Pham 163858


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 04/28/24 on database version 559.
Pham number 163858 has 28 members, 6 are drafts.
Phages represented in each track:

- Track 1 : Inked 37
- Track 2 : Issa $\overline{40}$
- Track 3 : Nightmare_40
- Track 4 : Breylor17_40
- Track 5 : Giantsbañe_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 $1 \overline{3}$ : 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, Leāthea_37, Makāi_39, Nightmare_40, Paella_49, Paēlla_62, Quì_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 (ĀW), 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 $\left.6 \bar{M} A^{\prime} s\right),(21,42100),(22,42127)$,
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), $(27,30767)$,

