

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 220424 Report

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

Pham number 220424 has 8 members, 0 are drafts.

Phages represented in each track:

Track 1 : CliffHanger\_20Track 2 : Teagster\_20

• Track 3 : SunnyD\_19, Shayna\_19

Track 4 : Olliecat\_19, Squircle\_19

• Track 5 : Buldak\_19

• Track 6 : ValentiniPuff\_70

## 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 7 of the 8 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

 Buldak\_19, CliffHanger\_20, Olliecat\_19, Shayna\_19, Squircle\_19, SunnyD\_19, Teagster\_20,

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:

ValentiniPuff\_70,

## Summary by start number:

#### Start 2:

- Found in 1 of 8 (12.5%) of genes in pham
- Manual Annotations of this start: 1 of 8
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ValentiniPuff\_70 (singleton),

### Start 3:

- Found in 7 of 8 (87.5%) of genes in pham
- Manual Annotations of this start: 7 of 8
- Called 100.0% of time when present

 Phage (with cluster) where this start called: Buldak\_19 (EB), CliffHanger\_20 (EB), Olliecat\_19 (EB), Shayna\_19 (EB), Squircle\_19 (EB), SunnyD\_19 (EB), Teagster\_20 (EB),

### **Summary by clusters:**

There are 2 clusters represented in this pham: singleton, EB,

Info for manual annotations of cluster EB:

•Start number 3 was manually annotated 7 times for cluster EB.

### Gene Information:

Gene: Buldak 19 Start: 16353, Stop: 17453, Start Num: 3

Candidate Starts for Buldak 19:

(Start: 3 @16353 has 7 MA's), (5, 16404), (6, 16413), (8, 16434), (9, 16437), (10, 16464), (14, 16563), (17, 16617), (24, 16854), (29, 16974), (34, 17031), (35, 17037), (36, 17058), (44, 17262), (45, 17271), (48, 17313), (50, 17340), (51, 17346), (56, 17418),

Gene: CliffHanger 20 Start: 15967, Stop: 17055, Start Num: 3

Candidate Starts for CliffHanger\_20:

(Start: 3 @15967 has 7 MA's), (16, 16219), (19, 16375), (21, 16405), (23, 16459), (33, 16621), (36, 16663), (37, 16666), (40, 16777), (41, 16789), (45, 16876), (51, 16948), (54, 16975),

Gene: Olliecat 19 Start: 16328, Stop: 17416, Start Num: 3

Candidate Starts for Olliecat\_19:

(Start: 3 @16328 has 7 MA's), (7, 16394), (8, 16409), (11, 16472), (14, 16538), (16, 16580), (18, 16721), (24, 16829), (27, 16892), (28, 16937), (35, 17006), (38, 17033), (39, 17117), (40, 17141), (45, 17237), (47, 17270), (49, 17288), (57, 17402),

Gene: Shayna 19 Start: 16207, Stop: 17307, Start Num: 3

Candidate Starts for Shayna 19:

(Start: 3 @16207 has 7 MA's), (5, 16258), (6, 16267), (20, 16624), (29, 16828), (30, 16840), (31, 16846), (34, 16885), (43, 17074), (54, 17227),

Gene: Squircle\_19 Start: 16327, Stop: 17415, Start Num: 3

Candidate Starts for Squircle 19:

(Start: 3 @ 16327 has 7 MA's), (7, 16393), (8, 16408), (11, 16471), (14, 16537), (16, 16579), (18, 16720), (24, 16828), (27, 16891), (28, 16936), (35, 17005), (38, 17032), (39, 17116), (40, 17140), (45, 17236), (47, 17269), (49, 17287), (57, 17401),

Gene: SunnyD\_19 Start: 16207, Stop: 17307, Start Num: 3

Candidate Starts for SunnyD\_19:

(Start: 3 @16207 has 7 MA's), (5, 16258), (6, 16267), (20, 16624), (29, 16828), (30, 16840), (31, 16846), (34, 16885), (43, 17074), (54, 17227),

Gene: Teagster 20 Start: 17281, Stop: 18381, Start Num: 3

Candidate Starts for Teagster 20:

(Start: 3 @17281 has 7 MA's), (5, 17332), (6, 17341), (22, 17755), (30, 17914), (32, 17941), (34, 17959), (56, 18346),

Gene: ValentiniPuff\_70 Start: 38195, Stop: 39304, Start Num: 2 Candidate Starts for ValentiniPuff\_70: (1. 38114), (Start: 2 @38195 has 1 MA's), (4. 38252), (12. 38360), (13. 38408), (15

(1, 38114), (Start: 2 @38195 has 1 MA's), (4, 38252), (12, 38360), (13, 38408), (15, 38447), (25, 38747), (26, 38777), (41, 39038), (42, 39062), (46, 39140), (47, 39158), (50, 39191), (52, 39206), (53, 39221), (55, 39263), (57, 39290),