



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 3552 Report

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

Pham number 3552 has 22 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Helpful\_76
- Track 2 : Penelope2018\_73, Troll4\_73, Giuseppe\_75, Adjutor\_71, BigMama\_71, Mopey\_75, Thoth\_73, Delton\_73, Visconti\_74, KandZ\_71, PBI1\_69, Butterscotch\_71, PLOT\_73
- Track 3 : Erk16\_73, WaldoWhy\_75, Chill\_75
- Track 4 : SirHarley\_75, Gumball\_73, Nova\_73
- Track 5 : Prager\_73
- Track 6 : Hawkeye\_85

### ***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 17 of the 21 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adjutor\_71, BigMama\_71, Butterscotch\_71, Chill\_75, Delton\_73, Erk16\_73, Giuseppe\_75, Helpful\_76, KandZ\_71, Mopey\_75, PBI1\_69, PLOT\_73, Penelope2018\_73, Thoth\_73, Troll4\_73, Visconti\_74, WaldoWhy\_75,

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

- Gumball\_73, Nova\_73, Prager\_73, SirHarley\_75,

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

- Hawkeye\_85,

### **Summary by start number:**

Start 3:

- Found in 21 of 22 ( 95.5% ) of genes in pham
- Manual Annotations of this start: 17 of 21
- Called 81.0% of time when present
- Phage (with cluster) where this start called: Adjutor\_71 (D1), BigMama\_71 (D1), Butterscotch\_71 (D1), Chill\_75 (D1), Delton\_73 (D1), Erk16\_73 (D1), Giuseppe\_75 (D1), Helpful\_76 (D1), KandZ\_71 (D1), Mopey\_75 (D1), PBI1\_69 (D1), PLOT\_73 (D1),

Penelope2018\_73 (D1), Thoth\_73 (D1), Troll4\_73 (D1), Visconti\_74 (D1),  
WaldoWhy\_75 (D1),

Start 4:

- Found in 22 of 22 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 4 of 21
- Called 22.7% of time when present
- Phage (with cluster) where this start called: Gumball\_73 (D1), Hawkeye\_85 (D2), Nova\_73 (D1), Prager\_73 (D1), SirHarley\_75 (D1),

### **Summary by clusters:**

There are 2 clusters represented in this pham: D2, D1,

Info for manual annotations of cluster D1:

- Start number 3 was manually annotated 17 times for cluster D1.
- Start number 4 was manually annotated 3 times for cluster D1.

Info for manual annotations of cluster D2:

- Start number 4 was manually annotated 1 time for cluster D2.

### **Gene Information:**

Gene: Adjutor\_71 Start: 56026, Stop: 56301, Start Num: 3

Candidate Starts for Adjutor\_71:

(Start: 3 @56026 has 17 MA's), (Start: 4 @56041 has 4 MA's), (7, 56176), (9, 56293),

Gene: BigMama\_71 Start: 56099, Stop: 56374, Start Num: 3

Candidate Starts for BigMama\_71:

(Start: 3 @56099 has 17 MA's), (Start: 4 @56114 has 4 MA's), (7, 56249), (9, 56366),

Gene: Butterscotch\_71 Start: 56077, Stop: 56352, Start Num: 3

Candidate Starts for Butterscotch\_71:

(Start: 3 @56077 has 17 MA's), (Start: 4 @56092 has 4 MA's), (7, 56227), (9, 56344),

Gene: Chill\_75 Start: 56054, Stop: 56329, Start Num: 3

Candidate Starts for Chill\_75:

(Start: 3 @56054 has 17 MA's), (Start: 4 @56069 has 4 MA's), (7, 56204), (9, 56321),

Gene: Delton\_73 Start: 56475, Stop: 56750, Start Num: 3

Candidate Starts for Delton\_73:

(Start: 3 @56475 has 17 MA's), (Start: 4 @56490 has 4 MA's), (7, 56625), (9, 56742),

Gene: Erk16\_73 Start: 56132, Stop: 56407, Start Num: 3

Candidate Starts for Erk16\_73:

(Start: 3 @56132 has 17 MA's), (Start: 4 @56147 has 4 MA's), (7, 56282), (9, 56399),

Gene: Giuseppe\_75 Start: 56004, Stop: 56279, Start Num: 3

Candidate Starts for Giuseppe\_75:

(Start: 3 @56004 has 17 MA's), (Start: 4 @56019 has 4 MA's), (7, 56154), (9, 56271),

Gene: Gumball\_73 Start: 56492, Stop: 56752, Start Num: 4  
Candidate Starts for Gumball\_73:  
(1, 56363), (Start: 3 @56477 has 17 MA's), (Start: 4 @56492 has 4 MA's), (7, 56627), (9, 56744),

Gene: Hawkeye\_85 Start: 57789, Stop: 58046, Start Num: 4  
Candidate Starts for Hawkeye\_85:  
(2, 57765), (Start: 4 @57789 has 4 MA's), (5, 57792), (6, 57885), (7, 57930), (8, 57954),

Gene: Helpful\_76 Start: 56392, Stop: 56667, Start Num: 3  
Candidate Starts for Helpful\_76:  
(Start: 3 @56392 has 17 MA's), (Start: 4 @56407 has 4 MA's), (7, 56542), (9, 56659),

Gene: KandZ\_71 Start: 56221, Stop: 56496, Start Num: 3  
Candidate Starts for KandZ\_71:  
(Start: 3 @56221 has 17 MA's), (Start: 4 @56236 has 4 MA's), (7, 56371), (9, 56488),

Gene: Mopey\_75 Start: 56030, Stop: 56305, Start Num: 3  
Candidate Starts for Mopey\_75:  
(Start: 3 @56030 has 17 MA's), (Start: 4 @56045 has 4 MA's), (7, 56180), (9, 56297),

Gene: Nova\_73 Start: 56515, Stop: 56775, Start Num: 4  
Candidate Starts for Nova\_73:  
(1, 56386), (Start: 3 @56500 has 17 MA's), (Start: 4 @56515 has 4 MA's), (7, 56650), (9, 56767),

Gene: PBI1\_69 Start: 56008, Stop: 56283, Start Num: 3  
Candidate Starts for PBI1\_69:  
(Start: 3 @56008 has 17 MA's), (Start: 4 @56023 has 4 MA's), (7, 56158), (9, 56275),

Gene: PLOT\_73 Start: 56030, Stop: 56305, Start Num: 3  
Candidate Starts for PLOT\_73:  
(Start: 3 @56030 has 17 MA's), (Start: 4 @56045 has 4 MA's), (7, 56180), (9, 56297),

Gene: Penelope2018\_73 Start: 56064, Stop: 56339, Start Num: 3  
Candidate Starts for Penelope2018\_73:  
(Start: 3 @56064 has 17 MA's), (Start: 4 @56079 has 4 MA's), (7, 56214), (9, 56331),

Gene: Prager\_73 Start: 56139, Stop: 56399, Start Num: 4  
Candidate Starts for Prager\_73:  
(Start: 3 @56124 has 17 MA's), (Start: 4 @56139 has 4 MA's), (7, 56274), (9, 56391),

Gene: SirHarley\_75 Start: 56475, Stop: 56735, Start Num: 4  
Candidate Starts for SirHarley\_75:  
(1, 56346), (Start: 3 @56460 has 17 MA's), (Start: 4 @56475 has 4 MA's), (7, 56610), (9, 56727),

Gene: Thoth\_73 Start: 56118, Stop: 56393, Start Num: 3  
Candidate Starts for Thoth\_73:  
(Start: 3 @56118 has 17 MA's), (Start: 4 @56133 has 4 MA's), (7, 56268), (9, 56385),

Gene: Troll4\_73 Start: 56186, Stop: 56461, Start Num: 3  
Candidate Starts for Troll4\_73:  
(Start: 3 @56186 has 17 MA's), (Start: 4 @56201 has 4 MA's), (7, 56336), (9, 56453),

Gene: Visconti\_74 Start: 56094, Stop: 56369, Start Num: 3

Candidate Starts for Visconti\_74:

(Start: 3 @56094 has 17 MA's), (Start: 4 @56109 has 4 MA's), (7, 56244), (9, 56361),

Gene: WaldoWhy\_75 Start: 56054, Stop: 56329, Start Num: 3

Candidate Starts for WaldoWhy\_75:

(Start: 3 @56054 has 17 MA's), (Start: 4 @56069 has 4 MA's), (7, 56204), (9, 56321),