

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 87991 Report

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

Pham number 87991 has 9 members, 4 are drafts.

Phages represented in each track:

Track 1 : DunneganBoMo 209

Track 2 : Hum25\_75

Track 3 : Pitbull\_77

Track 4: WaterT\_15

Track 5 : Lifes\_14, Cassita\_16

• Track 6 : LeeroyJenkins\_16

Track 7 : BarnCat\_13

Track 8 : Pumpernickel\_135

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

The start number called the most often in the published annotations is 1, it was called in 3 of the 5 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• DunneganBoMo\_209, Hum25\_75, LeeroyJenkins\_16, Pitbull\_77, Pumpernickel\_135, WaterT\_15,

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

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

BarnCat\_13, Cassita\_16, Lifes\_14,

### Summary by start number:

#### Start 1:

- Found in 6 of 9 (66.7%) 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: DunneganBoMo\_209 (FC), Hum25\_75 (FQ), LeeroyJenkins\_16 (GB), Pitbull\_77 (FQ), Pumpernickel\_135 (GD4), WaterT\_15 (GB),

#### Start 3:

- Found in 7 of 9 (77.8%) of genes in pham
- Manual Annotations of this start: 2 of 5
- Called 42.9% of time when present
- Phage (with cluster) where this start called: BarnCat\_13 (GB), Cassita\_16 (GB), Lifes\_14 (GB),

# **Summary by clusters:**

There are 4 clusters represented in this pham: FQ, FC, GD4, GB,

Info for manual annotations of cluster GB:

- •Start number 1 was manually annotated 2 times for cluster GB.
- •Start number 3 was manually annotated 2 times for cluster GB.

Info for manual annotations of cluster GD4:

•Start number 1 was manually annotated 1 time for cluster GD4.

### Gene Information:

Gene: BarnCat\_13 Start: 4305, Stop: 4799, Start Num: 3

Candidate Starts for BarnCat 13:

(Start: 3 @4305 has 2 MA's), (6, 4371), (11, 4530), (14, 4602), (17, 4650), (19, 4707), (21, 4755), (22, 4788),

Gene: Cassita\_16 Start: 4963, Stop: 5457, Start Num: 3

Candidate Starts for Cassita\_16:

(Start: 3 @4963 has 2 MA's), (5, 5026), (6, 5029), (11, 5188), (14, 5260), (17, 5308), (19, 5365), (21, 5413), (22, 5446),

Gene: DunneganBoMo 209 Start: 146492, Stop: 147016, Start Num: 1

Candidate Starts for DunneganBoMo\_209:

(Start: 1 @146492 has 3 MA's), (7, 146609), (8, 146621), (13, 146783),

Gene: Hum25 75 Start: 41016, Stop: 41543, Start Num: 1

Candidate Starts for Hum25 75:

(Start: 1 @41016 has 3 MA's), (2, 41043), (Start: 3 @41052 has 2 MA's), (9, 41232), (10, 41247), (12, 41283), (13, 41313), (16, 41352), (20, 41451),

Gene: LeeroyJenkins\_16 Start: 4748, Stop: 5278, Start Num: 1

Candidate Starts for LeeroyJenkins\_16:

(Start: 1 @4748 has 3 MA's), (Start: 3 @4784 has 2 MA's), (6, 4850), (11, 5009), (14, 5081), (17, 5129), (19, 5186), (21, 5234), (22, 5267),

Gene: Lifes 14 Start: 4336, Stop: 4830, Start Num: 3

Candidate Starts for Lifes 14:

(Start: 3 @4336 has 2 MA's), (5, 4399), (6, 4402), (11, 4561), (14, 4633), (17, 4681), (19, 4738), (21, 4786), (22, 4819),

Gene: Pitbull\_77 Start: 40445, Stop: 40972, Start Num: 1

Candidate Starts for Pitbull\_77:

(Start: 1 @40445 has 3 MA's), (Start: 3 @40481 has 2 MA's), (9, 40661), (12, 40712), (13, 40742), (16, 40781), (20, 40880),

Gene: Pumpernickel\_135 Start: 88181, Stop: 88720, Start Num: 1

Candidate Starts for Pumpernickel\_135:

(Start: 1 @88181 has 3 MA's), (4, 88271), (15, 88493), (18, 88577),

Gene: WaterT\_15 Start: 4574, Stop: 5104, Start Num: 1

Candidate Starts for WaterT\_15:

 $(Start: 1 @ 4574 \ has \ 3 \ MA's), \ (Start: 3 @ 4610 \ has \ 2 \ MA's), \ (5, 4673), \ (6, 4676), \ (11, 4835), \ (14, 4907)$ 

(17, 4955), (19, 5012), (21, 5060), (22, 5093),