



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 3658 Report

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

Pham number 3658 has 22 members, 0 are drafts.

Phages represented in each track:

- Track 1 : Hail\_37, Kinbote\_38, Gravaillia\_37, Evanesce\_37, DeepSoil15\_38, Gancho\_37, Hadrien\_38, Ein37\_38, Giles\_37, Amymech\_38, HH92\_37, Dewey\_37, OBUpride\_38, Luke\_38, Amochick\_38, LilHazelNut\_38, Luna22\_37, Ubuntu\_38
- Track 2 : Webster2\_38, Wishmaker\_37, Daegal\_39
- Track 3 : Forge\_37

### ***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 18 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amochick\_38, Amymech\_38, DeepSoil15\_38, Dewey\_37, Ein37\_38, Evanesce\_37, Gancho\_37, Giles\_37, Gravaillia\_37, HH92\_37, Hadrien\_38, Hail\_37, Kinbote\_38, LilHazelNut\_38, Luke\_38, Luna22\_37, OBUpride\_38, Ubuntu\_38,

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

- Daegal\_39, Forge\_37, Webster2\_38, Wishmaker\_37,

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

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

Start 1:

- Found in 22 of 22 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 18 of 22
- Called 81.8% of time when present
- Phage (with cluster) where this start called: Amochick\_38 (Q), Amymech\_38 (Q), DeepSoil15\_38 (Q), Dewey\_37 (Q), Ein37\_38 (Q), Evanesce\_37 (Q), Gancho\_37 (Q), Giles\_37 (Q), Gravaillia\_37 (Q), HH92\_37 (Q), Hadrien\_38 (Q), Hail\_37 (Q), Kinbote\_38 (Q), LilHazelNut\_38 (Q), Luke\_38 (Q), Luna22\_37 (Q), OBUpride\_38 (Q), Ubuntu\_38 (Q),

Start 3:

- Found in 22 of 22 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called 4.5% of time when present
- Phage (with cluster) where this start called: Forge\_37 (Q),

Start 4:

- Found in 22 of 22 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 3 of 22
- Called 13.6% of time when present
- Phage (with cluster) where this start called: Daegal\_39 (Q), Webster2\_38 (Q), Wishmaker\_37 (Q),

**Summary by clusters:**

There is one cluster represented in this pham: Q

Info for manual annotations of cluster Q:

- Start number 1 was manually annotated 18 times for cluster Q.
- Start number 3 was manually annotated 1 time for cluster Q.
- Start number 4 was manually annotated 3 times for cluster Q.

**Gene Information:**

Gene: Amochick\_38 Start: 31748, Stop: 31900, Start Num: 1

Candidate Starts for Amochick\_38:

(Start: 1 @31748 has 18 MA's), (2, 31757), (Start: 3 @31766 has 1 MA's), (Start: 4 @31775 has 3 MA's), (5, 31787), (6, 31823),

Gene: Amymech\_38 Start: 31742, Stop: 31894, Start Num: 1

Candidate Starts for Amymech\_38:

(Start: 1 @31742 has 18 MA's), (2, 31751), (Start: 3 @31760 has 1 MA's), (Start: 4 @31769 has 3 MA's), (5, 31781), (6, 31817),

Gene: Daegal\_39 Start: 32063, Stop: 32188, Start Num: 4

Candidate Starts for Daegal\_39:

(Start: 1 @32036 has 18 MA's), (2, 32045), (Start: 3 @32054 has 1 MA's), (Start: 4 @32063 has 3 MA's), (5, 32075), (6, 32111),

Gene: DeepSoil15\_38 Start: 31742, Stop: 31894, Start Num: 1

Candidate Starts for DeepSoil15\_38:

(Start: 1 @31742 has 18 MA's), (2, 31751), (Start: 3 @31760 has 1 MA's), (Start: 4 @31769 has 3 MA's), (5, 31781), (6, 31817),

Gene: Dewey\_37 Start: 31742, Stop: 31894, Start Num: 1

Candidate Starts for Dewey\_37:

(Start: 1 @31742 has 18 MA's), (2, 31751), (Start: 3 @31760 has 1 MA's), (Start: 4 @31769 has 3 MA's), (5, 31781), (6, 31817),

Gene: Ein37\_38 Start: 31742, Stop: 31894, Start Num: 1

Candidate Starts for Ein37\_38:

(Start: 1 @31742 has 18 MA's), (2, 31751), (Start: 3 @31760 has 1 MA's), (Start: 4 @31769 has 3 MA's), (5, 31781), (6, 31817),

Gene: Evanesce\_37 Start: 31742, Stop: 31894, Start Num: 1

Candidate Starts for Evanesce\_37:

(Start: 1 @31742 has 18 MA's), (2, 31751), (Start: 3 @31760 has 1 MA's), (Start: 4 @31769 has 3 MA's), (5, 31781), (6, 31817),

Gene: Forge\_37 Start: 31760, Stop: 31894, Start Num: 3

Candidate Starts for Forge\_37:

(Start: 1 @31742 has 18 MA's), (2, 31751), (Start: 3 @31760 has 1 MA's), (Start: 4 @31769 has 3 MA's), (5, 31781), (6, 31817),

Gene: Gancho\_37 Start: 31465, Stop: 31617, Start Num: 1

Candidate Starts for Gancho\_37:

(Start: 1 @31465 has 18 MA's), (2, 31474), (Start: 3 @31483 has 1 MA's), (Start: 4 @31492 has 3 MA's), (5, 31504), (6, 31540),

Gene: Giles\_37 Start: 31742, Stop: 31894, Start Num: 1

Candidate Starts for Giles\_37:

(Start: 1 @31742 has 18 MA's), (2, 31751), (Start: 3 @31760 has 1 MA's), (Start: 4 @31769 has 3 MA's), (5, 31781), (6, 31817),

Gene: Gravaillia\_37 Start: 31471, Stop: 31623, Start Num: 1

Candidate Starts for Gravaillia\_37:

(Start: 1 @31471 has 18 MA's), (2, 31480), (Start: 3 @31489 has 1 MA's), (Start: 4 @31498 has 3 MA's), (5, 31510), (6, 31546),

Gene: HH92\_37 Start: 31742, Stop: 31894, Start Num: 1

Candidate Starts for HH92\_37:

(Start: 1 @31742 has 18 MA's), (2, 31751), (Start: 3 @31760 has 1 MA's), (Start: 4 @31769 has 3 MA's), (5, 31781), (6, 31817),

Gene: Hadrien\_38 Start: 31742, Stop: 31894, Start Num: 1

Candidate Starts for Hadrien\_38:

(Start: 1 @31742 has 18 MA's), (2, 31751), (Start: 3 @31760 has 1 MA's), (Start: 4 @31769 has 3 MA's), (5, 31781), (6, 31817),

Gene: Hail\_37 Start: 31742, Stop: 31894, Start Num: 1

Candidate Starts for Hail\_37:

(Start: 1 @31742 has 18 MA's), (2, 31751), (Start: 3 @31760 has 1 MA's), (Start: 4 @31769 has 3 MA's), (5, 31781), (6, 31817),

Gene: Kinbote\_38 Start: 31742, Stop: 31894, Start Num: 1

Candidate Starts for Kinbote\_38:

(Start: 1 @31742 has 18 MA's), (2, 31751), (Start: 3 @31760 has 1 MA's), (Start: 4 @31769 has 3 MA's), (5, 31781), (6, 31817),

Gene: LilHazelNut\_38 Start: 31742, Stop: 31894, Start Num: 1

Candidate Starts for LilHazelNut\_38:

(Start: 1 @31742 has 18 MA's), (2, 31751), (Start: 3 @31760 has 1 MA's), (Start: 4 @31769 has 3 MA's), (5, 31781), (6, 31817),

Gene: Luke\_38 Start: 31697, Stop: 31849, Start Num: 1

Candidate Starts for Luke\_38:

(Start: 1 @31697 has 18 MA's), (2, 31706), (Start: 3 @31715 has 1 MA's), (Start: 4 @31724 has 3 MA's), (5, 31736), (6, 31772),

Gene: Luna22\_37 Start: 31742, Stop: 31894, Start Num: 1

Candidate Starts for Luna22\_37:

(Start: 1 @31742 has 18 MA's), (2, 31751), (Start: 3 @31760 has 1 MA's), (Start: 4 @31769 has 3 MA's), (5, 31781), (6, 31817),

Gene: OBUpride\_38 Start: 31736, Stop: 31888, Start Num: 1

Candidate Starts for OBUpride\_38:

(Start: 1 @31736 has 18 MA's), (2, 31745), (Start: 3 @31754 has 1 MA's), (Start: 4 @31763 has 3 MA's), (5, 31775), (6, 31811),

Gene: Ubuntu\_38 Start: 31742, Stop: 31894, Start Num: 1

Candidate Starts for Ubuntu\_38:

(Start: 1 @31742 has 18 MA's), (2, 31751), (Start: 3 @31760 has 1 MA's), (Start: 4 @31769 has 3 MA's), (5, 31781), (6, 31817),

Gene: Webster2\_38 Start: 31769, Stop: 31894, Start Num: 4

Candidate Starts for Webster2\_38:

(Start: 1 @31742 has 18 MA's), (2, 31751), (Start: 3 @31760 has 1 MA's), (Start: 4 @31769 has 3 MA's), (5, 31781), (6, 31817),

Gene: Wishmaker\_37 Start: 31769, Stop: 31894, Start Num: 4

Candidate Starts for Wishmaker\_37:

(Start: 1 @31742 has 18 MA's), (2, 31751), (Start: 3 @31760 has 1 MA's), (Start: 4 @31769 has 3 MA's), (5, 31781), (6, 31817),