

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 98167 Report

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

Pham number 98167 has 9 members, 4 are drafts.

Phages represented in each track:

• Track 1 : GMA5 23

• Track 2 : DonkeyMan\_52, Tarzan\_53

Track 3 : Reyja\_55

Track 4 : Jojo24\_52Track 5 : Mantra 56

Track 5 : Maritra\_50
Track 6 : RedBird 58

• Track 7 : LunaStella 56

• Track 8 : GMA4\_56

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

The start number called the most often in the published annotations is 22, it was called in 3 of the 5 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

DonkeyMan\_52, Jojo24\_52, Reyja\_55, Tarzan\_53,

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

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

• GMA4\_56, GMA5\_23, LunaStella\_56, Mantra\_56, RedBird\_58,

# Summary by start number:

#### Start 19:

- Found in 3 of 9 (33.3%) of genes in pham
- Manual Annotations of this start: 2 of 5
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Mantra\_56 (F1), RedBird\_58 (F1),

### Start 22:

- Found in 4 of 9 (44.4%) of genes in pham
- Manual Annotations of this start: 3 of 5

- Called 100.0% of time when present
- Phage (with cluster) where this start called: DonkeyMan\_52 (DY), Jojo24\_52 (DY), Reyja\_55 (DY), Tarzan\_53 (DY),

#### Start 23:

- Found in 3 of 9 ( 33.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: LunaStella\_56 (F4),

## Start 24:

- Found in 1 of 9 (11.1%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA5\_23 (CW2),

#### Start 25:

- Found in 1 of 9 (11.1%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA4\_56 (singleton),

## Summary by clusters:

There are 5 clusters represented in this pham: F1, singleton, CW2, F4, DY,

Info for manual annotations of cluster DY:

•Start number 22 was manually annotated 3 times for cluster DY.

Info for manual annotations of cluster F1:

•Start number 19 was manually annotated 2 times for cluster F1.

### Gene Information:

Gene: DonkeyMan\_52 Start: 34757, Stop: 34960, Start Num: 22

Candidate Starts for DonkeyMan\_52:

(1, 34253), (2, 34328), (3, 34379), (4, 34469), (13, 34679), (14, 34682), (Start: 22 @ 34757 has 3 MA's), (31, 34883), (33, 34943),

Gene: GMA4\_56 Start: 35967, Stop: 36167, Start Num: 25

Candidate Starts for GMA4\_56:

(17, 35922), (21, 35940), (25, 35967), (31, 36072),

Gene: GMA5 23 Start: 15324, Stop: 15518, Start Num: 24

Candidate Starts for GMA5 23:

(24, 15324), (28, 15357), (31, 15423), (32, 15432),

Gene: Jojo24 52 Start: 34059, Stop: 34259, Start Num: 22

Candidate Starts for Jojo24\_52:

(5, 33852), (13, 33981), (14, 33984), (Start: 22 @34059 has 3 MA's), (30, 34164), (31, 34182), (33, 34242),

Gene: LunaStella\_56 Start: 39829, Stop: 40047, Start Num: 23

Candidate Starts for LunaStella\_56:

(7, 39682), (9, 39715), (11, 39733), (15, 39772), (16, 39775), (Start: 19 @39796 has 2 MA's), (20, 39805), (23, 39829), (27, 39856), (28, 39889), (29, 39931), (30, 39937), (34, 40033),

Gene: Mantra\_56 Start: 39272, Stop: 39523, Start Num: 19

Candidate Starts for Mantra\_56:

(7, 39158), (9, 39191), (10, 39206), (11, 39209), (15, 39248), (16, 39251), (Start: 19 @ 39272 has 2 MA's), (23, 39305), (26, 39326), (27, 39332), (28, 39365), (29, 39407), (30, 39413), (34, 39509),

Gene: RedBird\_58 Start: 39602, Stop: 39850, Start Num: 19

Candidate Starts for RedBird\_58:

(6, 39425), (8, 39494), (12, 39545), (14, 39557), (18, 39599), (Start: 19 @39602 has 2 MA's), (23, 39632), (27, 39659), (28, 39692), (29, 39734), (30, 39740), (34, 39836),

Gene: Reyja\_55 Start: 35345, Stop: 35551, Start Num: 22

Candidate Starts for Reyja\_55:

(5, 35138), (13, 35267), (14, 35270), (Start: 22 @35345 has 3 MA's), (31, 35474), (32, 35483), (33, 35534),

Gene: Tarzan\_53 Start: 34012, Stop: 34215, Start Num: 22

Candidate Starts for Tarzan 53:

(1, 33508), (2, 33583), (3, 33634), (4, 33724), (13, 33934), (14, 33937), (Start: 22 @ 34012 has 3 MA's), (31, 34138), (33, 34198),