

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 5721 Report

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

Pham number 5721 has 11 members, 2 are drafts.

Phages represented in each track:

Track 1 : ASerpRocky\_4, Niagara\_4

Track 2 : Teech 4

Track 3: Hollow\_4, Demosthenes\_4, Tredge\_4

Track 4: Benczkowski14\_4, Teatealatte\_4, Katyusha\_4

Track 5 : Philon9\_5Track 6 : Kvothe 4

# 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 4 of the 9 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Benczkowski14\_4, Katyusha\_4, Kvothe\_4, Teatealatte\_4,

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

• ASerpRocky\_4, Demosthenes\_4, Hollow\_4, Niagara\_4, Philon9\_5, Teech\_4, Tredge\_4,

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

Summary by start number:

#### Start 3:

- Found in 11 of 11 (100.0%) of genes in pham
- Manual Annotations of this start: 4 of 9
- Called 36.4% of time when present
- Phage (with cluster) where this start called: Benczkowski14\_4 (CS4), Katyusha\_4 (CS4), Kvothe\_4 (CS4), Teatealatte\_4 (CS4),

#### Start 4:

- Found in 11 of 11 (100.0%) of genes in pham
- Manual Annotations of this start: 3 of 9

- Called 27.3% of time when present
- Phage (with cluster) where this start called: Demosthenes\_4 (CS4), Hollow\_4 (CS4), Tredge\_4 (CS4),

#### Start 5:

- Found in 10 of 11 (90.9%) of genes in pham
- Manual Annotations of this start: 2 of 9
- Called 20.0% of time when present
- Phage (with cluster) where this start called: ASerpRocky\_4 (CS4), Niagara\_4 (CS4),

#### Start 7:

- Found in 11 of 11 (100.0%) of genes in pham
- No Manual Annotations of this start.
- Called 18.2% of time when present
- Phage (with cluster) where this start called: Philon9\_5 (CS4), Teech\_4 (CS4),

### Summary by clusters:

There is one cluster represented in this pham: CS4

Info for manual annotations of cluster CS4:

- •Start number 3 was manually annotated 4 times for cluster CS4.
- •Start number 4 was manually annotated 3 times for cluster CS4.
- •Start number 5 was manually annotated 2 times for cluster CS4.

### Gene Information:

Gene: ASerpRocky\_4 Start: 5481, Stop: 5311, Start Num: 5

Candidate Starts for ASerpRocky 4:

(Start: 3 @5529 has 4 MA's), (Start: 4 @5514 has 3 MA's), (Start: 5 @5481 has 2 MA's), (7, 5457), (10, 5328),

Gene: Benczkowski14 4 Start: 5592, Stop: 5374, Start Num: 3

Candidate Starts for Benczkowski14\_4:

(Start: 3 @5592 has 4 MA's), (Start: 4 @5577 has 3 MA's), (Start: 5 @5544 has 2 MA's), (7, 5520), (10, 5391),

Gene: Demosthenes 4 Start: 5474, Stop: 5271, Start Num: 4

Candidate Starts for Demosthenes 4:

(Start: 3 @5489 has 4 MA's), (Start: 4 @5474 has 3 MA's), (Start: 5 @5441 has 2 MA's), (7, 5417), (10, 5288),

Gene: Hollow\_4 Start: 5512, Stop: 5309, Start Num: 4

Candidate Starts for Hollow\_4:

(Start: 3 @5527 has 4 MA's), (Start: 4 @5512 has 3 MA's), (Start: 5 @5479 has 2 MA's), (7, 5455), (10, 5326),

Gene: Katyusha 4 Start: 5592, Stop: 5374, Start Num: 3

Candidate Starts for Katyusha 4:

(Start: 3 @5592 has 4 MA's), (Start: 4 @5577 has 3 MA's), (Start: 5 @5544 has 2 MA's), (7, 5520), (10, 5391),

Gene: Kvothe\_4 Start: 5547, Stop: 5329, Start Num: 3

Candidate Starts for Kvothe\_4:

(1, 5706), (2, 5697), (Start: 3 @5547 has 4 MA's), (Start: 4 @5532 has 3 MA's), (Start: 5 @5499 has 2 MA's), (7, 5475), (8, 5451), (10, 5346),

Gene: Niagara\_4 Start: 5501, Stop: 5331, Start Num: 5

Candidate Starts for Niagara 4:

(Start: 3 @5549 has 4 MA's), (Start: 4 @5534 has 3 MA's), (Start: 5 @5501 has 2 MA's), (7, 5477), (10, 5348),

Gene: Philon9\_5 Start: 4996, Stop: 4850, Start Num: 7

Candidate Starts for Philon9\_5:

(Start: 3 @ 5068 has 4 MA's), (Start: 4 @ 5053 has 3 MA's), (6, 5014), (7, 4996), (9, 4939), (10, 4867),

Gene: Teatealatte\_4 Start: 5512, Stop: 5294, Start Num: 3

Candidate Starts for Teatealatte 4:

(Start: 3 @5512 has 4 MA's), (Start: 4 @5497 has 3 MA's), (Start: 5 @5464 has 2 MA's), (7, 5440), (10, 5311),

Gene: Teech\_4 Start: 5512, Stop: 5366, Start Num: 7

Candidate Starts for Teech\_4:

(Start: 3 @5584 has 4 MA's), (Start: 4 @5569 has 3 MA's), (Start: 5 @5536 has 2 MA's), (7, 5512), (10, 5383),

Gene: Tredge\_4 Start: 5497, Stop: 5294, Start Num: 4

Candidate Starts for Tredge\_4:

(Start: 3 @5512 has 4 MA's), (Start: 4 @5497 has 3 MA's), (Start: 5 @5464 has 2 MA's), (7, 5440), (10, 5311),