



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 224935 Report

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

Pham number 224935 has 18 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Temprado\_55, Wiks\_52, WunderPhul\_53, Garak\_55, Indra\_56, Helmet\_55, ToneTone\_50, Zulu\_54, Yokurt\_53, Zaka\_53
- Track 2 : Lilbunny\_52, Jeffabunny\_53, Hexamo\_53
- Track 3 : Gruunaga\_53, Artemis2UCLA\_53, CloudWang3\_53, Roksolana\_54, Koko\_54

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

The start number called the most often in the published annotations is 4, it was called in 10 of the 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Garak\_55, Helmet\_55, Hexamo\_53, Indra\_56, Jeffabunny\_53, Lilbunny\_52, Temprado\_55, ToneTone\_50, Wiks\_52, WunderPhul\_53, Yokurt\_53, Zaka\_53, Zulu\_54,

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:

- Artemis2UCLA\_53, CloudWang3\_53, Gruunaga\_53, Koko\_54, Roksolana\_54,

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

Start 3:

- Found in 5 of 18 ( 27.8% ) of genes in pham
- Manual Annotations of this start: 5 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Artemis2UCLA\_53 (A6), CloudWang3\_53 (A6), Gruunaga\_53 (A6), Koko\_54 (A6), Roksolana\_54 (A6),

Start 4:

- Found in 13 of 18 ( 72.2% ) of genes in pham
- Manual Annotations of this start: 10 of 15

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Garak\_55 (A6), Helmet\_55 (A6), Hexamo\_53 (A6), Indra\_56 (A6), Jeffabunny\_53 (A6), Lilbunny\_52 (A6), Temprado\_55 (A6), ToneTone\_50 (A6), Wiks\_52 (A6), WunderPhul\_53 (A6), Yokurt\_53 (A6), Zaka\_53 (A6), Zulu\_54 (A6),

### **Summary by clusters:**

There is one cluster represented in this pham: A6

Info for manual annotations of cluster A6:

- Start number 3 was manually annotated 5 times for cluster A6.
- Start number 4 was manually annotated 10 times for cluster A6.

### **Gene Information:**

Gene: Artemis2UCLA\_53 Start: 32856, Stop: 32485, Start Num: 3

Candidate Starts for Artemis2UCLA\_53:

(1, 32886), (2, 32871), (Start: 3 @32856 has 5 MA's), (5, 32829), (6, 32823), (9, 32685), (10, 32661), (11, 32586), (12, 32505),

Gene: CloudWang3\_53 Start: 32944, Stop: 32573, Start Num: 3

Candidate Starts for CloudWang3\_53:

(1, 32974), (2, 32959), (Start: 3 @32944 has 5 MA's), (5, 32917), (6, 32911), (9, 32773), (10, 32749), (11, 32674), (12, 32593),

Gene: Garak\_55 Start: 33226, Stop: 32924, Start Num: 4

Candidate Starts for Garak\_55:

(Start: 4 @33226 has 10 MA's), (7, 33100),

Gene: Gruunaga\_53 Start: 33147, Stop: 32776, Start Num: 3

Candidate Starts for Gruunaga\_53:

(1, 33177), (2, 33162), (Start: 3 @33147 has 5 MA's), (5, 33120), (6, 33114), (9, 32976), (10, 32952), (11, 32877), (12, 32796),

Gene: Helmet\_55 Start: 33226, Stop: 32924, Start Num: 4

Candidate Starts for Helmet\_55:

(Start: 4 @33226 has 10 MA's), (7, 33100),

Gene: Hexamo\_53 Start: 32856, Stop: 32554, Start Num: 4

Candidate Starts for Hexamo\_53:

(Start: 4 @32856 has 10 MA's), (7, 32730), (8, 32700),

Gene: Indra\_56 Start: 33227, Stop: 32925, Start Num: 4

Candidate Starts for Indra\_56:

(Start: 4 @33227 has 10 MA's), (7, 33101),

Gene: Jeffabunny\_53 Start: 32883, Stop: 32581, Start Num: 4

Candidate Starts for Jeffabunny\_53:

(Start: 4 @32883 has 10 MA's), (7, 32757), (8, 32727),

Gene: Koko\_54 Start: 33284, Stop: 32913, Start Num: 3

Candidate Starts for Koko\_54:

(1, 33314), (2, 33299), (Start: 3 @33284 has 5 MA's), (5, 33257), (6, 33251), (9, 33113), (10, 33089), (11, 33014), (12, 32933),

Gene: Lilbunny\_52 Start: 32857, Stop: 32555, Start Num: 4

Candidate Starts for Lilbunny\_52:

(Start: 4 @32857 has 10 MA's), (7, 32731), (8, 32701),

Gene: Roksolana\_54 Start: 33190, Stop: 32819, Start Num: 3

Candidate Starts for Roksolana\_54:

(1, 33220), (2, 33205), (Start: 3 @33190 has 5 MA's), (5, 33163), (6, 33157), (9, 33019), (10, 32995), (11, 32920), (12, 32839),

Gene: Temprado\_55 Start: 33226, Stop: 32924, Start Num: 4

Candidate Starts for Temprado\_55:

(Start: 4 @33226 has 10 MA's), (7, 33100),

Gene: ToneTone\_50 Start: 32786, Stop: 32484, Start Num: 4

Candidate Starts for ToneTone\_50:

(Start: 4 @32786 has 10 MA's), (7, 32660),

Gene: Wiks\_52 Start: 32857, Stop: 32555, Start Num: 4

Candidate Starts for Wiks\_52:

(Start: 4 @32857 has 10 MA's), (7, 32731),

Gene: WunderPhul\_53 Start: 32855, Stop: 32553, Start Num: 4

Candidate Starts for WunderPhul\_53:

(Start: 4 @32855 has 10 MA's), (7, 32729),

Gene: Yokurt\_53 Start: 32857, Stop: 32555, Start Num: 4

Candidate Starts for Yokurt\_53:

(Start: 4 @32857 has 10 MA's), (7, 32731),

Gene: Zaka\_53 Start: 32857, Stop: 32555, Start Num: 4

Candidate Starts for Zaka\_53:

(Start: 4 @32857 has 10 MA's), (7, 32731),

Gene: Zulu\_54 Start: 33235, Stop: 32933, Start Num: 4

Candidate Starts for Zulu\_54:

(Start: 4 @33235 has 10 MA's), (7, 33109),