

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 214794 Report

This analysis was run 02/22/25 on database version 588.

Pham number 214794 has 14 members, 6 are drafts.

Phages represented in each track:

```
Track 1 : Mendel_6, Tillums_7
```

Track 2 : Seldom 5

Track 3: Goodgraces\_5, Dunamis\_6

Track 4 : Razzleberry\_1

• Track 5 : Ellison17\_1, Prophecy\_1, Grotle\_1, Momos\_1, Mimi16\_1

Track 6 : Trapezoid\_1

Track 7 : Pize\_1

Track 8: Ayka\_1

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

Genes that call this "Most Annotated" start:

• Ayka\_1, Ellison17\_1, Grotle\_1, Mimi16\_1, Momos\_1, Pize\_1, Prophecy\_1, Razzleberry\_1, Trapezoid\_1,

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

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

Dunamis\_6, Goodgraces\_5, Mendel\_6, Seldom\_5, Tillums\_7,

## Summary by start number:

#### Start 3:

- Found in 5 of 14 (35.7%) of genes in pham
- No Manual Annotations of this start.
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Dunamis\_6 (FD), Goodgraces\_5 (FD),

#### Start 4:

• Found in 9 of 14 (64.3%) of genes in pham

- Manual Annotations of this start: 6 of 8
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ayka\_1 (UNK), Ellison17\_1 (JB), Grotle\_1 (JB), Mimi16\_1 (JB), Momos\_1 (JB), Pize\_1 (UNK), Prophecy\_1 (JB), Razzleberry\_1 (JB), Trapezoid\_1 (JB),

#### Start 7:

- Found in 5 of 14 (35.7%) of genes in pham
- Manual Annotations of this start: 2 of 8
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Mendel\_6 (FD), Seldom\_5 (FD), Tillums\_7 (FD),

### Summary by clusters:

There are 3 clusters represented in this pham: UNK, FD, JB,

Info for manual annotations of cluster FD:

•Start number 7 was manually annotated 2 times for cluster FD.

Info for manual annotations of cluster JB:

•Start number 4 was manually annotated 6 times for cluster JB.

#### Gene Information:

Candidate Starts for Mendel 6:

Gene: Ayka\_1 Start: 586, Stop: 1125, Start Num: 4 Candidate Starts for Ayka 1: (1, 493), (2, 520), (Start: 4 @586 has 6 MA's), (13, 853), (15, 877), (18, 898), (22, 976), (23, 1012), (24, 1021), (27, 1087), Gene: Dunamis 6 Start: 1455, Stop: 1967, Start Num: 3 Candidate Starts for Dunamis 6: (3, 1455), (Start: 7 @1500 has 2 MA's), (12, 1659), (14, 1740), (20, 1827), (24, 1905), Gene: Ellison17 1 Start: 497, Stop: 1048, Start Num: 4 Candidate Starts for Ellison17 1: (Start: 4 @ 497 has 6 MA's), (13, 764), (16, 803), (17, 815), (22, 905), (24, 950), Gene: Goodgraces\_5 Start: 1678, Stop: 2190, Start Num: 3 Candidate Starts for Goodgraces 5: (3, 1678), (Start: 7 @1723 has 2 MA's), (12, 1882), (14, 1963), (20, 2050), (24, 2128), Gene: Grotle 1 Start: 456, Stop: 1007, Start Num: 4 Candidate Starts for Grotle 1: (Start: 4 @456 has 6 MA's), (13, 723), (16, 762), (17, 774), (22, 864), (24, 909), Gene: Mendel 6 Start: 1407, Stop: 1874, Start Num: 7

(3, 1362), (Start: 7 @1407 has 2 MA's), (12, 1566), (14, 1647), (20, 1734), (24, 1812),

Gene: Mimi16\_1 Start: 507, Stop: 1058, Start Num: 4

Candidate Starts for Mimi16\_1:

(Start: 4 @507 has 6 MA's), (13, 774), (16, 813), (17, 825), (22, 915), (24, 960),

Gene: Momos\_1 Start: 497, Stop: 1048, Start Num: 4

Candidate Starts for Momos 1:

(Start: 4 @ 497 has 6 MA's), (13, 764), (16, 803), (17, 815), (22, 905), (24, 950),

Gene: Pize\_1 Start: 471, Stop: 1010, Start Num: 4

Candidate Starts for Pize\_1:

(Start: 4 @ 471 has 6 MA's), (5, 480), (8, 522), (10, 609), (13, 735), (15, 759), (17, 768), (18, 780), (25, 240), (20, 200)

942), (26, 960),

Gene: Prophecy\_1 Start: 507, Stop: 1058, Start Num: 4

Candidate Starts for Prophecy\_1:

(Start: 4 @ 507 has 6 MA's), (13, 774), (16, 813), (17, 825), (22, 915), (24, 960),

Gene: Razzleberry\_1 Start: 500, Stop: 1033, Start Num: 4

Candidate Starts for Razzleberry 1:

(Start: 4 @500 has 6 MA's), (11, 674), (13, 767), (15, 791), (18, 812), (22, 890), (23, 926), (24, 935), (27, 1001),

Gene: Seldom 5 Start: 1986, Stop: 2456, Start Num: 7

Candidate Starts for Seldom\_5:

(3, 1941), (Start: 7 @1986 has 2 MA's), (12, 2142), (20, 2310), (21, 2325), (24, 2388),

Gene: Tillums\_7 Start: 1944, Stop: 2411, Start Num: 7

Candidate Starts for Tillums 7:

(3, 1899), (Start: 7 @ 1944 has 2 MA's), (12, 2103), (14, 2184), (20, 2271), (24, 2349),

Gene: Trapezoid\_1 Start: 572, Stop: 1048, Start Num: 4

Candidate Starts for Trapezoid\_1:

(Start: 4 @ 572 has 6 MA's), (6, 587), (9, 701), (13, 824), (18, 869), (19, 875), (21, 929), (25, 1031),