



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 3014 Report

This analysis was run 03/30/24 on database version 556.

Pham number 3014 has 32 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Quartz\_35, Nucci\_34
- Track 2 : Mandalorian\_34
- Track 3 : Juanyo\_35
- Track 4 : Carostasia\_34
- Track 5 : Saratos\_36, Zenitsu\_36, MCubed\_36
- Track 6 : Andromedas\_36, Shamu\_36, Eleri\_36, Glamour\_35, ColaCorta\_36, ChikPic\_36
- Track 7 : Sansa\_35
- Track 8 : Finny\_36
- Track 9 : SirVictor\_35, Guetzie\_35
- Track 10 : Bustleton\_35, Sinatra\_35, Kauala\_35, PrincePhergus\_35, Pherbot\_35, Koji\_35
- Track 11 : Golden\_35, Lucky3\_35
- Track 12 : KatChan\_37, Chepli\_37, Luna18\_37
- Track 13 : Morigan\_37
- Track 14 : Juicer\_38, Jemerald\_38

### ***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 27 of the 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Andromedas\_36, Bustleton\_35, Chepli\_37, ChikPic\_36, ColaCorta\_36, Eleri\_36, Finny\_36, Glamour\_35, Golden\_35, Guetzie\_35, Jemerald\_38, Juicer\_38, KatChan\_37, Kauala\_35, Koji\_35, Lucky3\_35, Luna18\_37, MCubed\_36, Morigan\_37, Pherbot\_35, PrincePhergus\_35, Sansa\_35, Saratos\_36, Shamu\_36, Sinatra\_35, SirVictor\_35, Zenitsu\_36,

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:

- Carostasia\_34, Juanyo\_35, Mandalorian\_34, Nucci\_34, Quartz\_35,

## Summary by start number:

### Start 4:

- Found in 27 of 32 ( 84.4% ) of genes in pham
- Manual Annotations of this start: 27 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Andromedas\_36 (EA2), Bustleton\_35 (EA4), Chepli\_37 (EA6), ChikPic\_36 (EA2), ColaCorta\_36 (EA2), Eleri\_36 (EA2), Finny\_36 (EA2), Glamour\_35 (EA2), Golden\_35 (EA4), Guetzie\_35 (EA4), Jemerald\_38 (EA6), Juicer\_38 (EA6), KatChan\_37 (EA6), Kauala\_35 (EA4), Koji\_35 (EA4), Lucky3\_35 (EA4), Luna18\_37 (EA6), MCubed\_36 (EA2), Morrigan\_37 (EA6), Pherbot\_35 (EA4), PrincePhergus\_35 (EA4), Sansa\_35 (EA2), Saratos\_36 (EA2), Shamu\_36 (EA2), Sinatra\_35 (EA4), SirVictor\_35 (EA4), Zenitsu\_36 (EA2),

### Start 5:

- Found in 5 of 32 ( 15.6% ) of genes in pham
- Manual Annotations of this start: 3 of 31
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Juanyo\_35 (EA10), Nucci\_34 (EA10), Quartz\_35 (EA10),

### Start 6:

- Found in 4 of 32 ( 12.5% ) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Carostasia\_34 (EA10), Mandalorian\_34 (EA10),

## Summary by clusters:

There are 4 clusters represented in this pham: EA2, EA10, EA6, EA4,

Info for manual annotations of cluster EA10:

- Start number 5 was manually annotated 3 times for cluster EA10.
- Start number 6 was manually annotated 1 time for cluster EA10.

Info for manual annotations of cluster EA2:

- Start number 4 was manually annotated 11 times for cluster EA2.

Info for manual annotations of cluster EA4:

- Start number 4 was manually annotated 10 times for cluster EA4.

Info for manual annotations of cluster EA6:

- Start number 4 was manually annotated 6 times for cluster EA6.

## Gene Information:

Gene: Andromedas\_36 Start: 25645, Stop: 25508, Start Num: 4

Candidate Starts for Andromedas\_36:

(1, 25813), (2, 25789), (3, 25774), (Start: 4 @25645 has 27 MA's), (7, 25582), (8, 25564),

Gene: Bustleton\_35 Start: 25505, Stop: 25365, Start Num: 4

Candidate Starts for Bustleton\_35:

(Start: 4 @25505 has 27 MA's),

Gene: Carostasia\_34 Start: 25326, Stop: 25198, Start Num: 6

Candidate Starts for Carostasia\_34:

(3, 25470), (Start: 5 @25338 has 3 MA's), (Start: 6 @25326 has 1 MA's),

Gene: Chepli\_37 Start: 25149, Stop: 24997, Start Num: 4

Candidate Starts for Chepli\_37:

(Start: 4 @25149 has 27 MA's), (9, 25041), (11, 25005),

Gene: ChikPic\_36 Start: 25655, Stop: 25518, Start Num: 4

Candidate Starts for ChikPic\_36:

(1, 25823), (2, 25799), (3, 25784), (Start: 4 @25655 has 27 MA's), (7, 25592), (8, 25574),

Gene: ColaCorta\_36 Start: 25645, Stop: 25508, Start Num: 4

Candidate Starts for ColaCorta\_36:

(1, 25813), (2, 25789), (3, 25774), (Start: 4 @25645 has 27 MA's), (7, 25582), (8, 25564),

Gene: Eleri\_36 Start: 25646, Stop: 25509, Start Num: 4

Candidate Starts for Eleri\_36:

(1, 25814), (2, 25790), (3, 25775), (Start: 4 @25646 has 27 MA's), (7, 25583), (8, 25565),

Gene: Finny\_36 Start: 25686, Stop: 25549, Start Num: 4

Candidate Starts for Finny\_36:

(2, 25830), (3, 25815), (Start: 4 @25686 has 27 MA's), (7, 25623), (8, 25605),

Gene: Glamour\_35 Start: 25637, Stop: 25500, Start Num: 4

Candidate Starts for Glamour\_35:

(1, 25805), (2, 25781), (3, 25766), (Start: 4 @25637 has 27 MA's), (7, 25574), (8, 25556),

Gene: Golden\_35 Start: 25597, Stop: 25457, Start Num: 4

Candidate Starts for Golden\_35:

(Start: 4 @25597 has 27 MA's),

Gene: Guetzie\_35 Start: 25582, Stop: 25442, Start Num: 4

Candidate Starts for Guetzie\_35:

(Start: 4 @25582 has 27 MA's), (10, 25471),

Gene: Jemerald\_38 Start: 26309, Stop: 26160, Start Num: 4

Candidate Starts for Jemerald\_38:

(Start: 4 @26309 has 27 MA's), (9, 26201),

Gene: Juanyo\_35 Start: 25419, Stop: 25279, Start Num: 5

Candidate Starts for Juanyo\_35:

(2, 25566), (3, 25551), (Start: 5 @25419 has 3 MA's),

Gene: Juicer\_38 Start: 26309, Stop: 26160, Start Num: 4

Candidate Starts for Juicer\_38:

(Start: 4 @26309 has 27 MA's), (9, 26201),

Gene: KatChan\_37 Start: 25161, Stop: 25009, Start Num: 4  
Candidate Starts for KatChan\_37:  
(Start: 4 @25161 has 27 MA's), (9, 25053), (11, 25017),

Gene: Kauala\_35 Start: 25485, Stop: 25345, Start Num: 4  
Candidate Starts for Kauala\_35:  
(Start: 4 @25485 has 27 MA's),

Gene: Koji\_35 Start: 25678, Stop: 25538, Start Num: 4  
Candidate Starts for Koji\_35:  
(Start: 4 @25678 has 27 MA's),

Gene: Lucky3\_35 Start: 25597, Stop: 25457, Start Num: 4  
Candidate Starts for Lucky3\_35:  
(Start: 4 @25597 has 27 MA's),

Gene: Luna18\_37 Start: 25161, Stop: 25009, Start Num: 4  
Candidate Starts for Luna18\_37:  
(Start: 4 @25161 has 27 MA's), (9, 25053), (11, 25017),

Gene: MCubed\_36 Start: 25662, Stop: 25525, Start Num: 4  
Candidate Starts for MCubed\_36:  
(2, 25806), (3, 25791), (Start: 4 @25662 has 27 MA's), (7, 25599), (8, 25581),

Gene: Mandalorian\_34 Start: 25336, Stop: 25208, Start Num: 6  
Candidate Starts for Mandalorian\_34:  
(2, 25495), (3, 25480), (Start: 5 @25348 has 3 MA's), (Start: 6 @25336 has 1 MA's),

Gene: Morrigan\_37 Start: 25182, Stop: 25030, Start Num: 4  
Candidate Starts for Morrigan\_37:  
(Start: 4 @25182 has 27 MA's), (9, 25074),

Gene: Nucci\_34 Start: 25343, Stop: 25203, Start Num: 5  
Candidate Starts for Nucci\_34:  
(2, 25490), (3, 25475), (Start: 5 @25343 has 3 MA's), (Start: 6 @25331 has 1 MA's),

Gene: Pherbot\_35 Start: 25492, Stop: 25352, Start Num: 4  
Candidate Starts for Pherbot\_35:  
(Start: 4 @25492 has 27 MA's),

Gene: PrincePhergus\_35 Start: 25507, Stop: 25367, Start Num: 4  
Candidate Starts for PrincePhergus\_35:  
(Start: 4 @25507 has 27 MA's),

Gene: Quartz\_35 Start: 25461, Stop: 25321, Start Num: 5  
Candidate Starts for Quartz\_35:  
(2, 25608), (3, 25593), (Start: 5 @25461 has 3 MA's), (Start: 6 @25449 has 1 MA's),

Gene: Sansa\_35 Start: 25723, Stop: 25586, Start Num: 4  
Candidate Starts for Sansa\_35:  
(2, 25867), (3, 25852), (Start: 4 @25723 has 27 MA's), (8, 25642),

Gene: Saratos\_36 Start: 25631, Stop: 25494, Start Num: 4

Candidate Starts for Saratos\_36:

(2, 25775), (3, 25760), (Start: 4 @25631 has 27 MA's), (7, 25568), (8, 25550),

Gene: Shamu\_36 Start: 25652, Stop: 25515, Start Num: 4

Candidate Starts for Shamu\_36:

(1, 25820), (2, 25796), (3, 25781), (Start: 4 @25652 has 27 MA's), (7, 25589), (8, 25571),

Gene: Sinatra\_35 Start: 25503, Stop: 25363, Start Num: 4

Candidate Starts for Sinatra\_35:

(Start: 4 @25503 has 27 MA's),

Gene: SirVictor\_35 Start: 25582, Stop: 25442, Start Num: 4

Candidate Starts for SirVictor\_35:

(Start: 4 @25582 has 27 MA's), (10, 25471),

Gene: Zenitsu\_36 Start: 25667, Stop: 25530, Start Num: 4

Candidate Starts for Zenitsu\_36:

(2, 25811), (3, 25796), (Start: 4 @25667 has 27 MA's), (7, 25604), (8, 25586),