

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 193088 Report

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

Pham number 193088 has 9 members, 7 are drafts.

Phages represented in each track:

Track 1 : Teagster\_22

Track 2 : Squircle\_20, Olliecat\_20

Track 3 : CliffHanger\_22

Track 4 : SunnyD\_21, Shayna\_19

Track 5 : Buldák\_19Track 6 : Honk\_18

Track 7: 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 4, it was called in 1 of the 2 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Honk\_18,

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:

 Buldak\_19, CliffHanger\_22, Olliecat\_20, Shayna\_19, Squircle\_20, SunnyD\_21, Teagster\_22, ValentiniPuff\_70,

## Summary by start number:

#### Start 2:

- Found in 1 of 9 (11.1%) of genes in pham
- Manual Annotations of this start: 1 of 2
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ValentiniPuff\_70 (singleton),

#### Start 3:

- Found in 7 of 9 (77.8%) of genes in pham
- No Manual Annotations of this start.

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Buldak\_19 (EB), CliffHanger\_22 (EB), Olliecat\_20 (EB), Shayna\_19 (EB), Squircle\_20 (EB), SunnyD\_21 (EB), Teagster\_22 (EB),

### Start 4:

- Found in 1 of 9 (11.1%) of genes in pham
- Manual Annotations of this start: 1 of 2
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Honk\_18 (EH),

### Summary by clusters:

There are 3 clusters represented in this pham: singleton, EH, EB,

Info for manual annotations of cluster EH:

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

### Gene Information:

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

Candidate Starts for Buldak\_19:

(3, 16353), (6, 16404), (7, 16413), (9, 16434), (10, 16437), (11, 16464), (15, 16563), (18, 16617), (26, 16854), (33, 16974), (38, 17031), (39, 17037), (40, 17058), (48, 17262), (49, 17271), (52, 17313), (54, 17340), (55, 17346), (62, 17418),

Gene: CliffHanger\_22 Start: 15967, Stop: 17055, Start Num: 3

Candidate Starts for CliffHanger 22:

(3, 15967), (17, 16219), (20, 16375), (23, 16405), (25, 16459), (37, 16621), (40, 16663), (41, 16666), (44, 16777), (45, 16789), (49, 16876), (55, 16948), (58, 16975),

Gene: Honk 18 Start: 15028, Stop: 16131, Start Num: 4

Candidate Starts for Honk\_18:

(Start: 4 @15028 has 1 MA's), (22, 15472), (28, 15592), (31, 15625), (37, 15691), (43, 15820), (59, 16078), (60, 16084),

Gene: Olliecat 20 Start: 16328, Stop: 17416, Start Num: 3

Candidate Starts for Olliecat 20:

(3, 16328), (8, 16394), (9, 16409), (12, 16472), (15, 16538), (17, 16580), (19, 16721), (26, 16829), (30, 16892), (32, 16937), (39, 17006), (42, 17033), (43, 17117), (44, 17141), (49, 17237), (51, 17270), (53, 17288), (63, 17402),

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

Candidate Starts for Shayna 19:

(3, 16207), (6, 16258), (7, 16267), (21, 16624), (33, 16828), (34, 16840), (35, 16846), (38, 16885), (47, 17074), (58, 17227),

Gene: Squircle 20 Start: 16327, Stop: 17415, Start Num: 3

Candidate Starts for Squircle 20:

(3, 16327), (8, 16393), (9, 16408), (12, 16471), (15, 16537), (17, 16579), (19, 16720), (26, 16828), (30, 16891), (32, 16936), (39, 17005), (42, 17032), (43, 17116), (44, 17140), (49, 17236), (51, 17269), (53, 17287), (63, 17401),

Gene: SunnyD\_21 Start: 16207, Stop: 17307, Start Num: 3 Candidate Starts for SunnyD\_21: (3, 16207), (6, 16258), (7, 16267), (21, 16624), (33, 16828), (34, 16840), (35, 16846), (38, 16885), (47, 17074), (58, 17227),

Gene: Teagster\_22 Start: 17281, Stop: 18381, Start Num: 3 Candidate Starts for Teagster\_22: (3, 17281), (6, 17332), (7, 17341), (24, 17755), (34, 17914), (36, 17941), (38, 17959), (62, 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), (5, 38252), (13, 38360), (14, 38408), (16, 38447), (27, 38747), (29, 38777), (45, 39038), (46, 39062), (50, 39140), (51, 39158), (54, 39191), (56, 39206), (57, 39221), (61, 39263), (63, 39290),