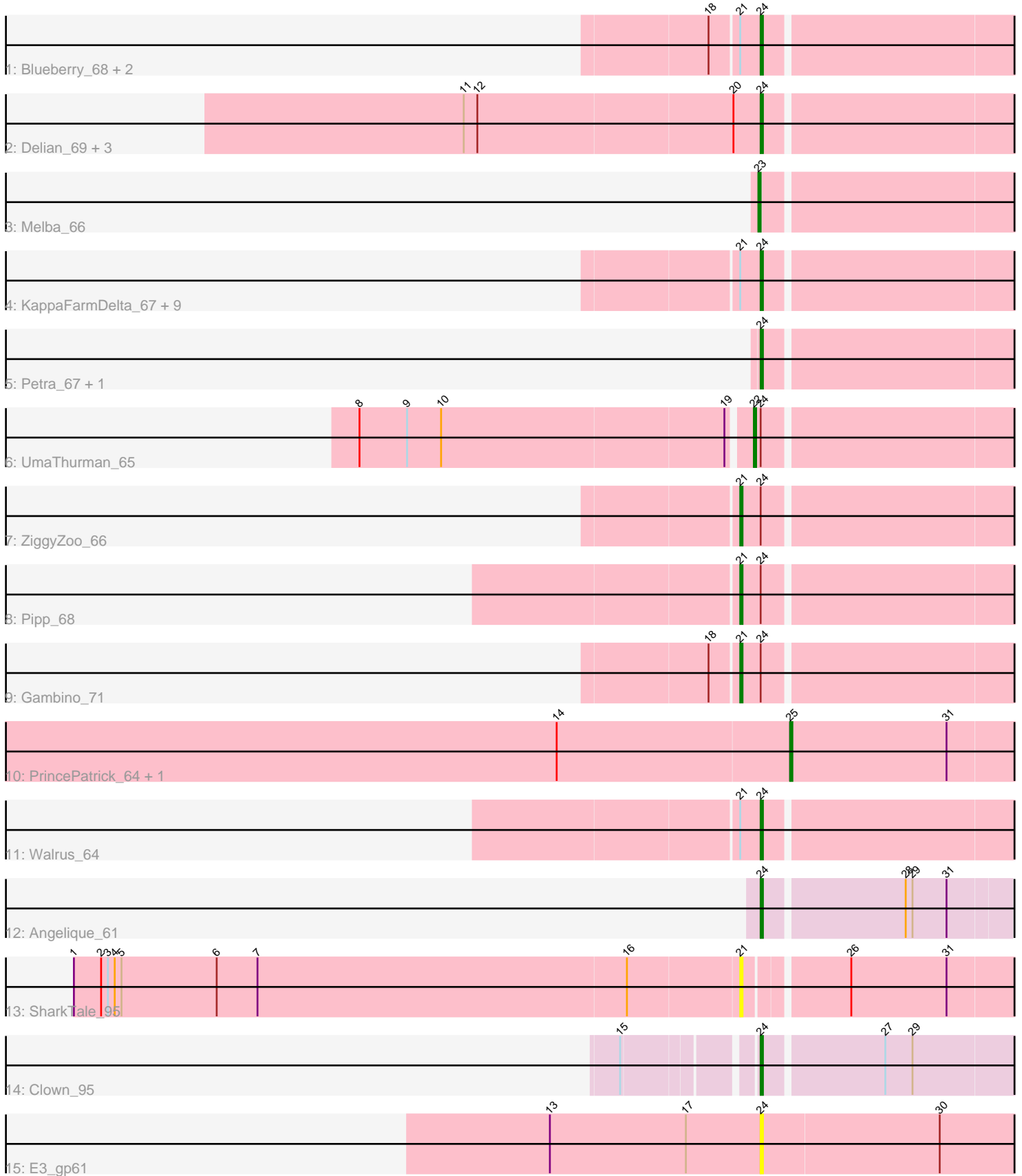


Pham 311868



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 311868 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311868 has 31 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Blueberry\_68, Azula\_69, MissRona\_69
- Track 2 : Delian\_69, Utz\_58, CaptainKirk2\_66, MintFen\_66
- Track 3 : Melba\_66
- Track 4 : KappaFarmDelta\_67, Obliviate\_63, Fenry\_65, Zarbodnamra\_66, Samba\_66, Guacamole\_64, Jalammah\_69, JasperJr\_64, Wisp\_65, Lysidious\_68
- Track 5 : Petra\_67, CheeseSpider\_75
- Track 6 : UmaThurman\_65
- Track 7 : ZiggyZoo\_66
- Track 8 : Pipp\_68
- Track 9 : Gambino\_71
- Track 10 : PrincePatrick\_64, William\_67
- Track 11 : Walrus\_64
- Track 12 : Angelique\_61
- Track 13 : SharkTale\_95
- Track 14 : Clown\_95
- Track 15 : E3\_gp61

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

The start number called the most often in the published annotations is 24, it was called in 20 of the 27 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Angelique\_61, Azula\_69, Blueberry\_68, CaptainKirk2\_66, CheeseSpider\_75, Clown\_95, Delian\_69, E3\_gp61, Fenry\_65, Guacamole\_64, Jalammah\_69, JasperJr\_64, KappaFarmDelta\_67, Lysidious\_68, MintFen\_66, MissRona\_69, Obliviate\_63, Petra\_67, Samba\_66, Utz\_58, Walrus\_64, Wisp\_65, Zarbodnamra\_66,

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

- Gambino\_71, Pipp\_68, UmaThurman\_65, ZiggyZoo\_66,

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

- Melba\_66, PrincePatrick\_64, SharkTale\_95, William\_67,

## Summary by start number:

### Start 21:

- Found in 18 of 31 ( 58.1% ) of genes in pham
- Manual Annotations of this start: 3 of 27
- Called 22.2% of time when present
- Phage (with cluster) where this start called: Gambino\_71 (CV), Pipp\_68 (CV), SharkTale\_95 (DC1), ZiggyZoo\_66 (CV),

### Start 22:

- Found in 1 of 31 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: UmaThurman\_65 (CV),

### Start 23:

- Found in 1 of 31 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Melba\_66 (CV),

### Start 24:

- Found in 27 of 31 ( 87.1% ) of genes in pham
- Manual Annotations of this start: 20 of 27
- Called 85.2% of time when present
- Phage (with cluster) where this start called: Angelique\_61 (CY1), Azula\_69 (CV), Blueberry\_68 (CV), CaptainKirk2\_66 (CV), CheeseSpider\_75 (CV), Clown\_95 (DC2), Delian\_69 (CV), E3\_gp61 (singleton), Fenry\_65 (CV), Guacamole\_64 (CV), Jalammah\_69 (CV), JasperJr\_64 (CV), KappaFarmDelta\_67 (CV), Lysidious\_68 (CV), MintFen\_66 (CV), MissRona\_69 (CV), Obliviate\_63 (CV), Petra\_67 (CV), Samba\_66 (CV), Utz\_58 (CV), Walrus\_64 (CV), Wisp\_65 (CV), Zarbodnamra\_66 (CV),

### Start 25:

- Found in 2 of 31 ( 6.5% ) of genes in pham
- Manual Annotations of this start: 2 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PrincePatrick\_64 (CV), William\_67 (CV),

## Summary by clusters:

There are 5 clusters represented in this pham: singleton, CY1, DC2, CV, DC1,

### Info for manual annotations of cluster CV:

- Start number 21 was manually annotated 3 times for cluster CV.
- Start number 22 was manually annotated 1 time for cluster CV.
- Start number 23 was manually annotated 1 time for cluster CV.
- Start number 24 was manually annotated 18 times for cluster CV.
- Start number 25 was manually annotated 2 times for cluster CV.

### Info for manual annotations of cluster CY1:

- Start number 24 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster DC2:

•Start number 24 was manually annotated 1 time for cluster DC2.

**Gene Information:**

Gene: Angelique\_61 Start: 44665, Stop: 44877, Start Num: 24

Candidate Starts for Angelique\_61:

(Start: 24 @44665 has 20 MA's), (28, 44725), (29, 44728), (31, 44743),

Gene: Azula\_69 Start: 44892, Stop: 45110, Start Num: 24

Candidate Starts for Azula\_69:

(18, 44871), (Start: 21 @44883 has 3 MA's), (Start: 24 @44892 has 20 MA's),

Gene: Blueberry\_68 Start: 44892, Stop: 45110, Start Num: 24

Candidate Starts for Blueberry\_68:

(18, 44871), (Start: 21 @44883 has 3 MA's), (Start: 24 @44892 has 20 MA's),

Gene: CaptainKirk2\_66 Start: 40921, Stop: 41139, Start Num: 24

Candidate Starts for CaptainKirk2\_66:

(11, 40792), (12, 40798), (20, 40909), (Start: 24 @40921 has 20 MA's),

Gene: CheeseSpider\_75 Start: 43764, Stop: 43982, Start Num: 24

Candidate Starts for CheeseSpider\_75:

(Start: 24 @43764 has 20 MA's),

Gene: Clown\_95 Start: 58077, Stop: 57859, Start Num: 24

Candidate Starts for Clown\_95:

(15, 58128), (Start: 24 @58077 has 20 MA's), (27, 58026), (29, 58014),

Gene: Delian\_69 Start: 40919, Stop: 41137, Start Num: 24

Candidate Starts for Delian\_69:

(11, 40790), (12, 40796), (20, 40907), (Start: 24 @40919 has 20 MA's),

Gene: E3\_gp61 Start: 24313, Stop: 24513, Start Num: 24

Candidate Starts for E3\_gp61:

(13, 24220), (17, 24280), (Start: 24 @24313 has 20 MA's), (30, 24391),

Gene: Fenry\_65 Start: 43311, Stop: 43529, Start Num: 24

Candidate Starts for Fenry\_65:

(Start: 21 @43302 has 3 MA's), (Start: 24 @43311 has 20 MA's),

Gene: Gambino\_71 Start: 44883, Stop: 45110, Start Num: 21

Candidate Starts for Gambino\_71:

(18, 44871), (Start: 21 @44883 has 3 MA's), (Start: 24 @44892 has 20 MA's),

Gene: Guacamole\_64 Start: 42282, Stop: 42500, Start Num: 24

Candidate Starts for Guacamole\_64:

(Start: 21 @42273 has 3 MA's), (Start: 24 @42282 has 20 MA's),

Gene: Jalammah\_69 Start: 44214, Stop: 44432, Start Num: 24

Candidate Starts for Jalammah\_69:

(Start: 21 @44205 has 3 MA's), (Start: 24 @44214 has 20 MA's),

Gene: JasperJr\_64 Start: 42282, Stop: 42500, Start Num: 24

Candidate Starts for JasperJr\_64:

(Start: 21 @42273 has 3 MA's), (Start: 24 @42282 has 20 MA's),

Gene: KappaFarmDelta\_67 Start: 41448, Stop: 41666, Start Num: 24

Candidate Starts for KappaFarmDelta\_67:

(Start: 21 @41439 has 3 MA's), (Start: 24 @41448 has 20 MA's),

Gene: Lysidious\_68 Start: 43940, Stop: 44158, Start Num: 24

Candidate Starts for Lysidious\_68:

(Start: 21 @43931 has 3 MA's), (Start: 24 @43940 has 20 MA's),

Gene: Melba\_66 Start: 41430, Stop: 41648, Start Num: 23

Candidate Starts for Melba\_66:

(Start: 23 @41430 has 1 MA's),

Gene: MintFen\_66 Start: 41535, Stop: 41753, Start Num: 24

Candidate Starts for MintFen\_66:

(11, 41406), (12, 41412), (20, 41523), (Start: 24 @41535 has 20 MA's),

Gene: MissRona\_69 Start: 44893, Stop: 45111, Start Num: 24

Candidate Starts for MissRona\_69:

(18, 44872), (Start: 21 @44884 has 3 MA's), (Start: 24 @44893 has 20 MA's),

Gene: Obliviate\_63 Start: 40666, Stop: 40884, Start Num: 24

Candidate Starts for Obliviate\_63:

(Start: 21 @40657 has 3 MA's), (Start: 24 @40666 has 20 MA's),

Gene: Petra\_67 Start: 42041, Stop: 42259, Start Num: 24

Candidate Starts for Petra\_67:

(Start: 24 @42041 has 20 MA's),

Gene: Pipp\_68 Start: 42761, Stop: 42988, Start Num: 21

Candidate Starts for Pipp\_68:

(Start: 21 @42761 has 3 MA's), (Start: 24 @42770 has 20 MA's),

Gene: PrincePatrick\_64 Start: 40877, Stop: 41089, Start Num: 25

Candidate Starts for PrincePatrick\_64:

(14, 40775), (Start: 25 @40877 has 2 MA's), (31, 40946),

Gene: Samba\_66 Start: 44639, Stop: 44857, Start Num: 24

Candidate Starts for Samba\_66:

(Start: 21 @44630 has 3 MA's), (Start: 24 @44639 has 20 MA's),

Gene: SharkTale\_95 Start: 59205, Stop: 58981, Start Num: 21

Candidate Starts for SharkTale\_95:

(1, 59496), (2, 59484), (3, 59481), (4, 59478), (5, 59475), (6, 59433), (7, 59415), (16, 59253), (Start: 21 @59205 has 3 MA's), (26, 59163), (31, 59121),

Gene: UmaThurman\_65 Start: 41987, Stop: 42208, Start Num: 22

Candidate Starts for UmaThurman\_65:

(8, 41819), (9, 41840), (10, 41855), (19, 41978), (Start: 22 @41987 has 1 MA's), (Start: 24 @41990 has 20 MA's),

Gene: Utz\_58 Start: 41504, Stop: 41722, Start Num: 24

Candidate Starts for Utz\_58:

(11, 41375), (12, 41381), (20, 41492), (Start: 24 @41504 has 20 MA's),

Gene: Walrus\_64 Start: 41578, Stop: 41796, Start Num: 24

Candidate Starts for Walrus\_64:

(Start: 21 @41569 has 3 MA's), (Start: 24 @41578 has 20 MA's),

Gene: William\_67 Start: 43224, Stop: 43436, Start Num: 25

Candidate Starts for William\_67:

(14, 43122), (Start: 25 @43224 has 2 MA's), (31, 43293),

Gene: Wisp\_65 Start: 42431, Stop: 42649, Start Num: 24

Candidate Starts for Wisp\_65:

(Start: 21 @42422 has 3 MA's), (Start: 24 @42431 has 20 MA's),

Gene: Zarbodnamra\_66 Start: 41825, Stop: 42043, Start Num: 24

Candidate Starts for Zarbodnamra\_66:

(Start: 21 @41816 has 3 MA's), (Start: 24 @41825 has 20 MA's),

Gene: ZiggyZoo\_66 Start: 43475, Stop: 43702, Start Num: 21

Candidate Starts for ZiggyZoo\_66:

(Start: 21 @43475 has 3 MA's), (Start: 24 @43484 has 20 MA's),