

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 163991 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163991 has 16 members, 2 are drafts.

Phages represented in each track:

• Track 1 : Ohgeesy\_36

Track 2 : Hyzer\_41

Track 3 : Bialota\_34, Zirinka\_33

• Track 4 : Lamberg\_29, Attis\_31, Posh\_40, LordFarquaad\_31, Nettuno\_29, SoilAssassin\_31

• Track 5 : Yeet412\_31, Wrigley\_41, Bjanes7\_31

• Track 6 : EdnaMode 29

Track 7: Yeezy\_34, BaxterFox\_34

## 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 7 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Attis\_31, Lamberg\_29, LordFarquaad\_31, Nettuno\_29, Ohgeesy\_36, Posh\_40, SoilAssassin\_31,

Genes that have the "Most Annotated" start but do not call it:

• BaxterFox\_34, Bialota\_34, Bjanes7\_31, EdnaMode\_29, Hyzer\_41, Wrigley\_41, Yeet412\_31, Yeezy\_34, Zirinka\_33,

Genes that do not have the "Most Annotated" start:

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

#### Start 1:

- Found in 16 of 16 (100.0%) of genes in pham
- Manual Annotations of this start: 5 of 14
- Called 31.2% of time when present
- Phage (with cluster) where this start called: Bialota\_34 (CZ1), Bjanes7\_31 (CZ2), Wrigley\_41 (CY), Yeet412\_31 (CZ2), Zirinka\_33 (CZ1),

#### Start 2:

- Found in 16 of 16 (100.0%) of genes in pham
- Manual Annotations of this start: 7 of 14
- Called 43.8% of time when present
- Phage (with cluster) where this start called: Attis\_31 (CZ2), Lamberg\_29 (CZ2), LordFarquaad\_31 (CZ2), Nettuno\_29 (CZ2), Ohgeesy\_36 (CZ), Posh\_40 (CY), SoilAssassin\_31 (CZ2),

### Start 3:

- Found in 16 of 16 (100.0%) of genes in pham
- Manual Annotations of this start: 2 of 14
- Called 25.0% of time when present
- Phage (with cluster) where this start called: BaxterFox\_34 (CZ3), EdnaMode\_29 (CZ2), Hyzer\_41 (CZ1), Yeezy\_34 (CZ3),

### Summary by clusters:

There are 5 clusters represented in this pham: CZ2, CZ3, CY, CZ1, CZ,

Info for manual annotations of cluster CY:

- Start number 1 was manually annotated 1 time for cluster CY.
- •Start number 2 was manually annotated 1 time for cluster CY.

Info for manual annotations of cluster CZ:

•Start number 2 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

•Start number 1 was manually annotated 2 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- •Start number 1 was manually annotated 2 times for cluster CZ2.
- •Start number 2 was manually annotated 5 times for cluster CZ2.

Info for manual annotations of cluster CZ3:

•Start number 3 was manually annotated 2 times for cluster CZ3.

### Gene Information:

Gene: Attis 31 Start: 26389, Stop: 26036, Start Num: 2

Candidate Starts for Attis 31:

(Start: 1 @26392 has 5 MA's), (Start: 2 @26389 has 7 MA's), (Start: 3 @26383 has 2 MA's), (4, 26233), (5, 26221), (6, 26128),

Gene: BaxterFox\_34 Start: 29633, Stop: 29289, Start Num: 3

Candidate Starts for BaxterFox 34:

(Start: 1 @29642 has 5 MA's), (Start: 2 @29639 has 7 MA's), (Start: 3 @29633 has 2 MA's), (4, 29483), (5, 29471),

Gene: Bialota\_34 Start: 30223, Stop: 29870, Start Num: 1

Candidate Starts for Bialota 34:

(Start: 1 @30223 has 5 MA's), (Start: 2 @30220 has 7 MA's), (Start: 3 @30214 has 2 MA's), (4, 30064), (5, 30052),

Gene: Bjanes7\_31 Start: 26392, Stop: 26036, Start Num: 1

Candidate Starts for Bjanes7\_31:

(Start: 1 @26392 has 5 MA's), (Start: 2 @26389 has 7 MA's), (Start: 3 @26383 has 2 MA's), (4, 26233), (5, 26221), (6, 26128),

Gene: EdnaMode\_29 Start: 25071, Stop: 24724, Start Num: 3

Candidate Starts for EdnaMode 29:

(Start: 1 @25080 has 5 MA's), (Start: 2 @25077 has 7 MA's), (Start: 3 @25071 has 2 MA's), (4, 24921), (5, 24909), (6, 24816),

Gene: Hyzer\_41 Start: 32872, Stop: 32501, Start Num: 3

Candidate Starts for Hyzer\_41:

(Start: 1 @32881 has 5 MA's), (Start: 2 @32878 has 7 MA's), (Start: 3 @32872 has 2 MA's), (4, 32722), (5, 32710), (6, 32617), (7, 32560),

Gene: Lamberg 29 Start: 25077, Stop: 24724, Start Num: 2

Candidate Starts for Lamberg\_29:

(Start: 1 @25080 has 5 MA's), (Start: 2 @25077 has 7 MA's), (Start: 3 @25071 has 2 MA's), (4, 24921), (5, 24909), (6, 24816),

Gene: LordFarquaad\_31 Start: 26389, Stop: 26036, Start Num: 2

Candidate Starts for LordFarquaad\_31:

(Start: 1 @26392 has 5 MA's), (Start: 2 @26389 has 7 MA's), (Start: 3 @26383 has 2 MA's), (4, 26233), (5, 26221), (6, 26128),

Gene: Nettuno\_29 Start: 25077, Stop: 24724, Start Num: 2

Candidate Starts for Nettuno\_29:

(Start: 1 @25080 has 5 MA's), (Start: 2 @25077 has 7 MA's), (Start: 3 @25071 has 2 MA's), (4, 24921), (5, 24909), (6, 24816),

Gene: Ohgeesy 36 Start: 30596, Stop: 30246, Start Num: 2

Candidate Starts for Ohgeesy\_36:

(Start: 1 @30599 has 5 MA's), (Start: 2 @30596 has 7 MA's), (Start: 3 @30590 has 2 MA's), (4, 30440), (5, 30428),

Gene: Posh\_40 Start: 32427, Stop: 32077, Start Num: 2

Candidate Starts for Posh 40:

(Start: 1 @32430 has 5 MA's), (Start: 2 @32427 has 7 MA's), (Start: 3 @32421 has 2 MA's), (4, 32271), (5, 32259), (6, 32166),

Gene: SoilAssassin 31 Start: 26388, Stop: 26035, Start Num: 2

Candidate Starts for SoilAssassin 31:

(Start: 1 @26391 has 5 MA's), (Start: 2 @26388 has 7 MA's), (Start: 3 @26382 has 2 MA's), (4, 26232), (5, 26220), (6, 26127),

Gene: Wrigley\_41 Start: 31377, Stop: 31024, Start Num: 1

Candidate Starts for Wrigley\_41:

(Start: 1 @31377 has 5 MA's), (Start: 2 @31374 has 7 MA's), (Start: 3 @31368 has 2 MA's), (4, 31218), (5, 31206), (6, 31113),

Gene: Yeet412\_31 Start: 26392, Stop: 26036, Start Num: 1

Candidate Starts for Yeet412\_31:

(Start: 1 @26392 has 5 MA's), (Start: 2 @26389 has 7 MA's), (Start: 3 @26383 has 2 MA's), (4, 26233), (5, 26221), (6, 26128),

Gene: Yeezy\_34 Start: 28420, Stop: 28076, Start Num: 3

Candidate Starts for Yeezy\_34:

(Start: 1 @28429 has 5 MA's), (Start: 2 @28426 has 7 MA's), (Start: 3 @28420 has 2 MA's), (4, 28270), (5, 28258),

Gene: Zirinka\_33 Start: 30211, Stop: 29858, Start Num: 1

Candidate Starts for Zirinka\_33:

(Start: 1 @30211 has 5 MA's), (Start: 2 @30208 has 7 MA's), (Start: 3 @30202 has 2 MA's), (4, 30052), (5, 30040),