

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 163900 Report

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

Pham number 163900 has 24 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Dalilpop 6
- Track 2 : GRU1\_89, Flapper\_6
- Track 3 : GTE5\_88
- Track 4: Turuncu 6
- Track 5 : Patio\_7
- Track 6 : Lollipop1437\_6, Float294\_6, Skysand\_6, Ennea\_6
- Track 7 : Pleakley 5, Fury 5
- Track 8 : SketchMex\_38, Biskit\_40
- Track 9: Mayweather 43, Lauer 36
- Track 10 : Troje 40
- Track 11 : ChérryonLim 41
- Track 12 : GenevaB15\_59, Aziz\_59
- Track 13: MrMagoo\_61, GardenSalsa\_61
- Track 14 : Estes\_61
- Track 15 : Rey\_60

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

The start number called the most often in the published annotations is 9, it was called in 7 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Dalilpop\_6, Ennea\_6, Flapper\_6, Float294\_6, GRU1\_89, Lollipop1437\_6, Patio\_7, Skysand 6.

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

• GTE5\_88, Turuncu\_6,

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

• Aziz\_59, Biskit\_40, CherryonLim\_41, Estes\_61, Fury\_5, GardenSalsa\_61, GenevaB15\_59, Lauer\_36, Mayweather\_43, MrMagoo\_61, Pleakley\_5, Rey\_60, SketchMex\_38, Troje\_40,

# Summary by start number:

#### Start 4:

- Found in 6 of 24 (25.0%) of genes in pham
- Manual Annotations of this start: 6 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aziz\_59 (M2), Estes\_61 (M2), GardenSalsa\_61 (M2), GenevaB15\_59 (M2), MrMagoo\_61 (M2), Rey\_60 (M2),

#### Start 5:

- Found in 2 of 24 (8.3%) of genes in pham
- Manual Annotations of this start: 2 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fury\_5 (CR5), Pleakley\_5 (CR5),

# Start 6:

- Found in 1 of 24 (4.2%) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Troje\_40 (CT),

#### Start 8:

- Found in 3 of 24 (12.5%) of genes in pham
- Manual Annotations of this start: 3 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryonLim\_41 (CT), Lauer\_36 (CT), Mayweather\_43 (CT),

#### Start 9:

- Found in 10 of 24 (41.7%) of genes in pham
- Manual Annotations of this start: 7 of 22
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Dalilpop\_6 (CR1), Ennea\_6 (CR3), Flapper\_6 (CR1), Float294\_6 (CR3), GRU1\_89 (CR1), Lollipop1437\_6 (CR3), Patio\_7 (CR3), Skysand\_6 (CR3),

#### Start 11:

- Found in 8 of 24 (33.3%) of genes in pham
- Manual Annotations of this start: 3 of 22
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Biskit\_40 (CT), GTE5\_88 (CR1), SketchMex\_38 (CT), Turuncu\_6 (CR1),

# **Summary by clusters:**

There are 5 clusters represented in this pham: CR3, CT, CR1, CR5, M2,

Info for manual annotations of cluster CR1:

- •Start number 9 was manually annotated 2 times for cluster CR1.
- Start number 11 was manually annotated 1 time for cluster CR1.

# Info for manual annotations of cluster CR3:

•Start number 9 was manually annotated 5 times for cluster CR3.

Info for manual annotations of cluster CR5:

•Start number 5 was manually annotated 2 times for cluster CR5.

Info for manual annotations of cluster CT:

- Start number 6 was manually annotated 1 time for cluster CT.
- •Start number 8 was manually annotated 3 times for cluster CT.
- •Start number 11 was manually annotated 2 times for cluster CT.

Info for manual annotations of cluster M2:

•Start number 4 was manually annotated 6 times for cluster M2.

#### Gene Information:

Gene: Aziz\_59 Start: 40149, Stop: 40421, Start Num: 4

Candidate Starts for Aziz 59:

(2, 40026), (Start: 4 @ 40149 has 6 MA's), (12, 40212), (18, 40269), (21, 40320), (29, 40380),

Gene: Biskit\_40 Start: 27315, Stop: 27118, Start Num: 11

Candidate Starts for Biskit\_40:

(Start: 11 @27315 has 3 MA's), (16, 27267), (19, 27237), (20, 27219), (21, 27213), (23, 27189), (28, 27165), (31, 27147), (33, 27129),

Gene: CherryonLim\_41 Start: 29932, Stop: 29723, Start Num: 8

Candidate Starts for CherryonLim 41:

(7, 29935), (Start: 8 @29932 has 3 MA's), (13, 29896), (15, 29875), (17, 29863), (25, 29773), (27, 29764), (29, 29749),

Gene: Dalilpop 6 Start: 4569, Stop: 4790, Start Num: 9

Candidate Starts for Dalilpop\_6:

(Start: 9 @4569 has 7 MA's), (Start: 11 @4581 has 3 MA's), (14, 4617), (26, 4728), (29, 4746), (30, 4749),

Gene: Ennea 6 Start: 4376, Stop: 4606, Start Num: 9

Candidate Starts for Ennea\_6:

(Start: 9 @ 4376 has 7 MA's), (21, 4490), (22, 4496), (24, 4520), (26, 4535), (30, 4556),

Gene: Estes 61 Start: 40406, Stop: 40678, Start Num: 4

Candidate Starts for Estes 61:

(1, 40280), (2, 40283), (Start: 4 @ 40406 has 6 MA's), (12, 40469), (18, 40526), (21, 40577), (24, 40604), (29, 40637),

Gene: Flapper\_6 Start: 3864, Stop: 4085, Start Num: 9

Candidate Starts for Flapper\_6:

(Start: 9 @3864 has 7 MA's), (Start: 11 @3876 has 3 MA's), (14, 3912), (26, 4023), (30, 4044),

Gene: Float294\_6 Start: 4362, Stop: 4592, Start Num: 9

Candidate Starts for Float294 6:

(Start: 9 @ 4362 has 7 MA's), (21, 4476), (22, 4482), (24, 4506), (26, 4521), (30, 4542),

Gene: Fury 5 Start: 2948, Stop: 3193, Start Num: 5

Candidate Starts for Fury\_5:

(3, 2900), (Start: 5 @2948 has 2 MA's), (10, 2972), (20, 3077), (21, 3083), (32, 3155),

Gene: GRU1\_89 Start: 62882, Stop: 63103, Start Num: 9

Candidate Starts for GRU1\_89:

(Start: 9 @62882 has 7 MA's), (Start: 11 @62894 has 3 MA's), (14, 62930), (26, 63041), (30, 63062),

Gene: GTE5\_88 Start: 63789, Stop: 63998, Start Num: 11

Candidate Starts for GTE5 88:

(Start: 9 @63777 has 7 MA's), (Start: 11 @63789 has 3 MA's), (14, 63825), (26, 63936), (30, 63957),

Gene: GardenSalsa\_61 Start: 40556, Stop: 40828, Start Num: 4

Candidate Starts for GardenSalsa 61:

(2, 40433), (Start: 4 @40556 has 6 MA's), (12, 40619), (18, 40676), (21, 40727), (24, 40754), (29, 40787),

Gene: GenevaB15\_59 Start: 40149, Stop: 40421, Start Num: 4

Candidate Starts for GenevaB15 59:

(2, 40026), (Start: 4 @ 40149 has 6 MA's), (12, 40212), (18, 40269), (21, 40320), (29, 40380),

Gene: Lauer\_36 Start: 29997, Stop: 29788, Start Num: 8

Candidate Starts for Lauer 36:

(7, 30000), (Start: 8 @29997 has 3 MA's), (13, 29961), (15, 29940), (17, 29928), (25, 29838), (27, 29829), (29, 29814),

Gene: Lollipop1437\_6 Start: 4364, Stop: 4594, Start Num: 9

Candidate Starts for Lollipop1437\_6:

(Start: 9 @ 4364 has 7 MA's), (21, 4478), (22, 4484), (24, 4508), (26, 4523), (30, 4544),

Gene: Mayweather\_43 Start: 29791, Stop: 29582, Start Num: 8

Candidate Starts for Mayweather\_43:

(7, 29794), (Start: 8 @29791 has 3 MA's), (13, 29755), (15, 29734), (17, 29722), (25, 29632), (27, 29623), (29, 29608),

Gene: MrMagoo 61 Start: 40556, Stop: 40828, Start Num: 4

Candidate Starts for MrMagoo\_61:

(2, 40433), (Start: 4 @ 40556 has 6 MA's), (12, 40619), (18, 40676), (21, 40727), (24, 40754), (29, 40787),

Gene: Patio\_7 Start: 5032, Stop: 5262, Start Num: 9

Candidate Starts for Patio\_7:

(Start: 9 @5032 has 7 MA's), (21, 5146), (22, 5152), (23, 5173), (24, 5176), (26, 5191), (30, 5212),

Gene: Pleakley\_5 Start: 2948, Stop: 3193, Start Num: 5

Candidate Starts for Pleakley 5:

(3, 2900), (Start: 5 @2948 has 2 MA's), (10, 2972), (20, 3077), (21, 3083), (32, 3155),

Gene: Rey\_60 Start: 40431, Stop: 40703, Start Num: 4

Candidate Starts for Rev 60:

(2, 40308), (Start: 4 @ 40431 has 6 MA's), (12, 40494), (18, 40551), (21, 40602),

Gene: SketchMex\_38 Start: 27315, Stop: 27118, Start Num: 11

Candidate Starts for SketchMex 38:

(Start: 11 @27315 has 3 MA's), (16, 27267), (19, 27237), (20, 27219), (21, 27213), (23, 27189), (28, 27165), (31, 27147), (33, 27129),

Gene: Skysand\_6 Start: 4364, Stop: 4594, Start Num: 9

Candidate Starts for Skysand\_6:

(Start: 9 @ 4364 has 7 MA's), (21, 4478), (22, 4484), (24, 4508), (26, 4523), (30, 4544),

Gene: Troje\_40 Start: 27694, Stop: 27467, Start Num: 6

Candidate Starts for Troje\_40:

(Start: 6 @27694 has 1 MA's), (Start: 11 @27664 has 3 MA's), (16, 27616), (19, 27586), (20, 27568), (21, 27562), (23, 27538), (28, 27514), (31, 27496),

Gene: Turuncu\_6 Start: 3772, Stop: 3981, Start Num: 11

Candidate Starts for Turuncu\_6:

(Start: 9 @3760 has 7 MA's), (Start: 11 @3772 has 3 MA's), (14, 3808), (26, 3919), (29, 3937), (30, 3940),