

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 87126 Report

This analysis was run 04/05/24 on database version 557.

Pham number 87126 has 14 members, 2 are drafts.

Phages represented in each track:

Track 1 : Cuke\_15

Track 2 : MrMiyagi\_16

Track 3 : Indlulamithi\_19

Track 4 : Fowlmouth\_16

• Track 5: Papyrus\_22, Nilo\_23, Send513\_22, Candle\_22, Riparian\_22, Rope\_22,

Zenon\_23, Yelo\_22, MontyDev\_22

• Track 6 : Weiss13\_22

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

The start number called the most often in the published annotations is 2, it was called in 8 of the 12 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Candle\_22, MontyDev\_22, Nilo\_23, Papyrus\_22, Riparian\_22, Rope\_22, Send513\_22, Weiss13\_22, Yelo\_22, Zenon\_23,

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:

Cuke\_15, Fowlmouth\_16, Indlulamithi\_19, MrMiyagi\_16,

# Summary by start number:

#### Start 1:

- Found in 1 of 14 (7.1%) of genes in pham
- Manual Annotations of this start: 1 of 12
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Indlulamithi\_19 (AC),

### Start 2:

- Found in 10 of 14 (71.4%) of genes in pham
- Manual Annotations of this start: 8 of 12

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Candle\_22 (R), MontyDev\_22 (R), Nilo\_23 (R), Papyrus\_22 (R), Riparian\_22 (R), Rope\_22 (R), Send513\_22 (R), Weiss13\_22 (R), Yelo\_22 (R), Zenon\_23 (R),

### Start 3:

- Found in 13 of 14 (92.9%) of genes in pham
- Manual Annotations of this start: 3 of 12
- Called 23.1% of time when present
- Phage (with cluster) where this start called: Cuke\_15 (AC), Fowlmouth\_16 (AC), MrMiyagi\_16 (AC),

### **Summary by clusters:**

There are 2 clusters represented in this pham: AC, R,

Info for manual annotations of cluster AC:

- •Start number 1 was manually annotated 1 time for cluster AC.
- •Start number 3 was manually annotated 3 times for cluster AC.

Info for manual annotations of cluster R:

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

#### Gene Information:

Gene: Candle\_22 Start: 14349, Stop: 14750, Start Num: 2

Candidate Starts for Candle 22:

(Start: 2 @14349 has 8 MA's), (Start: 3 @14367 has 3 MA's), (4, 14394), (6, 14454), (8, 14472), (11, 14541), (12, 14574), (15, 14658), (16, 14700),

Gene: Cuke\_15 Start: 9542, Stop: 9904, Start Num: 3

Candidate Starts for Cuke 15:

(Start: 3 @9542 has 3 MA's), (5, 9617), (6, 9626), (7, 9638), (9, 9665), (10, 9671), (12, 9740), (14, 9818),

Gene: Fowlmouth 16 Start: 9713, Stop: 10066, Start Num: 3

Candidate Starts for Fowlmouth 16:

(Start: 3 @9713 has 3 MA's), (9, 9827), (10, 9833), (11, 9869), (12, 9902), (13, 9965),

Gene: Indlulamithi\_19 Start: 11796, Stop: 12215, Start Num: 1

Candidate Starts for Indlulamithi 19:

(Start: 1 @11796 has 1 MA's), (9, 11964), (10, 11970), (12, 12042),

Gene: MontyDev 22 Start: 14007, Stop: 14408, Start Num: 2

Candidate Starts for MontyDev 22:

(Start: 2 @14007 has 8 MA's), (Start: 3 @14025 has 3 MA's), (4, 14052), (6, 14112), (8, 14130), (11, 14199), (12, 14232), (15, 14316), (16, 14358),

Gene: MrMiyagi 16 Start: 9714, Stop: 10067, Start Num: 3

Candidate Starts for MrMiyagi 16:

(Start: 3 @9714 has 3 MA's), (9, 9828), (10, 9834), (11, 9870), (12, 9903), (13, 9966),

Gene: Nilo\_23 Start: 14346, Stop: 14747, Start Num: 2

Candidate Starts for Nilo 23:

(Start: 2 @14346 has 8 MA's), (Start: 3 @14364 has 3 MA's), (4, 14391), (6, 14451), (8, 14469), (11, 14538), (12, 14571), (15, 14655), (16, 14697),

Gene: Papyrus\_22 Start: 14008, Stop: 14409, Start Num: 2

Candidate Starts for Papyrus 22:

(Start: 2 @14008 has 8 MA's), (Start: 3 @14026 has 3 MA's), (4, 14053), (6, 14113), (8, 14131), (11, 14200), (12, 14233), (15, 14317), (16, 14359),

Gene: Riparian 22 Start: 13807, Stop: 14208, Start Num: 2

Candidate Starts for Riparian\_22:

(Start: 2 @13807 has 8 MA's), (Start: 3 @13825 has 3 MA's), (4, 13852), (6, 13912), (8, 13930), (11, 13999), (12, 14032), (15, 14116), (16, 14158),

Gene: Rope\_22 Start: 13999, Stop: 14400, Start Num: 2

Candidate Starts for Rope\_22:

(Start: 2 @13999 has 8 MA's), (Start: 3 @14017 has 3 MA's), (4, 14044), (6, 14104), (8, 14122), (11, 14191), (12, 14224), (15, 14308), (16, 14350),

Gene: Send513\_22 Start: 14349, Stop: 14750, Start Num: 2

Candidate Starts for Send513 22:

(Start: 2 @14349 has 8 MA's), (Start: 3 @14367 has 3 MA's), (4, 14394), (6, 14454), (8, 14472), (11, 14541), (12, 14574), (15, 14658), (16, 14700),

Gene: Weiss13\_22 Start: 14039, Stop: 14440, Start Num: 2

Candidate Starts for Weiss13 22:

(Start: 2 @14039 has 8 MA's), (Start: 3 @14057 has 3 MA's), (4, 14084), (6, 14144), (8, 14162), (12, 14264), (15, 14348), (16, 14390),

Gene: Yelo\_22 Start: 14349, Stop: 14750, Start Num: 2

Candidate Starts for Yelo 22:

(Start: 2 @14349 has 8 MA's), (Start: 3 @14367 has 3 MA's), (4, 14394), (6, 14454), (8, 14472), (11, 14541), (12, 14574), (15, 14658), (16, 14700),

Gene: Zenon\_23 Start: 14351, Stop: 14752, Start Num: 2

Candidate Starts for Zenon\_23:

(Start: 2 @14351 has 8 MA's), (Start: 3 @14369 has 3 MA's), (4, 14396), (6, 14456), (8, 14474), (11, 14543), (12, 14576), (15, 14660), (16, 14702),