



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 4868 Report

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

Pham number 4868 has 16 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Abscondus\_170
- Track 2 : Bachita\_173, Smoothie\_172, Miskis\_171, Cucurbita\_169, ClubL\_171
- Track 3 : Engineer\_173, PhinkBoden\_168, Aphelion\_169, Norvs\_168, Lozinak\_170, Toniann\_170, Dusty\_165
- Track 4 : Culver\_172, WilliamBoone\_174
- Track 5 : OneUp\_154

### ***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 9 of the 13 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abscondus\_170, Aphelion\_169, Culver\_172, Dusty\_165, Engineer\_173, Lozinak\_170, Norvs\_168, OneUp\_154, PhinkBoden\_168, Toniann\_170, WilliamBoone\_174,

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

- Bachita\_173, ClubL\_171, Cucurbita\_169, Miskis\_171, Smoothie\_172,

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

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

Start 3:

- Found in 14 of 16 ( 87.5% ) of genes in pham
- Manual Annotations of this start: 4 of 13
- Called 35.7% of time when present
- Phage (with cluster) where this start called: Bachita\_173 (CQ1), ClubL\_171 (CQ1), Cucurbita\_169 (CQ1), Miskis\_171 (CQ), Smoothie\_172 (CQ1),

Start 4:

- Found in 16 of 16 ( 100.0% ) of genes in pham

- Manual Annotations of this start: 9 of 13
- Called 68.8% of time when present
- Phage (with cluster) where this start called: Abscondus\_170 (CQ), Aphelion\_169 (CQ1), Culver\_172 (CQ1), Dusty\_165 (CQ), Engineer\_173 (CQ1), Lozinak\_170 (CQ1), Norvs\_168 (CQ), OneUp\_154 (CQ2), PhinkBoden\_168 (CQ1), Toniann\_170 (CQ1), WilliamBoone\_174 (CQ1),

### **Summary by clusters:**

There are 3 clusters represented in this pham: CQ2, CQ1, CQ,

Info for manual annotations of cluster CQ:

- Start number 4 was manually annotated 1 time for cluster CQ.

Info for manual annotations of cluster CQ1:

- Start number 3 was manually annotated 4 times for cluster CQ1.
- Start number 4 was manually annotated 7 times for cluster CQ1.

Info for manual annotations of cluster CQ2:

- Start number 4 was manually annotated 1 time for cluster CQ2.

### **Gene Information:**

Gene: Abscondus\_170 Start: 86460, Stop: 86227, Start Num: 4

Candidate Starts for Abscondus\_170:

(Start: 3 @86463 has 4 MA's), (Start: 4 @86460 has 9 MA's), (7, 86415), (8, 86373), (9, 86283), (10, 86277),

Gene: Aphelion\_169 Start: 87204, Stop: 86971, Start Num: 4

Candidate Starts for Aphelion\_169:

(Start: 3 @87207 has 4 MA's), (Start: 4 @87204 has 9 MA's), (7, 87159), (8, 87117), (9, 87027), (10, 87021),

Gene: Bachita\_173 Start: 87283, Stop: 87047, Start Num: 3

Candidate Starts for Bachita\_173:

(Start: 3 @87283 has 4 MA's), (Start: 4 @87280 has 9 MA's), (7, 87235), (8, 87193), (9, 87103), (10, 87097),

Gene: ClubL\_171 Start: 86528, Stop: 86292, Start Num: 3

Candidate Starts for ClubL\_171:

(Start: 3 @86528 has 4 MA's), (Start: 4 @86525 has 9 MA's), (7, 86480), (8, 86438), (9, 86348), (10, 86342),

Gene: Cucurbita\_169 Start: 87589, Stop: 87353, Start Num: 3

Candidate Starts for Cucurbita\_169:

(Start: 3 @87589 has 4 MA's), (Start: 4 @87586 has 9 MA's), (7, 87541), (8, 87499), (9, 87409), (10, 87403),

Gene: Culver\_172 Start: 86008, Stop: 85775, Start Num: 4

Candidate Starts for Culver\_172:

(1, 86158), (2, 86137), (Start: 4 @86008 has 9 MA's), (7, 85963), (8, 85921), (9, 85831), (10, 85825),

Gene: Dusty\_165 Start: 85883, Stop: 85650, Start Num: 4

Candidate Starts for Dusty\_165:

(Start: 3 @85886 has 4 MA's), (Start: 4 @85883 has 9 MA's), (7, 85838), (8, 85796), (9, 85706), (10, 85700),

Gene: Engineer\_173 Start: 87234, Stop: 87001, Start Num: 4

Candidate Starts for Engineer\_173:

(Start: 3 @87237 has 4 MA's), (Start: 4 @87234 has 9 MA's), (7, 87189), (8, 87147), (9, 87057), (10, 87051),

Gene: Lozinak\_170 Start: 87129, Stop: 86896, Start Num: 4

Candidate Starts for Lozinak\_170:

(Start: 3 @87132 has 4 MA's), (Start: 4 @87129 has 9 MA's), (7, 87084), (8, 87042), (9, 86952), (10, 86946),

Gene: Miskis\_171 Start: 86216, Stop: 85980, Start Num: 3

Candidate Starts for Miskis\_171:

(Start: 3 @86216 has 4 MA's), (Start: 4 @86213 has 9 MA's), (7, 86168), (8, 86126), (9, 86036), (10, 86030),

Gene: Norvs\_168 Start: 86305, Stop: 86072, Start Num: 4

Candidate Starts for Norvs\_168:

(Start: 3 @86308 has 4 MA's), (Start: 4 @86305 has 9 MA's), (7, 86260), (8, 86218), (9, 86128), (10, 86122),

Gene: OneUp\_154 Start: 85852, Stop: 85616, Start Num: 4

Candidate Starts for OneUp\_154:

(Start: 3 @85855 has 4 MA's), (Start: 4 @85852 has 9 MA's), (5, 85831), (6, 85813), (10, 85669),

Gene: PhinkBoden\_168 Start: 86703, Stop: 86470, Start Num: 4

Candidate Starts for PhinkBoden\_168:

(Start: 3 @86706 has 4 MA's), (Start: 4 @86703 has 9 MA's), (7, 86658), (8, 86616), (9, 86526), (10, 86520),

Gene: Smoothie\_172 Start: 87004, Stop: 86768, Start Num: 3

Candidate Starts for Smoothie\_172:

(Start: 3 @87004 has 4 MA's), (Start: 4 @87001 has 9 MA's), (7, 86956), (8, 86914), (9, 86824), (10, 86818),

Gene: Toniann\_170 Start: 86446, Stop: 86213, Start Num: 4

Candidate Starts for Toniann\_170:

(Start: 3 @86449 has 4 MA's), (Start: 4 @86446 has 9 MA's), (7, 86401), (8, 86359), (9, 86269), (10, 86263),

Gene: WilliamBoone\_174 Start: 85704, Stop: 85471, Start Num: 4

Candidate Starts for WilliamBoone\_174:

(1, 85854), (2, 85833), (Start: 4 @85704 has 9 MA's), (7, 85659), (8, 85617), (9, 85527), (10, 85521),