

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 223610 Report

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

Pham number 223610 has 11 members, 7 are drafts.

Phages represented in each track:

Track 1: Sunny4976\_63, Jazzy4900\_64

Track 2: Arzan 65

Track 3 : Gandionco\_120, Elver\_122

• Track 4 : Elver 235

Track 5 : Qui\_239, Paella\_240

• Track 6 : Gandionco\_237

Track 7 : Qui\_123, Paella\_123

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

The start number called the most often in the published annotations is 8, it was called in 2 of the 4 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

Elver\_122, Gandionco\_120, Paella\_123, Qui\_123,

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:

Arzan\_65, Elver\_235, Gandionco\_237, Jazzy4900\_64, Paella\_240, Qui\_239, Sunny4976\_63,

## Summary by start number:

#### Start 1:

- Found in 4 of 11 (36.4%) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Gandionco\_237 (FK),

### Start 2:

- Found in 4 of 11 (36.4%) of genes in pham
- Manual Annotations of this start: 2 of 4

- Called 75.0% of time when present
- Phage (with cluster) where this start called: Elver\_235 (FK), Paella\_240 (FK), Qui\_239 (FK),

#### Start 8:

- Found in 4 of 11 (36.4%) of genes in pham
- Manual Annotations of this start: 2 of 4
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elver\_122 (FK), Gandionco\_120 (FK), Paella\_123 (FK), Qui\_123 (FK),

### Start 9:

- Found in 2 of 11 (18.2%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jazzy4900\_64 (FI), Sunny4976\_63 (FI),

## Start 10:

- Found in 3 of 11 (27.3%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Arzan\_65 (FI),

## **Summary by clusters:**

There are 2 clusters represented in this pham: FI, FK,

Info for manual annotations of cluster FK:

- •Start number 2 was manually annotated 2 times for cluster FK.
- •Start number 8 was manually annotated 2 times for cluster FK.

### Gene Information:

Gene: Arzan\_65 Start: 43421, Stop: 43801, Start Num: 10

Candidate Starts for Arzan\_65:

(10, 43421), (12, 43457), (13, 43520), (17, 43574), (25, 43712), (28, 43739),

Gene: Elver\_235 Start: 106600, Stop: 107130, Start Num: 2

Candidate Starts for Elver 235:

(1, 106585), (Start: 2 @106600 has 2 MA's), (3, 106621), (4, 106645), (5, 106648), (7, 106684), (11, 106696), (13, 106792), (16, 106837), (21, 106888), (22, 106900), (32, 107107),

Gene: Elver\_122 Start: 67170, Stop: 67514, Start Num: 8

Candidate Starts for Elver\_122:

(Start: 8 @ 67170 has 2 MA's), (23, 67416), (24, 67419),

Gene: Gandionco 120 Start: 65982, Stop: 66326, Start Num: 8

Candidate Starts for Gandionco 120:

(Start: 8 @65982 has 2 MA's), (23, 66228), (24, 66231),

Gene: Gandionco\_237 Start: 105943, Stop: 106512, Start Num: 1

Candidate Starts for Gandionco\_237:

(1, 105943), (Start: 2 @105958 has 2 MA's), (3, 105979), (4, 106003), (5, 106006), (7, 106042), (11, 106054), (13, 106150), (18, 106216), (26, 106348), (27, 106372), (31, 106480), (32, 106489),

Gene: Jazzy4900\_64 Start: 44190, Stop: 44579, Start Num: 9

Candidate Starts for Jazzy4900\_64:

(6, 44175), (9, 44190), (10, 44193), (14, 44304), (15, 44334), (17, 44346), (19, 44367), (20, 44385),

Gene: Paella\_240 Start: 107737, Stop: 108267, Start Num: 2

Candidate Starts for Paella 240:

(1, 107722), (Start: 2 @107737 has 2 MA's), (3, 107758), (4, 107782), (5, 107785), (7, 107821), (11, 107833), (13, 107929), (16, 107974), (21, 108025), (22, 108037), (29, 108166), (30, 108175), (32, 108244),

Gene: Paella\_123 Start: 67733, Stop: 68077, Start Num: 8

Candidate Starts for Paella 123:

(Start: 8 @ 67733 has 2 MA's), (23, 67979), (24, 67982),

Gene: Qui\_239 Start: 107725, Stop: 108255, Start Num: 2

Candidate Starts for Qui 239:

(1, 107710), (Start: 2 @107725 has 2 MA's), (3, 107746), (4, 107770), (5, 107773), (7, 107809), (11, 107821), (13, 107917), (16, 107962), (21, 108013), (22, 108025), (29, 108154), (30, 108163), (32, 108232),

Gene: Qui\_123 Start: 67733, Stop: 68077, Start Num: 8

Candidate Starts for Qui\_123:

(Start: 8 @ 67733 has 2 MA's), (23, 67979), (24, 67982),

Gene: Sunny4976\_63 Start: 44190, Stop: 44579, Start Num: 9

Candidate Starts for Sunny4976\_63:

(6, 44175), (9, 44190), (10, 44193), (14, 44304), (15, 44334), (17, 44346), (19, 44367), (20, 44385),