

Gene: StingRay_49 Start: 35619, Stop: 35323, Start Num: 5
Candidate Starts for StingRay_49:
(1, 36159), (3, 35844), (4, 35667), (Start: 5 @35619 has 111 MA's),

Gene: StirfryIV_51 Start: 35614, Stop: 35318, Start Num: 5
Candidate Starts for StirfryIV_51:
(4, 35662), (Start: 5 @35614 has 111 MA's),

Gene: Stormbreaker8_48 Start: 35571, Stop: 35233, Start Num: 5
Candidate Starts for Stormbreaker8_48:
(3, 35796), (4, 35619), (Start: 5 @35571 has 111 MA's), (7, 35526), (9, 35523), (10, 35514), (13, 35496), (16, 35475), (24, 35376), (26, 35334), (27, 35325), (29, 35307),

Gene: Strathdee_50 Start: 35904, Stop: 35608, Start Num: 5
Candidate Starts for Strathdee_50:
(4, 35952), (Start: 5 @35904 has 111 MA's),

Gene: Superfresh_50 Start: 35893, Stop: 35597, Start Num: 5
Candidate Starts for Superfresh_50:
(4, 35941), (Start: 5 @35893 has 111 MA's),

Gene: TatarkaPM_50 Start: 35908, Stop: 35612, Start Num: 5
Candidate Starts for TatarkaPM_50:
(3, 36133), (4, 35956), (Start: 5 @35908 has 111 MA's),

Gene: Teagan_50 Start: 35895, Stop: 35599, Start Num: 5
Candidate Starts for Teagan_50:
(Start: 5 @35895 has 111 MA's),

Gene: TeddyBear_49 Start: 35615, Stop: 35319, Start Num: 5
Candidate Starts for TeddyBear_49:
(1, 36155), (3, 35840), (4, 35663), (Start: 5 @35615 has 111 MA's),

Gene: Tenda_49 Start: 35613, Stop: 35317, Start Num: 5
Candidate Starts for Tenda_49:
(1, 36153), (3, 35838), (4, 35661), (Start: 5 @35613 has 111 MA's),

Gene: Thompsone_50 Start: 35902, Stop: 35606, Start Num: 5
Candidate Starts for Thompsone_50:
(Start: 5 @35902 has 111 MA's), (22, 35752),

Gene: Thorongil_50 Start: 35419, Stop: 35123, Start Num: 5
Candidate Starts for Thorongil_50:
(4, 35467), (Start: 5 @35419 has 111 MA's),

Gene: TinSulphur_51 Start: 35904, Stop: 35608, Start Num: 5
Candidate Starts for TinSulphur_51:
(3, 36129), (4, 35952), (Start: 5 @35904 has 111 MA's),

Gene: Velene_50 Start: 35900, Stop: 35604, Start Num: 5
Candidate Starts for Velene_50:
(Start: 5 @35900 has 111 MA's),

Gene: Vispistious_51 Start: 35905, Stop: 35609, Start Num: 5
Candidate Starts for Vispistious_51:
(4, 35953), (Start: 5 @35905 has 111 MA's),

Gene: WildNOut_50 Start: 35898, Stop: 35602, Start Num: 5
Candidate Starts for WildNOut_50:
(Start: 5 @35898 has 111 MA's),

Gene: Winzigespinne_49 Start: 35601, Stop: 35305, Start Num: 5
Candidate Starts for Winzigespinne_49:
(1, 36141), (3, 35826), (4, 35649), (Start: 5 @35601 has 111 MA's),

Gene: Zada_51 Start: 35874, Stop: 35578, Start Num: 5
Candidate Starts for Zada_51:
(3, 36099), (4, 35922), (Start: 5 @35874 has 111 MA's),