

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 88358 Report

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

Pham number 88358 has 8 members, 6 are drafts.

Phages represented in each track:

Track 1 : Moleficent\_50Track 2 : Astartes\_50

Track 3: TrippleS\_53, Yafa\_51, ThirteenKH\_51

Track 4 : Scruffy\_45Track 5 : Casino\_45Track 6 : Araxxi\_46

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

The start number called the most often in the published annotations is 6, it was called in 1 of the 2 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

Astartes\_50, Moleficent\_50, ThirteenKH\_51, TrippleS\_53, Yafa\_51,

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

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

Araxxi\_46, Casino\_45, Scruffy\_45,

## Summary by start number:

#### Start 5:

- Found in 3 of 8 (37.5%) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Casino\_45 (EM1), Scruffy\_45 (EM1),

### Start 6:

- Found in 5 of 8 (62.5%) of genes in pham
- Manual Annotations of this start: 1 of 2
- Called 100.0% of time when present

• Phage (with cluster) where this start called: Astartes\_50 (EK2), Moleficent\_50 (EK2), ThirteenKH\_51 (EK2), TrippleS\_53 (EK2), Yafa\_51 (EK2),

## Start 7:

- Found in 1 of 8 (12.5%) of genes in pham
- Manual Annotations of this start: 1 of 2
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Araxxi\_46 (EM1),

## **Summary by clusters:**

There are 2 clusters represented in this pham: EM1, EK2,

Info for manual annotations of cluster EK2:

•Start number 6 was manually annotated 1 time for cluster EK2.

Info for manual annotations of cluster EM1:

Start number 7 was manually annotated 1 time for cluster EM1.

### Gene Information:

Gene: Araxxi 46 Start: 50978, Stop: 51667, Start Num: 7

Candidate Starts for Araxxi\_46:

(2, 50558), (4, 50675), (5, 50843), (Start: 7 @50978 has 1 MA's), (9, 51017), (14, 51095), (17, 51194), (19, 51239), (20, 51245), (22, 51344), (23, 51359), (24, 51380), (26, 51401),

Gene: Astartes\_50 Start: 50005, Stop: 50730, Start Num: 6

Candidate Starts for Astartes\_50:

(3, 49621), (Start: 6 @50005 has 1 MA's), (8, 50050), (9, 50077), (11, 50137), (12, 50143), (15, 50218), (16, 50242), (18, 50308), (20, 50317), (25, 50464), (27, 50692), (28, 50698),

Gene: Casino 45 Start: 50541, Stop: 51353, Start Num: 5

Candidate Starts for Casino 45:

(1, 50196), (2, 50256), (4, 50373), (5, 50541), (10, 50745), (14, 50781), (17, 50880), (19, 50925), (20, 50931), (21, 50952), (22, 51030), (23, 51045), (24, 51066), (26, 51087),

Gene: Moleficent 50 Start: 50347, Stop: 51072, Start Num: 6

Candidate Starts for Moleficent 50:

(3, 49963), (Start: 6 @50347 has 1 MA's), (8, 50392), (9, 50419), (11, 50479), (12, 50485), (15, 50560), (18, 50650), (20, 50659), (25, 50806), (27, 51034), (28, 51040),

Gene: Scruffy\_45 Start: 50802, Stop: 51614, Start Num: 5

Candidate Starts for Scruffy\_45:

(1, 50457), (2, 50517), (4, 50634), (5, 50802), (10, 51006), (14, 51042), (17, 51141), (19, 51186), (21, 51213), (22, 51291), (23, 51306), (24, 51327), (26, 51348),

Gene: ThirteenKH 51 Start: 49787, Stop: 50512, Start Num: 6

Candidate Starts for ThirteenKH 51:

(3, 49403), (Start: 6 @49787 has 1 MA's), (8, 49832), (9, 49859), (11, 49919), (12, 49925), (13, 49928), (15, 50000), (16, 50024), (18, 50090), (20, 50099), (25, 50246), (27, 50474), (28, 50480),

Gene: TrippleS\_53 Start: 49936, Stop: 50661, Start Num: 6
Candidate Starts for TrippleS\_53:
(3. 49552) (Start: 6.@49936 has 1. MA's) (8. 49981) (9. 50008) (11. 50068) (12. 500

(3, 49552), (Start: 6 @49936 has 1 MA's), (8, 49981), (9, 50008), (11, 50068), (12, 50074), (13, 50077), (15, 50149), (16, 50173), (18, 50239), (20, 50248), (25, 50395), (27, 50623), (28, 50629),

Gene: Yafa\_51 Start: 49691, Stop: 50416, Start Num: 6 Candidate Starts for Yafa\_51:

(3, 49307), (Start: 6 @49691 has 1 MA's), (8, 49736), (9, 49763), (11, 49823), (12, 49829), (13, 49832), (15, 49904), (16, 49928), (18, 49994), (20, 50003), (25, 50150), (27, 50378), (28, 50384),