



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 309151 Report

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

Pham number 309151 has 25 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Cucurbita\_102, Bachita\_103, PhinkBoden\_100, Smoothie\_102, Engineer\_102, Lozinak\_101
- Track 2 : Toniann\_103
- Track 3 : Aphelion\_102, Miskis\_95, Dusty\_99
- Track 4 : Abscondus\_100
- Track 5 : WilliamBoone\_103
- Track 6 : Geeche\_100
- Track 7 : Norvs\_103, ClubL\_102
- Track 8 : Culver\_103
- Track 9 : OneUp\_88
- Track 10 : BrutonGaster\_82
- Track 11 : Cardigan\_117, JonJames\_116
- Track 12 : Yvonnetastic\_112
- Track 13 : SpeedDemon\_910, Bantam\_90
- Track 14 : Mollymur\_90
- Track 15 : Daredevil\_80

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

The start number called the most often in the published annotations is 13, it was called in 20 of the 23 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abscondus\_100, Aphelion\_102, Bachita\_103, Bantam\_90, ClubL\_102, Cucurbita\_102, Culver\_103, Daredevil\_80, Dusty\_99, Engineer\_102, Geeche\_100, Lozinak\_101, Miskis\_95, Mollymur\_90, Norvs\_103, OneUp\_88, PhinkBoden\_100, Smoothie\_102, SpeedDemon\_910, Toniann\_103, WilliamBoone\_103,

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

- BrutonGaster\_82,

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

- Cardigan\_117, JonJames\_116, Yvonnetastic\_112,

## Summary by start number:

### Start 10:

- Found in 1 of 25 ( 4.0% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BrutonGaster\_82 (CQ2),

### Start 12:

- Found in 4 of 25 ( 16.0% ) of genes in pham
- Manual Annotations of this start: 2 of 23
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Cardigan\_117 (DD), JonJames\_116 (DD), Yvonnetastic\_112 (DD),

### Start 13:

- Found in 22 of 25 ( 88.0% ) of genes in pham
- Manual Annotations of this start: 20 of 23
- Called 95.5% of time when present
- Phage (with cluster) where this start called: Abscondus\_100 (CQ1), Aphelion\_102 (CQ1), Bachita\_103 (CQ1), Bantam\_90 (DL), ClubL\_102 (CQ1), Cucurbita\_102 (CQ1), Culver\_103 (CQ1), Daredevil\_80 (DL), Dusty\_99 (CQ1), Engineer\_102 (CQ1), Geeche\_100 (CQ1), Lozinak\_101 (CQ1), Miskis\_95 (CQ1), Mollymur\_90 (DL), Norvs\_103 (CQ1), OneUp\_88 (CQ2), PhinkBoden\_100 (CQ1), Smoothie\_102 (CQ1), SpeedDemon\_910 (DL), Toniann\_103 (CQ1), WilliamBoone\_103 (CQ1),

## Summary by clusters:

There are 4 clusters represented in this pham: CQ2, DD, CQ1, DL,

### Info for manual annotations of cluster CQ1:

- Start number 13 was manually annotated 15 times for cluster CQ1.

### Info for manual annotations of cluster CQ2:

- Start number 10 was manually annotated 1 time for cluster CQ2.
- Start number 13 was manually annotated 1 time for cluster CQ2.

### Info for manual annotations of cluster DD:

- Start number 12 was manually annotated 2 times for cluster DD.

### Info for manual annotations of cluster DL:

- Start number 13 was manually annotated 4 times for cluster DL.

## Gene Information:

Gene: Abscondus\_100 Start: 59662, Stop: 59859, Start Num: 13

Candidate Starts for Abscondus\_100:

(3, 59545), (7, 59602), (Start: 13 @59662 has 20 MA's), (17, 59752), (19, 59782),

Gene: Aphelion\_102 Start: 61215, Stop: 61412, Start Num: 13

Candidate Starts for Aphelion\_102:

(2, 61047), (3, 61098), (7, 61155), (Start: 13 @61215 has 20 MA's), (17, 61305), (19, 61335),

Gene: Bachita\_103 Start: 60873, Stop: 61070, Start Num: 13

Candidate Starts for Bachita\_103:

(2, 60705), (3, 60756), (6, 60807), (7, 60813), (Start: 13 @60873 has 20 MA's), (17, 60963), (19, 60993),

Gene: Bantam\_90 Start: 61545, Stop: 61378, Start Num: 13

Candidate Starts for Bantam\_90:

(4, 61641), (8, 61572), (Start: 13 @61545 has 20 MA's),

Gene: BrutonGaster\_82 Start: 54964, Stop: 55164, Start Num: 10

Candidate Starts for BrutonGaster\_82:

(Start: 10 @54964 has 1 MA's), (Start: 13 @54979 has 20 MA's), (14, 55015), (19, 55105),

Gene: Cardigan\_117 Start: 66367, Stop: 66543, Start Num: 12

Candidate Starts for Cardigan\_117:

(11, 66358), (Start: 12 @66367 has 2 MA's), (15, 66412), (18, 66466), (19, 66493), (21, 66520), (22, 66529),

Gene: ClubL\_102 Start: 59803, Stop: 59970, Start Num: 13

Candidate Starts for ClubL\_102:

(Start: 13 @59803 has 20 MA's), (17, 59893), (19, 59923), (20, 59947),

Gene: Cucurbita\_102 Start: 61380, Stop: 61577, Start Num: 13

Candidate Starts for Cucurbita\_102:

(2, 61212), (3, 61263), (6, 61314), (7, 61320), (Start: 13 @61380 has 20 MA's), (17, 61470), (19, 61500),

Gene: Culver\_103 Start: 59702, Stop: 59869, Start Num: 13

Candidate Starts for Culver\_103:

(1, 59138), (2, 59534), (3, 59585), (9, 59687), (Start: 13 @59702 has 20 MA's), (17, 59792), (19, 59822), (20, 59846),

Gene: Daredevil\_80 Start: 57192, Stop: 57028, Start Num: 13

Candidate Starts for Daredevil\_80:

(5, 57261), (Start: 13 @57192 has 20 MA's), (16, 57111),

Gene: Dusty\_99 Start: 59721, Stop: 59918, Start Num: 13

Candidate Starts for Dusty\_99:

(2, 59553), (3, 59604), (7, 59661), (Start: 13 @59721 has 20 MA's), (17, 59811), (19, 59841),

Gene: Engineer\_102 Start: 60846, Stop: 61043, Start Num: 13

Candidate Starts for Engineer\_102:

(2, 60678), (3, 60729), (6, 60780), (7, 60786), (Start: 13 @60846 has 20 MA's), (17, 60936), (19, 60966),

Gene: Geeche\_100 Start: 59944, Stop: 60141, Start Num: 13

Candidate Starts for Geeche\_100:

(2, 59776), (3, 59827), (7, 59884), (Start: 13 @59944 has 20 MA's), (17, 60034), (19, 60064),

Gene: JonJames\_116 Start: 66878, Stop: 67054, Start Num: 12

Candidate Starts for JonJames\_116:

(11, 66869), (Start: 12 @66878 has 2 MA's), (15, 66923), (18, 66977), (19, 67004), (21, 67031), (22, 67040),

Gene: Lozinak\_101 Start: 60684, Stop: 60881, Start Num: 13

Candidate Starts for Lozinak\_101:

(2, 60516), (3, 60567), (6, 60618), (7, 60624), (Start: 13 @60684 has 20 MA's), (17, 60774), (19, 60804),

Gene: Miskis\_95 Start: 59384, Stop: 59581, Start Num: 13

Candidate Starts for Miskis\_95:

(2, 59216), (3, 59267), (7, 59324), (Start: 13 @59384 has 20 MA's), (17, 59474), (19, 59504),

Gene: Mollymur\_90 Start: 62338, Stop: 62171, Start Num: 13

Candidate Starts for Mollymur\_90:

(Start: 12 @62341 has 2 MA's), (Start: 13 @62338 has 20 MA's),

Gene: Norvs\_103 Start: 60711, Stop: 60878, Start Num: 13

Candidate Starts for Norvs\_103:

(Start: 13 @60711 has 20 MA's), (17, 60801), (19, 60831), (20, 60855),

Gene: OneUp\_88 Start: 56848, Stop: 57033, Start Num: 13

Candidate Starts for OneUp\_88:

(Start: 13 @56848 has 20 MA's), (19, 56974),

Gene: PhinkBoden\_100 Start: 60474, Stop: 60671, Start Num: 13

Candidate Starts for PhinkBoden\_100:

(2, 60306), (3, 60357), (6, 60408), (7, 60414), (Start: 13 @60474 has 20 MA's), (17, 60564), (19, 60594),

Gene: Smoothie\_102 Start: 60684, Stop: 60881, Start Num: 13

Candidate Starts for Smoothie\_102:

(2, 60516), (3, 60567), (6, 60618), (7, 60624), (Start: 13 @60684 has 20 MA's), (17, 60774), (19, 60804),

Gene: SpeedDemon\_910 Start: 63466, Stop: 63299, Start Num: 13

Candidate Starts for SpeedDemon\_910:

(4, 63562), (8, 63493), (Start: 13 @63466 has 20 MA's),

Gene: Toniann\_103 Start: 60654, Stop: 60851, Start Num: 13

Candidate Starts for Toniann\_103:

(Start: 13 @60654 has 20 MA's), (17, 60744), (19, 60774),

Gene: WilliamBoone\_103 Start: 59422, Stop: 59619, Start Num: 13

Candidate Starts for WilliamBoone\_103:

(Start: 13 @59422 has 20 MA's), (17, 59512), (19, 59542), (20, 59566), (23, 59590),

Gene: Yvonnetastic\_112 Start: 63521, Stop: 63697, Start Num: 12

Candidate Starts for Yvonnetastic\_112:

(Start: 12 @63521 has 2 MA's), (15, 63566), (18, 63620), (19, 63647), (21, 63674), (22, 63683),