

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 3979 Report

This analysis was run 07/09/24 on database version 566.

Pham number 3979 has 22 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Edmundo 19
- Track 2: LiSara 19
- Track 3: Wheelbite 19
- Track 4: Waltz 19, Shrooms 19
- Track 5 : Laroye 19, Salgado 19
- Track 6 : Kovu\_21
- Track 7 : Gusanita 64
- Track 8 : Nandita\_64, Ryan\_65
- Track 9 : Zaheer 66
- Track 10 : Popper 65
- Track 11 : Elesar 58
- Track 12 : Cole 60
- Track 13 : Ottawa\_88, Kharcho\_88Track 14 : JanetJ\_47
- Track 15 : Aoka 49
- Track 16: EvenBluerMoon 56
- Track 17 : Maja\_52
- Track 18 : Spartoi 52

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

The start number called the most often in the published annotations is 18, it was called in 9 of the 20 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

Edmundo\_19, Kharcho\_88, Kovu\_21, Laroye\_19, LiSara\_19, Ottawa\_88, Salgado\_19, Shrooms\_19, Waltz\_19, Wheelbite\_19,

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

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

 Aoka\_49, Cole\_60, Elesar\_58, EvenBluerMoon\_56, Gusanita\_64, JanetJ\_47, Maja\_52, Nandita\_64, Popper\_65, Ryan\_65, Spartoi\_52, Zaheer\_66,

## Summary by start number:

### Start 13:

- Found in 1 of 22 (4.5%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Spartoi\_52 (singleton),

### Start 15:

- Found in 2 of 22 (9.1%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Aoka\_49 (FO),

#### Start 17:

- Found in 3 of 22 (13.6%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 33.3% of time when present
- Phage (with cluster) where this start called: JanetJ\_47 (FO),

#### Start 18:

- Found in 10 of 22 (45.5%) of genes in pham
- Manual Annotations of this start: 9 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Edmundo\_19 (AL), Kharcho\_88 (FM), Kovu\_21 (AL), Laroye\_19 (AL), LiSara\_19 (AL), Ottawa\_88 (FM), Salgado\_19 (AL), Shrooms\_19 (AL), Waltz\_19 (AL), Wheelbite\_19 (AL),

#### Start 19:

- Found in 8 of 22 (36.4%) of genes in pham
- Manual Annotations of this start: 7 of 20
- Called 87.5% of time when present
- Phage (with cluster) where this start called: Cole\_60 (FF), Elesar\_58 (FF), Maja\_52 (FO), Nandita\_64 (FF), Popper\_65 (FF), Ryan\_65 (FF), Zaheer\_66 (FF),

#### Start 20:

- Found in 1 of 22 (4.5%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gusanita\_64 (FF),

## Start 28:

- Found in 2 of 22 (9.1%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: EvenBluerMoon\_56 (FO),

## **Summary by clusters:**

There are 5 clusters represented in this pham: singleton, FM, AL, FF, FO,

Info for manual annotations of cluster AL:

•Start number 18 was manually annotated 7 times for cluster AL.

Info for manual annotations of cluster FF:

- •Start number 19 was manually annotated 6 times for cluster FF.
- •Start number 20 was manually annotated 1 time for cluster FF.

Info for manual annotations of cluster FM:

•Start number 18 was manually annotated 2 times for cluster FM.

Info for manual annotations of cluster FO:

- •Start number 15 was manually annotated 1 time for cluster FO.
- •Start number 17 was manually annotated 1 time for cluster FO.
- •Start number 19 was manually annotated 1 time for cluster FO.

## Gene Information:

Gene: Aoka\_49 Start: 33639, Stop: 34004, Start Num: 15

Candidate Starts for Aoka\_49:

(Start: 15 @33639 has 1 MA's), (Start: 17 @33645 has 1 MA's), (28, 33759),

Gene: Cole\_60 Start: 39459, Stop: 39785, Start Num: 19

Candidate Starts for Cole 60:

(9, 39366), (14, 39438), (Start: 19 @39459 has 7 MA's), (31, 39606), (41, 39696),

Gene: Edmundo 19 Start: 15771, Stop: 16139, Start Num: 18

Candidate Starts for Edmundo\_19:

(Start: 18 @15771 has 9 MA's), (29, 15915), (39, 16029), (41, 16038), (42, 16065), (47, 16131),

Gene: Elesar\_58 Start: 40564, Stop: 40890, Start Num: 19

Candidate Starts for Elesar 58:

(9, 40471), (14, 40543), (Start: 19 @ 40564 has 7 MA's), (31, 40711), (41, 40801), (42, 40828), (46, 40882).

Gene: EvenBluerMoon\_56 Start: 33119, Stop: 33364, Start Num: 28

Candidate Starts for EvenBluerMoon\_56:

(Start: 15 @33011 has 1 MA's), (Start: 17 @33017 has 1 MA's), (28, 33119),

Gene: Gusanita 64 Start: 40269, Stop: 40595, Start Num: 20

Candidate Starts for Gusanita 64:

(9, 40173), (14, 40245), (Start: 19 @40266 has 7 MA's), (Start: 20 @40269 has 1 MA's), (31, 40416), (41, 40506),

Gene: JanetJ\_47 Start: 34159, Stop: 34539, Start Num: 17

Candidate Starts for JanetJ\_47:

(2, 33907), (Start: 17 @34159 has 1 MA's),

Gene: Kharcho 88 Start: 54056, Stop: 54409, Start Num: 18

Candidate Starts for Kharcho 88:

(1, 53696), (3, 53834), (4, 53852), (7, 53945), (8, 53954), (11, 53960), (Start: 18 @54056 has 9 MA's),

(25, 54137), (34, 54251), (38, 54302), (44, 54386),

Gene: Kovu\_21 Start: 15137, Stop: 15493, Start Num: 18

Candidate Starts for Kovu\_21:

(Start: 18 @15137 has 9 MA's), (32, 15329), (41, 15404), (42, 15431), (43, 15449),

Gene: Laroye\_19 Start: 15483, Stop: 15851, Start Num: 18

Candidate Starts for Laroye\_19:

(Start: 18 @15483 has 9 MA's), (24, 15561), (26, 15570), (29, 15627),

Gene: LiSara\_19 Start: 15538, Stop: 15906, Start Num: 18

Candidate Starts for LiSara\_19:

(Start: 18 @15538 has 9 MA's), (21, 15550), (24, 15616), (26, 15625), (29, 15682),

Gene: Maja\_52 Start: 34530, Stop: 34862, Start Num: 19

Candidate Starts for Maja\_52:

(6, 34392), (Start: 19 @34530 has 7 MA's), (22, 34563), (23, 34590), (41, 34773),

Gene: Nandita\_64 Start: 39997, Stop: 40329, Start Num: 19

Candidate Starts for Nandita\_64:

(7, 39886), (9, 39898), (Start: 19 @39997 has 7 MA's), (31, 40150), (33, 40168), (41, 40240), (42, 40267), (43, 40285),

Gene: Ottawa\_88 Start: 54006, Stop: 54359, Start Num: 18

Candidate Starts for Ottawa\_88:

(1, 53646), (3, 53784), (4, 53802), (7, 53895), (8, 53904), (11, 53910), (Start: 18 @54006 has 9 MA's), (25, 54087), (34, 54201), (38, 54252), (44, 54336),

Gene: Popper\_65 Start: 39567, Stop: 39896, Start Num: 19

Candidate Starts for Popper 65:

(7, 39465), (9, 39474), (14, 39546), (Start: 19 @39567 has 7 MA's), (30, 39711), (35, 39741), (37, 39774), (40, 39801), (41, 39807),

Gene: Ryan\_65 Start: 40550, Stop: 40882, Start Num: 19

Candidate Starts for Ryan 65:

(7, 40439), (9, 40451), (Start: 19 @40550 has 7 MA's), (31, 40703), (33, 40721), (41, 40793), (42, 40820), (43, 40838),

Gene: Salgado\_19 Start: 15491, Stop: 15859, Start Num: 18

Candidate Starts for Salgado\_19:

(Start: 18 @15491 has 9 MA's), (24, 15569), (26, 15578), (29, 15635),

Gene: Shrooms 19 Start: 15569, Stop: 15937, Start Num: 18

Candidate Starts for Shrooms\_19:

(Start: 18 @15569 has 9 MA's), (29, 15713), (42, 15863),

Gene: Spartoi\_52 Start: 33444, Stop: 33818, Start Num: 13

Candidate Starts for Spartoi\_52:

(5, 33345), (10, 33387), (Start: 13 @33444 has 1 MA's), (16, 33459), (27, 33555), (31, 33624), (36, 33669), (41, 33714), (45, 33786),

Gene: Waltz 19 Start: 15631, Stop: 15999, Start Num: 18

Candidate Starts for Waltz 19:

(Start: 18 @15631 has 9 MA's), (29, 15775), (42, 15925),

Gene: Wheelbite\_19 Start: 15612, Stop: 15980, Start Num: 18

Candidate Starts for Wheelbite\_19:

(Start: 18 @15612 has 9 MA's), (29, 15756), (39, 15870), (41, 15879), (42, 15906),

Gene: Zaheer\_66 Start: 40976, Stop: 41305, Start Num: 19

Candidate Starts for Zaheer\_66:

(12, 40919), (14, 40955), (Start: 19 @40976 has 7 MA's), (37, 41183), (41, 41216),