

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 158283 Report

This analysis was run 04/13/24 on database version 558.

Pham number 158283 has 14 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Gibbous 64, Dre3 64
- Track 2: AikoCarson 67
- Track 3: Burnsey_67, Quasar_68
- Track 4 : AndPeggy_60, Yarn_61
- Track 5 : Fribs8_64
- Track 6 : HippoPololi_66
- Track 7: Azira 64, MaVan 66, Survivors 66
- Track 8 : Biskit_69, SketchMex_67

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

The start number called the most often in the published annotations is 6, it was called in 4 of the 12 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

AndPeggy_60, Burnsey_67, Quasar_68, Yarn_61,

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

• AikoCarson_67, Azira_64, Biskit_69, Dre3_64, Fribs8_64, Gibbous_64, HippoPololi_66, MaVan_66, SketchMex_67, Survivors_66,

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

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Summary by start number:

Start 1:

- Found in 7 of 14 (50.0%) of genes in pham
- Manual Annotations of this start: 3 of 12
- Called 42.9% of time when present
- Phage (with cluster) where this start called: AikoCarson_67 (CT), Biskit_69 (CT), SketchMex_67 (CT),

Start 2:

- Found in 4 of 14 (28.6%) of genes in pham
- Manual Annotations of this start: 3 of 12
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azira_64 (CT), Fribs8_64 (CT), MaVan_66 (CT), Survivors_66 (CT),

Start 3:

- Found in 1 of 14 (7.1%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: HippoPololi_66 (CT),

Start 4:

- Found in 2 of 14 (14.3%) of genes in pham
- Manual Annotations of this start: 2 of 12
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dre3_64 (CT), Gibbous_64 (CT),

Start 6:

- Found in 14 of 14 (100.0%) of genes in pham
- Manual Annotations of this start: 4 of 12
- Called 28.6% of time when present
- Phage (with cluster) where this start called: AndPeggy_60 (CT), Burnsey_67 (CT), Quasar_68 (CT), Yarn_61 (CT),

Summary by clusters:

There is one cluster represented in this pham: CT

Info for manual annotations of cluster CT:

- •Start number 1 was manually annotated 3 times for cluster CT.
- •Start number 2 was manually annotated 3 times for cluster CT.
- Start number 4 was manually annotated 2 times for cluster CT.
- Start number 6 was manually annotated 4 times for cluster CT.

Gene Information:

Gene: AikoCarson_67 Start: 44165, Stop: 44407, Start Num: 1

Candidate Starts for AikoCarson 67:

(Start: 1 @44165 has 3 MA's), (Start: 6 @44240 has 4 MA's), (9, 44255), (10, 44285), (11, 44294), (12, 44300), (14, 44318), (19, 44360),

Gene: AndPeggy_60 Start: 43276, Stop: 43449, Start Num: 6

Candidate Starts for AndPeggy_60:

(Start: 1 @43207 has 3 MA's), (Start: 6 @43276 has 4 MA's), (8, 43285), (10, 43321), (11, 43330), (12, 43336), (14, 43354), (15, 43375), (18, 43393), (19, 43396), (22, 43414),

Gene: Azira 64 Start: 44044, Stop: 44253, Start Num: 2

Candidate Starts for Azira 64:

(Start: 2 @44044 has 3 MA's), (Start: 6 @44089 has 4 MA's), (7, 44092), (8, 44101), (12, 44152), (13, 44161), (14, 44170), (17, 44203), (18, 44209), (20, 44212),

Gene: Biskit_69 Start: 44728, Stop: 44964, Start Num: 1

Candidate Starts for Biskit 69:

(Start: 1 @44728 has 3 MA's), (Start: 6 @44803 has 4 MA's), (8, 44812), (11, 44857), (12, 44863), (13, 44872), (14, 44881), (19, 44923), (21, 44941),

Gene: Burnsey_67 Start: 44874, Stop: 45083, Start Num: 6

Candidate Starts for Burnsey 67:

(Start: 1 @44811 has 3 MA's), (Start: 6 @44874 has 4 MA's), (8, 44883), (10, 44919), (11, 44928), (12, 44934), (14, 44952), (15, 44973), (19, 44994),

Gene: Dre3 64 Start: 44202, Stop: 44378, Start Num: 4

Candidate Starts for Dre3 64:

(Start: 4 @44202 has 2 MA's), (Start: 6 @44229 has 4 MA's), (8, 44241), (13, 44301), (14, 44310), (15, 44331), (18, 44349), (20, 44352),

Gene: Fribs8_64 Start: 44678, Stop: 44887, Start Num: 2

Candidate Starts for Fribs8 64:

(Start: 2 @44678 has 3 MA's), (Start: 6 @44723 has 4 MA's), (7, 44726), (8, 44735), (12, 44786), (13, 44795), (14, 44804), (17, 44837), (23, 44876),

Gene: Gibbous 64 Start: 44202, Stop: 44378, Start Num: 4

Candidate Starts for Gibbous_64:

(Start: 4 @ 44202 has 2 MA's), (Start: 6 @ 44229 has 4 MA's), (8, 44241), (13, 44301), (14, 44310), (15, 44331), (18, 44349), (20, 44352),

Gene: HippoPololi_66 Start: 43762, Stop: 43956, Start Num: 3

Candidate Starts for HippoPololi 66:

(3, 43762), (5, 43795), (Start: 6 @43801 has 4 MA's), (8, 43813), (11, 43858), (13, 43873), (14, 43882), (15, 43903), (16, 43909), (20, 43924),

Gene: MaVan_66 Start: 44074, Stop: 44283, Start Num: 2

Candidate Starts for MaVan 66:

(Start: 2 @44074 has 3 MA's), (Start: 6 @44119 has 4 MA's), (7, 44122), (8, 44131), (12, 44182), (13, 44191), (14, 44200), (17, 44233), (18, 44239), (20, 44242),

Gene: Quasar_68 Start: 45648, Stop: 45857, Start Num: 6

Candidate Starts for Quasar_68:

(Start: 1 @45585 has 3 MA's), (Start: 6 @45648 has 4 MA's), (8, 45657), (10, 45693), (11, 45702), (12, 45708), (14, 45726), (15, 45747), (19, 45768),

Gene: SketchMex_67 Start: 44728, Stop: 44964, Start Num: 1

Candidate Starts for SketchMex 67:

(Start: 1 @44728 has 3 MA's), (Start: 6 @44803 has 4 MA's), (8, 44812), (11, 44857), (12, 44863), (13, 44872), (14, 44881), (19, 44923), (21, 44941),

Gene: Survivors_66 Start: 44109, Stop: 44309, Start Num: 2

Candidate Starts for Survivors_66:

(Start: 2 @44109 has 3 MA's), (Start: 6 @44154 has 4 MA's), (7, 44157), (8, 44166), (12, 44217), (13, 44226), (14, 44235), (17, 44268), (18, 44274), (20, 44277),

Gene: Yarn 61 Start: 43281, Stop: 43460, Start Num: 6

Candidate Starts for Yarn_61:

 $\begin{array}{l} \text{(Start: 1 @43212 has 3 MA's), (Start: 6 @43281 has 4 MA's), (8, 43290), (10, 43326), (11, 43335), \\ \text{(12, 43341), (14, 43359), (15, 43380), (18, 43398), (19, 43401), (22, 43425),} \end{array}$