

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 5223 Report

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

Pham number 5223 has 13 members, 3 are drafts.

Phages represented in each track:

- Track 1 : CaptainKirk2\_32, Delian\_33, Zarbodnamra\_32
- Track 2 : PhrostedPhlake 34
- Track 3: Pytheas\_33, Jablanski\_33
- Track 4 : EnalisNailo 31
- Track 5 : Denise 26
- Track 6 : TaronosaurasRx\_31
- Track 7 : BBQValindra 31
- Track 8 : ZAYM 32
- Track 9: Tarzan 28
- Track 10 : TinyDot 30

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

The start number called the most often in the published annotations is 25, it was called in 6 of the 10 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• BBQValindra\_31, CaptainKirk2\_32, Delian\_33, PhrostedPhlake\_34, TaronosaurasRx\_31, Tarzan\_28, ZAYM\_32, Zarbodnamra 32.

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

Denise\_26, EnalisNailo\_31, Jablanski\_33, Pytheas\_33, TinyDot\_30,

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

# Summary by start number:

Start 22:

- Found in 1 of 13 (7.7%) 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: EnalisNailo\_31 (CY1),

#### Start 23:

- Found in 3 of 13 (23.1%) of genes in pham
- Manual Annotations of this start: 3 of 10
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Denise\_26 (CZ5), Jablanski\_33 (CY), Pytheas\_33 (CY),

#### Start 24:

- Found in 1 of 13 (7.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TinyDot\_30 (singleton),

#### Start 25:

- Found in 13 of 13 (100.0%) of genes in pham
- Manual Annotation's of this start: 6 of 10
- Called 61.5% of time when present
- Phage (with cluster) where this start called: BBQValindra\_31 (DB), CaptainKirk2\_32 (CV), Delian\_33 (CV), PhrostedPhlake\_34 (CV), TaronosaurasRx\_31 (DB), Tarzan\_28 (DY), ZAYM\_32 (DB), Zarbodnamra\_32 (CV),

## Summary by clusters:

There are 7 clusters represented in this pham: singleton, DB, CY1, CZ5, CY, DY, CV,

Info for manual annotations of cluster CV:

•Start number 25 was manually annotated 4 times for cluster CV.

Info for manual annotations of cluster CY:

•Start number 23 was manually annotated 2 times for cluster CY.

Info for manual annotations of cluster CY1:

Start number 22 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster CZ5:

•Start number 23 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster DB:

•Start number 25 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DY:

•Start number 25 was manually annotated 1 time for cluster DY.

### Gene Information:

Gene: BBQValindra 31 Start: 27173, Stop: 26904, Start Num: 25

Candidate Starts for BBQValindra\_31: (Start: 25 @27173 has 6 MA's), (30, 27101),

Gene: CaptainKirk2 32 Start: 28104, Stop: 27832, Start Num: 25

Candidate Starts for CaptainKirk2\_32:

(19, 28233), (Start: 25 @28104 has 6 MA's), (28, 28059), (31, 28026),

Gene: Delian\_33 Start: 28102, Stop: 27830, Start Num: 25

Candidate Starts for Delian\_33:

(19, 28231), (Start: 25 @28102 has 6 MA's), (28, 28057), (31, 28024),

Gene: Denise\_26 Start: 23866, Stop: 23543, Start Num: 23

Candidate Starts for Denise 26:

(Start: 23 @23866 has 3 MA's), (Start: 25 @23812 has 6 MA's), (28, 23767), (30, 23740), (34, 23680), (35, 23674),

Gene: EnalisNailo 31 Start: 27729, Stop: 27391, Start Num: 22

Candidate Starts for EnalisNailo\_31:

(Start: 22 @27729 has 1 MA's), (Start: 25 @27660 has 6 MA's), (28, 27615), (32, 27558), (33, 27543),

Gene: Jablanski\_33 Start: 28703, Stop: 28386, Start Num: 23

Candidate Starts for Jablanski 33:

(1, 29936), (2, 29756), (3, 29747), (4, 29687), (5, 29621), (6, 29609), (7, 29438), (8, 29387), (9, 29372), (10, 29231), (11, 29048), (12, 29024), (13, 29012), (15, 28835), (16, 28832), (17, 28811), (18, 28808), (21, 28739), (Start: 23 @28703 has 3 MA's), (Start: 25 @28655 has 6 MA's), (27, 28619), (28, 28610), (30, 28583), (33, 28538),

Gene: PhrostedPhlake\_34 Start: 28772, Stop: 28500, Start Num: 25

Candidate Starts for PhrostedPhlake 34:

(14, 29015), (20, 28877), (Start: 25 @28772 has 6 MA's), (28, 28727), (33, 28655),

Gene: Pytheas\_33 Start: 28702, Stop: 28385, Start Num: 23

Candidate Starts for Pytheas 33:

(1, 29935), (2, 29755), (3, 29746), (4, 29686), (5, 29620), (6, 29608), (7, 29437), (8, 29386), (9, 29371), (10, 29230), (11, 29047), (12, 29023), (13, 29011), (15, 28834), (16, 28831), (17, 28810), (18, 28807), (21, 28738), (Start: 23 @28702 has 3 MA's), (Start: 25 @28654 has 6 MA's), (27, 28618), (28, 28609), (30, 28582), (33, 28537),

Gene: TaronosaurasRx 31 Start: 27377, Stop: 27108, Start Num: 25

Candidate Starts for TaronosaurasRx 31:

(Start: 25 @27377 has 6 MA's), (28, 27332), (29, 27314), (30, 27305),

Gene: Tarzan\_28 Start: 24059, Stop: 23790, Start Num: 25

Candidate Starts for Tarzan\_28:

(Start: 25 @24059 has 6 MA's), (26, 24029), (28, 24014), (30, 23987),

Gene: TinyDot\_30 Start: 24269, Stop: 23961, Start Num: 24

Candidate Starts for TinyDot 30:

(24, 24269), (Start: 25 @24233 has 6 MA's), (28, 24188), (30, 24161),

Gene: ZAYM\_32 Start: 27841, Stop: 27569, Start Num: 25

Candidate Starts for ZAYM\_32:

(Start: 25 @27841 has 6 MA's), (28, 27796), (30, 27769),

Gene: Zarbodnamra 32 Start: 28124, Stop: 27852, Start Num: 25

Candidate Starts for Zarbodnamra\_32:

(19, 28253), (Start: 25 @28124 has 6 MA's), (28, 28079), (31, 28046),