



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 86809 Report

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

Pham number 86809 has 19 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Butterscotch\_47, Prager\_48, Giuseppe\_48, Thoth\_48, Visconti\_49, Mopey\_49, BigMama\_46
- Track 2 : KandZ\_47, WaldoWhy\_50, Gumball\_47, Chill\_50, Penelope2018\_48, PLOT\_48, SirHarley\_49
- Track 3 : Erk16\_47
- Track 4 : Nova\_47
- Track 5 : Delton\_49, Troll4\_48, Helpful\_51

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

The start number called the most often in the published annotations is 2, it was called in 14 of the 18 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BigMama\_46, Butterscotch\_47, Chill\_50, Erk16\_47, Giuseppe\_48, Gumball\_47, KandZ\_47, Mopey\_49, PLOT\_48, Penelope2018\_48, Prager\_48, SirHarley\_49, Thoth\_48, Visconti\_49, WaldoWhy\_50,

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

- Delton\_49, Helpful\_51, Nova\_47, Troll4\_48,

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

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

Start 1:

- Found in 19 of 19 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 4 of 18
- Called 21.1% of time when present
- Phage (with cluster) where this start called: Delton\_49 (D1), Helpful\_51 (D1), Nova\_47 (D1), Troll4\_48 (D1),

Start 2:

- Found in 19 of 19 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 14 of 18
- Called 78.9% of time when present
- Phage (with cluster) where this start called: BigMama\_46 (D1), Butterscotch\_47 (D1), Chill\_50 (D1), Erk16\_47 (D1), Giuseppe\_48 (D1), Gumball\_47 (D1), KandZ\_47 (D1), Mopey\_49 (D1), PLOT\_48 (D1), Penelope2018\_48 (D1), Prager\_48 (D1), SirHarley\_49 (D1), Thoth\_48 (D1), Visconti\_49 (D1), WaldoWhy\_50 (D1),

### **Summary by clusters:**

There is one cluster represented in this pham: D1

Info for manual annotations of cluster D1:

- Start number 1 was manually annotated 4 times for cluster D1.
- Start number 2 was manually annotated 14 times for cluster D1.

### **Gene Information:**

Gene: BigMama\_46 Start: 38225, Stop: 38329, Start Num: 2

Candidate Starts for BigMama\_46:

(Start: 1 @38222 has 4 MA's), (Start: 2 @38225 has 14 MA's),

Gene: Butterscotch\_47 Start: 38209, Stop: 38313, Start Num: 2

Candidate Starts for Butterscotch\_47:

(Start: 1 @38206 has 4 MA's), (Start: 2 @38209 has 14 MA's),

Gene: Chill\_50 Start: 38220, Stop: 38321, Start Num: 2

Candidate Starts for Chill\_50:

(Start: 1 @38217 has 4 MA's), (Start: 2 @38220 has 14 MA's),

Gene: Delton\_49 Start: 38430, Stop: 38534, Start Num: 1

Candidate Starts for Delton\_49:

(Start: 1 @38430 has 4 MA's), (Start: 2 @38433 has 14 MA's), (3, 38514),

Gene: Erk16\_47 Start: 38214, Stop: 38315, Start Num: 2

Candidate Starts for Erk16\_47:

(Start: 1 @38211 has 4 MA's), (Start: 2 @38214 has 14 MA's), (3, 38295),

Gene: Giuseppe\_48 Start: 38198, Stop: 38302, Start Num: 2

Candidate Starts for Giuseppe\_48:

(Start: 1 @38195 has 4 MA's), (Start: 2 @38198 has 14 MA's),

Gene: Gumball\_47 Start: 38373, Stop: 38477, Start Num: 2

Candidate Starts for Gumball\_47:

(Start: 1 @38370 has 4 MA's), (Start: 2 @38373 has 14 MA's),

Gene: Helpful\_51 Start: 38405, Stop: 38509, Start Num: 1

Candidate Starts for Helpful\_51:

(Start: 1 @38405 has 4 MA's), (Start: 2 @38408 has 14 MA's), (3, 38489),

Gene: KandZ\_47 Start: 38307, Stop: 38411, Start Num: 2

Candidate Starts for KandZ\_47:

(Start: 1 @38304 has 4 MA's), (Start: 2 @38307 has 14 MA's),

Gene: Mopey\_49 Start: 38209, Stop: 38313, Start Num: 2

Candidate Starts for Mopey\_49:

(Start: 1 @38206 has 4 MA's), (Start: 2 @38209 has 14 MA's),

Gene: Nova\_47 Start: 38630, Stop: 38737, Start Num: 1

Candidate Starts for Nova\_47:

(Start: 1 @38630 has 4 MA's), (Start: 2 @38633 has 14 MA's),

Gene: PLOT\_48 Start: 38206, Stop: 38310, Start Num: 2

Candidate Starts for PLOT\_48:

(Start: 1 @38203 has 4 MA's), (Start: 2 @38206 has 14 MA's),

Gene: Penelope2018\_48 Start: 38209, Stop: 38313, Start Num: 2

Candidate Starts for Penelope2018\_48:

(Start: 1 @38206 has 4 MA's), (Start: 2 @38209 has 14 MA's),

Gene: Prager\_48 Start: 38229, Stop: 38333, Start Num: 2

Candidate Starts for Prager\_48:

(Start: 1 @38226 has 4 MA's), (Start: 2 @38229 has 14 MA's),

Gene: SirHarley\_49 Start: 38355, Stop: 38459, Start Num: 2

Candidate Starts for SirHarley\_49:

(Start: 1 @38352 has 4 MA's), (Start: 2 @38355 has 14 MA's),

Gene: Thoth\_48 Start: 38207, Stop: 38311, Start Num: 2

Candidate Starts for Thoth\_48:

(Start: 1 @38204 has 4 MA's), (Start: 2 @38207 has 14 MA's),

Gene: Troll4\_48 Start: 38207, Stop: 38311, Start Num: 1

Candidate Starts for Troll4\_48:

(Start: 1 @38207 has 4 MA's), (Start: 2 @38210 has 14 MA's), (3, 38291),

Gene: Visconti\_49 Start: 38219, Stop: 38323, Start Num: 2

Candidate Starts for Visconti\_49:

(Start: 1 @38216 has 4 MA's), (Start: 2 @38219 has 14 MA's),

Gene: WaldoWhy\_50 Start: 38220, Stop: 38321, Start Num: 2

Candidate Starts for WaldoWhy\_50:

(Start: 1 @38217 has 4 MA's), (Start: 2 @38220 has 14 MA's),