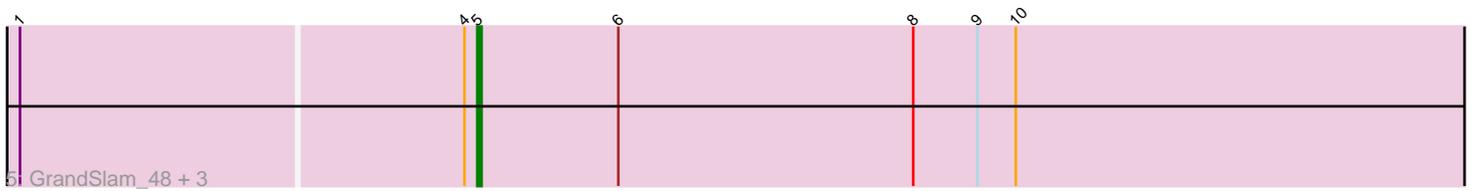
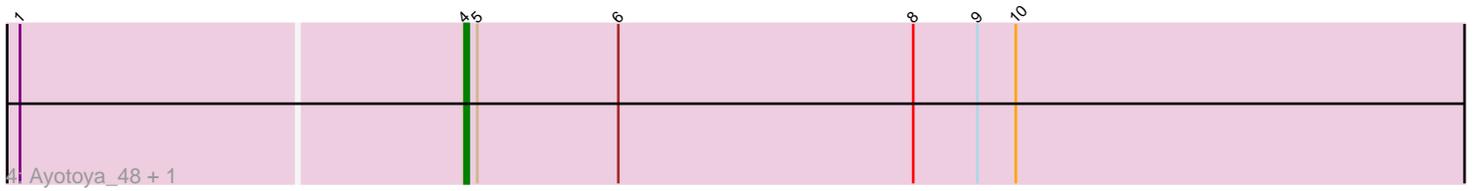
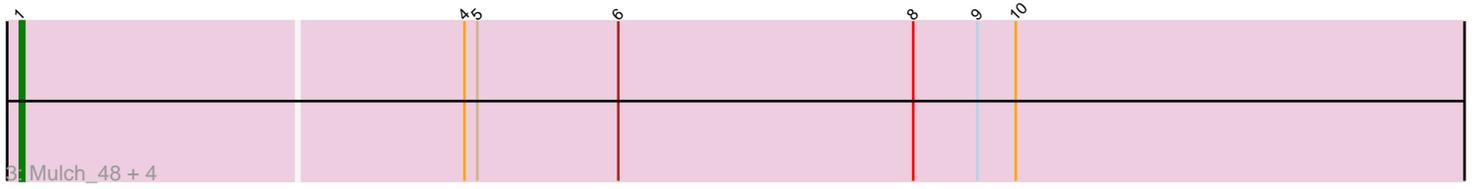
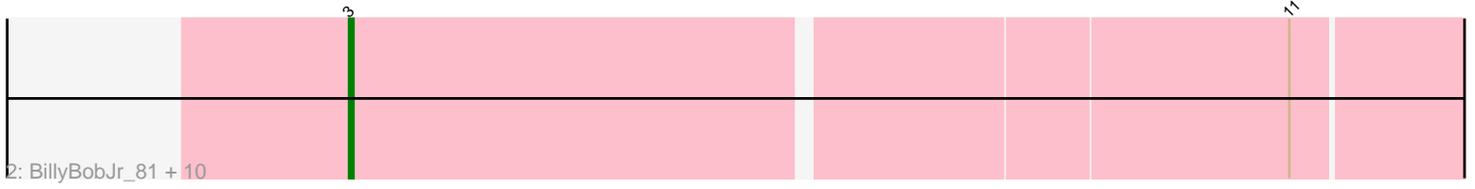
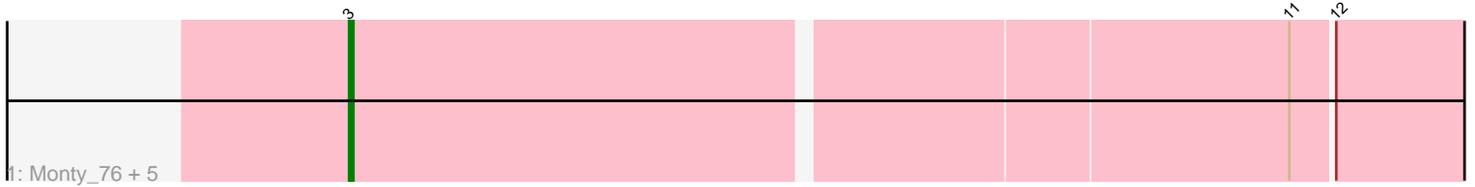


Pham 291393



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 291393 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291393 has 31 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Monty\_76, Flakey\_76, Breezic\_77, CathyBurgh\_77, John316\_80, Lizzo\_77
- Track 2 : BillyBobJr\_81, Poland\_81, Exiguo\_76, RemRem\_78, Sam12\_76, Jellybones\_78, CinnamonToast\_81, Sombrero\_78, FelixAlejandro\_81, Msay19\_81, Worcestershire\_76
- Track 3 : Mulch\_48, Pimento\_49, BetterKatz\_48, Brylie\_48, Bock\_48
- Track 4 : Ayotoya\_48, Nadeem\_48
- Track 5 : GrandSlam\_48, Parada\_48, Chop\_48, Hamood\_48
- Track 6 : Francois\_47
- Track 7 : Colossa\_145
- Track 8 : VanLee\_143

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

The start number called the most often in the published annotations is 3, it was called in 14 of the 27 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BillyBobJr\_81, Breezic\_77, CathyBurgh\_77, CinnamonToast\_81, Exiguo\_76, FelixAlejandro\_81, Flakey\_76, Jellybones\_78, John316\_80, Lizzo\_77, Monty\_76, Msay19\_81, Poland\_81, RemRem\_78, Sam12\_76, Sombrero\_78, Worcestershire\_76,

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

- 

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

- Ayotoya\_48, BetterKatz\_48, Bock\_48, Brylie\_48, Chop\_48, Colossa\_145, Francois\_47, GrandSlam\_48, Hamood\_48, Mulch\_48, Nadeem\_48, Parada\_48, Pimento\_49, VanLee\_143,

### **Summary by start number:**

Start 1:

- Found in 11 of 31 ( 35.5% ) of genes in pham

- Manual Annotations of this start: 5 of 27
- Called 45.5% of time when present
- Phage (with cluster) where this start called: BetterKatz\_48 (DI), Bock\_48 (DI), Brylie\_48 (DI), Mulch\_48 (DI), Pimento\_49 (DI),

#### Start 3:

- Found in 17 of 31 ( 54.8% ) of genes in pham
- Manual Annotations of this start: 14 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BillyBobJr\_81 (CS2), Breezic\_77 (CS2), CathyBurgh\_77 (CS2), CinnamonToast\_81 (CS2), Exiguo\_76 (CS2), FelixAlejandro\_81 (CS2), Flakey\_76 (CS2), Jellybones\_78 (CS2), John316\_80 (CS2), Lizzo\_77 (CS2), Monty\_76 (CS2), Msay19\_81 (CS2), Poland\_81 (CS2), RemRem\_78 (CS2), Sam12\_76 (CS2), Sombrero\_78 (CS2), Worcestershire\_76 (CS2),

#### Start 4:

- Found in 12 of 31 ( 38.7% ) of genes in pham
- Manual Annotations of this start: 3 of 27
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Ayotoya\_48 (DI), Francois\_47 (DI), Nadeem\_48 (DI),

#### Start 5:

- Found in 14 of 31 ( 45.2% ) of genes in pham
- Manual Annotations of this start: 5 of 27
- Called 42.9% of time when present
- Phage (with cluster) where this start called: Chop\_48 (DI), Colossa\_145 (KA), GrandSlam\_48 (DI), Hamood\_48 (DI), Parada\_48 (DI), VanLee\_143 (KA),

### **Summary by clusters:**

There are 3 clusters represented in this pham: KA, DI, CS2,

Info for manual annotations of cluster CS2:

- Start number 3 was manually annotated 14 times for cluster CS2.

Info for manual annotations of cluster DI:

- Start number 1 was manually annotated 5 times for cluster DI.
- Start number 4 was manually annotated 3 times for cluster DI.
- Start number 5 was manually annotated 4 times for cluster DI.

Info for manual annotations of cluster KA:

- Start number 5 was manually annotated 1 time for cluster KA.

### **Gene Information:**

Gene: Ayotoya\_48 Start: 35650, Stop: 35985, Start Num: 4

Candidate Starts for Ayotoya\_48:

(Start: 1 @35548 has 5 MA's), (Start: 4 @35650 has 3 MA's), (Start: 5 @35653 has 5 MA's), (6, 35686), (8, 35755), (9, 35770), (10, 35779),

Gene: BetterKatz\_48 Start: 35022, Stop: 35471, Start Num: 1

Candidate Starts for BetterKatz\_48:

(Start: 1 @35022 has 5 MA's), (Start: 4 @35124 has 3 MA's), (Start: 5 @35127 has 5 MA's), (6, 35160), (8, 35229), (9, 35244), (10, 35253),

Gene: BillyBobJr\_81 Start: 62041, Stop: 61709, Start Num: 3

Candidate Starts for BillyBobJr\_81:

(Start: 3 @62041 has 14 MA's), (11, 61828),

Gene: Bock\_48 Start: 34771, Stop: 35208, Start Num: 1

Candidate Starts for Bock\_48:

(Start: 1 @34771 has 5 MA's), (Start: 4 @34873 has 3 MA's), (Start: 5 @34876 has 5 MA's), (6, 34909), (8, 34978), (9, 34993), (10, 35002),

Gene: Breezic\_77 Start: 60181, Stop: 59828, Start Num: 3

Candidate Starts for Breezic\_77:

(Start: 3 @60181 has 14 MA's), (11, 59968), (12, 59959),

Gene: Brylie\_48 Start: 34818, Stop: 35255, Start Num: 1

Candidate Starts for Brylie\_48:

(Start: 1 @34818 has 5 MA's), (Start: 4 @34920 has 3 MA's), (Start: 5 @34923 has 5 MA's), (6, 34956), (8, 35025), (9, 35040), (10, 35049),

Gene: CathyBurgh\_77 Start: 60701, Stop: 60336, Start Num: 3

Candidate Starts for CathyBurgh\_77:

(Start: 3 @60701 has 14 MA's), (11, 60488), (12, 60479),

Gene: Chop\_48 Start: 35400, Stop: 35738, Start Num: 5

Candidate Starts for Chop\_48:

(Start: 1 @35295 has 5 MA's), (Start: 4 @35397 has 3 MA's), (Start: 5 @35400 has 5 MA's), (6, 35433), (8, 35502), (9, 35517), (10, 35526),

Gene: CinnamonToast\_81 Start: 62041, Stop: 61709, Start Num: 3

Candidate Starts for CinnamonToast\_81:

(Start: 3 @62041 has 14 MA's), (11, 61828),

Gene: Colossa\_145 Start: 76064, Stop: 75759, Start Num: 5

Candidate Starts for Colossa\_145:

(2, 76130), (Start: 5 @76064 has 5 MA's), (7, 75989),

Gene: Exiguo\_76 Start: 59877, Stop: 59545, Start Num: 3

Candidate Starts for Exiguo\_76:

(Start: 3 @59877 has 14 MA's), (11, 59664),

Gene: FelixAlejandro\_81 Start: 62391, Stop: 62059, Start Num: 3

Candidate Starts for FelixAlejandro\_81:

(Start: 3 @62391 has 14 MA's), (11, 62178),

Gene: Flakey\_76 Start: 60687, Stop: 60322, Start Num: 3

Candidate Starts for Flakey\_76:

(Start: 3 @60687 has 14 MA's), (11, 60474), (12, 60465),

Gene: Francois\_47 Start: 34916, Stop: 35251, Start Num: 4

Candidate Starts for Francois\_47:

(Start: 4 @34916 has 3 MA's), (Start: 5 @34919 has 5 MA's), (6, 34952), (8, 35021), (9, 35036), (10, 35045),

Gene: GrandSlam\_48 Start: 35400, Stop: 35738, Start Num: 5

Candidate Starts for GrandSlam\_48:

(Start: 1 @35295 has 5 MA's), (Start: 4 @35397 has 3 MA's), (Start: 5 @35400 has 5 MA's), (6, 35433), (8, 35502), (9, 35517), (10, 35526),

Gene: Hamood\_48 Start: 35400, Stop: 35738, Start Num: 5

Candidate Starts for Hamood\_48:

(Start: 1 @35295 has 5 MA's), (Start: 4 @35397 has 3 MA's), (Start: 5 @35400 has 5 MA's), (6, 35433), (8, 35502), (9, 35517), (10, 35526),

Gene: Jellybones\_78 Start: 61675, Stop: 61343, Start Num: 3

Candidate Starts for Jellybones\_78:

(Start: 3 @61675 has 14 MA's), (11, 61462),

Gene: John316\_80 Start: 61839, Stop: 61486, Start Num: 3

Candidate Starts for John316\_80:

(Start: 3 @61839 has 14 MA's), (11, 61626), (12, 61617),

Gene: Lizzo\_77 Start: 60701, Stop: 60336, Start Num: 3

Candidate Starts for Lizzo\_77:

(Start: 3 @60701 has 14 MA's), (11, 60488), (12, 60479),

Gene: Monty\_76 Start: 59914, Stop: 59549, Start Num: 3

Candidate Starts for Monty\_76:

(Start: 3 @59914 has 14 MA's), (11, 59701), (12, 59692),

Gene: Msay19\_81 Start: 62277, Stop: 61945, Start Num: 3

Candidate Starts for Msay19\_81:

(Start: 3 @62277 has 14 MA's), (11, 62064),

Gene: Mulch\_48 Start: 34818, Stop: 35255, Start Num: 1

Candidate Starts for Mulch\_48:

(Start: 1 @34818 has 5 MA's), (Start: 4 @34920 has 3 MA's), (Start: 5 @34923 has 5 MA's), (6, 34956), (8, 35025), (9, 35040), (10, 35049),

Gene: Nadeem\_48 Start: 34920, Stop: 35255, Start Num: 4

Candidate Starts for Nadeem\_48:

(Start: 1 @34818 has 5 MA's), (Start: 4 @34920 has 3 MA's), (Start: 5 @34923 has 5 MA's), (6, 34956), (8, 35025), (9, 35040), (10, 35049),

Gene: Parada\_48 Start: 34923, Stop: 35255, Start Num: 5

Candidate Starts for Parada\_48:

(Start: 1 @34818 has 5 MA's), (Start: 4 @34920 has 3 MA's), (Start: 5 @34923 has 5 MA's), (6, 34956), (8, 35025), (9, 35040), (10, 35049),

Gene: Pimento\_49 Start: 34409, Stop: 34852, Start Num: 1

Candidate Starts for Pimento\_49:

(Start: 1 @34409 has 5 MA's), (Start: 4 @34511 has 3 MA's), (Start: 5 @34514 has 5 MA's), (6, 34547), (8, 34616), (9, 34631), (10, 34640),

Gene: Poland\_81 Start: 62256, Stop: 61924, Start Num: 3  
Candidate Starts for Poland\_81:  
(Start: 3 @62256 has 14 MA's), (11, 62043),

Gene: RemRem\_78 Start: 59853, Stop: 59521, Start Num: 3  
Candidate Starts for RemRem\_78:  
(Start: 3 @59853 has 14 MA's), (11, 59640),

Gene: Sam12\_76 Start: 59877, Stop: 59545, Start Num: 3  
Candidate Starts for Sam12\_76:  
(Start: 3 @59877 has 14 MA's), (11, 59664),

Gene: Sombrero\_78 Start: 60468, Stop: 60136, Start Num: 3  
Candidate Starts for Sombrero\_78:  
(Start: 3 @60468 has 14 MA's), (11, 60255),

Gene: VanLee\_143 Start: 75581, Stop: 75288, Start Num: 5  
Candidate Starts for VanLee\_143:  
(2, 75650), (Start: 5 @75581 has 5 MA's), (7, 75506),

Gene: Worcestershire\_76 Start: 59861, Stop: 59529, Start Num: 3  
Candidate Starts for Worcestershire\_76:  
(Start: 3 @59861 has 14 MA's), (11, 59648),