






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 87170 Report

This analysis was run 04/05/24 on database version 557.
Pham number 87170 has 13 members, 6 are drafts.
Phages represented in each track:

- Track 1 : Imvubu_83
- Track 2 : Zentenō07 90
- Track 3 : Hashim76_92
- Track 4 : BirdsNest_90
- Track 5 : Phelemich_75, Mysterious_78, Reprobate_77
- Track 6 : 39HC_079, 40BC_079
- Track 7 : KayaCho_77
- Track 8 : Hosp_075
- Track 9 : Jolie1_077
-Track 10 : Thonko_99


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

The start number called the most often in the published annotations is 17, it was called in 2 of the 7 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BirdsNest_90, Hashim76_92, Zenteno07_90,

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

- 39HC_079, 40BC_079, Hosp_075, Imvubu_83, Jolie1_077, KayaCho_77, Mysterious_78, Phēlemich_75, Reprobate_77, Thonko_99,


## Summary by start number:

Start 15:

- Found in 1 of 13 ( $7.7 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 7
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: Thonko_99 (B8),

Start 17:

- Found in 3 of 13 ( $23.1 \%$ ) of genes in pham
- Manual Annotations of this start: 2 of 7
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: BirdsNest_90 (B13), Hashim76_92
(B13), Zenteno07_90 (B13),
Start 18:
- Found in 3 of 13 ( $23.1 \%$ ) of genes in pham
- Manual Annotations of this start: 2 of 7
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: Mysterious_78 (B5), Phelemich_75 (B5), Reprobate_77 (B5),

Start 19:

- Found in 4 of 13 ( $30.8 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 7
- Called $25.0 \%$ of time when present
- Phage (with cluster) where this start called: Imvubu_83 (B10),

Start 20:

- Found in 5 of 13 ( $38.5 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 7
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: 39HC_079 (B6), 40BC_079 (B6),

Hosp_075 (B6), Jolie1_077 (B6), KayaCho_77 (B6),

## Summary by clusters:

There are 5 clusters represented in this pham: B5, B6, B8, B13, B10,
Info for manual annotations of cluster B10:
-Start number 19 was manually annotated 1 time for cluster B10.
Info for manual annotations of cluster B13:
-Start number 17 was manually annotated 2 times for cluster B13.
Info for manual annotations of cluster B5:
-Start number 18 was manually annotated 2 times for cluster B5.
Info for manual annotations of cluster B6:
-Start number 20 was manually annotated 1 time for cluster B6.
Info for manual annotations of cluster B8:
-Start number 15 was manually annotated 1 time for cluster B8.

## Gene Information:

Gene: 39HC_079 Start: 63020, Stop: 62811, Start Num: 20
Candidate Starts for 39HC_079:
(7, 63110), (Start: 20 @63020 has 1 MA's), (22, 62960), (27, 62876), (29, 62846),

Gene: 40BC_079 Start: 63020, Stop: 62811, Start Num: 20
Candidate Starts for 40BC_079:
(7, 63110), (Start: 20 @63020 has 1 MA's), (22, 62960), (27, 62876), (29, 62846),
Gene: BirdsNest_90 Start: 65598, Stop: 65386, Start Num: 17
Candidate Starts for BirdsNest_90:
( 5,65742 ), ( 10,65637 ), ( 11,65628 ), ( 13,65610 ), (Start: 17 @65598 has 2 MA's), ( 31,65394 ),
Gene: Hashim76_92 Start: 65649, Stop: 65419, Start Num: 17
Candidate Starts for Hashim76_92:
(3, 65970), (Start: 17 @65649 has 2 MA's), ( 28,65478 ), ( 31,65427 ),
Gene: Hosp_075 Start: 60469, Stop: 60260, Start Num: 20
Candidate Starts for Hosp_075:
(Start: 20 @60469 has 1 MA's), (22, 60409), (26, 60343), (27, 60325), (29, 60295),
Gene: Imvubu_83 Start: 63449, Stop: 63243, Start Num: 19
Candidate Starts for Imvubu_83:
(1, 64052), (2, 64040), (12, 63482), (Start: 19 @63449 has 1 MA's), ( 23,63368 ), ( 30,63254 ),
Gene: Jolie1_077 Start: 62503, Stop: 62294, Start Num: 20
Candidate Starts for Jolie1_077:
(Start: 20 @62503 has 1 MA's), (22, 62443), (27, 62359), (28, 62341), (29, 62329),
Gene: KayaCho_77 Start: 62691, Stop: 62461, Start Num: 20
Candidate Starts for KayaCho_77:
(7, 62781), (Start: 20 @62691 has 1 MA's), (24, 62607), (25, 62565), (29, 62496),
Gene: Mysterious_78 Start: 62370, Stop: 62155, Start Num: 18 Candidate Starts for Mysterious_78:
(11, 62409), (16, 62379), (Start: 18 @62370 has 2 MA's), (Start: 19 @62367 has 1 MA's), (21, 62358), $(22,62304)$,

Gene: Phelemich_75 Start: 62496, Stop: 62281, Start Num: 18
Candidate Starts for Phelemich_75:
(11, 62535), (16, 62505), (Start: 18 @62496 has 2 MA's), (Start: 19 @62493 has 1 MA's), (21, 62484), $(22,62430)$,

Gene: Reprobate_77 Start: 62501, Stop: 62286, Start Num: 18
Candidate Starts for Reprobate_77:
(11, 62540), (16, 62510), (Start: 18 @62501 has 2 MA's), (Start: 19 @62498 has 1 MA's), (21, 62489), $(22,62435)$,

Gene: Thonko_99 Start: 66725, Stop: 66504, Start Num: 15
Candidate Starts for Thonko_99:
(9, 66770), (Start: 15 @66725 has 1 MA's),
Gene: Zenteno07_90 Start: 65264, Stop: 65034, Start Num: 17
Candidate Starts for Zenteno07_90:
(4, 65432), (6, 65360), (8, 65312 $)$, (14, 65273), (Start: 17 @65264 has 2 MA's), (28, 65093), (31, 65042),

