

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 164209 Report

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

Pham number 164209 has 6 members, 2 are drafts.

Phages represented in each track:

Track 1 : FlagStaff\_48
Track 2 : Pace1224\_49
Track 3 : Pinnie\_49
Track 4 : Lemuria\_52
Track 5 : Mercurio 52

• Track 6 : Jolie2 50

## 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 2 of the 4 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Jolie2\_50, Lemuria\_52, Mercurio\_52,

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

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

FlagStaff\_48, Pace1224\_49, Pinnie\_49,

## Summary by start number:

### Start 5:

- Found in 1 of 6 (16.7%) of genes in pham
- Manual Annotations of this start: 1 of 4
- Called 100.0% of time when present
- Phage (with cluster) where this start called: FlagStaff\_48 (G2),

#### Start 6

- Found in 4 of 6 (66.7%) of genes in pham
- Manual Annotations of this start: 1 of 4
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Pinnie\_49 (G3),

### Start 7:

- Found in 3 of 6 (50.0%) of genes in pham
- Manual Annotations of this start: 2 of 4
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jolie2\_50 (G4), Lemuria\_52 (G4), Mercurio\_52 (G4),

### Start 8:

- Found in 2 of 6 (33.3%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Pace1224\_49 (G2),

## Summary by clusters:

There are 3 clusters represented in this pham: G4, G3, G2,

Info for manual annotations of cluster G2:

•Start number 5 was manually annotated 1 time for cluster G2.

Info for manual annotations of cluster G3:

•Start number 6 was manually annotated 1 time for cluster G3.

Info for manual annotations of cluster G4:

•Start number 7 was manually annotated 2 times for cluster G4.

## Gene Information:

Gene: FlagStaff 48 Start: 36899, Stop: 37468, Start Num: 5

Candidate Starts for FlagStaff 48:

(2, 36713), (4, 36845), (Start: 5 @36899 has 1 MA's), (Start: 6 @36905 has 1 MA's), (8, 36932), (9, 36938), (10, 36953), (12, 36998), (13, 37010), (14, 37022), (17, 37187), (18, 37232), (19, 37235), (20, 37247),

Gene: Jolie2\_50 Start: 37238, Stop: 38023, Start Num: 7

Candidate Starts for Jolie 250:

(1, 36785), (3, 37046), (Start: 7 @37238 has 2 MA's), (13, 37340), (14, 37352), (16, 37406), (20, 37583), (21, 37586), (22, 37598), (24, 37646), (26, 37673), (28, 37754), (31, 37826), (33, 38003),

Gene: Lemuria 52 Start: 38552, Stop: 39214, Start Num: 7

Candidate Starts for Lemuria\_52:

(1, 38090), (3, 38363), (Start: 7 @38552 has 2 MA's), (11, 38609), (13, 38651), (15, 38681), (20, 38900), (21, 38903), (22, 38915), (23, 38957), (26, 38984), (28, 39065), (31, 39137), (32, 39152),

Gene: Mercurio\_52 Start: 38945, Stop: 39625, Start Num: 7

Candidate Starts for Mercurio 52:

(3, 38750), (Start: 6 @38942 has 1 MA's), (Start: 7 @38945 has 2 MA's), (11, 39002), (13, 39044), (20, 39290), (21, 39293), (24, 39374), (25, 39395), (28, 39488), (29, 39515), (30, 39551), (32, 39566),

Gene: Pace1224\_49 Start: 36961, Stop: 37497, Start Num: 8

Candidate Starts for Pace1224\_49: (4, 36871), (Start: 6 @36934 has 1 MA's), (8, 36961), (9, 36967), (10, 36982), (12, 37027), (13, 37039), (14, 37051), (17, 37216), (18, 37261), (19, 37264), (20, 37276),

Gene: Pinnie\_49 Start: 37751, Stop: 38257, Start Num: 6 Candidate Starts for Pinnie\_49: (Start: 6 @37751 has 1 MA's), (12, 37844), (13, 37856), (14, 37868), (17, 38039), (20, 38099), (21, 38102), (22, 38114), (27, 38186),