

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 87359 Report

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

Pham number 87359 has 11 members, 4 are drafts.

Phages represented in each track:

- Track 1: PatrickStar\_75, Kampe\_75, Orchid\_74, Gibbles\_72
- Track 2 : RobinSparkles 76
- Track 3 : Camerico\_79
- Track 4 : GordTnk2\_77
- Track 5 : GordDuk1 77
- Track 6 : Gmala1\_72
- Track 7 : GMA3 78
- Track 8 : Jumbo 74

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

The start number called the most often in the published annotations is 19, it was called in 4 of the 7 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Gibbles\_72, Kampe\_75, Orchid\_74, PatrickStar\_75,

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

Camerico\_79, GMA3\_78, Jumbo\_74, RobinSparkles\_76,

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

Gmala1\_72, GordDuk1\_77, GordTnk2\_77,

## Summary by start number:

#### Start 9:

- Found in 1 of 11 (9.1%) of genes in pham
- Manual Annotations of this start: 1 of 7
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jumbo\_74 (DF3),

### Start 10:

- Found in 1 of 11 (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: GMA3\_78 (DF2),

### Start 11:

- Found in 4 of 11 (36.4%) of genes in pham
- Manual Annotations of this start: 1 of 7
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gmala1\_72 (DF1), GordDuk1\_77 (DF1), GordTnk2\_77 (DF1), RobinSparkles\_76 (CX),

### Start 12:

- Found in 5 of 11 (45.5%) of genes in pham
- Manual Annotations of this start: 1 of 7
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Camerico\_79 (DF),

#### Start 19:

- Found in 8 of 11 (72.7%) of genes in pham
- Manual Annotations of this start: 4 of 7
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Gibbles\_72 (CX), Kampe\_75 (CX), Orchid\_74 (CX), PatrickStar\_75 (CX),

## **Summary by clusters:**

There are 5 clusters represented in this pham: DF, CX, DF1, DF3, DF2,

Info for manual annotations of cluster CX:

- •Start number 11 was manually annotated 1 time for cluster CX.
- •Start number 19 was manually annotated 4 times for cluster CX.

Info for manual annotations of cluster DF:

•Start number 12 was manually annotated 1 time for cluster DF.

Info for manual annotations of cluster DF3:

•Start number 9 was manually annotated 1 time for cluster DF3.

#### Gene Information:

Gene: Camerico\_79 Start: 62830, Stop: 62123, Start Num: 12

Candidate Starts for Camerico\_79:

(Start: 12 @62830 has 1 MA's), (Start: 19 @62704 has 4 MA's), (22, 62656), (23, 62644), (30, 62473), (35, 62422), (36, 62401), (37, 62374), (39, 62368), (45, 62239), (48, 62209), (52, 62164), (56, 62131),

Gene: GMA3 78 Start: 59571, Stop: 58867, Start Num: 10

Candidate Starts for GMA3 78:

(8, 59574), (10, 59571), (16, 59484), (17, 59478), (Start: 19 @59439 has 4 MA's), (21, 59415), (24, 59334), (26, 59304), (29, 59250), (31, 59208), (33, 59196), (34, 59178), (36, 59139), (37, 59115), (38, 59109), (44, 58980), (47, 58959), (53, 58890),

Gene: Gibbles\_72 Start: 58398, Stop: 57805, Start Num: 19

Candidate Starts for Gibbles 72:

(Start: 12 @58524 has 1 MA's), (13, 58509), (Start: 19 @58398 has 4 MA's), (20, 58383), (22, 58350), (23, 58338), (25, 58254), (28, 58224), (30, 58143), (31, 58140), (36, 58071), (40, 57999), (50, 57846), (51, 57837),

Gene: Gmala1 72 Start: 57511, Stop: 56801, Start Num: 11

Candidate Starts for Gmala1\_72:

(7, 57553), (Start: 11 @57511 has 1 MA's), (15, 57430), (18, 57385), (21, 57358), (23, 57322), (27, 57244), (36, 57082), (37, 57058), (42, 56983), (51, 56842),

Gene: GordDuk1\_77 Start: 58301, Stop: 57591, Start Num: 11

Candidate Starts for GordDuk1\_77:

(7, 58343), (Start: 11 @58301 has 1 MA's), (15, 58220), (18, 58175), (21, 58148), (23, 58112), (27, 58034), (36, 57872), (37, 57848), (42, 57773), (51, 57632),

Gene: GordTnk2\_77 Start: 58231, Stop: 57521, Start Num: 11

Candidate Starts for GordTnk2 77:

(7, 58273), (Start: 11 @58231 has 1 MA's), (15, 58150), (18, 58105), (21, 58078), (23, 58042), (27, 57964), (36, 57802), (37, 57778), (51, 57562),

Gene: Jumbo\_74 Start: 61893, Stop: 61174, Start Num: 9

Candidate Starts for Jumbo 74:

(1, 62130), (2, 62100), (3, 62076), (4, 62061), (5, 62028), (6, 62019), (Start: 9 @61893 has 1 MA's), (13, 61869), (14, 61857), (16, 61803), (Start: 19 @61758 has 4 MA's), (22, 61710), (23, 61698), (26, 61614), (32, 61515), (33, 61506), (35, 61470), (42, 61356), (43, 61326), (46, 61284), (49, 61245), (54, 61191), (55, 61185),

Gene: Kampe\_75 Start: 58668, Stop: 58075, Start Num: 19

Candidate Starts for Kampe\_75:

(Start: 12 @58794 has 1 MA's), (13, 58779), (Start: 19 @58668 has 4 MA's), (20, 58653), (22, 58620), (23, 58608), (25, 58524), (28, 58494), (30, 58413), (31, 58410), (36, 58341), (40, 58269), (50, 58116), (51, 58107),

Gene: Orchid\_74 Start: 58669, Stop: 58076, Start Num: 19

Candidate Starts for Orchid\_74:

(Start: 12 @58795 has 1 MA's), (13, 58780), (Start: 19 @58669 has 4 MA's), (20, 58654), (22, 58621), (23, 58609), (25, 58525), (28, 58495), (30, 58414), (31, 58411), (36, 58342), (40, 58270), (50, 58117), (51, 58108),

Gene: PatrickStar\_75 Start: 58668, Stop: 58075, Start Num: 19

Candidate Starts for PatrickStar 75:

(Start: 12 @58794 has 1 MA's), (13, 58779), (Start: 19 @58668 has 4 MA's), (20, 58653), (22, 58620), (23, 58608), (25, 58524), (28, 58494), (30, 58413), (31, 58410), (36, 58341), (40, 58269), (50, 58116), (51, 58107),

Gene: RobinSparkles\_76 Start: 58696, Stop: 57974, Start Num: 11

Candidate Starts for RobinSparkles\_76:

(Start: 11 @58696 has 1 MA's), (13, 58678), (Start: 19 @58567 has 4 MA's), (20, 58552), (22, 58519), (23, 58507), (25, 58423), (28, 58393), (30, 58312), (31, 58309), (36, 58240), (40, 58168), (41, 58150), (50, 58015), (51, 58006),