

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 221811 Report

This analysis was run 03/28/25 on database version 593.

Pham number 221811 has 19 members, 3 are drafts.

Phages represented in each track:

- Track 1 : HippoPololi\_4, Survivors\_4
- Track 2 : Bradissa\_75
- Track 3: BotCity\_103, Whitney\_102
- Track 4 : ODay\_117
- Track 5 : LitninMcQueen\_108, ShawBrad\_108
- Track 6 : Frickyeah\_105
- Track 7 : Kamaru\_95, Leroy\_101
- Track 8 : CheeseTouch 108
- Track 9 : Horus 101
- Track 10 : Holliday\_100
- Track 11 : Kuwabara\_92
- Track 12 : Ligma\_5, Axumite\_5, Shatter\_5, Fresco\_5

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

The start number called the most often in the published annotations is 8, it was called in 9 of the 16 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• BotCity\_103, Bradissa\_75, CheeseTouch\_108, Frickyeah\_105, Holliday\_100, Kamaru\_95, Kuwabara\_92, Leroy\_101, LitninMcQueen\_108, ODay\_117, ShawBrad\_108, Whitney\_102,

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

Horus\_101,

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

Axumite\_5, Fresco\_5, HippoPololi\_4, Ligma\_5, Shatter\_5, Survivors\_4,

## Summary by start number:

### Start 7:

- Found in 6 of 19 (31.6%) of genes in pham
- Manual Annotations of this start: 6 of 16

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Axumite\_5 (DR), Fresco\_5 (DR), HippoPololi\_4 (CT), Ligma\_5 (DR), Shatter\_5 (DR), Survivors\_4 (CT),

#### Start 8:

- Found in 13 of 19 (68.4%) of genes in pham
- Manual Annotations of this start: 9 of 16
- Called 92.3% of time when present
- Phage (with cluster) where this start called: BotCity\_103 (DN), Bradissa\_75 (CY1), CheeseTouch\_108 (DN1), Frickyeah\_105 (DN1), Holliday\_100 (DN1), Kamaru\_95 (DN1), Kuwabara\_92 (DN4), Leroy\_101 (DN1), LitninMcQueen\_108 (DN1), ODay\_117 (DN), ShawBrad\_108 (DN1), Whitney\_102 (DN1),

## Start 9:

- Found in 12 of 19 (63.2%) of genes in pham
- Manual Annotation's of this start: 1 of 16
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Horus\_101 (DN1),

## **Summary by clusters:**

There are 6 clusters represented in this pham: DN, CY1, DN4, DN1, DR, CT,

Info for manual annotations of cluster CT:

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

Info for manual annotations of cluster CY1:

•Start number 8 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster DN:

•Start number 8 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:

- •Start number 8 was manually annotated 6 times for cluster DN1.
- •Start number 9 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DN4:

•Start number 8 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster DR:

•Start number 7 was manually annotated 4 times for cluster DR.

### Gene Information:

Gene: Axumite\_5 Start: 4365, Stop: 4174, Start Num: 7

Candidate Starts for Axumite\_5:

(4, 4425), (Start: 7 @4365 has 6 MA's), (10, 4329),

Gene: BotCity\_103 Start: 54401, Stop: 54577, Start Num: 8

Candidate Starts for BotCity 103:

(Start: 8 @54401 has 9 MA's), (Start: 9 @54413 has 1 MA's), (13, 54491), (14, 54500),

Gene: Bradissa\_75 Start: 51343, Stop: 51531, Start Num: 8

Candidate Starts for Bradissa\_75:

(Start: 8 @51343 has 9 MA's), (12, 51391), (16, 51463), (17, 51508),

Gene: CheeseTouch\_108 Start: 52489, Stop: 52665, Start Num: 8

Candidate Starts for CheeseTouch\_108:

(Start: 8 @52489 has 9 MA's), (Start: 9 @52501 has 1 MA's), (13, 52579), (14, 52588),

Gene: Fresco\_5 Start: 4365, Stop: 4174, Start Num: 7

Candidate Starts for Fresco 5:

(4, 4425), (Start: 7 @4365 has 6 MA's), (10, 4329),

Gene: Frickyeah\_105 Start: 53901, Stop: 54077, Start Num: 8

Candidate Starts for Frickyeah\_105:

(Start: 8 @53901 has 9 MA's), (Start: 9 @53913 has 1 MA's), (13, 53991), (14, 54000),

Gene: HippoPololi\_4 Start: 1032, Stop: 1214, Start Num: 7

Candidate Starts for HippoPololi 4:

(6, 1023), (Start: 7 @1032 has 6 MA's), (12, 1083), (15, 1140),

Gene: Holliday\_100 Start: 56152, Stop: 56328, Start Num: 8

Candidate Starts for Holliday 100:

(1, 55747), (2, 55756), (5, 56095), (Start: 8 @56152 has 9 MA's), (Start: 9 @56164 has 1 MA's), (13, 56242), (14, 56251),

Gene: Horus\_101 Start: 54188, Stop: 54352, Start Num: 9

Candidate Starts for Horus 101:

(Start: 8 @54176 has 9 MA's), (Start: 9 @54188 has 1 MA's), (13, 54266), (14, 54275),

Gene: Kamaru\_95 Start: 52035, Stop: 52211, Start Num: 8

Candidate Starts for Kamaru\_95:

(5, 51978), (Start: 8 @52035 has 9 MA's), (Start: 9 @52047 has 1 MA's), (13, 52125), (14, 52134),

Gene: Kuwabara\_92 Start: 53341, Stop: 53517, Start Num: 8

Candidate Starts for Kuwabara 92:

(3, 53239), (Start: 8 @53341 has 9 MA's), (Start: 9 @53353 has 1 MA's), (13, 53431), (14, 53440),

Gene: Leroy\_101 Start: 52371, Stop: 52547, Start Num: 8

Candidate Starts for Leroy\_101:

(5, 52314), (Start: 8 @52371 has 9 MA's), (Start: 9 @52383 has 1 MA's), (13, 52461), (14, 52470),

Gene: Ligma\_5 Start: 4365, Stop: 4174, Start Num: 7

Candidate Starts for Ligma 5:

(4, 4425), (Start: 7 @4365 has 6 MA's), (10, 4329),

Gene: LitninMcQueen\_108 Start: 55800, Stop: 55976, Start Num: 8

Candidate Starts for LitninMcQueen\_108:

(5, 55743), (Start: 8 @55800 has 9 MA's), (Start: 9 @55812 has 1 MA's), (11, 55836), (13, 55890), (14, 55899),

Gene: ODay\_117 Start: 58087, Stop: 58263, Start Num: 8

Candidate Starts for ODay\_117:

(Start: 8 @58087 has 9 MA's), (Start: 9 @58099 has 1 MA's), (13, 58177), (14, 58186),

Gene: Shatter\_5 Start: 4365, Stop: 4174, Start Num: 7

Candidate Starts for Shatter\_5:

(4, 4425), (Start: 7 @4365 has 6 MA's), (10, 4329),

Gene: ShawBrad\_108 Start: 54434, Stop: 54610, Start Num: 8

Candidate Starts for ShawBrad\_108:

(5, 54377), (Start: 8 @54434 has 9 MA's), (Start: 9 @54446 has 1 MA's), (11, 54470), (13, 54524), (14, 54533),

Gene: Survivors\_4 Start: 1009, Stop: 1191, Start Num: 7

Candidate Starts for Survivors\_4:

(6, 1000), (Start: 7 @1009 has 6 MA's), (12, 1060), (15, 1117),

Gene: Whitney\_102 Start: 55125, Stop: 55301, Start Num: 8

Candidate Starts for Whitney\_102:

(Start: 8 @55125 has 9 MA's), (Start: 9 @55137 has 1 MA's), (13, 55215), (14, 55224),