

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 216550 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216550 has 22 members, 13 are drafts.

Phages represented in each track:

- Track 1 : Faja 49
- Track 2: Lawnathon 49
- Track 3: Hillester\_50, RadFad\_50
- Track 4: Bhageatrice 49
- Track 5 : Globfish 48
- Track 6 : Vopal\_51
- Track 7: ThayneTheZag 49, SpicyFrank 51
- Track 8: AdaS 45
- Track 9: MaterMagnus\_48, Aikyam\_46
- Track 10 : ThayneTheZag 65
- Track 11 : BenchScraper 47
- Track 12 : MidnightRain 50
- Track 13 : Sarge\_44Track 14 : TripleJ\_73
- Track 15 : Bauer 58
- Track 16: Zucker 38
- Track 17 : Pitbull\_70
- Track 18: Altostratus 32
- Track 19 : Khuang\_35

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

The start number called the most often in the published annotations is 5, it was called in 4 of the 9 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

 Aikyam\_46, BenchScraper\_47, Hillester\_50, Lawnathon\_49, MaterMagnus\_48, Pitbull\_70, RadFad\_50, Vopal\_51, Zucker\_38,

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

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

• AdaS\_45, Altostratus\_32, Bauer\_58, Bhageatrice\_49, Faja\_49, Globfish\_48, Khuang\_35, MidnightRain\_50, Sarge\_44, SpicyFrank\_51, ThayneTheZag\_49, ThayneTheZag\_65, TripleJ\_73,

## **Summary by start number:**

#### Start 4:

- Found in 1 of 22 (4.5%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Altostratus\_32 (FS),

#### Start 5:

- Found in 9 of 22 (40.9%) of genes in pham
- Manual Annotations of this start: 4 of 9
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aikyam\_46 (AY), BenchScraper\_47 (AY), Hillester\_50 (AY), Lawnathon\_49 (AY), MaterMagnus\_48 (AY), Pitbull\_70 (FQ), RadFad\_50 (AY), Vopal\_51 (AY), Zucker\_38 (FN),

#### Start 9:

- Found in 1 of 22 (4.5%) of genes in pham
- Manual Annotations of this start: 1 of 9
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MidnightRain\_50 (AY),

#### Start 14:

- Found in 10 of 22 (45.5%) of genes in pham
- Manual Annotations of this start: 3 of 9
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AdaS\_45 (AY), Bauer\_58 (FN), Bhageatrice\_49 (AY), Faja\_49 (AY), Globfish\_48 (AY), Khuang\_35 (FS), SpicyFrank\_51 (AY), ThayneTheZag\_49 (AY), ThayneTheZag\_65 (AY), TripleJ\_73 (FJ),

#### Start 21:

- Found in 2 of 22 (9.1%) of genes in pham
- Manual Annotations of this start: 1 of 9
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Sarge\_44 (FB),

## **Summary by clusters:**

There are 6 clusters represented in this pham: FQ, FS, FB, AY, FJ, FN,

Info for manual annotations of cluster AY:

- •Start number 5 was manually annotated 2 times for cluster AY.
- •Start number 9 was manually annotated 1 time for cluster AY.
- Start number 14 was manually annotated 1 time for cluster AY.

## Info for manual annotations of cluster FB:

•Start number 21 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster FJ:

•Start number 14 was manually annotated 1 time for cluster FJ.

Info for manual annotations of cluster FN:

- •Start number 5 was manually annotated 1 time for cluster FN.
- •Start number 14 was manually annotated 1 time for cluster FN.

Info for manual annotations of cluster FQ:

•Start number 5 was manually annotated 1 time for cluster FQ.

#### Gene Information:

Gene: AdaS\_45 Start: 28504, Stop: 28803, Start Num: 14

Candidate Starts for AdaS 45:

(Start: 14 @28504 has 3 MA's), (16, 28513), (38, 28687), (45, 28753),

Gene: Aikyam\_46 Start: 27868, Stop: 28284, Start Num: 5

Candidate Starts for Aikyam\_46:

(Start: 5 @ 27868 has 4 MA's), (6, 27877), (16, 27982), (38, 28168), (45, 28234),

Gene: Altostratus\_32 Start: 24188, Stop: 23673, Start Num: 4

Candidate Starts for Altostratus 32:

(4, 24188), (28, 23936), (38, 23789), (45, 23723),

Gene: Bauer\_58 Start: 32955, Stop: 33227, Start Num: 14

Candidate Starts for Bauer\_58:

(Start: 14 @32955 has 3 MA's), (16, 32964), (20, 32997), (32, 33093), (39, 33135), (46, 33198), (47, 33207), (48, 33210),

Gene: BenchScraper 47 Start: 29609, Stop: 30001, Start Num: 5

Candidate Starts for BenchScraper 47:

(2, 29546), (Start: 5 @ 29609 has 4 MA's), (8, 29678), (17, 29732), (42, 29927), (44, 29945),

Gene: Bhageatrice\_49 Start: 31728, Stop: 32027, Start Num: 14

Candidate Starts for Bhageatrice\_49:

(Start: 14 @31728 has 3 MA's), (16, 31737), (20, 31770), (38, 31911), (45, 31977), (48, 32010),

Gene: Faja 49 Start: 31772, Stop: 32071, Start Num: 14

Candidate Starts for Faja 49:

(7, 31706), (10, 31736), (Start: 14 @ 31772 has 3 MA's), (16, 31781), (33, 31919), (38, 31955), (45, 32021),

Gene: Globfish\_48 Start: 30153, Stop: 30452, Start Num: 14

Candidate Starts for Globfish\_48:

(Start: 14 @30153 has 3 MA's), (16, 30162), (38, 30336), (45, 30402),

Gene: Hillester 50 Start: 30882, Stop: 31274, Start Num: 5

Candidate Starts for Hillester 50:

(Start: 5 @ 30882 has 4 MA's), (6, 30891), (8, 30951), (17, 31005), (42, 31200), (44, 31218),

Gene: Khuang\_35 Start: 24689, Stop: 24417, Start Num: 14

Candidate Starts for Khuang\_35:

(Start: 14 @24689 has 3 MA's), (16, 24680), (32, 24551), (39, 24509), (46, 24446), (47, 24437), (48, 24434),

Gene: Lawnathon\_49 Start: 30170, Stop: 30592, Start Num: 5

Candidate Starts for Lawnathon\_49:

(1, 30101), (Start: 5 @30170 has 4 MA's), (6, 30179), (23, 30359), (25, 30365), (26, 30371), (38, 30476), (45, 30542),

Gene: MaterMagnus\_48 Start: 30040, Stop: 30456, Start Num: 5

Candidate Starts for MaterMagnus 48:

(Start: 5 @ 30040 has 4 MA's), (6, 30049), (16, 30154), (38, 30340), (45, 30406),

Gene: MidnightRain\_50 Start: 31295, Stop: 31621, Start Num: 9

Candidate Starts for MidnightRain\_50:

(Start: 9 @31295 has 1 MA's), (11, 31304), (Start: 21 @31382 has 1 MA's), (24, 31397), (31, 31460), (48, 31604),

Gene: Pitbull\_70 Start: 37588, Stop: 37938, Start Num: 5

Candidate Starts for Pitbull 70:

(Start: 5 @ 37588 has 4 MA's), (12, 37669), (17, 37711), (18, 37723), (22, 37756), (32, 37834), (33, 37843), (34, 37846), (40, 37888), (45, 37921),

Gene: RadFad\_50 Start: 30882, Stop: 31274, Start Num: 5

Candidate Starts for RadFad\_50:

(Start: 5 @ 30882 has 4 MA's), (6, 30891), (8, 30951), (17, 31005), (42, 31200), (44, 31218),

Gene: Sarge\_44 Start: 27015, Stop: 27275, Start Num: 21

Candidate Starts for Sarge\_44:

(3, 26832), (13, 26961), (19, 27000), (Start: 21 @27015 has 1 MA's), (35, 27111), (41, 27177),

Gene: SpicyFrank\_51 Start: 30836, Stop: 31135, Start Num: 14

Candidate Starts for SpicyFrank 51:

(Start: 14 @ 30836 has 3 MA's), (16, 30845), (38, 31019), (45, 31085),

Gene: ThayneTheZag\_49 Start: 30180, Stop: 30479, Start Num: 14

Candidate Starts for ThayneTheZag\_49:

(Start: 14 @ 30180 has 3 MA's), (16, 30189), (38, 30363), (45, 30429),

Gene: ThayneTheZag\_65 Start: 34279, Stop: 34572, Start Num: 14

Candidate Starts for ThayneTheZag\_65:

(Start: 14 @34279 has 3 MA's), (16, 34288), (20, 34321), (27, 34375),

Gene: TripleJ 73 Start: 41236, Stop: 41535, Start Num: 14

Candidate Starts for TripleJ\_73:

(Start: 14 @41236 has 3 MA's), (16, 41245), (32, 41374), (38, 41419), (45, 41485), (48, 41518),

Gene: Vopal\_51 Start: 33363, Stop: 33689, Start Num: 5

Candidate Starts for Vopal 51:

(Start: 5 @33363 has 4 MA's), (6, 33372), (15, 33474), (22, 33525), (29, 33558), (30, 33564), (37, 33609), (43, 33672),

Gene: Zucker\_38 Start: 28357, Stop: 28737, Start Num: 5

Candidate Starts for Zucker\_38: (Start: 5 @28357 has 4 MA's), (6, 28366), (36, 28639), (45, 28720),