

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 158242 Report

This analysis was run 04/13/24 on database version 558.

Pham number 158242 has 16 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Phantastic\_88
- Track 2 : BabyRay\_88
- Track 3 : Rockstar\_76
- Track 4 : Isca 84
- Track 5 : Yvonnetastic 202
- Track 6 : JonJames\_201
- Track 7: Cardigan 207
- Track 8 : Guey18\_81
- Track 9: Fryberger\_75, Volt\_79, Ziko\_79, Ronaldo\_79
- Track 10 : Keelan 73
- Track 11 : DunneganBoMo\_21, DunneganBoMo\_324
- Track 12 : Kumao 116

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

The start number called the most often in the published annotations is 13, it was called in 6 of the 13 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

Fryberger\_75, Guey18\_81, Keelan\_73, Ronaldo\_79, Volt\_79, Ziko\_79,

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

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

• BabyRay\_88, Cardigan\_207, DunneganBoMo\_21, DunneganBoMo\_324, Isca\_84, JonJames\_201, Kumao\_116, Phantastic\_88, Rockstar\_76, Yvonnetastic\_202,

## Summary by start number:

#### Start 6:

- Found in 2 of 16 (12.5%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present

• Phage (with cluster) where this start called: DunneganBoMo\_21 (FC), DunneganBoMo\_324 (FC),

### Start 8:

- Found in 3 of 16 (18.8%) of genes in pham
- Manual Annotations of this start: 2 of 13
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Phantastic\_88 (A3), Rockstar\_76 (A3),

#### Start 11:

- Found in 7 of 16 (43.8%) of genes in pham
- Manual Annotations of this start: 4 of 13
- Called 71.4% of time when present
- Phage (with cluster) where this start called: BabyRay\_88 (A3), Cardigan\_207 (DD), Isca\_84 (A3), JonJames\_201 (DD), Yvonnetastic\_202 (DD),

#### Start 12:

- Found in 1 of 16 (6.2%) of genes in pham
- Manual Annotations of this start: 1 of 13
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kumao\_116 (singleton),

#### Start 13:

- Found in 6 of 16 (37.5%) of genes in pham
- Manual Annotations of this start: 6 of 13
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fryberger\_75 (DP), Guey18\_81 (DP), Keelan\_73 (DP), Ronaldo\_79 (DP), Volt\_79 (DP), Ziko\_79 (DP),

### Summary by clusters:

There are 5 clusters represented in this pham: DD, FC, A3, DP, singleton,

Info for manual annotations of cluster A3:

- •Start number 8 was manually annotated 2 times for cluster A3.
- •Start number 11 was manually annotated 2 times for cluster A3.

Info for manual annotations of cluster DD:

•Start number 11 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DP:

•Start number 13 was manually annotated 6 times for cluster DP.

#### Gene Information:

Gene: BabyRay 88 Start: 48407, Stop: 47991, Start Num: 11

Candidate Starts for BabyRay 88:

(1, 48647), (2, 48605), (3, 48551), (Start: 11 @48407 has 4 MA's), (16, 48371), (25, 48257), (37, 48134), (40, 48119), (43, 48089), (48, 48008),

Gene: Cardigan 207 Start: 98477, Stop: 98064, Start Num: 11

Candidate Starts for Cardigan\_207:

(Start: 11 @98477 has 4 MA's), (14, 98456), (18, 98399), (19, 98384), (21, 98360), (22, 98351), (26, 98318), (29, 98273), (34, 98222), (37, 98195), (38, 98189),

Gene: DunneganBoMo\_21 Start: 8362, Stop: 8859, Start Num: 6

Candidate Starts for DunneganBoMo\_21:

(6, 8362), (7, 8368), (22, 8560), (27, 8605), (40, 8731),

Gene: DunneganBoMo\_324 Start: 187774, Stop: 188271, Start Num: 6

Candidate Starts for DunneganBoMo 324:

(6, 187774), (7, 187780), (22, 187972), (27, 188017), (40, 188143),

Gene: Fryberger\_75 Start: 40522, Stop: 40130, Start Num: 13

Candidate Starts for Fryberger\_75:

(9, 40564), (Start: 13 @ 40522 has 6 MA's), (15, 40507), (16, 40501), (21, 40414), (31, 40306), (35, 40273), (37, 40252), (39, 40240), (40, 40237), (41, 40231), (43, 40207), (47, 40135),

Gene: Guey18 81 Start: 41893, Stop: 41501, Start Num: 13

Candidate Starts for Guey18\_81:

(9, 41935), (Start: 13 @41893 has 6 MA's), (15, 41878), (16, 41872), (21, 41785), (22, 41779), (31, 41677), (35, 41644), (37, 41623), (40, 41608), (41, 41602), (43, 41578), (47, 41506),

Gene: Isca\_84 Start: 47705, Stop: 47304, Start Num: 11

Candidate Starts for Isca 84:

(Start: 8 @ 47741 has 2 MA's), (Start: 11 @ 47705 has 4 MA's), (16, 47669), (20, 47588), (24, 47558), (28, 47531), (30, 47510), (34, 47471), (40, 47429), (43, 47399),

Gene: JonJames\_201 Start: 99038, Stop: 98619, Start Num: 11

Candidate Starts for JonJames\_201:

(Start: 11 @99038 has 4 MA's), (14, 99014), (17, 98984), (19, 98942), (21, 98918), (32, 98801), (33, 98792), (37, 98759), (38, 98753), (44, 98687),

Gene: Keelan 73 Start: 40361, Stop: 39963, Start Num: 13

Candidate Starts for Keelan 73:

(9, 40403), (Start: 13 @40361 has 6 MA's), (16, 40340), (21, 40253), (31, 40139), (37, 40085), (39, 40073), (42, 40061), (47, 39968),

Gene: Kumao\_116 Start: 68785, Stop: 68384, Start Num: 12

Candidate Starts for Kumao\_116:

(4, 68875), (5, 68869), (Start: 12 @68785 has 1 MA's), (16, 68752), (23, 68647), (31, 68572), (34, 68551), (36, 68527), (45, 68413), (46, 68407),

Gene: Phantastic 88 Start: 47859, Stop: 47422, Start Num: 8

Candidate Starts for Phantastic 88:

(Start: 8 @ 47859 has 2 MA's), (Start: 11 @ 47823 has 4 MA's), (16, 47787), (20, 47706), (24, 47676), (28, 47649), (30, 47628), (34, 47589), (40, 47547), (43, 47517),

Gene: Rockstar\_76 Start: 45549, Stop: 45112, Start Num: 8

Candidate Starts for Rockstar 76:

(Start: 8 @ 45549 has 2 MA's), (Start: 11 @ 45513 has 4 MA's), (16, 45477), (20, 45396), (24, 45366), (28, 45339), (30, 45318), (40, 45237), (43, 45207),

Gene: Ronaldo\_79 Start: 41666, Stop: 41274, Start Num: 13

Candidate Starts for Ronaldo\_79:

(9, 41708), (Start: 13 @41666 has 6 MA's), (15, 41651), (16, 41645), (21, 41558), (31, 41450), (35, 41417), (37, 41396), (39, 41384), (40, 41381), (41, 41375), (43, 41351), (47, 41279),

Gene: Volt\_79 Start: 41830, Stop: 41438, Start Num: 13

Candidate Starts for Volt\_79:

(9, 41872), (Start: 13 @41830 has 6 MA's), (15, 41815), (16, 41809), (21, 41722), (31, 41614), (35, 41581), (37, 41560), (39, 41548), (40, 41545), (41, 41539), (43, 41515), (47, 41443),

Gene: Yvonnetastic\_202 Start: 96089, Stop: 95670, Start Num: 11

Candidate Starts for Yvonnetastic 202:

(10, 96095), (Start: 11 @96089 has 4 MA's), (14, 96065), (17, 96035), (19, 95993), (21, 95969), (32, 95852), (33, 95843), (37, 95810), (38, 95804), (44, 95738),

Gene: Ziko\_79 Start: 41652, Stop: 41260, Start Num: 13

Candidate Starts for Ziko 79:

(9, 41694), (Start: 13 @41652 has 6 MA's), (15, 41637), (16, 41631), (21, 41544), (31, 41436), (35, 41403), (37, 41382), (39, 41370), (40, 41367), (41, 41361), (43, 41337), (47, 41265),