

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 87514 Report

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

Pham number 87514 has 14 members, 5 are drafts.

Phages represented in each track:

- Track 1: Reindeer 155
- Track 2: Alkhayr\_116, Schuy\_117, MadKillah\_124, Bora\_119
- Track 3 : Wildflower\_113
- Track 4 : FoulBall\_116
- Track 5: Vorrps\_121
- Track 6 : Shida\_120
- Track 7: Cosmo\_146, MaryV\_132, EniyanLRS\_139, Wildcat\_146
- Track 8 : Azrael100\_139

## 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 6 of the 9 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Azrael100\_139, Cosmo\_146, EniyanLRS\_139, MaryV\_132, Reindeer\_155, Wildcat\_146,

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

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

 Alkhayr\_116, Bora\_119, FoulBall\_116, MadKillah\_124, Schuy\_117, Shida\_120, Vorrps\_121, Wildflower\_113,

### Summary by start number:

#### Start 5

- Found in 7 of 14 (50.0%) of genes in pham
- No Manual Annotations of this start.
- Called 14.3% of time when present
- Phage (with cluster) where this start called: FoulBall\_116 (O),

#### Start 6:

- Found in 8 of 14 (57.1%) of genes in pham
- Manual Annotations of this start: 3 of 9
- Called 87.5% of time when present
- Phage (with cluster) where this start called: Alkhayr\_116 (O), Bora\_119 (O), MadKillah\_124 (O), Schuy\_117 (O), Shida\_120 (O), Vorrps\_121 (O), Wildflower\_113 (O),

#### Start 7:

- Found in 6 of 14 (42.9%) of genes in pham
- Manual Annotations of this start: 6 of 9
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azrael100\_139 (V), Cosmo\_146 (V), EniyanLRS\_139 (V), MaryV\_132 (V), Reindeer\_155 (M1), Wildcat\_146 (V),

## Summary by clusters:

There are 3 clusters represented in this pham: M1, O, V,

Info for manual annotations of cluster M1:

•Start number 7 was manually annotated 1 time for cluster M1.

Info for manual annotations of cluster O:

•Start number 6 was manually annotated 3 times for cluster O.

Info for manual annotations of cluster V:

•Start number 7 was manually annotated 5 times for cluster V.

### Gene Information:

Gene: Alkhayr\_116 Start: 67753, Stop: 67448, Start Num: 6
Candidate Starts for Alkhayr\_116:

(4, 67843), (5, 67783), (Start: 6 @67753 has 3 MA's), (8, 67675), (10, 67645), (11, 67633), (13, 67606), (17, 67549), (18, 67534), (19, 67516), (23, 67465),

Gene: Azrael100\_139 Start: 68294, Stop: 68025, Start Num: 7

Candidate Starts for Azrael100\_139:

(Start: 7 @68294 has 6 MA's), (8, 68225), (13, 68156), (14, 68147), (15, 68126), (17, 68099), (20, 68060),

Gene: Bora\_119 Start: 68437, Stop: 68132, Start Num: 6

Candidate Starts for Bora 119:

(4, 68527), (5, 68467), (Start: 6 @68437 has 3 MA's), (8, 68359), (10, 68329), (11, 68317), (13, 68290), (17, 68233), (18, 68218), (19, 68200), (23, 68149),

Gene: Cosmo\_146 Start: 68458, Stop: 68189, Start Num: 7

Candidate Starts for Cosmo 146:

(Start: 7 @ 68458 has 6 MA's), (8, 68389), (13, 68320), (14, 68311), (15, 68290), (20, 68224),

Gene: EniyanLRS\_139 Start: 68799, Stop: 68530, Start Num: 7

Candidate Starts for EniyanLRS 139:

(Start: 7 @68799 has 6 MA's), (8, 68730), (13, 68661), (14, 68652), (15, 68631), (20, 68565),

Gene: FoulBall\_116 Start: 68066, Stop: 67731, Start Num: 5

Candidate Starts for FoulBall 116:

(4, 68126), (5, 68066), (Start: 6 @68036 has 3 MA's), (8, 67958), (10, 67928), (11, 67916), (13, 67889), (17, 67832), (18, 67817), (19, 67799), (23, 67748),

Gene: MadKillah\_124 Start: 68106, Stop: 67801, Start Num: 6

Candidate Starts for MadKillah 124:

(4, 68196), (5, 68136), (Start: 6 @68106 has 3 MA's), (8, 68028), (10, 67998), (11, 67986), (13, 67959), (17, 67902), (18, 67887), (19, 67869), (23, 67818),

Gene: MaryV\_132 Start: 66645, Stop: 66376, Start Num: 7

Candidate Starts for MaryV\_132:

(Start: 7 @ 66645 has 6 MA's), (8, 66576), (13, 66507), (14, 66498), (15, 66477), (20, 66411),

Gene: Reindeer\_155 Start: 79602, Stop: 79321, Start Num: 7

Candidate Starts for Reindeer 155:

(Start: 7 @ 79602 has 6 MA's), (8, 79530), (9, 79506), (12, 79476), (20, 79365), (22, 79329),

Gene: Schuy\_117 Start: 67815, Stop: 67510, Start Num: 6

Candidate Starts for Schuy 117:

(4, 67905), (5, 67845), (Start: 6 @67815 has 3 MA's), (8, 67737), (10, 67707), (11, 67695), (13, 67668), (17, 67611), (18, 67596), (19, 67578), (23, 67527),

Gene: Shida\_120 Start: 68317, Stop: 68012, Start Num: 6

Candidate Starts for Shida\_120:

(4, 68407), (5, 68347), (Start: 6 @68317 has 3 MA's), (8, 68239), (10, 68209), (11, 68197), (13, 68170), (16, 68128), (17, 68113), (18, 68098), (19, 68080), (23, 68029),

Gene: Vorrps\_121 Start: 68657, Stop: 68352, Start Num: 6

Candidate Starts for Vorrps\_121:

(1, 68804), (2, 68798), (3, 68762), (Start: 6 @68657 has 3 MA's), (8, 68579), (10, 68549), (11, 68537), (13, 68510), (16, 68468), (17, 68453), (18, 68438), (19, 68420), (23, 68369),

Gene: Wildcat\_146 Start: 68538, Stop: 68269, Start Num: 7

Candidate Starts for Wildcat 146:

(Start: 7 @ 68538 has 6 MA's), (8, 68469), (13, 68400), (14, 68391), (15, 68370), (20, 68304),

Gene: Wildflower\_113 Start: 66294, Stop: 65944, Start Num: 6

Candidate Starts for Wildflower\_113:

(4, 66384), (5, 66324), (Start: 6 @66294 has 3 MA's), (8, 66207), (10, 66177), (13, 66138), (16, 66096), (17, 66081), (18, 66066), (19, 66048), (21, 66009),