

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 86550 Report

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

Pham number 86550 has 22 members, 2 are drafts.

Phages represented in each track:

- Track 1 : WilliamBoone\_189
- Track 2 : BrutonGaster\_164
- Track 3: Stultus\_3, Bibwit\_3, Lennon\_3, Sitar\_3, Keitabear\_3
- Track 4 : Jabberwocky\_3, McKinley\_3, Fitzgerald\_3
- Track 5 : Shivanishola 3, Sedona 3, Geodirt 3
- Track 6 : Ailee\_3
- Track 7 : Sanjuju\_3
- Track 8 : Derg\_3
- Track 9 : ChadMasterC 3
- Track 10 : Hans 4
- Track 11 : MelBins 4, Phinally 4, Leonard 4
- Track 12 : Inspectinfecti 3

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

The start number called the most often in the published annotations is 19, it was called in 15 of the 20 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Ailee\_3, Bibwit\_3, ChadMasterC\_3, Geodirt\_3, Hans\_4, Inspectinfecti\_3, Keitabear\_3, Lennon\_3, Leonard\_4, MelBins\_4, Phinally\_4, Sanjuju\_3, Sedona\_3, Shivanishola\_3, Sitar\_3, Stultus\_3,

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

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

BrutonGaster\_164, Derg\_3, Fitzgerald\_3, Jabberwocky\_3, McKinley\_3, WilliamBoone\_189,

## Summary by start number:

#### Start 16:

• Found in 12 of 22 (54.5%) of genes in pham

- Manual Annotations of this start: 3 of 20
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Derg\_3 (DE1), Fitzgerald\_3 (DE1), Jabberwocky\_3 (DE1), McKinley\_3 (DE1),

#### Start 17:

- Found in 1 of 22 (4.5%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: WilliamBoone\_189 (CQ1),

#### Start 18:

- Found in 1 of 22 (4.5%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BrutonGaster\_164 (CQ2),

#### Start 19

- Found in 16 of 22 (72.7%) of genes in pham
- Manual Annotation's of this start: 15 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ailee\_3 (DE1), Bibwit\_3 (DE1), ChadMasterC\_3 (DE1), Geodirt\_3 (DE1), Hans\_4 (DE2), Inspectinfecti\_3 (DE2), Keitabear\_3 (DE1), Lennon\_3 (DE1), Leonard\_4 (DE2), MelBins\_4 (DE2), Phinally\_4 (DE2), Sanjuju\_3 (DE1), Sedona\_3 (DE1), Shivanishola\_3 (DE1), Sitar\_3 (DE1), Stultus\_3 (DE1),

## Summary by clusters:

There are 4 clusters represented in this pham: DE1, DE2, CQ1, CQ2,

Info for manual annotations of cluster CQ1:

Start number 17 was manually annotated 1 time for cluster CQ1.

Info for manual annotations of cluster CQ2:

•Start number 18 was manually annotated 1 time for cluster CQ2.

Info for manual annotations of cluster DE1:

- •Start number 16 was manually annotated 3 times for cluster DE1.
- Start number 19 was manually annotated 11 times for cluster DE1.

Info for manual annotations of cluster DE2:

•Start number 19 was manually annotated 4 times for cluster DE2.

#### Gene Information:

Gene: Ailee 3 Start: 2184, Stop: 2438, Start Num: 19

Candidate Starts for Ailee 3:

(6, 1923), (7, 1932), (8, 1950), (14, 2130), (15, 2142), (Start: 19 @2184 has 15 MA's), (29, 2307), (37, 2430),

Gene: Bibwit\_3 Start: 2185, Stop: 2436, Start Num: 19

Candidate Starts for Bibwit 3:

(13, 2113), (Start: 16 @2149 has 3 MA's), (Start: 19 @2185 has 15 MA's), (23, 2218), (25, 2230), (28, 2281), (30, 2302), (36, 2416),

Gene: BrutonGaster\_164 Start: 87960, Stop: 87745, Start Num: 18

Candidate Starts for BrutonGaster\_164:

(Start: 18 @87960 has 1 MA's), (22, 87927), (24, 87909), (27, 87858), (28, 87849), (31, 87807),

Gene: ChadMasterC\_3 Start: 2149, Stop: 2382, Start Num: 19

Candidate Starts for ChadMasterC 3:

(Start: 19 @2149 has 15 MA's), (25, 2191), (29, 2260), (32, 2326),

Gene: Derg\_3 Start: 2145, Stop: 2408, Start Num: 16

Candidate Starts for Derg\_3:

(Start: 16 @2145 has 3 MA's), (23, 2199), (29, 2280), (37, 2400),

Gene: Fitzgerald\_3 Start: 2149, Stop: 2400, Start Num: 16

Candidate Starts for Fitzgerald 3:

(Start: 16 @2149 has 3 MA's), (21, 2191), (29, 2272), (32, 2341), (35, 2383), (37, 2392),

Gene: Geodirt\_3 Start: 2185, Stop: 2436, Start Num: 19

Candidate Starts for Geodirt 3:

(Start: 16 @2149 has 3 MA's), (Start: 19 @2185 has 15 MA's), (23, 2218), (25, 2230), (28, 2281), (30, 2302), (36, 2416),

Gene: Hans\_4 Start: 2470, Stop: 2724, Start Num: 19

Candidate Starts for Hans 4:

(1, 2047), (2, 2062), (3, 2068), (4, 2149), (5, 2203), (9, 2293), (10, 2311), (11, 2344), (12, 2374), (Start: 19 @2470 has 15 MA's), (23, 2509), (29, 2590),

Gene: Inspectinfecti\_3 Start: 2552, Stop: 2794, Start Num: 19

Candidate Starts for Inspectinfecti 3:

(Start: 19 @2552 has 15 MA's), (23, 2579), (29, 2660), (38, 2789),

Gene: Jabberwocky\_3 Start: 2149, Stop: 2400, Start Num: 16

Candidate Starts for Jabberwocky\_3:

(Start: 16 @2149 has 3 MA's), (21, 2191), (29, 2272), (32, 2341), (35, 2383), (37, 2392),

Gene: Keitabear\_3 Start: 2980, Stop: 3231, Start Num: 19

Candidate Starts for Keitabear 3:

(13, 2908), (Start: 16 @2944 has 3 MA's), (Start: 19 @2980 has 15 MA's), (23, 3013), (25, 3025), (28, 3076), (30, 3097), (36, 3211),

Gene: Lennon 3 Start: 2186, Stop: 2437, Start Num: 19

Candidate Starts for Lennon 3:

(13, 2114), (Start: 16 @2150 has 3 MA's), (Start: 19 @2186 has 15 MA's), (23, 2219), (25, 2231), (28, 2282), (30, 2303), (36, 2417),

Gene: Leonard 4 Start: 2543, Stop: 2788, Start Num: 19

Candidate Starts for Leonard 4:

(Start: 19 @2543 has 15 MA's), (23, 2573), (28, 2636), (29, 2654), (34, 2762),

Gene: McKinley\_3 Start: 2147, Stop: 2395, Start Num: 16

Candidate Starts for McKinley\_3:

(Start: 16 @2147 has 3 MA's), (21, 2186), (29, 2267), (32, 2336), (35, 2378), (37, 2387),

Gene: MelBins\_4 Start: 2544, Stop: 2789, Start Num: 19

Candidate Starts for MelBins\_4:

(Start: 19 @2544 has 15 MA's), (23, 2574), (28, 2637), (29, 2655), (34, 2763),

Gene: Phinally\_4 Start: 2543, Stop: 2788, Start Num: 19

Candidate Starts for Phinally\_4:

(Start: 19 @2543 has 15 MA's), (23, 2573), (28, 2636), (29, 2654), (34, 2762),

Gene: Sanjuju\_3 Start: 2184, Stop: 2438, Start Num: 19

Candidate Starts for Sanjuju\_3:

(6, 1923), (7, 1932), (8, 1950), (14, 2130), (15, 2142), (Start: 19 @2184 has 15 MA's), (29, 2307), (37, 2430),

Gene: Sedona\_3 Start: 2980, Stop: 3231, Start Num: 19

Candidate Starts for Sedona 3:

(Start: 16 @2944 has 3 MA's), (Start: 19 @2980 has 15 MA's), (23, 3013), (25, 3025), (28, 3076), (30, 3097), (36, 3211),

Gene: Shivanishola\_3 Start: 2185, Stop: 2436, Start Num: 19

Candidate Starts for Shivanishola\_3:

(Start: 16 @2149 has 3 MA's), (Start: 19 @2185 has 15 MA's), (23, 2218), (25, 2230), (28, 2281), (30, 2302), (36, 2416),

Gene: Sitar 3 Start: 2186, Stop: 2437, Start Num: 19

Candidate Starts for Sitar\_3:

(13, 2114), (Start: 16 @2150 has 3 MA's), (Start: 19 @2186 has 15 MA's), (23, 2219), (25, 2231), (28, 2282), (30, 2303), (36, 2417),

Gene: Stultus 3 Start: 2185, Stop: 2436, Start Num: 19

Candidate Starts for Stultus 3:

(13, 2113), (Start: 16 @2149 has 3 MA's), (Start: 19 @2185 has 15 MA's), (23, 2218), (25, 2230), (28, 2281), (30, 2302), (36, 2416),

Gene: WilliamBoone\_189 Start: 90429, Stop: 90208, Start Num: 17

Candidate Starts for WilliamBoone\_189:

(Start: 17 @90429 has 1 MA's), (20, 90402), (26, 90333), (30, 90294), (33, 90225),