

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 163989 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163989 has 17 members, 4 are drafts.

Phages represented in each track:

- Track 1: Ouroboros 44
- Track 2 : Aquarius $\overline{47}$
- Track 3 : P1.1_44
- Track 4 : Supernova_44
- Track 5 : Solid 44
- Track 6 : P107A_44
- Track 7: P106I 45, P106M 44, P106L 44, P106A 44, P106C 45
- Track 8 : PHL113M01_43
- Track 9 : PHL037M02_44
- Track 10 : P108C_43
- Track 11 : P14.4 46
- Track 12 : PA6 47
- Track 13 : PHL067M10_44

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 9 of the 13 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Ouroboros_44, P106A_44, P106C_45, P106I_45, P106L_44, P106M_44, P107A_44, P14.4_46, PA6_47, PHL113M01_43, Solid_44,

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

• P108C_43,

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

Aquarius_47, P1.1_44, PHL037M02_44, PHL067M10_44, Supernova_44,

Summary by start number:

Start 5:

- Found in 8 of 17 (47.1%) of genes in pham
- Manual Annotations of this start: 1 of 13

- Called 12.5% of time when present
- Phage (with cluster) where this start called: P108C_43 (BU),

Start 6:

- Found in 12 of 17 (70.6%) of genes in pham
- Manual Annotations of this start: 9 of 13
- Called 91.7% of time when present
- Phage (with cluster) where this start called: Ouroboros_44 (BU), P106A_44 (BU), P106C_45 (BU), P106I_45 (BU), P106L_44 (BU), P106M_44 (BU), P107A_44 (BU), P14.4_46 (BU), PA6_47 (BU), PHL113M01_43 (BU), Solid_44 (BU),

Start 7:

- Found in 5 of 17 (29.4%) of genes in pham
- Manual Annotations of this start: 3 of 13
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aquarius_47 (BU), P1.1_44 (BU), PHL037M02_44 (BU), PHL067M10_44 (BU), Supernova_44 (BU),

Summary by clusters:

There is one cluster represented in this pham: BU

Info for manual annotations of cluster BU:

- •Start number 5 was manually annotated 1 time for cluster BU.
- •Start number 6 was manually annotated 9 times for cluster BU.
- •Start number 7 was manually annotated 3 times for cluster BU.

Gene Information:

Gene: Aquarius_47 Start: 29564, Stop: 29728, Start Num: 7

Candidate Starts for Aquarius_47:

(2, 29477), (Start: 7 @ 29564 has 3 MA's),

Gene: Ouroboros_44 Start: 28944, Stop: 29105, Start Num: 6

Candidate Starts for Ouroboros_44:

(Start: 5 @28923 has 1 MA's), (Start: 6 @28944 has 9 MA's), (8, 28962), (12, 29016),

Gene: P1.1 44 Start: 28801, Stop: 28947, Start Num: 7

Candidate Starts for P1.1 44:

(1, 28681), (4, 28753), (Start: 7 @28801 has 3 MA's),

Gene: P106A_44 Start: 28992, Stop: 29153, Start Num: 6

Candidate Starts for P106A_44:

(2, 28917), (Start: 6 @28992 has 9 MA's), (8, 29010), (11, 29019),

Gene: P106C_45 Start: 29079, Stop: 29240, Start Num: 6

Candidate Starts for P106C 45:

(2, 29004), (Start: 6 @ 29079 has 9 MA's), (8, 29097), (11, 29106),

Gene: P106I_45 Start: 28908, Stop: 29069, Start Num: 6

Candidate Starts for P106I_45:

(2, 28833), (Start: 6 @28908 has 9 MA's), (8, 28926), (11, 28935),

Gene: P106L_44 Start: 29079, Stop: 29240, Start Num: 6

Candidate Starts for P106L_44:

(2, 29004), (Start: 6 @ 29079 has 9 MA's), (8, 29097), (11, 29106),

Gene: P106M_44 Start: 29079, Stop: 29240, Start Num: 6

Candidate Starts for P106M 44:

(2, 29004), (Start: 6 @ 29079 has 9 MA's), (8, 29097), (11, 29106),

Gene: P107A 44 Start: 28903, Stop: 29082, Start Num: 6

Candidate Starts for P107A 44:

(Start: 5 @ 28882 has 1 MA's), (Start: 6 @ 28903 has 9 MA's), (8, 28921), (13, 29044),

Gene: P108C_43 Start: 28911, Stop: 29093, Start Num: 5

Candidate Starts for P108C_43:

(Start: 5 @ 28911 has 1 MA's), (Start: 6 @ 28932 has 9 MA's), (8, 28950),

Gene: P14.4 46 Start: 29167, Stop: 29328, Start Num: 6

Candidate Starts for P14.4_46:

(Start: 5 @ 29146 has 1 MA's), (Start: 6 @ 29167 has 9 MA's),

Gene: PA6 47 Start: 29190, Stop: 29369, Start Num: 6

Candidate Starts for PA6_47:

(Start: 5 @ 29169 has 1 MA's), (Start: 6 @ 29190 has 9 MA's), (9, 29214),

Gene: PHL037M02_44 Start: 28907, Stop: 29077, Start Num: 7

Candidate Starts for PHL037M02 44:

(Start: 7 @28907 has 3 MA's),

Gene: PHL067M10_44 Start: 28840, Stop: 28986, Start Num: 7

Candidate Starts for PHL067M10 44:

(2, 28753), (Start: 7 @28840 has 3 MA's), (10, 28852),

Gene: PHL113M01_43 Start: 28649, Stop: 28810, Start Num: 6

Candidate Starts for PHL113M01_43:

(3, 28580), (Start: 5 @28628 has 1 MA's), (Start: 6 @28649 has 9 MA's), (8, 28667),

Gene: Solid_44 Start: 28878, Stop: 29039, Start Num: 6

Candidate Starts for Solid_44:

(Start: 5 @28857 has 1 MA's), (Start: 6 @28878 has 9 MA's), (12, 28950),

Gene: Supernova_44 Start: 28670, Stop: 28816, Start Num: 7

Candidate Starts for Supernova 44:

(2, 28583), (Start: 5 @ 28634 has 1 MA's), (Start: 7 @ 28670 has 3 MA's),