

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 216485 Report

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

Pham number 216485 has 25 members, 15 are drafts.

Phages represented in each track:

- Track 1 : Chilliams 190
- Track 2: Bloom\_196, Racecar\_193, Talia1610\_193, GoldenEssence\_181,

Mimi\_192, Patbob\_191

- Track 3 : SJReid\_198
- Track 4: DunneganBoMo\_191, WaddleDee\_191, KSunshine22\_189, Ellewin\_190
- Track 5 : Atuin\_186, LeoJr\_195, ReginaGlobina\_199
- Track 6 : Rockabye\_195
- Track 7 : Panchaali\_198
- Track 8 : Phrampa\_186
- Track 9 : Dodo\_108, PauloDiaboli\_108
- Track 10 : A3Wally\_108
- Track 11 : Big4 97
- Track 12 : Zooman\_92
- Track 13 : Cece\_91
- Track 14: Pumpernickel 105

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

The start number called the most often in the published annotations is 20, it was called in 4 of the 10 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

 Atuin\_186, Bloom\_196, Chilliams\_190, DunneganBoMo\_191, Ellewin\_190, GoldenEssence\_181, KSunshine22\_189, LeoJr\_195, Mimi\_192, Panchaali\_198, Patbob\_191, Phrampa\_186, Racecar\_193, ReginaGlobina\_199, SJReid\_198, Talia1610\_193, WaddleDee\_191,

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

Rockabye\_195,

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

• A3Wally\_108, Big4\_97, Cece\_91, Dodo\_108, PauloDiaboli\_108, Pumpernickel\_105, Zooman\_92,

## **Summary by start number:**

#### Start 9:

- Found in 3 of 25 (12.0%) of genes in pham
- Manual Annotations of this start: 1 of 10
- Called 33.3% of time when present
- Phage (with cluster) where this start called: A3Wally\_108 (GD1),

## Start 11:

- Found in 4 of 25 (16.0%) of genes in pham
- Manual Annotations of this start: 2 of 10
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Cece\_91 (GD3), Dodo\_108 (GD1), PauloDiaboli\_108 (GD1),

#### Start 12:

- Found in 2 of 25 (8.0%) of genes in pham
- Manual Annotations of this start: 2 of 10
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Big4\_97 (GD2), Zooman\_92 (GD2),

#### Start 18:

- Found in 1 of 25 (4.0%) of genes in pham
- Manual Annotations of this start: 1 of 10
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pumpernickel\_105 (GD4),

#### Start 20:

- Found in 18 of 25 (72.0%) of genes in pham
- Manual Annotations of this start: 4 of 10
- Called 94.4% of time when present
- Phage (with cluster) where this start called: Atuin\_186 (FC), Bloom\_196 (FC), Chilliams\_190 (FC), DunneganBoMo\_191 (FC), Ellewin\_190 (FC), GoldenEssence\_181 (FC), KSunshine22\_189 (FC), LeoJr\_195 (FC), Mimi\_192 (FC), Panchaali\_198 (FC), Patbob\_191 (FC), Phrampa\_186 (FC), Racecar\_193 (FC), ReginaGlobina\_199 (FC), SJReid\_198 (FC), Talia1610\_193 (FC), WaddleDee\_191 (FC),

#### Start 23:

- Found in 2 of 25 (8.0%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Rockabye\_195 (FC),

## Summary by clusters:

There are 5 clusters represented in this pham: GD3, GD1, GD2, FC, GD4,

Info for manual annotations of cluster FC:

•Start number 20 was manually annotated 4 times for cluster FC.

Info for manual annotations of cluster GD1:

•Start number 9 was manually annotated 1 time for cluster GD1.

•Start number 11 was manually annotated 1 time for cluster GD1.

Info for manual annotations of cluster GD2:

•Start number 12 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:

•Start number 11 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4:

•Start number 18 was manually annotated 1 time for cluster GD4.

### Gene Information:

Gene: A3Wally 108 Start: 73992, Stop: 73408, Start Num: 9

Candidate Starts for A3Wally 108:

(1, 74139), (2, 74136), (3, 74109), (5, 74055), (7, 74025), (Start: 9 @73992 has 1 MA's), (10, 73983), (Start: 11 @73977 has 2 MA's), (26, 73776), (32, 73698), (38, 73599), (46, 73491), (47, 73488),

Gene: Atuin 186 Start: 131620, Stop: 132045, Start Num: 20

Candidate Starts for Atuin 186:

(Start: 20 @131620 has 4 MA's), (44, 132004),

Gene: Big4\_97 Start: 73090, Stop: 72530, Start Num: 12

Candidate Starts for Big4 97:

(10, 73099), (Start: 12 @73090 has 2 MA's), (22, 72973), (24, 72931), (26, 72895), (34, 72811), (37, 72757),

Gene: Bloom\_196 Start: 132945, Stop: 133373, Start Num: 20

Candidate Starts for Bloom\_196:

(13, 132906), (15, 132921), (17, 132927), (Start: 20 @132945 has 4 MA's), (40, 133275),

Gene: Cece 91 Start: 76156, Stop: 75599, Start Num: 11

Candidate Starts for Cece 91:

(4, 76237), (5, 76231), (6, 76222), (10, 76162), (Start: 11 @76156 has 2 MA's), (21, 76096), (25, 75976), (26, 75964), (27, 75955), (29, 75940), (35, 75874), (36, 75868), (40, 75778), (46, 75682),

Gene: Chilliams 190 Start: 128904, Stop: 129335, Start Num: 20

Candidate Starts for Chilliams 190:

(Start: 20 @128904 has 4 MA's), (23, 129003), (39, 129228),

Gene: Dodo 108 Start: 74299, Stop: 73730, Start Num: 11

Candidate Starts for Dodo\_108:

(5, 74377), (7, 74347), (8, 74329), (Start: 9 @74314 has 1 MA's), (10, 74305), (Start: 11 @74299 has 2 MA's), (26, 74098), (32, 74020), (38, 73921), (46, 73813), (47, 73810),

Gene: DunneganBoMo 191 Start: 136342, Stop: 136770, Start Num: 20

Candidate Starts for DunneganBoMo\_191: (Start: 20 @136342 has 4 MA's), (42, 136711),

Gene: Ellewin\_190 Start: 136420, Stop: 136848, Start Num: 20

Candidate Starts for Ellewin\_190:

(Start: 20 @136420 has 4 MA's), (42, 136789),

Gene: GoldenEssence\_181 Start: 127156, Stop: 127584, Start Num: 20

Candidate Starts for GoldenEssence\_181:

(13, 127117), (15, 127132), (17, 127138), (Start: 20 @127156 has 4 MA's), (40, 127486),

Gene: KSunshine22\_189 Start: 135437, Stop: 135865, Start Num: 20

Candidate Starts for KSunshine22 189:

(Start: 20 @135437 has 4 MA's), (42, 135806),

Gene: LeoJr 195 Start: 132174, Stop: 132599, Start Num: 20

Candidate Starts for LeoJr 195:

(Start: 20 @132174 has 4 MA's), (44, 132558),

Gene: Mimi\_192 Start: 132565, Stop: 132993, Start Num: 20

Candidate Starts for Mimi\_192:

(13, 132526), (15, 132541), (17, 132547), (Start: 20 @132565 has 4 MA's), (40, 132895),

Gene: Panchaali 198 Start: 137916, Stop: 138344, Start Num: 20

Candidate Starts for Panchaali\_198:

(Start: 20 @137916 has 4 MA's), (30, 138111), (31, 138132), (42, 138285),

Gene: Patbob 191 Start: 132952, Stop: 133380, Start Num: 20

Candidate Starts for Patbob\_191:

(13, 132913), (15, 132928), (17, 132934), (Start: 20 @132952 has 4 MA's), (40, 133282),

Gene: PauloDiaboli\_108 Start: 73334, Stop: 72765, Start Num: 11

Candidate Starts for PauloDiaboli 108:

(5, 73412), (7, 73382), (8, 73364), (Start: 9 @ 73349 has 1 MA's), (10, 73340), (Start: 11 @ 73334 has 2 MA's), (26, 73133), (32, 73055), (38, 72956), (46, 72848), (47, 72845),

Gene: Phrampa\_186 Start: 132316, Stop: 132744, Start Num: 20

Candidate Starts for Phrampa 186:

(13, 132277), (17, 132298), (Start: 20 @132316 has 4 MA's), (40, 132646), (43, 132694), (48, 132730),

Gene: Pumpernickel\_105 Start: 74888, Stop: 74379, Start Num: 18

Candidate Starts for Pumpernickel\_105:

(16, 74900), (17, 74897), (Start: 18 @74888 has 1 MA's), (28, 74732), (33, 74669), (40, 74561), (41, 74519),

Gene: Racecar 193 Start: 132728, Stop: 133156, Start Num: 20

Candidate Starts for Racecar\_193:

(13, 132689), (15, 132704), (17, 132710), (Start: 20 @132728 has 4 MA's), (40, 133058),

Gene: ReginaGlobina 199 Start: 133457, Stop: 133882, Start Num: 20

Candidate Starts for ReginaGlobina\_199:

(Start: 20 @133457 has 4 MA's), (44, 133841),

Gene: Rockabye\_195 Start: 127782, Stop: 128114, Start Num: 23

Candidate Starts for Rockabye\_195:

(Start: 20 @127683 has 4 MA's), (23, 127782), (42, 128055),

Gene: SJReid\_198 Start: 126517, Stop: 126945, Start Num: 20

Candidate Starts for SJReid\_198:

(19, 126511), (Start: 20 @126517 has 4 MA's), (42, 126886), (45, 126919),

Gene: Talia1610\_193 Start: 133024, Stop: 133452, Start Num: 20

Candidate Starts for Talia1610\_193:

(13, 132985), (15, 133000), (17, 133006), (Start: 20 @133024 has 4 MA's), (40, 133354),

Gene: WaddleDee\_191 Start: 135615, Stop: 136043, Start Num: 20

Candidate Starts for WaddleDee\_191:

(Start: 20 @135615 has 4 MA's), (42, 135984),

Gene: Zooman\_92 Start: 70938, Stop: 70378, Start Num: 12

Candidate Starts for Zooman\_92:

(10, 70947), (Start: 12 @70938 has 2 MA's), (14, 70905), (26, 70743), (46, 70461),