



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 159385 Report

This analysis was run 04/28/24 on database version 559.

Pham number 159385 has 24 members, 6 are drafts.

Phages represented in each track:

- Track 1 : RadFad\_79
- Track 2 : Isolde\_72
- Track 3 : EvePickles\_73
- Track 4 : Aikyam\_73
- Track 5 : Persistence\_68
- Track 6 : Phrank15\_77
- Track 7 : Richie\_77
- Track 8 : Faja\_77, Hestia\_68
- Track 9 : Tiff81\_74
- Track 10 : Auxilium\_72
- Track 11 : Sashimi\_73
- Track 12 : Seahorse\_80
- Track 13 : AbbyDaisy\_77
- Track 14 : MidnightRain\_79
- Track 15 : Globfish\_73
- Track 16 : Shoya\_57, Sarge\_52
- Track 17 : Kumotta\_58
- Track 18 : BrayBeast\_57
- Track 19 : MargaretKali\_54
- Track 20 : BlackSpider\_63
- Track 21 : Bauer\_69
- Track 22 : Zucker\_70

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

The start number called the most often in the published annotations is 9, it was called in 15 of the 18 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbyDaisy\_77, Aikyam\_73, Auxilium\_72, Bauer\_69, BrayBeast\_57, EvePickles\_73, Faja\_77, Hestia\_68, Isolde\_72, MidnightRain\_79, RadFad\_79, Richie\_77, Sarge\_52, Seahorse\_80, Shoya\_57, Zucker\_70,

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

- Globfish\_73,

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

- BlackSpider\_63, Kumotta\_58, MargaretKali\_54, Persistence\_68, Phrank15\_77, Sashimi\_73, Tiff81\_74,

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

Start 8:

- Found in 8 of 24 ( 33.3% ) of genes in pham
- Manual Annotations of this start: 2 of 18
- Called 62.5% of time when present
- Phage (with cluster) where this start called: BlackSpider\_63 (FN), Kumotta\_58 (FB), Persistence\_68 (AY), Phrank15\_77 (AY), Tiff81\_74 (AY),

Start 9:

- Found in 17 of 24 ( 70.8% ) of genes in pham
- Manual Annotations of this start: 15 of 18
- Called 94.1% of time when present
- Phage (with cluster) where this start called: AbbyDaisy\_77 (AY), Aikyam\_73 (AY), Auxilium\_72 (AY), Bauer\_69 (FN), BrayBeast\_57 (FB), EvePickles\_73 (AY), Faja\_77 (AY), Hestia\_68 (AY), Isolde\_72 (AY), MidnightRain\_79 (AY), RadFad\_79 (AY), Richie\_77 (AY), Sarge\_52 (FB), Seahorse\_80 (AY), Shoya\_57 (FB), Zucker\_70 (FN),

Start 10:

- Found in 7 of 24 ( 29.2% ) of genes in pham
- Manual Annotations of this start: 1 of 18
- Called 42.9% of time when present
- Phage (with cluster) where this start called: Globfish\_73 (AY), MargaretKali\_54 (FB), Sashimi\_73 (AY),

### **Summary by clusters:**

There are 3 clusters represented in this pham: AY, FB, FN,

Info for manual annotations of cluster AY:

- Start number 8 was manually annotated 1 time for cluster AY.
- Start number 9 was manually annotated 10 times for cluster AY.

Info for manual annotations of cluster FB:

- Start number 8 was manually annotated 1 time for cluster FB.
- Start number 9 was manually annotated 3 times for cluster FB.
- Start number 10 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster FN:

- Start number 9 was manually annotated 2 times for cluster FN.

### **Gene Information:**

Gene: AbbyDaisy\_77 Start: 41339, Stop: 41572, Start Num: 9

Candidate Starts for AbbyDaisy\_77:

(Start: 9 @41339 has 15 MA's), (Start: 10 @41360 has 1 MA's),

Gene: Aikyam\_73 Start: 37758, Stop: 37988, Start Num: 9

Candidate Starts for Aikyam\_73:

(Start: 9 @37758 has 15 MA's),

Gene: Auxilium\_72 Start: 37301, Stop: 37531, Start Num: 9

Candidate Starts for Auxilium\_72:

(Start: 9 @37301 has 15 MA's),

Gene: Bauer\_69 Start: 38444, Stop: 38671, Start Num: 9

Candidate Starts for Bauer\_69:

(5, 38225), (Start: 9 @38444 has 15 MA's), (12, 38603),

Gene: BlackSpider\_63 Start: 36439, Stop: 36672, Start Num: 8

Candidate Starts for BlackSpider\_63:

(Start: 8 @36439 has 2 MA's), (12, 36601),

Gene: BrayBeast\_57 Start: 32181, Stop: 32381, Start Num: 9

Candidate Starts for BrayBeast\_57:

(5, 31962), (Start: 8 @32178 has 2 MA's), (Start: 9 @32181 has 15 MA's), (12, 32343),

Gene: EvePickles\_73 Start: 40201, Stop: 40434, Start Num: 9

Candidate Starts for EvePickles\_73:

(Start: 9 @40201 has 15 MA's), (Start: 10 @40222 has 1 MA's),

Gene: Faja\_77 Start: 40979, Stop: 41209, Start Num: 9

Candidate Starts for Faja\_77:

(5, 40760), (7, 40916), (Start: 9 @40979 has 15 MA's),

Gene: Globfish\_73 Start: 38686, Stop: 38898, Start Num: 10

Candidate Starts for Globfish\_73:

(Start: 9 @38665 has 15 MA's), (Start: 10 @38686 has 1 MA's),

Gene: Hestia\_68 Start: 37202, Stop: 37432, Start Num: 9

Candidate Starts for Hestia\_68:

(5, 36983), (7, 37139), (Start: 9 @37202 has 15 MA's),

Gene: Isolde\_72 Start: 39048, Stop: 39278, Start Num: 9

Candidate Starts for Isolde\_72:

(5, 38829), (7, 38985), (Start: 9 @39048 has 15 MA's),

Gene: Kumotta\_58 Start: 33336, Stop: 33533, Start Num: 8

Candidate Starts for Kumotta\_58:

(Start: 8 @33336 has 2 MA's), (Start: 10 @33360 has 1 MA's),

Gene: MargaretKali\_54 Start: 31978, Stop: 32151, Start Num: 10

Candidate Starts for MargaretKali\_54:

(Start: 8 @31954 has 2 MA's), (Start: 10 @31978 has 1 MA's),

Gene: MidnightRain\_79 Start: 40518, Stop: 40748, Start Num: 9

Candidate Starts for MidnightRain\_79:

(5, 40299), (7, 40455), (Start: 9 @40518 has 15 MA's),

Gene: Persistence\_68 Start: 37585, Stop: 37818, Start Num: 8  
Candidate Starts for Persistence\_68:  
(Start: 8 @37585 has 2 MA's),

Gene: Phrank15\_77 Start: 39010, Stop: 39243, Start Num: 8  
Candidate Starts for Phrank15\_77:  
(2, 38785), (Start: 8 @39010 has 2 MA's),

Gene: RadFad\_79 Start: 40220, Stop: 40450, Start Num: 9  
Candidate Starts for RadFad\_79:  
(Start: 9 @40220 has 15 MA's), (12, 40379),

Gene: Richie\_77 Start: 40859, Stop: 41092, Start Num: 9  
Candidate Starts for Richie\_77:  
(5, 40640), (Start: 9 @40859 has 15 MA's), (Start: 10 @40880 has 1 MA's),

Gene: Sarge\_52 Start: 30498, Stop: 30698, Start Num: 9  
Candidate Starts for Sarge\_52:  
(Start: 9 @30498 has 15 MA's), (12, 30660),

Gene: Sashimi\_73 Start: 39005, Stop: 39211, Start Num: 10  
Candidate Starts for Sashimi\_73:  
(Start: 8 @38981 has 2 MA's), (Start: 10 @39005 has 1 MA's), (12, 39140),

Gene: Seahorse\_80 Start: 42515, Stop: 42742, Start Num: 9  
Candidate Starts for Seahorse\_80:  
(1, 42275), (3, 42293), (4, 42296), (6, 42395), (Start: 9 @42515 has 15 MA's), (12, 42674),

Gene: Shoya\_57 Start: 32112, Stop: 32312, Start Num: 9  
Candidate Starts for Shoya\_57:  
(Start: 9 @32112 has 15 MA's), (12, 32274),

Gene: Tiff81\_74 Start: 37579, Stop: 37809, Start Num: 8  
Candidate Starts for Tiff81\_74:  
(Start: 8 @37579 has 2 MA's),

Gene: Zucker\_70 Start: 40676, Stop: 40906, Start Num: 9  
Candidate Starts for Zucker\_70:  
(Start: 9 @40676 has 15 MA's), (11, 40733),