

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 223541 Report

This analysis was run 03/28/25 on database version 593.

Pham number 223541 has 14 members, 5 are drafts.

Phages represented in each track:

- Track 1: Kampe\_18, Orchid\_18, PatrickStar\_18, Gibbles\_17
- Track 2 : RobinSparkles 21
- Track 3 : Camerico\_18
- Track 4 : GordDuk1\_10
- Track 5 : GordTnk2 10
- Track 6 : Gmala1\_10
- Track 7 : GMA3 10
- Track 8 : Jumbo 15
- Track 9 : Mbo2 16
- Track 10 : Trogglehumper\_38
- Track 11 : Reynauld 24

# 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 5 of the 9 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Gibbles\_17, Kampe\_18, Orchid\_18, PatrickStar\_18, RobinSparkles\_21,

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

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

 Camerico\_18, GMA3\_10, Gmala1\_10, GordDuk1\_10, GordTnk2\_10, Jumbo\_15, Mbo2\_16, Reynauld\_24, Trogglehumper\_38,

# Summary by start number:

#### Start 3:

- Found in 5 of 14 (35.7%) of genes in pham
- Manual Annotations of this start: 5 of 9
- Called 100.0% of time when present

• Phage (with cluster) where this start called: Gibbles\_17 (CX), Kampe\_18 (CX), Orchid\_18 (CX), PatrickStar\_18 (CX), RobinSparkles\_21 (CX),

## Start 4:

- Found in 3 of 14 (21.4%) of genes in pham
- Manual Annotations of this start: 3 of 9
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Camerico\_18 (DF), Jumbo\_15 (DF3), Reynauld\_24 (singleton),

### Start 5:

- Found in 5 of 14 (35.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA3\_10 (DF2), Gmala1\_10 (DF1), GordDuk1\_10 (DF1), GordTnk2\_10 (DF1), Mbo2\_16 (singleton),

#### Start 6:

- Found in 1 of 14 (7.1%) of genes in pham
- Manual Annotations of this start: 1 of 9
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Trogglehumper\_38 (singleton),

# **Summary by clusters:**

There are 6 clusters represented in this pham: singleton, DF, DF1, DF3, DF2, CX,

Info for manual annotations of cluster CX:

•Start number 3 was manually annotated 5 times for cluster CX.

Info for manual annotations of cluster DF:

•Start number 4 was manually annotated 1 time for cluster DF.

Info for manual annotations of cluster DF3:

•Start number 4 was manually annotated 1 time for cluster DF3.

#### Gene Information:

Gene: Camerico 18 Start: 16162, Stop: 16665, Start Num: 4

Candidate Starts for Camerico\_18:

(Start: 4 @16162 has 3 MA's), (9, 16216), (12, 16249), (17, 16282), (20, 16303), (23, 16381), (24, 16411), (30, 16480), (31, 16489), (32, 16510), (34, 16525), (52, 16660),

Gene: GMA3\_10 Start: 11406, Stop: 11906, Start Num: 5

Candidate Starts for GMA3 10:

(5, 11406), (12, 11490), (15, 11502), (20, 11544), (24, 11652), (27, 11679), (32, 11751), (36, 11772), (37, 11796), (43, 11829), (44, 11844),

Gene: Gibbles\_17 Start: 14844, Stop: 15338, Start Num: 3

Candidate Starts for Gibbles 17:

(Start: 3 @14844 has 5 MA's), (15, 14949), (20, 14991), (21, 15036), (26, 15111), (27, 15123), (31, 15171), (33, 15207), (41, 15261), (43, 15270), (45, 15294), (51, 15330),

Gene: Gmala1\_10 Start: 11275, Stop: 11763, Start Num: 5

Candidate Starts for Gmala1 10:

(5, 11275), (7, 11290), (14, 11368), (20, 11413), (26, 11536), (30, 11590), (31, 11596), (42, 11689), (43, 11695), (44, 11710), (47, 11731),

Gene: GordDuk1 10 Start: 11215, Stop: 11703, Start Num: 5

Candidate Starts for GordDuk1 10:

(5, 11215), (7, 11230), (10, 11272), (14, 11308), (20, 11353), (26, 11476), (30, 11530), (31, 11536), (42, 11629), (43, 11635), (44, 11650), (47, 11671),

Gene: GordTnk2\_10 Start: 11182, Stop: 11670, Start Num: 5

Candidate Starts for GordTnk2\_10:

(5, 11182), (7, 11197), (10, 11239), (14, 11275), (20, 11320), (26, 11443), (30, 11497), (31, 11503), (39, 11572), (42, 11596), (43, 11602), (44, 11617), (47, 11638),

Gene: Jumbo\_15 Start: 16052, Stop: 16555, Start Num: 4

Candidate Starts for Jumbo 15:

(Start: 4 @16052 has 3 MA's), (10, 16112), (11, 16136), (12, 16139), (15, 16151), (19, 16187), (20, 16193), (21, 16238), (22, 16259), (31, 16379), (35, 16418), (43, 16478), (44, 16493), (46, 16505), (48, 16520), (50, 16532), (51, 16538),

Gene: Kampe\_18 Start: 14702, Stop: 15196, Start Num: 3

Candidate Starts for Kampe\_18:

(Start: 3 @14702 has 5 MA's), (15, 14807), (20, 14849), (21, 14894), (26, 14969), (27, 14981), (31, 15029), (33, 15065), (41, 15119), (43, 15128), (45, 15152), (51, 15188),

Gene: Mbo2\_16 Start: 10875, Stop: 11396, Start Num: 5

Candidate Starts for Mbo2 16:

(5, 10875), (8, 10911), (18, 11007), (26, 11148), (29, 11196), (30, 11202), (34, 11247), (44, 11325),

Gene: Orchid\_18 Start: 14702, Stop: 15196, Start Num: 3

Candidate Starts for Orchid 18:

(Start: 3 @14702 has 5 MA's), (15, 14807), (20, 14849), (21, 14894), (26, 14969), (27, 14981), (31, 15029), (33, 15065), (41, 15119), (43, 15128), (45, 15152), (51, 15188),

Gene: PatrickStar\_18 Start: 14702, Stop: 15196, Start Num: 3

Candidate Starts for PatrickStar\_18:

(Start: 3 @14702 has 5 MA's), (15, 14807), (20, 14849), (21, 14894), (26, 14969), (27, 14981), (31, 15029), (33, 15065), (41, 15119), (43, 15128), (45, 15152), (51, 15188),

Gene: Revnauld 24 Start: 17582, Stop: 18082, Start Num: 4

Candidate Starts for Reynauld 24:

(Start: 4 @17582 has 3 MA's), (16, 17693), (23, 17801), (25, 17852), (26, 17855), (27, 17867), (31, 17915), (34, 17951), (44, 18029), (46, 18041), (49, 18065),

Gene: RobinSparkles 21 Start: 15295, Stop: 15789, Start Num: 3

Candidate Starts for RobinSparkles 21:

(Start: 3 @15295 has 5 MA's), (12, 15388), (13, 15391), (15, 15400), (20, 15442), (21, 15487), (26, 15562), (27, 15574), (31, 15622), (33, 15658), (41, 15712), (43, 15721), (45, 15745), (51, 15781),

Gene: Trogglehumper\_38 Start: 24086, Stop: 24607, Start Num: 6 Candidate Starts for Trogglehumper\_38: (1, 23888), (2, 24056), (Start: 6 @24086 has 1 MA's), (7, 24098), (24, 24332), (27, 24359), (28, 24362), (30, 24401), (38, 24476), (40, 24497), (41, 24515),