



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 86262 Report

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

Pham number 86262 has 29 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Bunnybear\_3
- Track 2 : Maridalia\_3, Polly\_3, Suscepit\_3, Zameen\_3, Eudoria\_3, Manasvini\_3, Tayonia\_3
- Track 3 : Kita\_3, Antonio\_3
- Track 4 : Madeline\_3, Hyzer\_3
- Track 5 : TimTam\_3
- Track 6 : ThankyouJordi\_3, WelcomeAyanna\_3
- Track 7 : Trumpet\_3, Neobush\_3
- Track 8 : Mcklovin\_4, Bialota\_3, Agueybana\_3, Zirinka\_3, BatStarr\_3, AlumE\_3, BoyNamedSue\_3, Nymphadora\_3, Herod\_3, Bosnia\_3
- Track 9 : RavenCo17\_3
- Track 10 : Eyre\_3

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

The start number called the most often in the published annotations is 5, it was called in 23 of the 28 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agueybana\_3, AlumE\_3, BatStarr\_3, Bialota\_3, Bosnia\_3, BoyNamedSue\_3, Bunnybear\_3, Eudoria\_3, Eyre\_3, Herod\_3, Hyzer\_3, Madeline\_3, Manasvini\_3, Maridalia\_3, Mcklovin\_4, Nymphadora\_3, Polly\_3, RavenCo17\_3, Suscepit\_3, Tayonia\_3, ThankyouJordi\_3, WelcomeAyanna\_3, Zameen\_3, Zirinka\_3,

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

- Antonio\_3, Kita\_3, Neobush\_3, TimTam\_3, Trumpet\_3,

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

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

Start 4:

- Found in 29 of 29 ( 100.0% ) of genes in pham

- Manual Annotations of this start: 3 of 28
- Called 10.3% of time when present
- Phage (with cluster) where this start called: Antonio\_3 (CZ1), Kita\_3 (CZ1), TimTam\_3 (CZ1),

Start 5:

- Found in 29 of 29 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 23 of 28
- Called 82.8% of time when present
- Phage (with cluster) where this start called: Agueybana\_3 (CZ1), AlumE\_3 (CZ1), BatStarr\_3 (CZ1), Bialota\_3 (CZ1), Bosnia\_3 (CZ1), BoyNamedSue\_3 (CZ1), Bunnybear\_3 (CZ), Eudoria\_3 (CZ1), Eyre\_3 (singleton), Herod\_3 (CZ1), Hyzer\_3 (CZ1), Madeline\_3 (CZ1), Manasvini\_3 (CZ1), Maridalia\_3 (CZ1), Mcklovin\_4 (CZ4), Nymphadora\_3 (CZ1), Polly\_3 (CZ1), RavenCo17\_3 (CZ8), Suscepit\_3 (CZ1), Tayonia\_3 (CZ1), ThankyouJordi\_3 (CZ1), WelcomeAyanna\_3 (CZ1), Zameen\_3 (CZ1), Zirinka\_3 (CZ1),

Start 6:

- Found in 28 of 29 ( 96.6% ) of genes in pham
- Manual Annotations of this start: 2 of 28
- Called 7.1% of time when present
- Phage (with cluster) where this start called: Neobush\_3 (CZ1), Trumpet\_3 (CZ1),

### **Summary by clusters:**

There are 5 clusters represented in this pham: CZ, CZ8, CZ1, singleton, CZ4,

Info for manual annotations of cluster CZ:

- Start number 5 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 4 was manually annotated 3 times for cluster CZ1.
- Start number 5 was manually annotated 19 times for cluster CZ1.
- Start number 6 was manually annotated 2 times for cluster CZ1.

Info for manual annotations of cluster CZ4:

- Start number 5 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster CZ8:

- Start number 5 was manually annotated 1 time for cluster CZ8.

### **Gene Information:**

Gene: Agueybana\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for Agueybana\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (14, 2342),

Gene: AlumE\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for AlumE\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (14, 2342),

Gene: Antonio\_3 Start: 2204, Stop: 2380, Start Num: 4

Candidate Starts for Antonio\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (12, 2324), (14, 2342),

Gene: BatStarr\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for BatStarr\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (14, 2342),

Gene: Bialota\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for Bialota\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (14, 2342),

Gene: Bosnia\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for Bosnia\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (14, 2342),

Gene: BoyNamedSue\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for BoyNamedSue\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (14, 2342),

Gene: Bunnybear\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for Bunnybear\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (9, 2276), (10, 2282), (12, 2324), (14, 2342),

Gene: Eudoria\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for Eudoria\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (12, 2324), (14, 2342),

Gene: Eyre\_3 Start: 2042, Stop: 2200, Start Num: 5

Candidate Starts for Eyre\_3:

(1, 1673), (3, 1916), (Start: 4 @2027 has 3 MA's), (Start: 5 @2042 has 23 MA's), (9, 2099), (10, 2105), (13, 2156), (14, 2165),

Gene: Herod\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for Herod\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (14, 2342),

Gene: Hyzer\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for Hyzer\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (11, 2285), (14, 2342),

Gene: Kita\_3 Start: 2204, Stop: 2380, Start Num: 4

Candidate Starts for Kita\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (12, 2324), (14, 2342),

Gene: Madeline\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for Madeline\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (11, 2285), (14, 2342),

Gene: Manasvini\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for Manasvini\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (12, 2324), (14, 2342),

Gene: Maridalia\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for Maridalia\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (12, 2324), (14, 2342),

Gene: Mcklovin\_4 Start: 2680, Stop: 2841, Start Num: 5

Candidate Starts for Mcklovin\_4:

(Start: 4 @2665 has 3 MA's), (Start: 5 @2680 has 23 MA's), (Start: 6 @2689 has 2 MA's), (8, 2728), (10, 2743), (14, 2803),

Gene: Neobush\_3 Start: 2228, Stop: 2380, Start Num: 6

Candidate Starts for Neobush\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (12, 2324), (14, 2342),

Gene: Nymphadora\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for Nymphadora\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (14, 2342),

Gene: Polly\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for Polly\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (12, 2324), (14, 2342),

Gene: RavenCo17\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for RavenCo17\_3:

(2, 2054), (Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (7, 2264), (8, 2267), (10, 2282), (14, 2342),

Gene: Suscepit\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for Suscepit\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (12, 2324), (14, 2342),

Gene: Tayonia\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for Tayonia\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (12, 2324), (14, 2342),

Gene: ThankyouJordi\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for ThankyouJordi\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (14, 2342),

Gene: TimTam\_3 Start: 2204, Stop: 2380, Start Num: 4

Candidate Starts for TimTam\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (14, 2342),

Gene: Trumpet\_3 Start: 2228, Stop: 2380, Start Num: 6

Candidate Starts for Trumpet\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (12, 2324), (14, 2342),

Gene: WelcomeAyanna\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for WelcomeAyanna\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (14, 2342),

Gene: Zameen\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for Zameen\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (12, 2324), (14, 2342),

Gene: Zirinka\_3 Start: 2219, Stop: 2380, Start Num: 5

Candidate Starts for Zirinka\_3:

(Start: 4 @2204 has 3 MA's), (Start: 5 @2219 has 23 MA's), (Start: 6 @2228 has 2 MA's), (8, 2267), (10, 2282), (14, 2342),