



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 221762 Report

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

Pham number 221762 has 22 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Troll4\_74, Giuseppe\_76, BigMama\_72, SirHarley\_76, PBI1\_70, Delton\_74, Visconti\_75, Penelope2018\_74, Gumball\_74, KandZ\_72
- Track 2 : Helpful\_77, Erk16\_74, Adjutor\_72, Mopey\_76, Thoth\_74, WaldoWhy\_76, Prager\_75, Chill\_76, Butterscotch\_72, Nova\_74, PLOT\_74
- Track 3 : Phalaborwa\_77

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

The start number called the most often in the published annotations is 1, it was called in 11 of the 21 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adjutor\_72, Butterscotch\_72, Chill\_76, Erk16\_74, Helpful\_77, Mopey\_76, Nova\_74, PLOT\_74, Phalaborwa\_77, Prager\_75, Thoth\_74, WaldoWhy\_76,

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

- BigMama\_72, Delton\_74, Giuseppe\_76, Gumball\_74, KandZ\_72, PBI1\_70, Penelope2018\_74, SirHarley\_76, Troll4\_74, Visconti\_75,

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

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

Start 1:

- Found in 22 of 22 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 11 of 21
- Called 54.5% of time when present
- Phage (with cluster) where this start called: Adjutor\_72 (D1), Butterscotch\_72 (D1), Chill\_76 (D1), Erk16\_74 (D1), Helpful\_77 (D1), Mopey\_76 (D1), Nova\_74 (D1), PLOT\_74 (D1), Phalaborwa\_77 (D1), Prager\_75 (D1), Thoth\_74 (D1), WaldoWhy\_76 (D1),

Start 2:

- Found in 22 of 22 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 10 of 21
- Called 45.5% of time when present
- Phage (with cluster) where this start called: BigMama\_72 (D1), Delton\_74 (D1), Giuseppe\_76 (D1), Gumball\_74 (D1), KandZ\_72 (D1), PBI1\_70 (D1), Penelope2018\_74 (D1), SirHarley\_76 (D1), Troll4\_74 (D1), Visconti\_75 (D1),

### **Summary by clusters:**

There is one cluster represented in this pham: D1

Info for manual annotations of cluster D1:

- Start number 1 was manually annotated 11 times for cluster D1.
- Start number 2 was manually annotated 10 times for cluster D1.

### **Gene Information:**

Gene: Adjutor\_72 Start: 56286, Stop: 56537, Start Num: 1

Candidate Starts for Adjutor\_72:

(Start: 1 @56286 has 11 MA's), (Start: 2 @56304 has 10 MA's), (3, 56340), (4, 56499),

Gene: BigMama\_72 Start: 56377, Stop: 56610, Start Num: 2

Candidate Starts for BigMama\_72:

(Start: 1 @56359 has 11 MA's), (Start: 2 @56377 has 10 MA's), (3, 56413), (4, 56572),

Gene: Butterscotch\_72 Start: 56337, Stop: 56588, Start Num: 1

Candidate Starts for Butterscotch\_72:

(Start: 1 @56337 has 11 MA's), (Start: 2 @56355 has 10 MA's), (3, 56391), (4, 56550),

Gene: Chill\_76 Start: 56314, Stop: 56565, Start Num: 1

Candidate Starts for Chill\_76:

(Start: 1 @56314 has 11 MA's), (Start: 2 @56332 has 10 MA's), (3, 56368), (4, 56527),

Gene: Delton\_74 Start: 56753, Stop: 56986, Start Num: 2

Candidate Starts for Delton\_74:

(Start: 1 @56735 has 11 MA's), (Start: 2 @56753 has 10 MA's), (3, 56789), (4, 56948),

Gene: Erk16\_74 Start: 56392, Stop: 56643, Start Num: 1

Candidate Starts for Erk16\_74:

(Start: 1 @56392 has 11 MA's), (Start: 2 @56410 has 10 MA's), (3, 56446), (4, 56605),

Gene: Giuseppe\_76 Start: 56282, Stop: 56515, Start Num: 2

Candidate Starts for Giuseppe\_76:

(Start: 1 @56264 has 11 MA's), (Start: 2 @56282 has 10 MA's), (3, 56318), (4, 56477),

Gene: Gumball\_74 Start: 56755, Stop: 56988, Start Num: 2

Candidate Starts for Gumball\_74:

(Start: 1 @56737 has 11 MA's), (Start: 2 @56755 has 10 MA's), (3, 56791), (4, 56950),

Gene: Helpful\_77 Start: 56652, Stop: 56903, Start Num: 1

Candidate Starts for Helpful\_77:

(Start: 1 @56652 has 11 MA's), (Start: 2 @56670 has 10 MA's), (3, 56706), (4, 56865),

Gene: KandZ\_72 Start: 56499, Stop: 56780, Start Num: 2

Candidate Starts for KandZ\_72:

(Start: 1 @56481 has 11 MA's), (Start: 2 @56499 has 10 MA's), (3, 56535), (4, 56694),

Gene: Mopey\_76 Start: 56290, Stop: 56541, Start Num: 1

Candidate Starts for Mopey\_76:

(Start: 1 @56290 has 11 MA's), (Start: 2 @56308 has 10 MA's), (3, 56344), (4, 56503),

Gene: Nova\_74 Start: 56760, Stop: 57011, Start Num: 1

Candidate Starts for Nova\_74:

(Start: 1 @56760 has 11 MA's), (Start: 2 @56778 has 10 MA's), (3, 56814), (4, 56973),

Gene: PBI1\_70 Start: 56286, Stop: 56519, Start Num: 2

Candidate Starts for PBI1\_70:

(Start: 1 @56268 has 11 MA's), (Start: 2 @56286 has 10 MA's), (3, 56322), (4, 56481),

Gene: PLOT\_74 Start: 56290, Stop: 56541, Start Num: 1

Candidate Starts for PLOT\_74:

(Start: 1 @56290 has 11 MA's), (Start: 2 @56308 has 10 MA's), (3, 56344), (4, 56503),

Gene: Penelope2018\_74 Start: 56342, Stop: 56575, Start Num: 2

Candidate Starts for Penelope2018\_74:

(Start: 1 @56324 has 11 MA's), (Start: 2 @56342 has 10 MA's), (3, 56378), (4, 56537),

Gene: Phalaborwa\_77 Start: 56917, Stop: 57168, Start Num: 1

Candidate Starts for Phalaborwa\_77:

(Start: 1 @56917 has 11 MA's), (Start: 2 @56935 has 10 MA's), (3, 56971), (4, 57130),

Gene: Prager\_75 Start: 56384, Stop: 56635, Start Num: 1

Candidate Starts for Prager\_75:

(Start: 1 @56384 has 11 MA's), (Start: 2 @56402 has 10 MA's), (3, 56438), (4, 56597),

Gene: SirHarley\_76 Start: 56738, Stop: 56971, Start Num: 2

Candidate Starts for SirHarley\_76:

(Start: 1 @56720 has 11 MA's), (Start: 2 @56738 has 10 MA's), (3, 56774), (4, 56933),

Gene: Thoth\_74 Start: 56378, Stop: 56629, Start Num: 1

Candidate Starts for Thoth\_74:

(Start: 1 @56378 has 11 MA's), (Start: 2 @56396 has 10 MA's), (3, 56432), (4, 56591),

Gene: Troll4\_74 Start: 56464, Stop: 56697, Start Num: 2

Candidate Starts for Troll4\_74:

(Start: 1 @56446 has 11 MA's), (Start: 2 @56464 has 10 MA's), (3, 56500), (4, 56659),

Gene: Visconti\_75 Start: 56372, Stop: 56605, Start Num: 2

Candidate Starts for Visconti\_75:

(Start: 1 @56354 has 11 MA's), (Start: 2 @56372 has 10 MA's), (3, 56408), (4, 56567),

Gene: WaldoWhy\_76 Start: 56314, Stop: 56565, Start Num: 1

Candidate Starts for WaldoWhy\_76:

(Start: 1 @56314 has 11 MA's), (Start: 2 @56332 has 10 MA's), (3, 56368), (4, 56527),

