



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 216412 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216412 has 32 members, 6 are drafts.

Phages represented in each track:

- Track 1 : DillTech15\_67, Madiba\_72
- Track 2 : DLane\_66, PhilipPhlop\_68, Batiatus\_67, FreddyB\_74, Babsiella\_56, Seagreen\_69, Akhila\_61, Ovechkin\_71, MilanaBonita\_60, Filuzino\_69, Kingsley\_72, Brushbloom\_76, Quico\_78, Girafales\_78, Ramsey\_70, Kenuha5\_67, Vivum\_72, EmiMonkey\_68, Florinda\_81, DotProduct\_65, Phanphagia\_67, Shauna1\_68, DaddyRickover\_73, Hamulus\_69
- Track 3 : Ms6\_67
- Track 4 : Philonius\_56
- Track 5 : Mangethe\_56, Majeke\_56, Zilizebeth\_56, Phegasus\_56

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

The start number called the most often in the published annotations is 1, it was called in 22 of the 26 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Akhila\_61, Babsiella\_56, Batiatus\_67, Brushbloom\_76, DLane\_66, DaddyRickover\_73, DillTech15\_67, DotProduct\_65, EmiMonkey\_68, Filuzino\_69, Florinda\_81, FreddyB\_74, Girafales\_78, Hamulus\_69, Kenuha5\_67, Kingsley\_72, Madiba\_72, MilanaBonita\_60, Ovechkin\_71, Phanphagia\_67, Philonius\_56, PhilipPhlop\_68, Quico\_78, Ramsey\_70, Seagreen\_69, Shauna1\_68, Vivum\_72,

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

- Ms6\_67,

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

- Majeke\_56, Mangethe\_56, Phegasus\_56, Zilizebeth\_56,

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

Start 1:

- Found in 28 of 32 ( 87.5% ) of genes in pham
- Manual Annotations of this start: 22 of 26
- Called 96.4% of time when present

- Phage (with cluster) where this start called: Akhila\_61 (F1), Babsiella\_56 (I1), Batiatus\_67 (F1), Brushbloom\_76 (F1), DLane\_66 (F1), DaddyRickover\_73 (F1), DillTech15\_67 (F1), DotProduct\_65 (F1), EmiMonkey\_68 (F1), Filuzino\_69 (F1), Florinda\_81 (F1), FreddyB\_74 (F1), Girafales\_78 (F1), Hamulus\_69 (F1), Kenuha5\_67 (F1), Kingsley\_72 (F1), Madiba\_72 (F1), MilanaBonita\_60 (F1), Ovechkin\_71 (F1), Phanphagia\_67 (F1), Philonius\_56 (N), PhilipPhlop\_68 (F1), Quico\_78 (F1), Ramsey\_70 (F1), Seagreen\_69 (F1), Shauna1\_68 (F1), Vivum\_72 (F1),

#### Start 2:

- Found in 4 of 32 ( 12.5% ) of genes in pham
- Manual Annotations of this start: 4 of 26
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Majeke\_56 (P1), Mangethe\_56 (P1), Phegasus\_56 (P1), Zilizebeth\_56 (P1),

#### Start 3:

- Found in 28 of 32 ( 87.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 3.6% of time when present
- Phage (with cluster) where this start called: Ms6\_67 (F1),

### Summary by clusters:

There are 4 clusters represented in this pham: I1, F1, P1, N,

Info for manual annotations of cluster F1:

- Start number 1 was manually annotated 20 times for cluster F1.

Info for manual annotations of cluster I1:

- Start number 1 was manually annotated 1 time for cluster I1.

Info for manual annotations of cluster N:

- Start number 1 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster P1:

- Start number 2 was manually annotated 4 times for cluster P1.

### Gene Information:

Gene: Akhila\_61 Start: 40673, Stop: 40512, Start Num: 1

Candidate Starts for Akhila\_61:

(Start: 1 @40673 has 22 MA's), (3, 40658), (5, 40571),

Gene: Babsiella\_56 Start: 38691, Stop: 38530, Start Num: 1

Candidate Starts for Babsiella\_56:

(Start: 1 @38691 has 22 MA's), (3, 38676), (5, 38589),

Gene: Batiatus\_67 Start: 44226, Stop: 44065, Start Num: 1

Candidate Starts for Batiatus\_67:

(Start: 1 @44226 has 22 MA's), (3, 44211), (5, 44124),

Gene: Brushbloom\_76 Start: 45158, Stop: 44997, Start Num: 1  
Candidate Starts for Brushbloom\_76:  
(Start: 1 @45158 has 22 MA's), (3, 45143), (5, 45056),

Gene: DLane\_66 Start: 44160, Stop: 43999, Start Num: 1  
Candidate Starts for DLane\_66:  
(Start: 1 @44160 has 22 MA's), (3, 44145), (5, 44058),

Gene: DaddyRickover\_73 Start: 46759, Stop: 46598, Start Num: 1  
Candidate Starts for DaddyRickover\_73:  
(Start: 1 @46759 has 22 MA's), (3, 46744), (5, 46657),

Gene: DillTech15\_67 Start: 43001, Stop: 42840, Start Num: 1  
Candidate Starts for DillTech15\_67:  
(Start: 1 @43001 has 22 MA's), (3, 42986), (5, 42899), (6, 42887),

Gene: DotProduct\_65 Start: 43940, Stop: 43779, Start Num: 1  
Candidate Starts for DotProduct\_65:  
(Start: 1 @43940 has 22 MA's), (3, 43925), (5, 43838),

Gene: EmiMonkey\_68 Start: 48687, Stop: 48526, Start Num: 1  
Candidate Starts for EmiMonkey\_68:  
(Start: 1 @48687 has 22 MA's), (3, 48672), (5, 48585),

Gene: Filuzino\_69 Start: 44711, Stop: 44550, Start Num: 1  
Candidate Starts for Filuzino\_69:  
(Start: 1 @44711 has 22 MA's), (3, 44696), (5, 44609),

Gene: Florinda\_81 Start: 46866, Stop: 46705, Start Num: 1  
Candidate Starts for Florinda\_81:  
(Start: 1 @46866 has 22 MA's), (3, 46851), (5, 46764),

Gene: FreddyB\_74 Start: 46101, Stop: 45940, Start Num: 1  
Candidate Starts for FreddyB\_74:  
(Start: 1 @46101 has 22 MA's), (3, 46086), (5, 45999),

Gene: Girafales\_78 Start: 46657, Stop: 46496, Start Num: 1  
Candidate Starts for Girafales\_78:  
(Start: 1 @46657 has 22 MA's), (3, 46642), (5, 46555),

Gene: Hamulus\_69 Start: 44779, Stop: 44618, Start Num: 1  
Candidate Starts for Hamulus\_69:  
(Start: 1 @44779 has 22 MA's), (3, 44764), (5, 44677),

Gene: Kenuha5\_67 Start: 45969, Stop: 45808, Start Num: 1  
Candidate Starts for Kenuha5\_67:  
(Start: 1 @45969 has 22 MA's), (3, 45954), (5, 45867),

Gene: Kingsley\_72 Start: 47621, Stop: 47460, Start Num: 1  
Candidate Starts for Kingsley\_72:  
(Start: 1 @47621 has 22 MA's), (3, 47606), (5, 47519),

Gene: Madiba\_72 Start: 46532, Stop: 46371, Start Num: 1  
Candidate Starts for Madiba\_72:  
(Start: 1 @46532 has 22 MA's), (3, 46517), (5, 46430), (6, 46418),

Gene: Majeke\_56 Start: 37433, Stop: 37278, Start Num: 2  
Candidate Starts for Majeke\_56:  
(Start: 2 @37433 has 4 MA's),

Gene: Mangethe\_56 Start: 37433, Stop: 37278, Start Num: 2  
Candidate Starts for Mangethe\_56:  
(Start: 2 @37433 has 4 MA's),

Gene: MilanaBonita\_60 Start: 40673, Stop: 40512, Start Num: 1  
Candidate Starts for MilanaBonita\_60:  
(Start: 1 @40673 has 22 MA's), (3, 40658), (5, 40571),

Gene: Ms6\_67 Start: 40374, Stop: 40228, Start Num: 3  
Candidate Starts for Ms6\_67:  
(Start: 1 @40389 has 22 MA's), (3, 40374), (4, 40368), (5, 40287),

Gene: Ovechkin\_71 Start: 45449, Stop: 45288, Start Num: 1  
Candidate Starts for Ovechkin\_71:  
(Start: 1 @45449 has 22 MA's), (3, 45434), (5, 45347),

Gene: Phanphagia\_67 Start: 44407, Stop: 44246, Start Num: 1  
Candidate Starts for Phanphagia\_67:  
(Start: 1 @44407 has 22 MA's), (3, 44392), (5, 44305),

Gene: Phegasus\_56 Start: 37400, Stop: 37245, Start Num: 2  
Candidate Starts for Phegasus\_56:  
(Start: 2 @37400 has 4 MA's),

Gene: Philonius\_56 Start: 37045, Stop: 36884, Start Num: 1  
Candidate Starts for Philonius\_56:  
(Start: 1 @37045 has 22 MA's), (3, 37030), (5, 36943),

Gene: PhlipPhlop\_68 Start: 48687, Stop: 48526, Start Num: 1  
Candidate Starts for PhlipPhlop\_68:  
(Start: 1 @48687 has 22 MA's), (3, 48672), (5, 48585),

Gene: Quico\_78 Start: 46686, Stop: 46525, Start Num: 1  
Candidate Starts for Quico\_78:  
(Start: 1 @46686 has 22 MA's), (3, 46671), (5, 46584),

Gene: Ramsey\_70 Start: 46837, Stop: 46676, Start Num: 1  
Candidate Starts for Ramsey\_70:  
(Start: 1 @46837 has 22 MA's), (3, 46822), (5, 46735),

Gene: Seagreen\_69 Start: 44285, Stop: 44124, Start Num: 1  
Candidate Starts for Seagreen\_69:  
(Start: 1 @44285 has 22 MA's), (3, 44270), (5, 44183),

Gene: Shauna1\_68 Start: 44657, Stop: 44496, Start Num: 1

Candidate Starts for Shauna1\_68:

(Start: 1 @44657 has 22 MA's), (3, 44642), (5, 44555),

Gene: Vivum\_72 Start: 47295, Stop: 47134, Start Num: 1

Candidate Starts for Vivum\_72:

(Start: 1 @47295 has 22 MA's), (3, 47280), (5, 47193),

Gene: Zilizebeth\_56 Start: 37424, Stop: 37269, Start Num: 2

Candidate Starts for Zilizebeth\_56:

(Start: 2 @37424 has 4 MA's),