

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 168715 Report

This analysis was run 07/09/24 on database version 566.

Pham number 168715 has 11 members, 1 are drafts.

Phages represented in each track:

• Track 1 : Murp 45

• Track 2 : Cashline 42

Track 3 : Ohgeesy\_45

• Track 4: Lton 38

• Track 5 : Madeline 42

• Track 6 : Llij\_43

• Track 7: Job42 47, PMC 41

• Track 8 : ThulaThula 37

• Track 9: GMA1 35

Track 10 : TinyDot\_34

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

The start number called the most often in the published annotations is 27, it was called in 4 of the 10 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Cashline\_42, Job42\_47, Llij\_43, PMC\_41,

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

Madeline\_42, Ohgeesy\_45,

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

GMA1\_35, Lton\_38, Murp\_45, ThulaThula\_37, TinyDot\_34,

# Summary by start number:

# Start 22:

- Found in 1 of 11 (9.1%) of genes in pham
- Manual Annotations of this start: 1 of 10
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Murp\_45 (CV),

#### Start 23:

- Found in 3 of 11 (27.3%) of genes in pham
- Manual Annotations of this start: 2 of 10
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Madeline\_42 (CZ1), Ohgeesy\_45 (CZ),

### Start 24:

- Found in 1 of 11 (9.1%) of genes in pham
- Manual Annotations of this start: 1 of 10
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ThulaThula\_37 (P5),

#### Start 25:

- Found in 1 of 11 (9.1%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA1\_35 (singleton),

# Start 26:

- Found in 8 of 11 (72.7%) of genes in pham
- Manual Annotations of this start: 2 of 10
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Lton\_38 (CZ), TinyDot\_34 (singleton),

#### Start 27:

- Found in 6 of 11 (54.5%) of genes in pham
- Manual Annotations of this start: 4 of 10
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Cashline\_42 (CY), Job42\_47 (F1), Llij\_43 (F1), PMC\_41 (F1),

# Summary by clusters:

There are 7 clusters represented in this pham: F1, singleton, P5, CZ1, CZ, CY, CV,

Info for manual annotations of cluster CV:

•Start number 22 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster CY:

•Start number 27 was manually annotated 1 time for cluster CY.

Info for manual annotations of cluster CZ:

- •Start number 23 was manually annotated 1 time for cluster CZ.
- •Start number 26 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

•Start number 23 was manually annotated 1 time for cluster CZ1.

Info for manual annotations of cluster F1:

•Start number 27 was manually annotated 3 times for cluster F1.

Info for manual annotations of cluster P5:

•Start number 24 was manually annotated 1 time for cluster P5.

## Gene Information:

Gene: Cashline 42 Start: 35028, Stop: 35240, Start Num: 27

Candidate Starts for Cashline\_42:

(Start: 23 @34998 has 2 MA's), (Start: 26 @35007 has 2 MA's), (Start: 27 @35028 has 4 MA's), (32, 35154), (35, 35187), (40, 35229),

Gene: GMA1\_35 Start: 26567, Stop: 26794, Start Num: 25

Candidate Starts for GMA1 35:

(25, 26567), (28, 26600), (30, 26660), (34, 26741), (35, 26747), (37, 26759),

Gene: Job42\_47 Start: 36451, Stop: 36663, Start Num: 27

Candidate Starts for Job42 47:

(4, 36211), (9, 36250), (11, 36304), (13, 36322), (15, 36352), (17, 36367), (18, 36370), (21, 36394),

(Start: 26 @36430 has 2 MA's), (Start: 27 @36451 has 4 MA's), (38, 36625),

Gene: Llij\_43 Start: 34261, Stop: 34473, Start Num: 27

Candidate Starts for Llij 43:

(4, 34021), (9, 34060), (11, 34114), (13, 34132), (15, 34162), (17, 34177), (18, 34180), (19, 34192),

(21, 34204), (Start: 26 @ 34240 has 2 MA's), (Start: 27 @ 34261 has 4 MA's), (38, 34435),

Gene: Lton 38 Start: 28029, Stop: 28259, Start Num: 26

Candidate Starts for Lton\_38:

(Start: 26 @28029 has 2 MA's), (29, 28071),

Gene: Madeline\_42 Start: 34926, Stop: 35168, Start Num: 23

Candidate Starts for Madeline\_42:

(1, 34578), (2, 34677), (3, 34689), (5, 34728), (6, 34734), (7, 34740), (8, 34752), (21, 34899), (Start: 23 @34926 has 2 MA's), (Start: 26 @34935 has 2 MA's), (Start: 27 @34956 has 4 MA's), (32, 35082), (35, 35115), (40, 35157),

Gene: Murp 45 Start: 36357, Stop: 36602, Start Num: 22

Candidate Starts for Murp 45:

(12, 36249), (14, 36276), (20, 36333), (Start: 22 @ 36357 has 1 MA's), (33, 36525), (39, 36573),

Gene: Ohgeesy\_45 Start: 35721, Stop: 35963, Start Num: 23

Candidate Starts for Ohgeesy\_45:

(1, 35373), (2, 35472), (3, 35484), (5, 35523), (6, 35529), (7, 35535), (8, 35547), (16, 35655), (21, 35694), (Start: 23 @35721 has 2 MA's), (Start: 26 @35730 has 2 MA's), (Start: 27 @35751 has 4 MA's), (32, 35877), (35, 35910), (40, 35952),

Gene: PMC\_41 Start: 34272, Stop: 34484, Start Num: 27

Candidate Starts for PMC\_41:

(4, 34032), (9, 34071), (11, 34125), (13, 34143), (15, 34173), (17, 34188), (18, 34191), (21, 34215), (Start, 36, @34351, hea. 3 MA/s), (Start, 37, @34373, hea. 4 MA/s), (38, 34446)

(Start: 26 @34251 has 2 MA's), (Start: 27 @34272 has 4 MA's), (38, 34446),

Gene: ThulaThula 37 Start: 31168, Stop: 31404, Start Num: 24

Candidate Starts for ThulaThula 37:

(Start: 24 @31168 has 1 MA's), (31, 31282), (33, 31324),

Gene: TinyDot\_34 Start: 27443, Stop: 27673, Start Num: 26

Candidate Starts for TinyDot\_34: (10, 27314), (Start: 26 @27443 has 2 MA's), (28, 27473), (30, 27533), (33, 27590), (36, 27626), (37, 27632),