

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 193016 Report

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

Pham number 193016 has 13 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Aphelion\_139, Culver\_139
- Track 2 : WilliamBoone 137
- Track 3: Dusty\_136, Geeche\_139
- Track 4 : Engineer\_141
- Track 5 : Yvonnetastic 105
- Track 6 : Cardigan\_109
- Track 7 : Ziko\_88, Guey18\_90
- Track 8: Volt\_89, Fryberger\_85, Ronaldo\_89

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

The start number called the most often in the published annotations is 9, it was called in 5 of the 10 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Fryberger\_85, Guey18\_90, Ronaldo\_89, Volt\_89, Ziko\_88,

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

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

• Aphelion\_139, Cardigan\_109, Culver\_139, Dusty\_136, Engineer\_141, Geeche\_139, WilliamBoone\_137, Yvonnetastic\_105,

## Summary by start number:

#### Start 6:

- Found in 2 of 13 (15.4%) of genes in pham
- Manual Annotations of this start: 1 of 10
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cardigan\_109 (DD), Yvonnetastic\_105 (DD),

#### Start 9:

- Found in 5 of 13 (38.5%) of genes in pham
- Manual Annotations of this start: 5 of 10
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fryberger\_85 (DP), Guey18\_90 (DP), Ronaldo\_89 (DP), Volt\_89 (DP), Ziko\_88 (DP),

#### Start 10:

- Found in 6 of 13 (46.2%) of genes in pham
- Manual Annotations of this start: 4 of 10
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aphelion\_139 (CQ1), Culver\_139 (CQ1), Dusty\_136 (CQ1), Engineer\_141 (CQ1), Geeche\_139 (CQ1), WilliamBoone\_137 (CQ1),

### Summary by clusters:

There are 3 clusters represented in this pham: CQ1, DD, DP,

Info for manual annotations of cluster CQ1:

•Start number 10 was manually annotated 4 times for cluster CQ1.

Info for manual annotations of cluster DD:

•Start number 6 was manually annotated 1 time for cluster DD.

Info for manual annotations of cluster DP:

•Start number 9 was manually annotated 5 times for cluster DP.

### Gene Information:

Gene: Aphelion\_139 Start: 77220, Stop: 77483, Start Num: 10 Candidate Starts for Aphelion\_139: (1, 77091), (2, 77097), (7, 77202), (8, 77208), (Start: 10 @77220 has 4 MA's), (11, 77232), (13, 77268), (18, 77364), (26, 77478),

Gene: Cardigan\_109 Start: 63163, Stop: 63447, Start Num: 6

Candidate Starts for Cardigan\_109:

(Start: 6 @63163 has 1 MA's), (12, 63211), (14, 63238), (21, 63355),

Gene: Culver 139 Start: 75674, Stop: 75937, Start Num: 10

Candidate Starts for Culver 139:

(1, 75545), (2, 75551), (7, 75656), (8, 75662), (Start: 10 @75674 has 4 MA's), (11, 75686), (13, 75722), (18, 75818), (26, 75932),

Gene: Dusty\_136 Start: 75910, Stop: 76173, Start Num: 10

Candidate Starts for Dusty\_136:

(7, 75892), (Start: 10 @75910 has 4 MA's), (13, 75958), (18, 76054), (26, 76168),

Gene: Engineer 141 Start: 77134, Stop: 77397, Start Num: 10

Candidate Starts for Engineer 141:

(7, 77116), (Start: 10 @77134 has 4 MA's), (13, 77182), (18, 77278), (26, 77392),

Gene: Fryberger\_85 Start: 44861, Stop: 45130, Start Num: 9

Candidate Starts for Fryberger\_85:

(Start: 9 @44861 has 5 MA's), (15, 44933), (16, 44948), (19, 45011), (20, 45035), (22, 45038), (24, 45059),

Gene: Geeche\_139 Start: 76133, Stop: 76396, Start Num: 10

Candidate Starts for Geeche\_139:

(7, 76115), (Start: 10 @76133 has 4 MA's), (13, 76181), (18, 76277), (26, 76391),

Gene: Guey18\_90 Start: 46194, Stop: 46463, Start Num: 9

Candidate Starts for Guey18 90:

(3, 46095), (Start: 9 @46194 has 5 MA's), (15, 46266), (16, 46281), (19, 46344), (20, 46368), (22, 46371), (24, 46392),

Gene: Ronaldo\_89 Start: 45763, Stop: 46032, Start Num: 9

Candidate Starts for Ronaldo\_89:

(Start: 9 @45763 has 5 MA's), (15, 45835), (16, 45850), (19, 45913), (20, 45937), (22, 45940), (24, 45961),

Gene: Volt\_89 Start: 45927, Stop: 46196, Start Num: 9

Candidate Starts for Volt 89:

(Start: 9 @45927 has 5 MA's), (15, 45999), (16, 46014), (19, 46077), (20, 46101), (22, 46104), (24, 46125),

Gene: WilliamBoone\_137 Start: 74000, Stop: 74260, Start Num: 10

Candidate Starts for WilliamBoone\_137:

(4, 73919), (5, 73964), (Start: 10 @74000 has 4 MA's), (13, 74048), (17, 74093), (18, 74141), (23, 74189), (25, 74225), (26, 74255),

Gene: Yvonnetastic\_105 Start: 60859, Stop: 61143, Start Num: 6

Candidate Starts for Yvonnetastic\_105:

(Start: 6 @ 60859 has 1 MA's), (12, 60907), (21, 61051),

Gene: Ziko 88 Start: 45748, Stop: 46017, Start Num: 9

Candidate Starts for Ziko\_88:

(3, 45649), (Start: 9 @45748 has 5 MA's), (15, 45820), (16, 45835), (19, 45898), (20, 45922), (22, 45925), (24, 45946),