Pham 86550


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 04/05/24 on database version 557.
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 : MelBīns_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_( $\overline{3}$,

Genes that have the "Most Annotated" start but do not call it:
-
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 Annotations 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:
$(1,2047),(2,2062),(3,2068),(4,2149),(5,2203),(9,2293),(10,2311),(11,2344),(12,2374),(S t a r t:$ 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 hās 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),

