

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 162404 Report

This analysis was run 05/04/24 on database version 560.

Pham number 162404 has 9 members, 3 are drafts.

Phages represented in each track:

Track 1 : Anekin\_45Track 2 : Kenna 88

Track 3 : Lutum\_94

Track 4 : BrayBeast\_49, Raqqa\_60

Track 5 : Shoya\_50Track 6 : Elesar\_48Track 7 : Kukla\_78Track 8 : Zucker\_35

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

The start number called the most often in the published annotations is 19, it was called in 2 of the 6 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

BrayBeast\_49, Kukla\_78, Raqqa\_60, Shoya\_50,

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

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

Anekin\_45, Elesar\_48, Kenna\_88, Lutum\_94, Zucker\_35,

# Summary by start number:

#### Start 8:

- Found in 2 of 9 (22.2%) of genes in pham
- Manual Annotations of this start: 1 of 6
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Lutum\_94 (DN1),

#### Start 9:

- Found in 2 of 9 (22.2%) of genes in pham
- Manual Annotations of this start: 1 of 6

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anekin\_45 (AY), Elesar\_48 (FF),

### Start 10:

- Found in 2 of 9 (22.2%) of genes in pham
- Manual Annotations of this start: 1 of 6
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Kenna\_88 (DN1),

#### Start 12:

- Found in 1 of 9 (11.1%) of genes in pham
- Manual Annotations of this start: 1 of 6
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Zucker\_35 (FN),

#### Start 19:

- Found in 4 of 9 (44.4%) of genes in pham
- Manual Annotations of this start: 2 of 6
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BrayBeast\_49 (FB), Kukla\_78 (FJ), Raqqa\_60 (AY), Shoya\_50 (FB),

### Summary by clusters:

There are 6 clusters represented in this pham: FB, DN1, FF, AY, FJ, FN,

Info for manual annotations of cluster DN1:

- •Start number 8 was manually annotated 1 time for cluster DN1.
- Start number 10 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster FB:

•Start number 19 was manually annotated 2 times for cluster FB.

Info for manual annotations of cluster FF:

•Start number 9 was manually annotated 1 time for cluster FF.

Info for manual annotations of cluster FN:

•Start number 12 was manually annotated 1 time for cluster FN.

### Gene Information:

Gene: Anekin\_45 Start: 29811, Stop: 30191, Start Num: 9

Candidate Starts for Anekin 45:

(Start: 9 @29811 has 1 MA's), (11, 29820), (23, 29958), (25, 29985), (29, 30072), (35, 30108), (39, 30147),

Gene: BrayBeast\_49 Start: 28984, Stop: 29268, Start Num: 19

Candidate Starts for BrayBeast 49:

(14, 28945), (Start: 19 @28984 has 2 MA's), (21, 28993), (28, 29122), (34, 29170), (36, 29191),

Gene: Elesar\_48 Start: 36967, Stop: 37350, Start Num: 9

Candidate Starts for Elesar\_48:

(1, 36751), (2, 36763), (Start: 9 @ 36967 has 1 MA's), (16, 37060), (17, 37066), (20, 37084), (26, 37177), (28, 37216),

Gene: Kenna\_88 Start: 49368, Stop: 49775, Start Num: 10

Candidate Starts for Kenna 88:

(4, 49263), (5, 49269), (6, 49302), (Start: 8 @49359 has 1 MA's), (Start: 10 @49368 has 1 MA's), (16, 49467), (18, 49482), (22, 49524), (24, 49530), (27, 49623), (38, 49719), (40, 49734),

Gene: Kukla 78 Start: 42658, Stop: 42945, Start Num: 19

Candidate Starts for Kukla\_78:

(Start: 19 @42658 has 2 MA's), (21, 42667), (28, 42796), (29, 42805), (30, 42817), (32, 42829),

Gene: Lutum\_94 Start: 50678, Stop: 51094, Start Num: 8

Candidate Starts for Lutum 94:

(4, 50582), (5, 50588), (6, 50621), (Start: 8 @50678 has 1 MA's), (Start: 10 @50687 has 1 MA's), (16, 50786), (18, 50801), (22, 50843), (24, 50849), (27, 50942), (38, 51038), (40, 51053),

Gene: Ragga\_60 Start: 33013, Stop: 33297, Start Num: 19

Candidate Starts for Raqqa\_60:

(14, 32974), (Start: 19 @33013 has 2 MA's), (21, 33022), (28, 33151), (34, 33199), (36, 33220),

Gene: Shoya\_50 Start: 29154, Stop: 29441, Start Num: 19

Candidate Starts for Shoya\_50:

(3, 28866), (7, 28983), (13, 29088), (15, 29127), (Start: 19 @29154 has 2 MA's), (28, 29292), (29, 29301), (30, 29313), (32, 29325),

Gene: Zucker\_35 Start: 27460, Stop: 27846, Start Num: 12

Candidate Starts for Zucker\_35:

(Start: 12 @27460 has 1 MA's), (31, 27733), (33, 27748), (37, 27787),