

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 188398 Report

This analysis was run 11/02/24 on database version 579.

Pham number 188398 has 25 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Abidatro 63
- Track 2 : Galaxy\_62
- Track 3 : Lunar\_69
- Track 4: Kuleana 70
- Track 5 : Bedetta 71, HannahPhantana 68, Amelia 66
- Track 6 : LittleTokyo\_67
- Track 7 : Coral 68
- Track 8 : Coral 67
- Track 9: Polka 66
- Track 10 : Leona 65
- Track 11: Renna12 69
- Track 12: Renna12 67
- Track 13 : Juno112\_66Track 14 : RedFox\_67
- Track 15 : Tiff81 64
- Track 16: Hillester\_68, RadFad\_68
- Track 17 : Auxilium\_60
- Track 18: AbbyDaisy 64
- Track 19 : ThayneTheZag\_66
- Track 20 : Seahorse\_66
- Track 21 : Swim 3
- Track 22 : Gusanita 67

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

The start number called the most often in the published annotations is 18, it was called in 11 of the 21 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

 Amelia\_66, Bedetta\_71, Coral\_67, Coral\_68, HannahPhantana\_68, Juno112\_66, Leona\_65, LittleTokyo\_67, Lunar\_69, Polka\_66, RedFox\_67, Renna12\_67,

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

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

• AbbyDaisy\_64, Abidatro\_63, Auxilium\_60, Galaxy\_62, Gusanita\_67, Hillester\_68, Kuleana\_70, RadFad\_68, Renna12\_69, Seahorse\_66, Swim\_3, ThayneTheZag\_66, Tiff81\_64,

# **Summary by start number:**

### Start 16:

- Found in 8 of 25 ( 32.0% ) of genes in pham
- Manual Annotations of this start: 5 of 21
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbyDaisy\_64 (AY), Auxilium\_60 (AY), Gusanita\_67 (FF), Hillester\_68 (AY), RadFad\_68 (AY), Seahorse\_66 (AY), ThayneTheZaq\_66 (AY), Tiff81\_64 (AY),

### Start 17:

- Found in 1 of 25 (4.0%) of genes in pham
- Manual Annotations of this start: 1 of 21
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abidatro\_63 (AS1),

# Start 18:

- Found in 12 of 25 (48.0%) of genes in pham
- Manual Annotations of this start: 11 of 21
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amelia\_66 (AS2), Bedetta\_71 (AS2), Coral\_67 (AS2), Coral\_68 (AS2), HannahPhantana\_68 (AS2), Juno112\_66 (AS3), Leona\_65 (AS3), LittleTokyo\_67 (AS2), Lunar\_69 (AS2), Polka\_66 (AS2), RedFox\_67 (AS3), Renna12\_67 (AS3),

#### Start 20:

- Found in 3 of 25 (12.0%) of genes in pham
- Manual Annotations of this start: 2 of 21
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Galaxy\_62 (AS1), Kuleana\_70 (AS2),

#### Start 21:

- Found in 1 of 25 (4.0%) of genes in pham
- Manual Annotations of this start: 1 of 21
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Swim\_3 (FD),

## Start 23:

- Found in 1 of 25 (4.0%) of genes in pham
- Manual Annotations of this start: 1 of 21
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Renna12 69 (AS3),

# **Summary by clusters:**

There are 6 clusters represented in this pham: AS3, AS2, AS1, FD, FF, AY,

Info for manual annotations of cluster AS1:

- •Start number 17 was manually annotated 1 time for cluster AS1.
- •Start number 20 was manually annotated 1 time for cluster AS1.

Info for manual annotations of cluster AS2:

- •Start number 18 was manually annotated 7 times for cluster AS2.
- •Start number 20 was manually annotated 1 time for cluster AS2.

Info for manual annotations of cluster AS3:

- •Start number 18 was manually annotated 4 times for cluster AS3.
- •Start number 23 was manually annotated 1 time for cluster AS3.

Info for manual annotations of cluster AY:

•Start number 16 was manually annotated 4 times for cluster AY.

Info for manual annotations of cluster FD:

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

Info for manual annotations of cluster FF:

•Start number 16 was manually annotated 1 time for cluster FF.

### Gene Information:

Gene: AbbyDaisy\_64 Start: 35318, Stop: 35455, Start Num: 16

Candidate Starts for AbbyDaisy 64:

(Start: 16 @35318 has 5 MA's), (24, 35339), (27, 35375),

Gene: Abidatro\_63 Start: 37722, Stop: 37874, Start Num: 17

Candidate Starts for Abidatro 63:

(Start: 17 @37722 has 1 MA's), (19, 37725), (Start: 20 @37734 has 2 MA's), (27, 37782),

Gene: Amelia 66 Start: 36727, Stop: 36852, Start Num: 18

Candidate Starts for Amelia 66:

(Start: 18 @36727 has 11 MA's), (27, 36775), (30, 36796), (32, 36802), (39, 36841),

Gene: Auxilium\_60 Start: 32290, Stop: 32427, Start Num: 16

Candidate Starts for Auxilium\_60: (Start: 16 @32290 has 5 MA's),

Gene: Bedetta\_71 Start: 36890, Stop: 37015, Start Num: 18

Candidate Starts for Bedetta 71:

(Start: 18 @ 36890 has 11 MA's), (27, 36938), (30, 36959), (32, 36965), (39, 37004),

Gene: Coral\_68 Start: 37035, Stop: 37154, Start Num: 18

Candidate Starts for Coral 68:

(5, 36948), (7, 36963), (9, 36975), (12, 36999), (Start: 18 @37035 has 11 MA's), (36, 37128),

Gene: Coral 67 Start: 36913, Stop: 37038, Start Num: 18

Candidate Starts for Coral 67:

(Start: 18 @36913 has 11 MA's), (27, 36961), (30, 36982), (32, 36988), (39, 37027),

Gene: Galaxy\_62 Start: 36560, Stop: 36700, Start Num: 20

Candidate Starts for Galaxy\_62:

(Start: 20 @36560 has 2 MA's), (27, 36608),

Gene: Gusanita\_67 Start: 41673, Stop: 41810, Start Num: 16

Candidate Starts for Gusanita 67:

(15, 41661), (Start: 16 @41673 has 5 MA's), (27, 41730), (33, 41763),

Gene: HannahPhantana\_68 Start: 36722, Stop: 36847, Start Num: 18

Candidate Starts for HannahPhantana\_68:

(Start: 18 @ 36722 has 11 MA's), (27, 36770), (30, 36791), (32, 36797), (39, 36836),

Gene: Hillester\_68 Start: 35895, Stop: 36032, Start Num: 16

Candidate Starts for Hillester\_68:

(14, 35868), (Start: 16 @35895 has 5 MA's), (24, 35916), (27, 35952),

Gene: Juno112 66 Start: 37424, Stop: 37552, Start Num: 18

Candidate Starts for Juno112\_66:

(Start: 18 @37424 has 11 MA's), (35, 37508),

Gene: Kuleana\_70 Start: 37424, Stop: 37552, Start Num: 20

Candidate Starts for Kuleana\_70:

(1, 37223), (2, 37271), (6, 37334), (Start: 20 @37424 has 2 MA's), (27, 37472), (37, 37532), (40, 37541),

Gene: Leona\_65 Start: 37507, Stop: 37635, Start Num: 18

Candidate Starts for Leona\_65:

(Start: 18 @37507 has 11 MA's), (28, 37561), (35, 37591),

Gene: LittleTokyo\_67 Start: 36418, Stop: 36546, Start Num: 18

Candidate Starts for LittleTokyo\_67:

(3, 36304), (4, 36313), (13, 36388), (Start: 18 @36418 has 11 MA's), (27, 36466), (32, 36496),

Gene: Lunar 69 Start: 37045, Stop: 37170, Start Num: 18

Candidate Starts for Lunar 69:

(Start: 18 @37045 has 11 MA's), (30, 37114), (32, 37120), (39, 37159),

Gene: Polka\_66 Start: 36577, Stop: 36696, Start Num: 18

Candidate Starts for Polka\_66:

(Start: 18 @36577 has 11 MA's), (36, 36670),

Gene: RadFad\_68 Start: 35895, Stop: 36032, Start Num: 16

Candidate Starts for RadFad\_68:

(14, 35868), (Start: 16 @35895 has 5 MA's), (24, 35916), (27, 35952),

Gene: RedFox\_67 Start: 37521, Stop: 37649, Start Num: 18

Candidate Starts for RedFox\_67:

(Start: 18 @ 37521 has 11 MA's), (29, 37590), (31, 37593), (32, 37596), (35, 37605),

Gene: Renna12\_69 Start: 38028, Stop: 38147, Start Num: 23

Candidate Starts for Renna12\_69:

(8, 37944), (10, 37968), (11, 37977), (Start: 23 @38028 has 1 MA's), (25, 38043),

Gene: Renna12\_67 Start: 37634, Stop: 37759, Start Num: 18

Candidate Starts for Renna12\_67:

(Start: 18 @37634 has 11 MA's), (27, 37682), (37, 37742), (38, 37745),

Gene: Seahorse\_66 Start: 36402, Stop: 36539, Start Num: 16

Candidate Starts for Seahorse\_66:

(14, 36375), (Start: 16 @ 36402 has 5 MA's), (24, 36423), (34, 36495),

Gene: Swim\_3 Start: 1143, Stop: 1024, Start Num: 21

Candidate Starts for Swim\_3:

(Start: 21 @1143 has 1 MA's), (22, 1140), (26, 1098),

Gene: ThayneTheZag\_66 Start: 34569, Stop: 34706, Start Num: 16

Candidate Starts for ThayneTheZag\_66:

(Start: 16 @34569 has 5 MA's), (24, 34590), (27, 34626),

Gene: Tiff81\_64 Start: 32815, Stop: 32952, Start Num: 16

Candidate Starts for Tiff81\_64:

(14, 32788), (Start: 16 @32815 has 5 MA's), (24, 32836),