

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 87212 Report

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

Pham number 87212 has 13 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Peterson\_2, JC27\_3
- Track 2 : Beagle\_85
- Track 3 : Sujidade\_67
- Track 4 : Rana 56
- Track 5 : Sujidade 57
- Track 6 : Dattran 68
- Track 7 : Hank144 61
- Track 8 : Sting\_89, Soos\_84
- Track 9 : DonTron 87
- Track 10 : Pinnie 1
- Track 11 : Mercurio 1

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

The start number called the most often in the published annotations is 16, it was called in 2 of the 11 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

JC27 3, Peterson 2,

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

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

• Beagle\_85, Dattran\_68, DonTron\_87, Hank144\_61, Mercurio\_1, Pinnie\_1, Rana\_56, Soos\_84, Sting\_89, Sujidade\_57, Sujidade\_67,

# Summary by start number:

### Start 10:

- Found in 3 of 13 (23.1%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: DonTron\_87 (CP),

#### Start 13:

- Found in 5 of 13 (38.5%) of genes in pham
- Manual Annotations of this start: 1 of 11
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Soos\_84 (CP), Sting\_89 (CP),

# Start 15:

- Found in 1 of 13 (7.7%) of genes in pham
- Manual Annotations of this start: 1 of 11
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beagle\_85 (AP2),

### Start 16:

- Found in 2 of 13 (15.4%) of genes in pham
- Manual Annotations of this start: 2 of 11
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JC27 3 (A1), Peterson 2 (A1),

### Start 17:

- Found in 1 of 13 (7.7%) of genes in pham
- Manual Annotations of this start: 1 of 11
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sujidade\_57 (BD1),

# Start 18:

- Found in 1 of 13 (7.7%) of genes in pham
- Manual Annotations of this start: 1 of 11
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pinnie\_1 (G3),

#### Start 19:

- Found in 2 of 13 (15.4%) of genes in pham
- Manual Annotations of this start: 1 of 11
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Sujidade\_67 (BD1),

#### Start 20:

- Found in 1 of 13 (7.7%) of genes in pham
- Manual Annotations of this start: 1 of 11
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rana\_56 (BD1),

### Start 22:

- Found in 1 of 13 (7.7%) of genes in pham
- Manual Annotations of this start: 1 of 11
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mercurio 1 (G4),

### Start 24:

- Found in 2 of 13 (15.4%) of genes in pham
- Manual Annotations of this start: 1 of 11
- Called 50.0% of time when present

Phage (with cluster) where this start called: Dattran\_68 (BD1),

Start 26:

- Found in 1 of 13 (7.7%) of genes in pham
- Manual Annotations of this start: 1 of 11
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hank144\_61 (BD2),

# **Summary by clusters:**

There are 7 clusters represented in this pham: G4, G3, AP2, A1, BD1, BD2, CP,

Info for manual annotations of cluster A1:

•Start number 16 was manually annotated 2 times for cluster A1.

Info for manual annotations of cluster AP2:

•Start number 15 was manually annotated 1 time for cluster AP2.

Info for manual annotations of cluster BD1:

- •Start number 17 was manually annotated 1 time for cluster BD1.
- •Start number 19 was manually annotated 1 time for cluster BD1.
- •Start number 20 was manually annotated 1 time for cluster BD1.
- •Start number 24 was manually annotated 1 time for cluster BD1.

Info for manual annotations of cluster BD2:

•Start number 26 was manually annotated 1 time for cluster BD2.

Info for manual annotations of cluster CP:

•Start number 13 was manually annotated 1 time for cluster CP.

Info for manual annotations of cluster G3:

•Start number 18 was manually annotated 1 time for cluster G3.

Info for manual annotations of cluster G4:

•Start number 22 was manually annotated 1 time for cluster G4.

# Gene Information:

Gene: Beagle 85 Start: 50263, Stop: 49775, Start Num: 15

Candidate Starts for Beagle 85:

(1, 50536), (2, 50506), (3, 50440), (4, 50434), (5, 50425), (9, 50347), (11, 50317), (Start: 15 @50263 has 1 MA's), (31, 50113), (44, 49978), (51, 49855), (53, 49831), (54, 49807),

Gene: Dattran 68 Start: 45865, Stop: 45455, Start Num: 24

Candidate Starts for Dattran 68:

(Start: 19 @45901 has 1 MA's), (Start: 24 @45865 has 1 MA's), (32, 45787), (33, 45778), (34, 45763), (35, 45760), (41, 45676), (56, 45466),

Gene: DonTron 87 Start: 56572, Stop: 57099, Start Num: 10

Candidate Starts for DonTron 87:

(7, 56518), (10, 56572), (Start: 13 @56608 has 1 MA's), (33, 56797), (37, 56830), (38, 56839), (41, 56902), (52, 57052), (54, 57082), (55, 57091),

Gene: Hank144\_61 Start: 41838, Stop: 41452, Start Num: 26

Candidate Starts for Hank144\_61:

(Start: 26 @41838 has 1 MA's), (27, 41832), (34, 41751), (42, 41670), (43, 41664), (45, 41625),

Gene: JC27\_3 Start: 1139, Stop: 1612, Start Num: 16

Candidate Starts for JC27\_3:

(Start: 16 @1139 has 2 MA's), (36, 1331), (39, 1346), (47, 1481), (50, 1523), (53, 1556), (57, 1601),

Gene: Mercurio 1 Start: 275, Stop: 700, Start Num: 22

Candidate Starts for Mercurio\_1:

(6, 56), (8, 104), (12, 161), (Start: 13 @185 has 1 MA's), (Start: 22 @275 has 1 MA's), (23, 281), (28, 341), (30, 347), (40, 452), (48, 578), (58, 695),

Gene: Peterson\_2 Start: 990, Stop: 1463, Start Num: 16

Candidate Starts for Peterson\_2:

(Start: 16 @990 has 2 MA's), (36, 1182), (39, 1197), (47, 1332), (50, 1374), (53, 1407), (57, 1452),

Gene: Pinnie\_1 Start: 56, Stop: 520, Start Num: 18

Candidate Starts for Pinnie\_1:

(Start: 18 @56 has 1 MA's), (23, 89), (25, 113), (40, 260),

Gene: Rana\_56 Start: 41917, Stop: 41495, Start Num: 20

Candidate Starts for Rana\_56:

(Start: 13 @41995 has 1 MA's), (14, 41986), (Start: 20 @41917 has 1 MA's), (21, 41908), (29, 41836), (45, 41668), (49, 41581),

Gene: Soos\_84 Start: 55934, Stop: 56425, Start Num: 13

Candidate Starts for Soos\_84:

(7, 55844), (10, 55898), (Start: 13 @55934 has 1 MA's), (33, 56123), (37, 56156), (38, 56165), (41, 56228), (52, 56378), (54, 56408), (55, 56417),

Gene: Sting\_89 Start: 56373, Stop: 56864, Start Num: 13

Candidate Starts for Sting\_89:

(7, 56283), (10, 56337), (Start: 13 @56373 has 1 MA's), (33, 56562), (37, 56595), (38, 56604), (41, 56667), (52, 56817), (54, 56847), (55, 56856),

Gene: Sujidade\_67 Start: 46444, Stop: 45998, Start Num: 19

Candidate Starts for Sujidade\_67:

(Start: 19 @46444 has 1 MA's), (Start: 24 @46408 has 1 MA's), (32, 46330), (33, 46321), (34, 46306), (35, 46303), (41, 46219), (56, 46009),

Gene: Sujidade 57 Start: 42775, Stop: 42293, Start Num: 17

Candidate Starts for Sujidade\_57:

(Start: 17 @42775 has 1 MA's), (27, 42700), (32, 42646), (44, 42523), (45, 42484), (46, 42463),