

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 225044 Report

This analysis was run 03/28/25 on database version 593.

Pham number 225044 has 12 members, 1 are drafts.

Phages represented in each track:

- Track 1 : UmaThurman\_42, Pipp\_45
- Track 2: Lton 44
- Track 3 : Pepperoni\_41
- Track 4 : Denise 44
- Track 5 : Moosehead\_47
- Track 6 : Faith5x5\_40
- Track 7: OneDirection 41, Morkie 46
- Track 8 : Lucky10\_45
- Track 9 : PhorbesPhlower\_46
- Track 10 : Gudmit\_39

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

The start number called the most often in the published annotations is 5, it was called in 6 of the 11 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Faith5x5\_40, Lucky10\_45, Moosehead\_47, Morkie\_46, OneDirection\_41, Pepperoni\_41, PhorbesPhlower\_46,

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

• Denise\_44, Lton\_44,

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

Gudmit\_39, Pipp\_45, UmaThurman\_42,

## Summary by start number:

### Start 3:

- Found in 2 of 12 (16.7%) of genes in pham
- Manual Annotations of this start: 2 of 11
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pipp\_45 (CV), UmaThurman\_42 (CV),

## Start 4:

- Found in 1 of 12 (8.3%) of genes in pham
- Manual Annotations of this start: 1 of 11
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gudmit\_39 (singleton),

#### Start 5:

- Found in 9 of 12 (75.0%) of genes in pham
- Manual Annotations of this start: 6 of 11
- Called 77.8% of time when present
- Phage (with cluster) where this start called: Faith5x5\_40 (CZ6), Lucky10\_45 (DH), Moosehead\_47 (CZ6), Morkie\_46 (DH), OneDirection\_41 (CZ6), Pepperoni\_41 (CZ), PhorbesPhlower\_46 (DH),

### Start 6:

- Found in 4 of 12 (33.3%) of genes in pham
- Manual Annotations of this start: 2 of 11
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Denise\_44 (CZ5), Lton\_44 (CZ),

## **Summary by clusters:**

There are 6 clusters represented in this pham: singleton, DH, CZ6, CZ5, CZ, CV,

Info for manual annotations of cluster CV:

•Start number 3 was manually annotated 2 times for cluster CV.

Info for manual annotations of cluster CZ:

•Start number 6 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ5:

•Start number 6 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:

•Start number 5 was manually annotated 3 times for cluster CZ6.

Info for manual annotations of cluster DH:

•Start number 5 was manually annotated 3 times for cluster DH.

#### Gene Information:

Gene: Denise\_44 Start: 32315, Stop: 32467, Start Num: 6

Candidate Starts for Denise\_44:

(Start: 5 @32312 has 6 MA's), (Start: 6 @32315 has 2 MA's), (7, 32333), (8, 32339), (9, 32348), (11, 32357), (12, 32369), (17, 32420), (18, 32423), (19, 32426), (20, 32444),

Gene: Faith5x5 40 Start: 29956, Stop: 30108, Start Num: 5

Candidate Starts for Faith5x5 40:

(1, 29782), (2, 29806), (Start: 5 @29956 has 6 MA's), (7, 29974), (9, 29989), (10, 29995), (11, 29998), (16, 30028), (17, 30061), (18, 30064), (19, 30067),

Gene: Gudmit\_39 Start: 27962, Stop: 28129, Start Num: 4

Candidate Starts for Gudmit\_39:

(Start: 4 @ 27962 has 1 MA's), (11, 28019), (13, 28037), (21, 28118),

Gene: Lton\_44 Start: 29999, Stop: 30151, Start Num: 6

Candidate Starts for Lton 44:

(Start: 5 @29996 has 6 MA's), (Start: 6 @29999 has 2 MA's), (8, 30023), (9, 30032), (12, 30053), (16, 30071), (17, 30104), (18, 30107), (19, 30110), (20, 30128),

Gene: Lucky10\_45 Start: 32714, Stop: 32869, Start Num: 5

Candidate Starts for Lucky10 45:

(Start: 5 @32714 has 6 MA's), (Start: 6 @32717 has 2 MA's), (7, 32735), (8, 32741), (9, 32750), (10, 32756), (11, 32759), (12, 32771), (16, 32789), (17, 32822), (18, 32825), (19, 32828), (20, 32846),

Gene: Moosehead\_47 Start: 30929, Stop: 31081, Start Num: 5

Candidate Starts for Moosehead\_47:

(Start: 5 @30929 has 6 MA's), (7, 30947), (8, 30953), (9, 30962), (10, 30968), (11, 30971), (16, 31001), (17, 31034), (18, 31037), (19, 31040),

Gene: Morkie\_46 Start: 31833, Stop: 31985, Start Num: 5

Candidate Starts for Morkie 46:

(1, 31659), (2, 31683), (Start: 5 @31833 has 6 MA's), (9, 31866), (10, 31872), (11, 31875), (12, 31887), (16, 31905), (17, 31938), (18, 31941), (19, 31944), (20, 31962),

Gene: OneDirection\_41 Start: 29447, Stop: 29599, Start Num: 5

Candidate Starts for OneDirection\_41:

(1, 29273), (2, 29297), (Start: 5 @29447 has 6 MA's), (9, 29480), (10, 29486), (11, 29489), (12, 29501), (16, 29519), (17, 29552), (18, 29555), (19, 29558), (20, 29576),

Gene: Pepperoni\_41 Start: 31009, Stop: 31164, Start Num: 5

Candidate Starts for Pepperoni\_41:

(1, 30835), (2, 30859), (Start: 5 @31009 has 6 MA's), (Start: 6 @31012 has 2 MA's), (7, 31030), (8, 31036), (9, 31045), (12, 31066), (13, 31072), (16, 31084), (17, 31117), (18, 31120), (19, 31123),

Gene: PhorbesPhlower 46 Start: 31203, Stop: 31355, Start Num: 5

Candidate Starts for PhorbesPhlower 46:

(1, 31026), (2, 31050), (Start: 5 @31203 has 6 MA's), (9, 31236), (12, 31257), (13, 31263), (16, 31275), (17, 31308), (18, 31311), (19, 31314), (20, 31332),

Gene: Pipp\_45 Start: 33774, Stop: 33941, Start Num: 3

Candidate Starts for Pipp 45:

(Start: 3 @33774 has 2 MA's), (14, 33861), (15, 33864), (21, 33933),

Gene: UmaThurman 42 Start: 34120, Stop: 34287, Start Num: 3

Candidate Starts for UmaThurman 42:

(Start: 3 @ 34120 has 2 MA's), (14, 34207), (15, 34210), (21, 34279),