



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 311827 Report

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

Pham number 311827 has 34 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Elsa\_46, Xenomorph\_42, KeaneyLin\_45, Arcadia\_46, Tribby\_46, GoCrazy\_45, NapoleonB\_46, Correa\_44, Cheesy\_46, Nason\_46, Stardom\_43, Benllo\_45, Dynamite\_46, Kardesai\_47, Hankly\_45
- Track 2 : Circum\_48, Mudcat\_43, Bowling\_46, JEGGS\_45, Heisenberger\_45
- Track 3 : Mooshroom\_48, BenitoAntonio\_46
- Track 4 : YoshiYama\_46
- Track 5 : Jazzy4900\_47, Sunny4976\_46
- Track 6 : GermyBearimy\_54, Arzan\_48
- Track 7 : JeNeSaisPas\_78, Qui\_83, Elver\_81, Gandionco\_79, Marianna39\_81, Kureo\_82, Paella\_83

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

The start number called the most often in the published annotations is 3, it was called in 22 of the 24 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arcadia\_46, Benllo\_45, Bowling\_46, Cheesy\_46, Circum\_48, Correa\_44, Dynamite\_46, Elsa\_46, Elver\_81, Gandionco\_79, GoCrazy\_45, Hankly\_45, Heisenberger\_45, JEGGS\_45, JeNeSaisPas\_78, Kardesai\_47, KeaneyLin\_45, Kureo\_82, Marianna39\_81, Mudcat\_43, NapoleonB\_46, Nason\_46, Paella\_83, Qui\_83, Stardom\_43, Tribby\_46, Xenomorph\_42, YoshiYama\_46,

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

- BenitoAntonio\_46, Mooshroom\_48,

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

- Arzan\_48, GermyBearimy\_54, Jazzy4900\_47, Sunny4976\_46,

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

Start 1:

- Found in 17 of 34 ( 50.0% ) of genes in pham
- Manual Annotations of this start: 2 of 24

- Called 11.8% of time when present
- Phage (with cluster) where this start called: BenitoAntonio\_46 (AM), Mooshroom\_48 (AM),

#### Start 2:

- Found in 4 of 34 ( 11.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arzan\_48 (FI), GermyBearimy\_54 (FI), Jazzy4900\_47 (FI), Sunny4976\_46 (FI),

#### Start 3:

- Found in 30 of 34 ( 88.2% ) of genes in pham
- Manual Annotations of this start: 22 of 24
- Called 93.3% of time when present
- Phage (with cluster) where this start called: Arcadia\_46 (AM), Benllo\_45 (AM), Bowling\_46 (AM), Cheesy\_46 (AM), Circum\_48 (AM), Correa\_44 (AM), Dynamite\_46 (AM), Elsa\_46 (AM), Elver\_81 (FK), Gandionco\_79 (FK), GoCrazy\_45 (AM), Hankly\_45 (AM), Heisenberger\_45 (AM), JEGGS\_45 (AM), JeNeSaisPas\_78 (FK), Kardesai\_47 (AM), KeaneyLin\_45 (AM), Kureo\_82 (FK), Marianna39\_81 (FK), Mudcat\_43 (AM), NapoleonB\_46 (AM), Nason\_46 (AM), Paella\_83 (FK), Qui\_83 (FK), Stardom\_43 (AM), Tribby\_46 (AM), Xenomorph\_42 (AM), YoshiYama\_46 (AM),

### Summary by clusters:

There are 3 clusters represented in this pham: FI, FK, AM,

Info for manual annotations of cluster AM:

- Start number 1 was manually annotated 2 times for cluster AM.
- Start number 3 was manually annotated 19 times for cluster AM.

Info for manual annotations of cluster FK:

- Start number 3 was manually annotated 3 times for cluster FK.

### Gene Information:

Gene: Arcadia\_46 Start: 31207, Stop: 31410, Start Num: 3

Candidate Starts for Arcadia\_46:

(Start: 1 @31192 has 2 MA's), (Start: 3 @31207 has 22 MA's),

Gene: Arzan\_48 Start: 32418, Stop: 32612, Start Num: 2

Candidate Starts for Arzan\_48:

(2, 32418), (4, 32442), (5, 32478),

Gene: BenitoAntonio\_46 Start: 30769, Stop: 30978, Start Num: 1

Candidate Starts for BenitoAntonio\_46:

(Start: 1 @30769 has 2 MA's), (Start: 3 @30784 has 22 MA's),

Gene: Benllo\_45 Start: 31468, Stop: 31662, Start Num: 3

Candidate Starts for Benllo\_45:

(Start: 1 @31453 has 2 MA's), (Start: 3 @31468 has 22 MA's),

Gene: Bowling\_46 Start: 30980, Stop: 31183, Start Num: 3

Candidate Starts for Bowling\_46:

(Start: 3 @30980 has 22 MA's),

Gene: Cheesy\_46 Start: 30905, Stop: 31099, Start Num: 3

Candidate Starts for Cheesy\_46:

(Start: 1 @30890 has 2 MA's), (Start: 3 @30905 has 22 MA's),

Gene: Circum\_48 Start: 31618, Stop: 31821, Start Num: 3

Candidate Starts for Circum\_48:

(Start: 3 @31618 has 22 MA's),

Gene: Correa\_44 Start: 30090, Stop: 30284, Start Num: 3

Candidate Starts for Correa\_44:

(Start: 1 @30075 has 2 MA's), (Start: 3 @30090 has 22 MA's),

Gene: Dynamite\_46 Start: 31170, Stop: 31373, Start Num: 3

Candidate Starts for Dynamite\_46:

(Start: 1 @31155 has 2 MA's), (Start: 3 @31170 has 22 MA's),

Gene: Elsa\_46 Start: 31207, Stop: 31410, Start Num: 3

Candidate Starts for Elsa\_46:

(Start: 1 @31192 has 2 MA's), (Start: 3 @31207 has 22 MA's),

Gene: Elver\_81 Start: 49310, Stop: 49537, Start Num: 3

Candidate Starts for Elver\_81:

(Start: 3 @49310 has 22 MA's), (7, 49373), (8, 49439),

Gene: Gandionco\_79 Start: 48455, Stop: 48682, Start Num: 3

Candidate Starts for Gandionco\_79:

(Start: 3 @48455 has 22 MA's), (7, 48518), (8, 48584),

Gene: GermyBearimy\_54 Start: 33795, Stop: 33989, Start Num: 2

Candidate Starts for GermyBearimy\_54:

(2, 33795), (4, 33819), (5, 33855),

Gene: GoCrazy\_45 Start: 31096, Stop: 31290, Start Num: 3

Candidate Starts for GoCrazy\_45:

(Start: 1 @31081 has 2 MA's), (Start: 3 @31096 has 22 MA's),

Gene: Hankly\_45 Start: 30397, Stop: 30591, Start Num: 3

Candidate Starts for Hankly\_45:

(Start: 1 @30382 has 2 MA's), (Start: 3 @30397 has 22 MA's),

Gene: Heisenberger\_45 Start: 30648, Stop: 30851, Start Num: 3

Candidate Starts for Heisenberger\_45:

(Start: 3 @30648 has 22 MA's),

Gene: JEGGS\_45 Start: 30702, Stop: 30905, Start Num: 3

Candidate Starts for JEGGS\_45:

(Start: 3 @30702 has 22 MA's),

Gene: Jazzy4900\_47 Start: 33250, Stop: 33444, Start Num: 2  
Candidate Starts for Jazzy4900\_47:  
(2, 33250), (5, 33310),

Gene: JeNeSaisPas\_78 Start: 49036, Stop: 49263, Start Num: 3  
Candidate Starts for JeNeSaisPas\_78:  
(Start: 3 @49036 has 22 MA's), (7, 49099), (8, 49165),

Gene: Kardesai\_47 Start: 31368, Stop: 31562, Start Num: 3  
Candidate Starts for Kardesai\_47:  
(Start: 1 @31353 has 2 MA's), (Start: 3 @31368 has 22 MA's),

Gene: KeaneyLin\_45 Start: 31096, Stop: 31290, Start Num: 3  
Candidate Starts for KeaneyLin\_45:  
(Start: 1 @31081 has 2 MA's), (Start: 3 @31096 has 22 MA's),

Gene: Kureo\_82 Start: 48608, Stop: 48835, Start Num: 3  
Candidate Starts for Kureo\_82:  
(Start: 3 @48608 has 22 MA's), (7, 48671), (8, 48737),

Gene: Marianna39\_81 Start: 49030, Stop: 49257, Start Num: 3  
Candidate Starts for Marianna39\_81:  
(Start: 3 @49030 has 22 MA's), (7, 49093), (8, 49159),

Gene: Mooshroom\_48 Start: 31353, Stop: 31562, Start Num: 1  
Candidate Starts for Mooshroom\_48:  
(Start: 1 @31353 has 2 MA's), (Start: 3 @31368 has 22 MA's),

Gene: Mudcat\_43 Start: 32061, Stop: 32264, Start Num: 3  
Candidate Starts for Mudcat\_43:  
(Start: 3 @32061 has 22 MA's),

Gene: NapoleonB\_46 Start: 31170, Stop: 31373, Start Num: 3  
Candidate Starts for NapoleonB\_46:  
(Start: 1 @31155 has 2 MA's), (Start: 3 @31170 has 22 MA's),

Gene: Nason\_46 Start: 31207, Stop: 31410, Start Num: 3  
Candidate Starts for Nason\_46:  
(Start: 1 @31192 has 2 MA's), (Start: 3 @31207 has 22 MA's),

Gene: Paella\_83 Start: 49903, Stop: 50130, Start Num: 3  
Candidate Starts for Paella\_83:  
(Start: 3 @49903 has 22 MA's), (7, 49966), (8, 50032),

Gene: Qui\_83 Start: 49903, Stop: 50130, Start Num: 3  
Candidate Starts for Qui\_83:  
(Start: 3 @49903 has 22 MA's), (7, 49966), (8, 50032),

Gene: Stardom\_43 Start: 29832, Stop: 30026, Start Num: 3  
Candidate Starts for Stardom\_43:  
(Start: 1 @29817 has 2 MA's), (Start: 3 @29832 has 22 MA's),

Gene: Sunny4976\_46 Start: 33250, Stop: 33444, Start Num: 2  
Candidate Starts for Sunny4976\_46:  
(2, 33250), (5, 33310),

Gene: Tribby\_46 Start: 30923, Stop: 31117, Start Num: 3  
Candidate Starts for Tribby\_46:  
(Start: 1 @30908 has 2 MA's), (Start: 3 @30923 has 22 MA's),

Gene: Xenomorph\_42 Start: 30634, Stop: 30828, Start Num: 3  
Candidate Starts for Xenomorph\_42:  
(Start: 1 @30619 has 2 MA's), (Start: 3 @30634 has 22 MA's),

Gene: YoshiYama\_46 Start: 31202, Stop: 31405, Start Num: 3  
Candidate Starts for YoshiYama\_46:  
(Start: 3 @31202 has 22 MA's), (6, 31262),