

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 134140 Report

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

Pham number 134140 has 16 members, 1 are drafts.

Phages represented in each track:

- Track 1: Kristoff\_33, Twister\_32, Rebeuca\_33, WalterMcMickey\_32
- Track 2 : Eaglepride\_33
- Track 3: RhynO\_33
- Track 4 : Edison31\_32
- Track 5 : Topanga\_32
- Track 6: Phrappuccino\_196, Settecandela\_221
- Track 7 : GodonK 90
- Track 8: Mareelih\_100, BlueNGold\_101, Boopy\_102, Forza\_102
- Track 9 : Sixama\_100

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

The start number called the most often in the published annotations is 10, it was called in 8 of the 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Eaglepride\_33, Kristoff\_33, Phrappuccino\_196, Rebeuca\_33, RhynO\_33, Settecandela\_221, Twister\_32, WalterMcMickey\_32,

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

• Edison31\_32,

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

• BlueNGold\_101, Boopy\_102, Forza\_102, GodonK\_90, Mareelih\_100, Sixama\_100, Topanga\_32,

## Summary by start number:

## Start 8:

- Found in 5 of 16 (31.2%) of genes in pham
- Manual Annotations of this start: 5 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlueNGold\_101 (DS), Boopy\_102 (DS), Forza\_102 (DS), Mareelih\_100 (DS), Sixama\_100 (DS),

#### Start 9:

- Found in 1 of 16 (6.2%) of genes in pham
- Manual Annotations of this start: 1 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GodonK\_90 (DK),

### Start 10:

- Found in 9 of 16 (56.2%) of genes in pham
- Manual Annotations of this start: 8 of 15
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Eaglepride\_33 (A10), Kristoff\_33 (A10), Phrappuccino\_196 (AA), Rebeuca\_33 (A10), RhynO\_33 (A10), Settecandela\_221 (AA), Twister\_32 (A10), WalterMcMickey\_32 (A10),

#### Start 12:

- Found in 7 of 16 (43.8%) of genes in pham
- No Manual Annotations of this start.
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Edison31\_32 (A10),

### Start 13:

- Found in 10 of 16 (62.5%) of genes in pham
- Manual Annotations of this start: 1 of 15
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Topanga\_32 (A10),

# Summary by clusters:

There are 4 clusters represented in this pham: AA, DK, A10, DS,

Info for manual annotations of cluster A10:

- •Start number 10 was manually annotated 6 times for cluster A10.
- Start number 13 was manually annotated 1 time for cluster A10.

Info for manual annotations of cluster AA:

•Start number 10 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster DK:

Start number 9 was manually annotated 1 time for cluster DK.

Info for manual annotations of cluster DS:

•Start number 8 was manually annotated 5 times for cluster DS.

## Gene Information:

Gene: BlueNGold 101 Start: 61645, Stop: 61857, Start Num: 8

Candidate Starts for BlueNGold 101:

(Start: 8 @ 61645 has 5 MA's), (17, 61735), (18, 61738), (20, 61765), (22, 61774),

Gene: Boopy\_102 Start: 61657, Stop: 61869, Start Num: 8

Candidate Starts for Boopy\_102:

(Start: 8 @ 61657 has 5 MA's), (17, 61747), (18, 61750), (20, 61777), (22, 61786),

Gene: Eaglepride\_33 Start: 23262, Stop: 23453, Start Num: 10

Candidate Starts for Eaglepride\_33:

(4, 23118), (5, 23139), (7, 23223), (Start: 10 @23262 has 8 MA's), (12, 23295), (Start: 13 @23298 has 1 MA's), (14, 23313), (16, 23319),

Gene: Edison31\_32 Start: 23325, Stop: 23486, Start Num: 12

Candidate Starts for Edison31\_32:

(Start: 10 @23292 has 8 MA's), (11, 23322), (12, 23325), (Start: 13 @23328 has 1 MA's), (19, 23385), (20, 23394),

Gene: Forza\_102 Start: 61573, Stop: 61785, Start Num: 8

Candidate Starts for Forza\_102:

(Start: 8 @61573 has 5 MA's), (17, 61663), (18, 61666), (20, 61693), (22, 61702),

Gene: GodonK\_90 Start: 53952, Stop: 54155, Start Num: 9

Candidate Starts for GodonK 90:

(Start: 9 @53952 has 1 MA's), (18, 54039), (19, 54057), (21, 54072), (22, 54075),

Gene: Kristoff\_33 Start: 23456, Stop: 23650, Start Num: 10

Candidate Starts for Kristoff\_33:

(Start: 10 @23456 has 8 MA's), (11, 23486), (12, 23489), (Start: 13 @23492 has 1 MA's), (19, 23549), (20, 23558),

Gene: Mareelih\_100 Start: 61075, Stop: 61287, Start Num: 8

Candidate Starts for Mareelih 100:

(Start: 8 @61075 has 5 MA's), (17, 61165), (18, 61168), (20, 61195), (22, 61204),

Gene: Phrappuccino\_196 Start: 132446, Stop: 132622, Start Num: 10

Candidate Starts for Phrappuccino\_196:

(6, 132395), (Start: 10 @132446 has 8 MA's), (Start: 13 @132482 has 1 MA's), (14, 132497), (22, 132557), (23, 132605),

Gene: Rebeuca\_33 Start: 23457, Stop: 23651, Start Num: 10

Candidate Starts for Rebeuca\_33:

(Start: 10 @23457 has 8 MA's), (11, 23487), (12, 23490), (Start: 13 @23493 has 1 MA's), (19, 23550), (20, 23559),

Gene: RhynO\_33 Start: 23438, Stop: 23626, Start Num: 10

Candidate Starts for RhynO\_33:

(Start: 10 @23438 has 8 MA's), (11, 23465), (Start: 13 @23471 has 1 MA's), (15, 23489), (19, 23528), (20, 23537),

Gene: Settecandela\_221 Start: 141293, Stop: 141469, Start Num: 10

Candidate Starts for Settecandela\_221:

(6, 141242), (Start: 10 @141293 has 8 MA's), (Start: 13 @141329 has 1 MA's), (14, 141344), (22, 141404), (23, 141452),

Gene: Sixama\_100 Start: 61090, Stop: 61335, Start Num: 8

Candidate Starts for Sixama 100:

(Start: 8 @61090 has 5 MA's), (11, 61138), (15, 61162), (22, 61219),

Gene: Topanga\_32 Start: 23414, Stop: 23569, Start Num: 13

Candidate Starts for Topanga\_32:

 $(1,\,22988),\,(2,\,23087),\,(3,\,23090),\,(4,\,23237),\,(5,\,23258),\,(7,\,23342),\,(12,\,23411),\,(Start:\,13\,\,@23414),\,(12,\,23411),\,(12,\,23411),\,(13,\,23091),\,(13,\,23091),\,(14,\,23237),\,(15,\,23258),\,(15,\,23258),\,(15,\,23342),\,(15,\,234111),\,(15,\,234111),\,(15$ 

has 1 MA's), (19, 23471), (20, 23480),

Gene: Twister\_32 Start: 23290, Stop: 23484, Start Num: 10

Candidate Starts for Twister\_32:

(Start: 10 @23290 has 8 MA's), (11, 23320), (12, 23323), (Start: 13 @23326 has 1 MA's), (19, 23383),

(20, 23392),

Gene: WalterMcMickey\_32 Start: 23290, Stop: 23484, Start Num: 10

Candidate Starts for WalterMcMickey\_32:

(Start: 10 @23290 has 8 MA's), (11, 23320), (12, 23323), (Start: 13 @23326 has 1 MA's), (19, 23383),

(20, 23392),