

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 129813 Report

This analysis was run 04/05/24 on database version 557.

Pham number 129813 has 9 members, 2 are drafts.

Phages represented in each track:

• Track 1: Indlovu 33

Track 2 : Hashim76_39, BirdsNest_37

Track 3 : Zenteno07_39

Track 4 : Saguaro_36

• Track 5 : Thonko 34

Track 6 : Quesadilla_37

• Track 7: PenguinLover67 37

• Track 8 : StAugustine_53

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

The start number called the most often in the published annotations is 33, it was called in 3 of the 7 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• PenguinLover67_37, Quesadilla_37, Saguaro_36,

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

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

• BirdsNest_37, Hashim76_39, Indlovu_33, StAugustine_53, Thonko_34, Zenteno07_39,

Summary by start number:

Start 31:

- Found in 1 of 9 (11.1%) of genes in pham
- Manual Annotations of this start: 1 of 7
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Thonko_34 (B8),

Start 33:

• Found in 3 of 9 (33.3%) of genes in pham

- Manual Annotations of this start: 3 of 7
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PenguinLover67_37 (B9), Quesadilla_37 (B9), Saguaro_36 (B7),

Start 34:

- Found in 1 of 9 (11.1%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: StAugustine_53 (singleton),

Start 35:

- Found in 7 of 9 (77.8%) of genes in pham
- Manual Annotations of this start: 3 of 7
- Called 57.1% of time when present
- Phage (with cluster) where this start called: BirdsNest_37 (B13), Hashim76_39 (B13), Indlovu_33 (B11), Zenteno07_39 (B13),

Summary by clusters:

There are 6 clusters represented in this pham: singleton, B7, B13, B11, B8, B9,

Info for manual annotations of cluster B11:

•Start number 35 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B13:

•Start number 35 was manually annotated 2 times for cluster B13.

Info for manual annotations of cluster B7:

•Start number 33 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:

•Start number 31 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

•Start number 33 was manually annotated 2 times for cluster B9.

Gene Information:

Gene: BirdsNest_37 Start: 33252, Stop: 32962, Start Num: 35

Candidate Starts for BirdsNest 37:

(Start: 35 @ 33252 has 3 MA's), (44, 33123), (46, 33099), (54, 32979),

Gene: Hashim76_39 Start: 33734, Stop: 33444, Start Num: 35

Candidate Starts for Hashim76_39:

(Start: 35 @33734 has 3 MA's), (44, 33605), (46, 33581), (54, 33461),

Gene: Indlovu 33 Start: 33712, Stop: 33434, Start Num: 35

Candidate Starts for Indlovu 33:

(Start: 35 @33712 has 3 MA's), (36, 33679), (37, 33673), (47, 33517), (48, 33508), (50, 33484), (53, 23473)

33472),

Gene: PenguinLover67_37 Start: 36194, Stop: 35862, Start Num: 33

Candidate Starts for PenguinLover67_37:

(20, 36395), (21, 36377), (22, 36365), (24, 36356), (25, 36347), (26, 36344), (28, 36305), (29, 36272), (Start: 33 @36194 has 3 MA's), (Start: 35 @36185 has 3 MA's), (37, 36146), (41, 36080), (43, 36062), (45, 36044), (54, 35921),

Gene: Quesadilla_37 Start: 36205, Stop: 35873, Start Num: 33

Candidate Starts for Quesadilla_37:

 $\begin{array}{l} (1, 36784), (2, 36781), (3, 36775), (4, 36721), (5, 36682), (6, 36655), (7, 36628), (8, 36619), (9, 36592), (10, 36586), (11, 36577), (12, 36556), (13, 36541), (14, 36535), (15, 36532), (16, 36496), (17, 36490), (18, 36460), (19, 36445), (20, 36406), (23, 36373), (25, 36358), (26, 36355), (27, 36352), (28, 36316), (30, 36268), (Start: 33 @36205 has 3 MA's), (Start: 35 @36196 has 3 MA's), (37, 36157), (38, 36130), (43, 36073), (44, 36067), (52, 35959), (54, 35932), \end{array}$

Gene: Saguaro_36 Start: 35857, Stop: 35573, Start Num: 33

Candidate Starts for Saguaro_36:

(Start: 33 @35857 has 3 MA's), (Start: 35 @35848 has 3 MA's), (38, 35782), (45, 35707), (47, 35653), (48, 35644), (49, 35641), (50, 35620), (51, 35614),

Gene: StAugustine_53 Start: 43814, Stop: 44113, Start Num: 34 Candidate Starts for StAugustine_53:

(34, 43814), (41, 43925), (44, 43949), (47, 44024),

Gene: Thonko_34 Start: 32190, Stop: 31867, Start Num: 31

Candidate Starts for Thonko_34:

(Start: 31 @32190 has 1 MA's), (32, 32184), (40, 32097), (41, 32085), (42, 32082), (54, 31926),

Gene: Zenteno07_39 Start: 33925, Stop: 33635, Start Num: 35

Candidate Starts for Zenteno07_39:

(Start: 35 @33925 has 3 MA's), (39, 33835), (46, 33772), (54, 33652),