



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 291736 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291736 has 10 members, 2 are drafts.

Phages represented in each track:

- Track 1 : EhyElimayoE\_101
- Track 2 : Frankenweenie\_109
- Track 3 : Kradal\_101, Satis\_101, Sarkar\_107, Quantum\_100
- Track 4 : Kela\_99, JustBecause\_98
- Track 5 : Nirvana\_105
- Track 6 : pZL12\_80

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

The start number called the most often in the published annotations is 17, it was called in 8 of the 8 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- EhyElimayoE\_101, Frankenweenie\_109, JustBecause\_98, Kela\_99, Kradal\_101, Nirvana\_105, Quantum\_100, Sarkar\_107, Satis\_101,

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:

- pZL12\_80,

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

Start 10:

- Found in 1 of 10 ( 10.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: pZL12\_80 (singleton),

Start 17:

- Found in 9 of 10 ( 90.0% ) of genes in pham
- Manual Annotations of this start: 8 of 8
- Called 100.0% of time when present

- Phage (with cluster) where this start called: EhyElimayoE\_101 (BM), Frankenweenie\_109 (BM), JustBecause\_98 (BM), Kela\_99 (BM), Kradal\_101 (BM), Nirvana\_105 (BM), Quantum\_100 (BM), Sarkar\_107 (BM), Satis\_101 (BM),

### **Summary by clusters:**

There are 2 clusters represented in this pham: BM, singleton,

Info for manual annotations of cluster BM:

- Start number 17 was manually annotated 8 times for cluster BM.

### **Gene Information:**

Gene: EhyElimayoE\_101 Start: 67902, Stop: 68636, Start Num: 17

Candidate Starts for EhyElimayoE\_101:

(Start: 17 @67902 has 8 MA's), (22, 68034), (25, 68052), (29, 68217), (31, 68226), (32, 68262), (33, 68280), (35, 68298), (38, 68322), (42, 68430), (45, 68523), (49, 68586), (50, 68613),

Gene: Frankenweenie\_109 Start: 71777, Stop: 72511, Start Num: 17

Candidate Starts for Frankenweenie\_109:

(1, 69680), (2, 69737), (3, 70088), (4, 70250), (5, 70331), (6, 70502), (7, 70619), (8, 71456), (9, 71522), (13, 71639), (15, 71720), (16, 71732), (Start: 17 @71777 has 8 MA's), (24, 71924), (25, 71927), (27, 71987), (30, 72098), (33, 72155), (39, 72230), (40, 72239), (41, 72257), (42, 72305), (43, 72335), (47, 72404), (49, 72461),

Gene: JustBecause\_98 Start: 65997, Stop: 66731, Start Num: 17

Candidate Starts for JustBecause\_98:

(Start: 17 @65997 has 8 MA's), (19, 66048), (25, 66147), (27, 66207), (33, 66375), (38, 66417), (42, 66525), (43, 66555), (46, 66621), (47, 66624), (49, 66681),

Gene: Kela\_99 Start: 65862, Stop: 66596, Start Num: 17

Candidate Starts for Kela\_99:

(Start: 17 @65862 has 8 MA's), (19, 65913), (25, 66012), (27, 66072), (33, 66240), (38, 66282), (42, 66390), (43, 66420), (46, 66486), (47, 66489), (49, 66546),

Gene: Kradal\_101 Start: 67902, Stop: 68636, Start Num: 17

Candidate Starts for Kradal\_101:

(Start: 17 @67902 has 8 MA's), (20, 67956), (22, 68034), (25, 68052), (29, 68217), (31, 68226), (32, 68262), (33, 68280), (35, 68298), (38, 68322), (42, 68430), (45, 68523), (49, 68586), (50, 68613),

Gene: Nirvana\_105 Start: 70181, Stop: 70915, Start Num: 17

Candidate Starts for Nirvana\_105:

(8, 69860), (9, 69926), (14, 70052), (15, 70124), (16, 70136), (Start: 17 @70181 has 8 MA's), (25, 70331), (27, 70391), (39, 70634), (40, 70643), (41, 70661), (42, 70709), (49, 70865), (51, 70904),

Gene: Quantum\_100 Start: 67902, Stop: 68636, Start Num: 17

Candidate Starts for Quantum\_100:

(Start: 17 @67902 has 8 MA's), (20, 67956), (22, 68034), (25, 68052), (29, 68217), (31, 68226), (32, 68262), (33, 68280), (35, 68298), (38, 68322), (42, 68430), (45, 68523), (49, 68586), (50, 68613),

Gene: Sarkar\_107 Start: 67902, Stop: 68636, Start Num: 17

Candidate Starts for Sarkar\_107:

(Start: 17 @67902 has 8 MA's), (20, 67956), (22, 68034), (25, 68052), (29, 68217), (31, 68226), (32, 68262), (33, 68280), (35, 68298), (38, 68322), (42, 68430), (45, 68523), (49, 68586), (50, 68613),

Gene: Satis\_101 Start: 67898, Stop: 68632, Start Num: 17

Candidate Starts for Satis\_101:

(Start: 17 @67898 has 8 MA's), (20, 67952), (22, 68030), (25, 68048), (29, 68213), (31, 68222), (32, 68258), (33, 68276), (35, 68294), (38, 68318), (42, 68426), (45, 68519), (49, 68582), (50, 68609),

Gene: pZL12\_80 Start: 66985, Stop: 67959, Start Num: 10

Candidate Starts for pZL12\_80:

(10, 66985), (11, 67033), (12, 67054), (18, 67213), (21, 67297), (23, 67348), (26, 67375), (27, 67417), (28, 67459), (29, 67516), (33, 67579), (34, 67585), (36, 67600), (37, 67615), (38, 67621), (39, 67654), (40, 67663), (44, 67798), (45, 67819), (48, 67876), (49, 67882),