Pham 87086


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 87086 Report

This analysis was run 04/05/24 on database version 557.
Pham number 87086 has 15 members, 1 are drafts.
Phages represented in each track:

- Track 1 : Gumball_48, Nova_48, Thoth_49, Visconti_50, KandZ_48, SirHarley_50,

Giuseppe_49, Penēlope2018_49

- Track 2 : PBI1_46, Butterscōtch_48, PLot_49, Prager_49
- Track 3 : Mopey_50, BigMama_47
- Track 4 : Hawkeye_53


## 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 8 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Giuseppe_49, Gumball_48, KandZ_48, Nova_48, Penelope2018_49, SirHarley_50,

Thoth_49, Visconti_50,
Genes that have the "Most Annotated" start but do not call it:

- BigMama_47, Butterscotch_48, Mopey_50, PBI1_46, PLot_49, Prager_49,

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

- Hawkeye_53,


## Summary by start number:

Start 3:

- Found in 1 of 15 ( $6.7 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: Hawkeye_53 (D2),

Start 4:

- Found in 14 of 15 ( $93.3 \%$ ) of genes in pham
- Manual Annotations of this start: 3 of 14
- Called $28.6 \%$ of time when present
- Phage (with cluster) where this start called: Butterscotch_48 (D1), PBI1_46 (D1), PLot_49 (D1), Prager_49 (D1),

Start 5:

- Found in 14 of 15 ( $93.3 \%$ ) of genes in pham
- Manual Annotations of this start: 2 of 14
- Called $14.3 \%$ of time when present
- Phage (with cluster) where this start called: BigMama_47 (D1), Mopey_50 (D1),

Start 6:

- Found in 14 of 15 ( 93.3\% ) of genes in pham
- Manual Annotations of this start: 8 of 14
- Called $57.1 \%$ of time when present
- Phage (with cluster) where this start called: Giuseppe_49 (D1), Gumball_48 (D1), KandZ_48 (D1), Nova_48 (D1), Penelope2018_49 (D1), SirHarley_50 (D1), Thoth_49 (D1), Visconti_50 (D1),


## Summary by clusters:

There are 2 clusters represented in this pham: D2, D1,
Info for manual annotations of cluster D1:

- Start number 4 was manually annotated 3 times for cluster D1.
- Start number 5 was manually annotated 2 times for cluster D1.
-Start number 6 was manually annotated 8 times for cluster D1.
Info for manual annotations of cluster D2:
-Start number 3 was manually annotated 1 time for cluster D2.


## Gene Information:

Gene: BigMama_47 Start: 38319, Stop: 38498, Start Num: 5
Candidate Starts for BigMama_47:
(1, 38232), (Start: 4 @38316 has 3 MA's), (Start: 5 @38319 has 2 MA's), (Start: 6 @38322 has 8 MA's), (7, 38367), (8, 38436),

Gene: Butterscotch_48 Start: 38300, Stop: 38482, Start Num: 4
Candidate Starts for Butterscotch_48:
(1, 38216), (Start: 4 @38300 has 3 MA's), (Start: 5 @38303 has 2 MA's), (Start: 6 @38306 has 8 MA's), (7, 38351), (8, 38420),

Gene: Giuseppe_49 Start: 38295, Stop: 38471, Start Num: 6
Candidate Starts for Giuseppe_49:
(1, 38205), (Start: 4 @38289 has 3 MA's), (Start: 5 @38292 has 2 MA's), (Start: 6 @38295 has 8 MA's), (7, 38340), (8, 38409),

Gene: Gumball_48 Start: 38470, Stop: 38646, Start Num: 6
Candidate Starts for Gumball_48:
(1, 38380), (Start: 4 @38464 has 3 MA's), (Start: 5 @38467 has 2 MA's), (Start: 6 @38470 has 8 MA's), (7, 38515), (8, 38584),

Gene: Hawkeye_53 Start: 38381, Stop: 38572, Start Num: 3
Candidate Starts for Hawkeye_53:
(2, 38357), (Start: 3 @38381 has 1 MA's), (8, 38513),
Gene: KandZ_48 Start: 38404, Stop: 38580, Start Num: 6 Candidate Starts for KandZ_48:
(1, 38314), (Start: 4 @38398 has 3 MA's), (Start: 5 @38401 has 2 MA's), (Start: 6 @38404 has 8 MA's), (7, 38449), (8, 38518),

Gene: Mopey_50 Start: 38303, Stop: 38482, Start Num: 5
Candidate Starts for Mopey_50:
(1, 38216), (Start: 4 @38300 has 3 MA's), (Start: 5 @38303 has 2 MA's), (Start: 6 @38306 has 8 MA's), (7, 38351), (8, 38420),

Gene: Nova_48 Start: 38730, Stop: 38906, Start Num: 6
Candidate Starts for Nova_48:
(1, 38640), (Start: 4 @38724 has 3 MA's), (Start: 5 @38727 has 2 MA's), (Start: 6 @38730 has 8 MA's), (7, 38775), (8, 38844),

Gene: PBI1_46 Start: 38231, Stop: 38413, Start Num: 4
Candidate Starts for PBI1_46:
(1, 38147), (Start: 4 @38231 has 3 MA's), (Start: 5 @38234 has 2 MA's), (Start: 6 @38237 has 8 MA's), (7, 38282), (8, 38351),

Gene: PLot_49 Start: 38297, Stop: 38479, Start Num: 4
Candidate Starts for PLot_49:
(1, 38213), (Start: 4 @38297 has 3 MA's), (Start: 5 @38300 has 2 MA's), (Start: 6 @38303 has 8 MA's), (7, 38348), (8, 38417),

Gene: Penelope2018_49 Start: 38306, Stop: 38482, Start Num: 6
Candidate Starts for Penelope2018_49:
(1, 38216), (Start: 4 @38300 has 3 MA's), (Start: 5 @38303 has 2 MA's), (Start: 6 @38306 has 8 MA's), (7, 38351), (8, 38420),

Gene: Prager_49 Start: 38320, Stop: 38502, Start Num: 4
Candidate Starts for Prager_49:
(1, 38236), (Start: 4 @38320 has 3 MA's), (Start: 5 @38323 has 2 MA's), (Start: 6 @38326 has 8 MA's), (7, 38371), (8, 38440),

Gene: SirHarley_50 Start: 38452, Stop: 38628, Start Num: 6
Candidate Starts for SirHarley_50:
(1, 38362), (Start: 4 @38446 has 3 MA's), (Start: 5 @38449 has 2 MA's), (Start: 6 @38452 has 8 MA's), (7, 38497), (8, 38566),

Gene: Thoth_49 Start: 38304, Stop: 38480, Start Num: 6
Candidate Starts for Thoth_49:
(1, 38214), (Start: 4 @38298 has 3 MA's), (Start: 5 @38301 has 2 MA's), (Start: 6 @38304 has 8 MA's), (7, 38349), (8, 38418),

Gene: Visconti_50 Start: 38316, Stop: 38492, Start Num: 6
Candidate Starts for Visconti_50:
(1, 38226), (Start: 4 @38310 has 3 MA's), (Start: 5 @38313 has 2 MA's), (Start: 6 @38316 has 8 MA's), (7, 38361), (8, 38430),

