



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 106688 Report

This analysis was run 04/05/24 on database version 557.

Pham number 106688 has 14 members, 0 are drafts.

Phages represented in each track:

- Track 1 : Aneem\_72, Snape\_71, Bowtie\_72, Ebony\_71, Flaverint\_72, Et2Brutus\_70, MaCh\_71, Orange\_70, Timothy\_71
- Track 2 : Fibonacci\_71, Munch\_71, Mulciber\_70
- Track 3 : Lucivia\_72
- Track 4 : Mabel\_71

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

The start number called the most often in the published annotations is 2, it was called in 11 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aneem\_72, Bowtie\_72, Ebony\_71, Et2Brutus\_70, Flaverint\_72, Lucivia\_72, MaCh\_71, Mabel\_71, Orange\_70, Snape\_71, Timothy\_71,

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

- Fibonacci\_71, Mulciber\_70, Munch\_71,

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

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### **Summary by start number:**

Start 1:

- Found in 14 of 14 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 3 of 14
- Called 21.4% of time when present
- Phage (with cluster) where this start called: Fibonacci\_71 (A11), Mulciber\_70 (A11), Munch\_71 (A11),

Start 2:

- Found in 14 of 14 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 11 of 14
- Called 78.6% of time when present

- Phage (with cluster) where this start called: Aneem\_72 (A11), Bowtie\_72 (A11), Ebony\_71 (A11), Et2Brutus\_70 (A11), Flaverint\_72 (A11), Lucivia\_72 (A11), MaCh\_71 (A11), Mabel\_71 (A11), Orange\_70 (A11), Snape\_71 (A11), Timothy\_71 (A11),

### **Summary by clusters:**

There is one cluster represented in this pham: A11

Info for manual annotations of cluster A11:

- Start number 1 was manually annotated 3 times for cluster A11.
- Start number 2 was manually annotated 11 times for cluster A11.

### **Gene Information:**

Gene: Aneem\_72 Start: 42491, Stop: 42135, Start Num: 2

Candidate Starts for Aneem\_72:

(Start: 1 @42575 has 3 MA's), (Start: 2 @42491 has 11 MA's), (3, 42479), (4, 42392), (5, 42374), (6, 42323), (7, 42281), (8, 42263), (9, 42179),

Gene: Bowtie\_72 Start: 42498, Stop: 42142, Start Num: 2

Candidate Starts for Bowtie\_72:

(Start: 1 @42582 has 3 MA's), (Start: 2 @42498 has 11 MA's), (3, 42486), (4, 42399), (5, 42381), (6, 42330), (7, 42288), (8, 42270), (9, 42186),

Gene: Ebony\_71 Start: 42062, Stop: 41706, Start Num: 2

Candidate Starts for Ebony\_71:

(Start: 1 @42146 has 3 MA's), (Start: 2 @42062 has 11 MA's), (3, 42050), (4, 41963), (5, 41945), (6, 41894), (7, 41852), (8, 41834), (9, 41750),

Gene: Et2Brutus\_70 Start: 42025, Stop: 41669, Start Num: 2

Candidate Starts for Et2Brutus\_70:

(Start: 1 @42109 has 3 MA's), (Start: 2 @42025 has 11 MA's), (3, 42013), (4, 41926), (5, 41908), (6, 41857), (7, 41815), (8, 41797), (9, 41713),

Gene: Fibonacci\_71 Start: 42115, Stop: 41675, Start Num: 1

Candidate Starts for Fibonacci\_71:

(Start: 1 @42115 has 3 MA's), (Start: 2 @42031 has 11 MA's), (3, 42019), (4, 41932), (5, 41914), (6, 41863), (7, 41821), (8, 41803), (9, 41719),

Gene: Flaverint\_72 Start: 42489, Stop: 42133, Start Num: 2

Candidate Starts for Flaverint\_72:

(Start: 1 @42573 has 3 MA's), (Start: 2 @42489 has 11 MA's), (3, 42477), (4, 42390), (5, 42372), (6, 42321), (7, 42279), (8, 42261), (9, 42177),

Gene: Lucivia\_72 Start: 42522, Stop: 42184, Start Num: 2

Candidate Starts for Lucivia\_72:

(Start: 1 @42606 has 3 MA's), (Start: 2 @42522 has 11 MA's), (3, 42510), (4, 42423), (5, 42405), (6, 42354), (7, 42312), (9, 42228),

Gene: MaCh\_71 Start: 42486, Stop: 42130, Start Num: 2

Candidate Starts for MaCh\_71:

(Start: 1 @42570 has 3 MA's), (Start: 2 @42486 has 11 MA's), (3, 42474), (4, 42387), (5, 42369), (6, 42318), (7, 42276), (8, 42258), (9, 42174),

Gene: Mabel\_71 Start: 42487, Stop: 42131, Start Num: 2

Candidate Starts for Mabel\_71:

(Start: 1 @42571 has 3 MA's), (Start: 2 @42487 has 11 MA's), (4, 42388), (5, 42370), (6, 42319), (7, 42277), (8, 42259), (9, 42175),

Gene: Mulciber\_70 Start: 42112, Stop: 41672, Start Num: 1

Candidate Starts for Mulciber\_70:

(Start: 1 @42112 has 3 MA's), (Start: 2 @42028 has 11 MA's), (3, 42016), (4, 41929), (5, 41911), (6, 41860), (7, 41818), (8, 41800), (9, 41716),

Gene: Munch\_71 Start: 42575, Stop: 42135, Start Num: 1

Candidate Starts for Munch\_71:

(Start: 1 @42575 has 3 MA's), (Start: 2 @42491 has 11 MA's), (3, 42479), (4, 42392), (5, 42374), (6, 42323), (7, 42281), (8, 42263), (9, 42179),

Gene: Orange\_70 Start: 42040, Stop: 41684, Start Num: 2

Candidate Starts for Orange\_70:

(Start: 1 @42124 has 3 MA's), (Start: 2 @42040 has 11 MA's), (3, 42028), (4, 41941), (5, 41923), (6, 41872), (7, 41830), (8, 41812), (9, 41728),

Gene: Snape\_71 Start: 42030, Stop: 41674, Start Num: 2

Candidate Starts for Snape\_71:

(Start: 1 @42114 has 3 MA's), (Start: 2 @42030 has 11 MA's), (3, 42018), (4, 41931), (5, 41913), (6, 41862), (7, 41820), (8, 41802), (9, 41718),

Gene: Timothy\_71 Start: 42007, Stop: 41651, Start Num: 2

Candidate Starts for Timothy\_71:

(Start: 1 @42091 has 3 MA's), (Start: 2 @42007 has 11 MA's), (3, 41995), (4, 41908), (5, 41890), (6, 41839), (7, 41797), (8, 41779), (9, 41695),