

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 4192 Report

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

Pham number 4192 has 22 members, 7 are drafts.

Phages represented in each track:

• Track 1 : Swole\_89, Tote\_87, TwoPeat\_86, JuliaChild\_92, PSullivan\_86, Pita2\_92,

Doom\_85, Molly\_90, Buttons\_86
• Track 2: KBG\_88, Petruchio\_89

• Track 3 : Ukulele 136

Track 4 : Rimmer\_139

• Track 5 : Dumbo\_142, Buck\_142

• Track 6 : DLane 40

Track 7: Ms6\_35, Bobi\_42, Mova\_41, PhesterPhotato\_40

Track 8: DunneganBoMo\_35, DunneganBoMo\_338

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

The start number called the most often in the published annotations is 7, it was called in 12 of the 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Bobi\_42, Buck\_142, Buttons\_86, Doom\_85, Dumbo\_142, JuliaChild\_92, Molly\_90, Mova\_41, Ms6\_35, PSullivan\_86, PhesterPhotato\_40, Pita2\_92, Rimmer\_139, Swole\_89, Tote\_87, TwoPeat\_86, Ukulele\_136,

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

DLane\_40, KBG\_88, Petruchio\_89,

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

DunneganBoMo\_338, DunneganBoMo\_35,

## Summary by start number:

## Start 4:

- Found in 16 of 22 (72.7%) of genes in pham
- Manual Annotations of this start: 3 of 15
- Called 18.8% of time when present
- Phage (with cluster) where this start called: DLane\_40 (F1), KBG\_88 (A1),
   Petruchio\_89 (A1),

#### Start 6:

- Found in 2 of 22 (9.1%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DunneganBoMo\_338 (FC),
   DunneganBoMo\_35 (FC),

### Start 7:

- Found in 20 of 22 (90.9%) of genes in pham
- Manual Annotations of this start: 12 of 15
- Called 85.0% of time when present
- Phage (with cluster) where this start called: Bobi\_42 (F1), Buck\_142 (E), Buttons\_86 (A1), Doom\_85 (A1), Dumbo\_142 (E), JuliaChild\_92 (A1), Molly\_90 (A1), Mova\_41 (F1), Ms6\_35 (F1), PSullivan\_86 (A1), PhesterPhotato\_40 (F1), Pita2\_92 (A1), Rimmer\_139 (E), Swole\_89 (A1), Tote\_87 (A1), TwoPeat\_86 (A1), Ukulele\_136 (E),

## Summary by clusters:

There are 4 clusters represented in this pham: A1, F1, FC, E,

Info for manual annotations of cluster A1:

- •Start number 4 was manually annotated 2 times for cluster A1.
- •Start number 7 was manually annotated 6 times for cluster A1.

Info for manual annotations of cluster E:

•Start number 7 was manually annotated 4 times for cluster E.

Info for manual annotations of cluster F1:

- •Start number 4 was manually annotated 1 time for cluster F1.
- •Start number 7 was manually annotated 2 times for cluster F1.

### Gene Information:

Gene: Bobi\_42 Start: 32232, Stop: 32035, Start Num: 7

Candidate Starts for Bobi 42:

(Start: 4 @ 32277 has 3 MA's), (Start: 7 @ 32232 has 12 MA's), (9, 32169), (13, 32064), (14, 32043),

Gene: Buck\_142 Start: 74770, Stop: 74585, Start Num: 7

Candidate Starts for Buck 142:

 $(1,74902),\,(2,74887),\,(3,74833),\,(5,74806),\,(Start:\,7\,\,@74770\;has\,\,12\,\,MA's),\,(10,74680),\,(11,74902),\,(2,74887),\,(2,748$ 

74650),

Gene: Buttons\_86 Start: 48894, Stop: 48706, Start Num: 7

Candidate Starts for Buttons 86:

(Start: 4 @ 48939 has 3 MA's), (Start: 7 @ 48894 has 12 MA's), (9, 48831), (13, 48726),

Gene: DLane 40 Start: 31900, Stop: 31658, Start Num: 4

Candidate Starts for DLane 40:

(Start: 4 @ 31900 has 3 MA's), (Start: 7 @ 31855 has 12 MA's), (9, 31792), (13, 31687), (14, 31666),

Gene: Doom\_85 Start: 50884, Stop: 50696, Start Num: 7

Candidate Starts for Doom\_85:

(Start: 4 @ 50929 has 3 MA's), (Start: 7 @ 50884 has 12 MA's), (9, 50821), (13, 50716),

Gene: Dumbo\_142 Start: 73528, Stop: 73343, Start Num: 7

Candidate Starts for Dumbo\_142:

(1, 73660), (2, 73645), (3, 73591), (5, 73564), (Start: 7 @73528 has 12 MA's), (10, 73438), (11, 73408),

Gene: DunneganBoMo 35 Start: 13808, Stop: 13590, Start Num: 6

Candidate Starts for DunneganBoMo\_35:

(6, 13808), (8, 13742), (12, 13652),

Gene: DunneganBoMo\_338 Start: 193220, Stop: 193002, Start Num: 6

Candidate Starts for DunneganBoMo\_338:

(6, 193220), (8, 193154), (12, 193064),

Gene: JuliaChild 92 Start: 51697, Stop: 51509, Start Num: 7

Candidate Starts for JuliaChild\_92:

(Start: 4 @51742 has 3 MA's), (Start: 7 @51697 has 12 MA's), (9, 51634), (13, 51529),

Gene: KBG\_88 Start: 52500, Stop: 52267, Start Num: 4

Candidate Starts for KBG\_88:

(Start: 4 @ 52500 has 3 MA's), (Start: 7 @ 52455 has 12 MA's), (9, 52392), (13, 52287),

Gene: Molly\_90 Start: 49940, Stop: 49752, Start Num: 7

Candidate Starts for Molly 90:

(Start: 4 @ 49985 has 3 MA's), (Start: 7 @ 49940 has 12 MA's), (9, 49877), (13, 49772),

Gene: Mova\_41 Start: 31360, Stop: 31163, Start Num: 7

Candidate Starts for Mova 41:

(Start: 4 @ 31405 has 3 MA's), (Start: 7 @ 31360 has 12 MA's), (9, 31297), (13, 31192), (14, 31171),

Gene: Ms6\_35 Start: 27144, Stop: 26947, Start Num: 7

Candidate Starts for Ms6 35:

(Start: 4 @27189 has 3 MA's), (Start: 7 @27144 has 12 MA's), (9, 27081), (13, 26976), (14, 26955),

Gene: PSullivan\_86 Start: 49457, Stop: 49269, Start Num: 7

Candidate Starts for PSullivan\_86:

(Start: 4 @ 49502 has 3 MA's), (Start: 7 @ 49457 has 12 MA's), (9, 49394), (13, 49289),

Gene: Petruchio\_89 Start: 49033, Stop: 48797, Start Num: 4

Candidate Starts for Petruchio 89:

(Start: 4 @ 49033 has 3 MA's), (Start: 7 @ 48985 has 12 MA's), (9, 48922), (13, 48817),

Gene: PhesterPhotato\_40 Start: 31585, Stop: 31388, Start Num: 7

Candidate Starts for PhesterPhotato\_40:

(Start: 4 @31630 has 3 MA's), (Start: 7 @31585 has 12 MA's), (9, 31522), (13, 31417), (14, 31396),

Gene: Pita2\_92 Start: 50953, Stop: 50765, Start Num: 7

Candidate Starts for Pita2 92:

(Start: 4 @50998 has 3 MA's), (Start: 7 @50953 has 12 MA's), (9, 50890), (13, 50785),

Gene: Rimmer\_139 Start: 73748, Stop: 73563, Start Num: 7

Candidate Starts for Rimmer\_139:

(3, 73811), (5, 73784), (Start: 7 @73748 has 12 MA's), (10, 73658), (11, 73628),

Gene: Swole\_89 Start: 51171, Stop: 50983, Start Num: 7

Candidate Starts for Swole\_89:

(Start: 4 @51216 has 3 MA's), (Start: 7 @51171 has 12 MA's), (9, 51108), (13, 51003),

Gene: Tote\_87 Start: 48439, Stop: 48251, Start Num: 7

Candidate Starts for Tote\_87:

(Start: 4 @ 48484 has 3 MA's), (Start: 7 @ 48439 has 12 MA's), (9, 48376), (13, 48271),

Gene: TwoPeat\_86 Start: 50633, Stop: 50445, Start Num: 7

Candidate Starts for TwoPeat\_86:

(Start: 4 @ 50678 has 3 MA's), (Start: 7 @ 50633 has 12 MA's), (9, 50570), (13, 50465),

Gene: Ukulele\_136 Start: 72905, Stop: 72720, Start Num: 7

Candidate Starts for Ukulele\_136:

(2, 73022), (3, 72968), (5, 72941), (Start: 7 @72905 has 12 MA's), (10, 72815), (11, 72785),