

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 86735 Report

This analysis was run 04/05/24 on database version 557.

Pham number 86735 has 21 members, 2 are drafts.

Phages represented in each track:

- Track 1: Jsquared 41
- Track 2: TipsytheTRex_39
- Track 3 : Serenity_42
- Track 4: Blinn1 44
- Track 5: Hammer 43
- Track 6 : Garak_44, Helmet_44
- Track 7 : JewelBug 44
- Track 8 : Indra 45
- Track 9: Rifter 43
- Track 10 : Koko 43
- Track 11 : Blue7 44
- Track 12 : Phillis 42
- Track 13 : Expelliarmus_40, Roary_41
- Track 14: Groundhog_39, Astro_40, Smeadley_41
- Track 15: NearlyHeadless 41
- Track 16 : Danforth 40
- Track 17 : Saintus 36

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

The start number called the most often in the published annotations is 7, it was called in 13 of the 19 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Astro_40, Danforth_40, Expelliarmus_40, Groundhog_39, Jsquared_41, NearlyHeadless_41, Phillis_42, Rifter_43, Roary_41, Saintus_36, Serenity_42, Smeadley_41, TipsytheTRex_39,

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

Blue7_44, Hammer_43, Koko_43,

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

Blinn1_44, Garak_44, Helmet_44, Indra_45, JewelBug_44,

Summary by start number:

Start 5:

- Found in 4 of 21 (19.0%) of genes in pham
- Manual Annotations of this start: 2 of 19
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Blue7_44 (A6), Hammer_43 (A6),

Start 7:

- Found in 16 of 21 (76.2%) of genes in pham
- Manual Annotations of this start: 13 of 19
- Called 81.2% of time when present
- Phage (with cluster) where this start called: Astro_40 (A8), Danforth_40 (A8), Expelliarmus_40 (A8), Groundhog_39 (A8), Jsquared_41 (A2), NearlyHeadless_41 (A8), Phillis_42 (A8), Rifter_43 (A6), Roary_41 (A8), Saintus_36 (A8), Serenity_42 (A2), Smeadley_41 (A8), TipsytheTRex_39 (A2),

Start 8:

- Found in 9 of 21 (42.9%) of genes in pham
- Manual Annotations of this start: 3 of 19
- Called 55.6% of time when present
- Phage (with cluster) where this start called: Blinn1_44 (A6), Garak_44 (A6), Helmet_44 (A6), JewelBug_44 (A6), Koko_43 (A6),

Start 9:

- Found in 4 of 21 (19.0%) of genes in pham
- Manual Annotations of this start: 1 of 19
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Indra_45 (A6),

Summary by clusters:

There are 3 clusters represented in this pham: A8, A2, A6,

Info for manual annotations of cluster A2:

•Start number 7 was manually annotated 3 times for cluster A2.

Info for manual annotations of cluster A6:

- •Start number 5 was manually annotated 2 times for cluster A6.
- •Start number 7 was manually annotated 1 time for cluster A6.
- •Start number 8 was manually annotated 3 times for cluster A6.
- •Start number 9 was manually annotated 1 time for cluster A6.

Info for manual annotations of cluster A8:

•Start number 7 was manually annotated 9 times for cluster A8.

Gene Information:

Gene: Astro 40 Start: 28237, Stop: 28079, Start Num: 7

Candidate Starts for Astro 40:

(1, 28543), (3, 28432), (4, 28387), (6, 28240), (Start: 7 @28237 has 13 MA's),

Gene: Blinn1_44 Start: 27560, Stop: 27405, Start Num: 8

Candidate Starts for Blinn1_44:

(Start: 8 @27560 has 3 MA's), (Start: 9 @27557 has 1 MA's), (12, 27494), (13, 27452), (14, 27428),

Gene: Blue7_44 Start: 27475, Stop: 27299, Start Num: 5

Candidate Starts for Blue7 44:

(Start: 5 @27475 has 2 MA's), (Start: 7 @27457 has 13 MA's), (Start: 8 @27454 has 3 MA's), (11, 27415), (13, 27346), (14, 27322),

Gene: Danforth 40 Start: 28265, Stop: 28107, Start Num: 7

Candidate Starts for Danforth 40:

(1, 28571), (3, 28460), (4, 28415), (6, 28268), (Start: 7 @28265 has 13 MA's),

Gene: Expelliarmus_40 Start: 28295, Stop: 28137, Start Num: 7

Candidate Starts for Expelliarmus_40: (6, 28298), (Start: 7 @ 28295 has 13 MA's),

Gene: Garak 44 Start: 27458, Stop: 27303, Start Num: 8

Candidate Starts for Garak_44:

(Start: 8 @ 27458 has 3 MA's), (Start: 9 @ 27455 has 1 MA's), (11, 27419), (13, 27350), (14, 27326),

Gene: Groundhog 39 Start: 28202, Stop: 28044, Start Num: 7

Candidate Starts for Groundhog_39:

(1, 28508), (3, 28397), (4, 28352), (6, 28205), (Start: 7 @ 28202 has 13 MA's),

Gene: Hammer_43 Start: 27285, Stop: 27109, Start Num: 5

Candidate Starts for Hammer 43:

(2, 27501), (Start: 5 @27285 has 2 MA's), (Start: 7 @27267 has 13 MA's), (Start: 8 @27264 has 3 MA's), (11, 27225), (13, 27156), (14, 27132),

Gene: Helmet_44 Start: 27458, Stop: 27303, Start Num: 8

Candidate Starts for Helmet 44:

(Start: 8 @27458 has 3 MA's), (Start: 9 @27455 has 1 MA's), (11, 27419), (13, 27350), (14, 27326),

Gene: Indra_45 Start: 27456, Stop: 27304, Start Num: 9

Candidate Starts for Indra_45:

(Start: 8 @27459 has 3 MA's), (Start: 9 @27456 has 1 MA's), (11, 27420), (13, 27351), (14, 27327),

Gene: JewelBug_44 Start: 27463, Stop: 27308, Start Num: 8

Candidate Starts for JewelBug 44:

(Start: 8 @27463 has 3 MA's), (10, 27430), (13, 27355), (14, 27331),

Gene: Jsquared 41 Start: 28276, Stop: 28106, Start Num: 7

Candidate Starts for Jsquared 41:

(Start: 7 @28276 has 13 MA's), (15, 28123),

Gene: Koko_43 Start: 27803, Stop: 27648, Start Num: 8

Candidate Starts for Koko_43:

(Start: 5 @27824 has 2 MA's), (Start: 7 @27806 has 13 MA's), (Start: 8 @27803 has 3 MA's), (11, 27764), (13, 27695), (14, 27671),

Gene: NearlyHeadless_41 Start: 28348, Stop: 28190, Start Num: 7

Candidate Starts for NearlyHeadless_41: (4, 28498), (6, 28351), (Start: 7 @28348 has 13 MA's),

Gene: Phillis_42 Start: 28619, Stop: 28458, Start Num: 7

Candidate Starts for Phillis_42:

(6, 28622), (Start: 7 @28619 has 13 MA's),

Gene: Rifter_43 Start: 27230, Stop: 27072, Start Num: 7

Candidate Starts for Rifter_43:

 $(2,\,27464),\,(Start:\,5\,\,@\,27248\,\,has\,\,2\,\,MA's),\,(Start:\,7\,\,@\,27230\,\,has\,\,13\,\,MA's),\,(Start:\,8\,\,@\,27227\,\,has\,\,3)$

MA's), (11, 27188), (13, 27119), (14, 27095),

Gene: Roary_41 Start: 28250, Stop: 28092, Start Num: 7

Candidate Starts for Roary_41:

(6, 28253), (Start: 7 @28250 has 13 MA's),

Gene: Saintus_36 Start: 25278, Stop: 25120, Start Num: 7

Candidate Starts for Saintus_36:

(1, 25584), (4, 25428), (6, 25281), (Start: 7 @25278 has 13 MA's),

Gene: Serenity_42 Start: 28262, Stop: 28092, Start Num: 7

Candidate Starts for Serenity_42:

(Start: 7 @28262 has 13 MA's), (15, 28109),

Gene: Smeadley_41 Start: 28417, Stop: 28259, Start Num: 7

Candidate Starts for Smeadley_41:

(1, 28723), (3, 28612), (4, 28567), (6, 28420), (Start: 7 @28417 has 13 MA's),

Gene: TipsytheTRex_39 Start: 28317, Stop: 28144, Start Num: 7

Candidate Starts for TipsytheTRex_39:

(Start: 7 @28317 has 13 MA's),