

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 163858 Report

This analysis was run 05/04/24 on database version 560.

Pham number 163858 has 28 members, 6 are drafts.

Phages represented in each track:

- Track 1: Inked 37
- Track 2 : Issa 40
- Track 3 : Nightmare\_40
- Track 4 : Breylor17 40
- Track 5 : Giantsbane 41
- Track 6 : Tokki\_40
- Track 7 : MediumFry 33
- Track 8 : Caterpillar\_33
- Track 9 : Makai 39
- Track 10 : BarbieDoll 42
- Track 11: Leathea 37
- Track 12: MrAaronian\_37, Stayer\_37, Sloopyjoe\_37, Djungelskog\_37,

ProfFrink\_38, Salk\_37, Michelle\_37, StarLord\_37
• Track 13: Egad\_37, Linda\_37, BronxBay\_37

- Track 14 : Qui 62, Paella 62, Elver 60
- Track 15 : Paella 49, Qui 49
- Track 16 : Elver 48

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

The start number called the most often in the published annotations is 12, it was called in 8 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

 Djungelskog\_37, MediumFry\_33, Michelle\_37, MrAaronian\_37, ProfFrink\_38, Salk\_37, Sloopyjoe\_37, StarLord\_37, Stayer\_37,

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

BronxBay\_37, Caterpillar\_33, Egad\_37, Linda\_37,

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

 BarbieDoll\_42, Breylor17\_40, Elver\_48, Elver\_60, Giantsbane\_41, Inked\_37, Issa\_40, Leathea\_37, Makai\_39, Nightmare\_40, Paella\_49, Paella\_62, Qui\_49, Qui 62, Tokki 40,

# Summary by start number:

### Start 8:

- Found in 1 of 28 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Caterpillar\_33 (AU4),

### Start 10:

- Found in 4 of 28 (14.3%) of genes in pham
- Manual Annotations of this start: 2 of 22
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Paella\_49 (FK), Qui\_49 (FK),

### Start 11:

- Found in 2 of 28 (7.1%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BarbieDoll\_42 (AU6), Leathea\_37 (AU6),

## Start 12:

- Found in 13 of 28 (46.4%) of genes in pham
- Manual Annotations of this start: 8 of 22
- Called 69.2% of time when present
- Phage (with cluster) where this start called: Djungelskog\_37 (AW), MediumFry\_33 (AU4), Michelle\_37 (AW), MrAaronian\_37 (AW), ProfFrink\_38 (AW), Salk\_37 (AW), Sloopyjoe\_37 (AW), StarLord\_37 (AW), Stayer\_37 (AW),

#### Start 13:

- Found in 22 of 28 (78.6%) of genes in pham
- Manual Annotations of this start: 6 of 22
- Called 36.4% of time when present
- Phage (with cluster) where this start called: BronxBay\_37 (AW), Egad\_37 (AW), Elver\_48 (FK), Elver\_60 (FK), Inked\_37 (AU), Linda\_37 (AW), Paella\_62 (FK), Qui\_62 (FK),

#### Start 15:

- Found in 2 of 28 (7.1%) of genes in pham
- Manual Annotations of this start: 2 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Breylor17\_40 (AU1), Nightmare\_40 (AU1),

### Start 16:

- Found in 4 of 28 (14.3%) of genes in pham
- Manual Annotations of this start: 3 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Giantsbane\_41 (AU2), Issa\_40 (AU1), Makai\_39 (AU5), Tokki\_40 (AU2),

# Summary by clusters:

There are 8 clusters represented in this pham: AU1, AU2, AU, AU4, AW, AU6, AU5, FK,

Info for manual annotations of cluster AU:

•Start number 13 was manually annotated 1 time for cluster AU.

Info for manual annotations of cluster AU1:

•Start number 15 was manually annotated 2 times for cluster AU1.

Info for manual annotations of cluster AU2:

•Start number 16 was manually annotated 2 times for cluster AU2.

Info for manual annotations of cluster AU4:

- •Start number 8 was manually annotated 1 time for cluster AU4.
- •Start number 12 was manually annotated 1 time for cluster AU4.

Info for manual annotations of cluster AU5:

•Start number 16 was manually annotated 1 time for cluster AU5.

Info for manual annotations of cluster AW:

- •Start number 12 was manually annotated 7 times for cluster AW.
- •Start number 13 was manually annotated 3 times for cluster AW.

Info for manual annotations of cluster FK:

- •Start number 10 was manually annotated 2 times for cluster FK.
- •Start number 13 was manually annotated 2 times for cluster FK.

## Gene Information:

Gene: BarbieDoll 42 Start: 30649, Stop: 30858, Start Num: 11

Candidate Starts for BarbieDoll 42:

(11, 30649), (Start: 13 @30658 has 6 MA's), (18, 30691), (19, 30715), (20, 30718), (26, 30787), (27, 30805),

Gene: Breylor17 40 Start: 31299, Stop: 31508, Start Num: 15

Candidate Starts for Breylor17 40:

(1, 31056), (2, 31074), (3, 31095), (4, 31098), (5, 31101), (6, 31104), (Start: 15 @ 31299 has 2 MA's), (18, 31329), (22, 31413), (24, 31419), (25, 31425), (27, 31455),

Gene: BronxBay\_37 Start: 28106, Stop: 28315, Start Num: 13

Candidate Starts for BronxBay\_37:

(Start: 12 @28100 has 8 MA's), (Start: 13 @28106 has 6 MA's), (17, 28130), (27, 28262),

Gene: Caterpillar 33 Start: 28561, Stop: 28809, Start Num: 8

Candidate Starts for Caterpillar 33:

(Start: 8 @28561 has 1 MA's), (Start: 12 @28594 has 8 MA's), (Start: 13 @28600 has 6 MA's), (17, 28624), (27, 28756),

Gene: Djungelskog\_37 Start: 28100, Stop: 28315, Start Num: 12

Candidate Starts for Djungelskog\_37:

(Start: 12 @28100 has 8 MA's), (Start: 13 @28106 has 6 MA's), (17, 28130), (27, 28262),

Gene: Egad\_37 Start: 28107, Stop: 28316, Start Num: 13

Candidate Starts for Egad\_37:

(Start: 12 @28101 has 8 MA's), (Start: 13 @28107 has 6 MA's), (17, 28131), (27, 28263),

Gene: Elver 48 Start: 38201, Stop: 38413, Start Num: 13

Candidate Starts for Elver\_48:

(Start: 13 @38201 has 6 MA's), (18, 38237), (22, 38321), (23, 38324), (27, 38363), (29, 38402),

Gene: Elver 60 Start: 42022, Stop: 42216, Start Num: 13

Candidate Starts for Elver\_60:

(Start: 13 @42022 has 6 MA's), (21, 42100), (22, 42127),

Gene: Giantsbane\_41 Start: 29798, Stop: 30004, Start Num: 16

Candidate Starts for Giantsbane 41:

(7, 29720), (9, 29756), (Start: 10 @29765 has 2 MA's), (Start: 16 @29798 has 3 MA's), (18, 29828), (24, 29918), (25, 29924), (27, 29951),

Gene: Inked\_37 Start: 30173, Stop: 30388, Start Num: 13

Candidate Starts for Inked\_37: (Start: 13 @30173 has 6 MA's),

Gene: Issa\_40 Start: 30583, Stop: 30792, Start Num: 16

Candidate Starts for Issa\_40:

(14, 30577), (Start: 16 @30583 has 3 MA's), (18, 30613), (22, 30697), (24, 30703), (25, 30709), (27, 30739).

Gene: Leathea\_37 Start: 28409, Stop: 28621, Start Num: 11

Candidate Starts for Leathea\_37:

(11, 28409), (Start: 13 @28418 has 6 MA's), (19, 28475), (20, 28478), (27, 28565),

Gene: Linda\_37 Start: 28102, Stop: 28311, Start Num: 13

Candidate Starts for Linda 37:

(Start: 12 @28096 has 8 MA's), (Start: 13 @28102 has 6 MA's), (17, 28126), (27, 28258),

Gene: Makai\_39 Start: 30758, Stop: 30967, Start Num: 16

Candidate Starts for Makai\_39:

(Start: 16 @30758 has 3 MA's), (18, 30788), (24, 30878), (27, 30914), (28, 30950),

Gene: MediumFry\_33 Start: 28595, Stop: 28810, Start Num: 12

Candidate Starts for MediumFry\_33:

(Start: 12 @28595 has 8 MA's), (Start: 13 @28601 has 6 MA's), (17, 28625), (27, 28757),

Gene: Michelle\_37 Start: 28100, Stop: 28315, Start Num: 12

Candidate Starts for Michelle\_37:

(Start: 12 @28100 has 8 MA's), (Start: 13 @28106 has 6 MA's), (17, 28130), (27, 28262),

Gene: MrAaronian 37 Start: 28100, Stop: 28315, Start Num: 12

Candidate Starts for MrAaronian\_37:

(Start: 12 @28100 has 8 MA's), (Start: 13 @28106 has 6 MA's), (17, 28130), (27, 28262),

Gene: Nightmare\_40 Start: 31142, Stop: 31351, Start Num: 15

Candidate Starts for Nightmare\_40:

(Start: 15 @31142 has 2 MA's), (18, 31172), (22, 31256), (23, 31259), (24, 31262), (27, 31298),

Gene: Paella\_62 Start: 42313, Stop: 42507, Start Num: 13

Candidate Starts for Paella 62:

(Start: 13 @42313 has 6 MA's), (21, 42391), (22, 42418),

Gene: Paella\_49 Start: 38177, Stop: 38416, Start Num: 10

Candidate Starts for Paella\_49:

(Start: 10 @38177 has 2 MA's), (Start: 13 @38204 has 6 MA's), (18, 38240), (22, 38324), (23, 38327),

(27, 38366), (29, 38405),

Gene: ProfFrink\_38 Start: 28100, Stop: 28315, Start Num: 12

Candidate Starts for ProfFrink\_38:

(Start: 12 @28100 has 8 MA's), (Start: 13 @28106 has 6 MA's), (17, 28130), (27, 28262),

Gene: Qui\_62 Start: 42313, Stop: 42507, Start Num: 13

Candidate Starts for Qui 62:

(Start: 13 @42313 has 6 MA's), (21, 42391), (22, 42418),

Gene: Qui\_49 Start: 38177, Stop: 38416, Start Num: 10

Candidate Starts for Qui\_49:

(Start: 10 @38177 has 2 MA's), (Start: 13 @38204 has 6 MA's), (18, 38240), (22, 38324), (23, 38327),

(27, 38366), (29, 38405),

Gene: Salk\_37 Start: 28096, Stop: 28311, Start Num: 12

Candidate Starts for Salk 37:

(Start: 12 @28096 has 8 MA's), (Start: 13 @28102 has 6 MA's), (17, 28126), (27, 28258),

Gene: Sloopyjoe\_37 Start: 28101, Stop: 28316, Start Num: 12

Candidate Starts for Sloopyjoe\_37:

(Start: 12 @28101 has 8 MA's), (Start: 13 @28107 has 6 MA's), (17, 28131), (27, 28263),

Gene: StarLord\_37 Start: 28101, Stop: 28316, Start Num: 12

Candidate Starts for StarLord 37:

(Start: 12 @28101 has 8 MA's), (Start: 13 @28107 has 6 MA's), (17, 28131), (27, 28263),

Gene: Stayer\_37 Start: 28096, Stop: 28311, Start Num: 12

Candidate Starts for Stayer\_37:

(Start: 12 @28096 has 8 MA's), (Start: 13 @28102 has 6 MA's), (17, 28126), (27, 28258),

Gene: Tokki\_40 Start: 30614, Stop: 30820, Start Num: 16

Candidate Starts for Tokki 40:

(9, 30572), (Start: 10 @30581 has 2 MA's), (Start: 16 @30614 has 3 MA's), (18, 30644), (25, 30740),

(27, 30767),