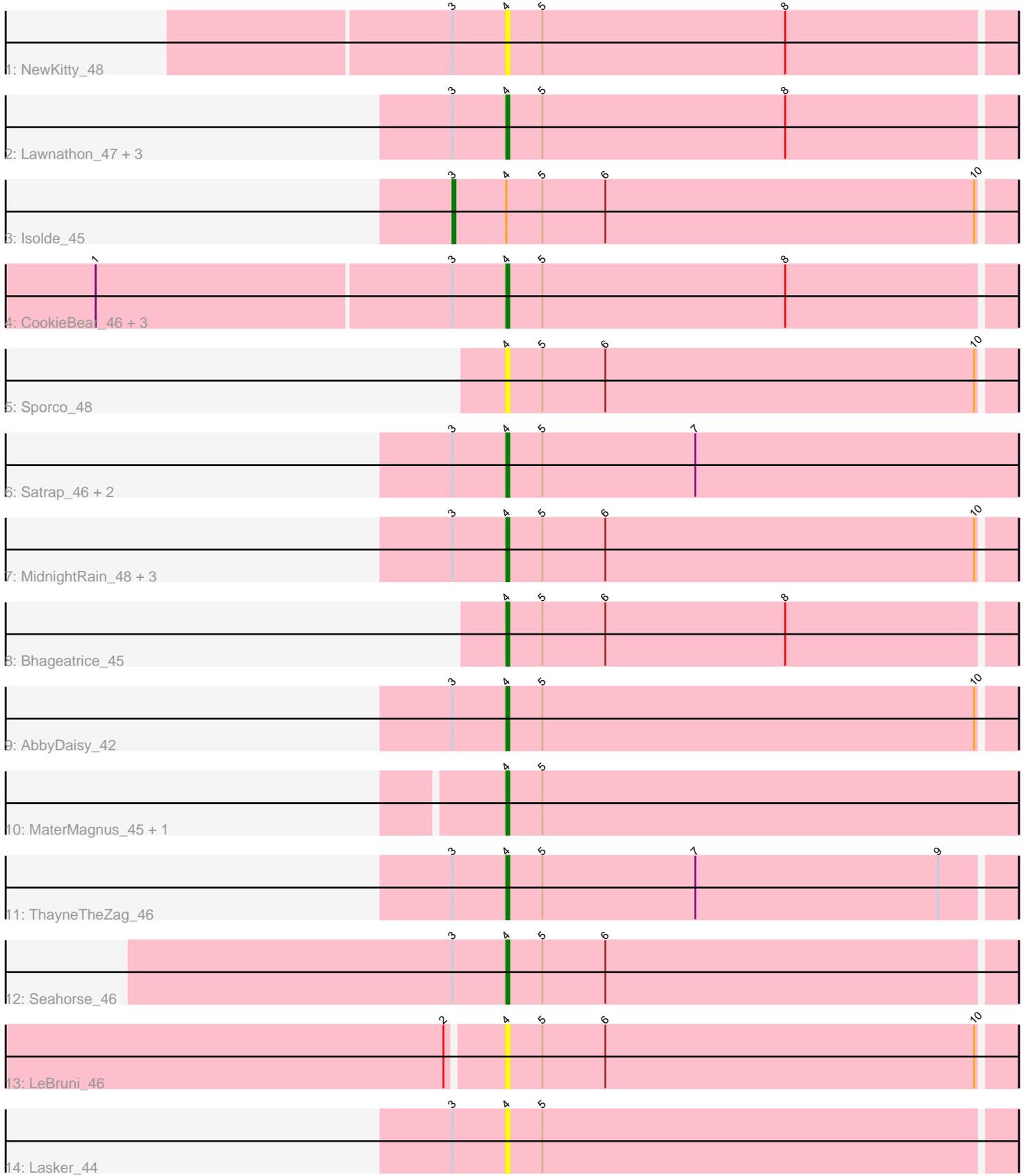


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 289686 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289686 has 26 members, 10 are drafts.

Phages represented in each track:

- Track 1 : NewKitty\_48
- Track 2 : Lawnathon\_47, Hillester\_47, RadFad\_47, SonDevVon\_48
- Track 3 : Isolde\_45
- Track 4 : CookieBear\_46, MUWow\_43, Raqqa\_36, Windest\_46
- Track 5 : Sporco\_48
- Track 6 : Satrap\_46, DarwinJr\_48, AdaS\_40
- Track 7 : MidnightRain\_48, BlueShadow\_45, Mapleville\_43, BillyTP\_48
- Track 8 : Bhageatrice\_45
- Track 9 : AbbyDaisy\_42
- Track 10 : MaterMagnus\_45, Aikyam\_43
- Track 11 : ThayneTheZag\_46
- Track 12 : Seahorse\_46
- Track 13 : LeBruni\_46
- Track 14 : Lasker\_44

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

The start number called the most often in the published annotations is 4, it was called in 15 of the 16 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbyDaisy\_42, AdaS\_40, Aikyam\_43, Bhageatrice\_45, BillyTP\_48, BlueShadow\_45, CookieBear\_46, DarwinJr\_48, Hillester\_47, Lasker\_44, Lawnathon\_47, LeBruni\_46, MUWow\_43, Mapleville\_43, MaterMagnus\_45, MidnightRain\_48, NewKitty\_48, RadFad\_47, Raqqa\_36, Satrap\_46, Seahorse\_46, SonDevVon\_48, Sporco\_48, ThayneTheZag\_46, Windest\_46,

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

- Isolde\_45,

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

- 

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

Start 3:

- Found in 21 of 26 ( 80.8% ) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 4.8% of time when present
- Phage (with cluster) where this start called: Isolde\_45 (AY),

Start 4:

- Found in 26 of 26 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 15 of 16
- Called 96.2% of time when present
- Phage (with cluster) where this start called: AbbyDaisy\_42 (AY), AdaS\_40 (AY), Aikyam\_43 (AY), Bhageatrice\_45 (AY), BillyTP\_48 (AY), BlueShadow\_45 (AY), CookieBear\_46 (AY), DarwinJr\_48 (AY), Hillester\_47 (AY), Lasker\_44 (AY), Lawnathon\_47 (AY), LeBruni\_46 (AY), MUWow\_43 (AY), Mapleville\_43 (AY), MaterMagnus\_45 (AY), MidnightRain\_48 (AY), NewKitty\_48 (AY), RadFad\_47 (AY), Raqqa\_36 (AY), Satrap\_46 (AY), Seahorse\_46 (AY), SonDevVon\_48 (AY), Sporco\_48 (AY), ThayneTheZag\_46 (AY), Windest\_46 (AY),

**Summary by clusters:**

There is one cluster represented in this pham: AY

Info for manual annotations of cluster AY:

- Start number 3 was manually annotated 1 time for cluster AY.
- Start number 4 was manually annotated 15 times for cluster AY.

**Gene Information:**

Gene: AbbyDaisy\_42 Start: 29214, Stop: 29381, Start Num: 4

Candidate Starts for AbbyDaisy\_42:

(Start: 3 @29196 has 1 MA's), (Start: 4 @29214 has 15 MA's), (5, 29226), (10, 29370),

Gene: AdaS\_40 Start: 27614, Stop: 27781, Start Num: 4

Candidate Starts for AdaS\_40:

(Start: 3 @27596 has 1 MA's), (Start: 4 @27614 has 15 MA's), (5, 27626), (7, 27674),

Gene: Aikyam\_43 Start: 27229, Stop: 27399, Start Num: 4

Candidate Starts for Aikyam\_43:

(Start: 4 @27229 has 15 MA's), (5, 27241),

Gene: Bhageatrice\_45 Start: 31017, Stop: 31184, Start Num: 4

Candidate Starts for Bhageatrice\_45:

(Start: 4 @31017 has 15 MA's), (5, 31029), (6, 31050), (8, 31110),

Gene: BillyTP\_48 Start: 30945, Stop: 31112, Start Num: 4

Candidate Starts for BillyTP\_48:

(Start: 3 @30927 has 1 MA's), (Start: 4 @30945 has 15 MA's), (5, 30957), (6, 30978), (10, 31101),

Gene: BlueShadow\_45 Start: 29690, Stop: 29857, Start Num: 4

Candidate Starts for BlueShadow\_45:

(Start: 3 @29672 has 1 MA's), (Start: 4 @29690 has 15 MA's), (5, 29702), (6, 29723), (10, 29846),

Gene: CookieBear\_46 Start: 29567, Stop: 29734, Start Num: 4

Candidate Starts for CookieBear\_46:

(1, 29432), (Start: 3 @29549 has 1 MA's), (Start: 4 @29567 has 15 MA's), (5, 29579), (8, 29660),

Gene: DarwinJr\_48 Start: 30416, Stop: 30586, Start Num: 4

Candidate Starts for DarwinJr\_48:

(Start: 3 @30398 has 1 MA's), (Start: 4 @30416 has 15 MA's), (5, 30428), (7, 30479),

Gene: Hillester\_47 Start: 30177, Stop: 30344, Start Num: 4

Candidate Starts for Hillester\_47:

(Start: 3 @30159 has 1 MA's), (Start: 4 @30177 has 15 MA's), (5, 30189), (8, 30270),

Gene: Isolde\_45 Start: 29500, Stop: 29685, Start Num: 3

Candidate Starts for Isolde\_45:

(Start: 3 @29500 has 1 MA's), (Start: 4 @29518 has 15 MA's), (5, 29530), (6, 29551), (10, 29674),

Gene: Lasker\_44 Start: 29575, Stop: 29742, Start Num: 4

Candidate Starts for Lasker\_44:

(Start: 3 @29557 has 1 MA's), (Start: 4 @29575 has 15 MA's), (5, 29587),

Gene: Lawnathon\_47 Start: 29629, Stop: 29796, Start Num: 4

Candidate Starts for Lawnathon\_47:

(Start: 3 @29611 has 1 MA's), (Start: 4 @29629 has 15 MA's), (5, 29641), (8, 29722),

Gene: LeBruni\_46 Start: 28812, Stop: 28979, Start Num: 4

Candidate Starts for LeBruni\_46:

(2, 28794), (Start: 4 @28812 has 15 MA's), (5, 28824), (6, 28845), (10, 28968),

Gene: MUWow\_43 Start: 29590, Stop: 29757, Start Num: 4

Candidate Starts for MUWow\_43:

(1, 29455), (Start: 3 @29572 has 1 MA's), (Start: 4 @29590 has 15 MA's), (5, 29602), (8, 29683),

Gene: Mapleville\_43 Start: 29342, Stop: 29509, Start Num: 4

Candidate Starts for Mapleville\_43:

(Start: 3 @29324 has 1 MA's), (Start: 4 @29342 has 15 MA's), (5, 29354), (6, 29375), (10, 29498),

Gene: MaterMagnus\_45 Start: 29401, Stop: 29571, Start Num: 4

Candidate Starts for MaterMagnus\_45:

(Start: 4 @29401 has 15 MA's), (5, 29413),

Gene: MidnightRain\_48 Start: 30778, Stop: 30945, Start Num: 4

Candidate Starts for MidnightRain\_48:

(Start: 3 @30760 has 1 MA's), (Start: 4 @30778 has 15 MA's), (5, 30790), (6, 30811), (10, 30934),

Gene: NewKitty\_48 Start: 29537, Stop: 29704, Start Num: 4

Candidate Starts for NewKitty\_48:

(Start: 3 @29519 has 1 MA's), (Start: 4 @29537 has 15 MA's), (5, 29549), (8, 29630),

Gene: RadFad\_47 Start: 30177, Stop: 30344, Start Num: 4

Candidate Starts for RadFad\_47:

(Start: 3 @30159 has 1 MA's), (Start: 4 @30177 has 15 MA's), (5, 30189), (8, 30270),

Gene: Raqqa\_36 Start: 26463, Stop: 26630, Start Num: 4

Candidate Starts for Raqqa\_36:

(1, 26328), (Start: 3 @26445 has 1 MA's), (Start: 4 @26463 has 15 MA's), (5, 26475), (8, 26556),

Gene: Satrap\_46 Start: 29886, Stop: 30056, Start Num: 4

Candidate Starts for Satrap\_46:

(Start: 3 @29868 has 1 MA's), (Start: 4 @29886 has 15 MA's), (5, 29898), (7, 29949),

Gene: Seahorse\_46 Start: 31168, Stop: 31335, Start Num: 4

Candidate Starts for Seahorse\_46:

(Start: 3 @31150 has 1 MA's), (Start: 4 @31168 has 15 MA's), (5, 31180), (6, 31201),

Gene: SonDevVon\_48 Start: 29778, Stop: 29945, Start Num: 4

Candidate Starts for SonDevVon\_48:

(Start: 3 @29760 has 1 MA's), (Start: 4 @29778 has 15 MA's), (5, 29790), (8, 29871),

Gene: Sporco\_48 Start: 29987, Stop: 30154, Start Num: 4

Candidate Starts for Sporco\_48:

(Start: 4 @29987 has 15 MA's), (5, 29999), (6, 30020), (10, 30143),

Gene: ThayneTheZag\_46 Start: 29493, Stop: 29660, Start Num: 4

Candidate Starts for ThayneTheZag\_46:

(Start: 3 @29475 has 1 MA's), (Start: 4 @29493 has 15 MA's), (5, 29505), (7, 29556), (9, 29637),

Gene: Windest\_46 Start: 28518, Stop: 28685, Start Num: 4

Candidate Starts for Windest\_46:

(1, 28383), (Start: 3 @28500 has 1 MA's), (Start: 4 @28518 has 15 MA's), (5, 28530), (8, 28611),