

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 95294 Report

This analysis was run 04/05/24 on database version 557.

Pham number 95294 has 28 members, 2 are drafts.

Phages represented in each track:

- Track 1: Indlovu 85
- Track 2: Cooper 88
- Track 3: VioletZ\_89, Prince\_86
- Track 4 : Mudslide\_87, Apex\_88
- Track 5 : Vincenzo 87
- Track 6: Heath\_80, Lolalove\_88
- Track 7 : ChrisnMich 88
- Track 8: JAMaL 86
- Track 9: AlanGrant 88
- Track 10 : JaguarMi 81
- Track 11 : CRB2 85
- Track 12 : Knocker\_85
- Track 13: Quesadilla 87
- Track 14 : PenguinLover67\_85
- Track 15: Evamon 81, SmokingBunny 82, Togo 81, Salvador 81
- Track 16 : Mutzi 79
- Track 17 : Barb 84
- Track 18: Halo3 79
- Track 19 : Nubi\_83, TillyBobJoe\_79, Fireball\_84
- Track 20 : Clown 87

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

The start number called the most often in the published annotations is 25, it was called in 8 of the 26 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

AlanGrant\_88, Apex\_88, ChrisnMich\_88, Clown\_87, Cooper\_88, JAMaL\_86, Mudslide\_87, Prince\_86, VioletZ\_89,

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

Heath\_80, JaguarMi\_81, Lolalove\_88, Vincenzo\_87,

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

• Barb\_84, CRB2\_85, Evamon\_81, Fireball\_84, Halo3\_79, Indlovu\_85, Knocker\_85, Mutzi\_79, Nubi\_83, PenguinLover67\_85, Quesadilla\_87, Salvador\_81, SmokingBunny\_82, TillyBobJoe\_79, Togo\_81,

# **Summary by start number:**

#### Start 16:

- Found in 1 of 28 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Knocker\_85 (B9),

#### Start 19:

- Found in 1 of 28 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Quesadilla\_87 (B9),

### Start 20:

- Found in 7 of 28 (25.0%) of genes in pham
- Manual Annotations of this start: 2 of 26
- Called 42.9% of time when present
- Phage (with cluster) where this start called: Heath\_80 (B4), JaguarMi\_81 (B4), Lolalove\_88 (B4),

## Start 21:

- Found in 5 of 28 (17.9%) of genes in pham
- Manual Annotations of this start: 3 of 26
- Called 60.0% of time when present
- Phage (with cluster) where this start called: CRB2\_85 (B9), Indlovu\_85 (B11), PenguinLover67 85 (B9),

### Start 22:

- Found in 5 of 28 (17.9%) of genes in pham
- Manual Annotations of this start: 3 of 26
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Fireball\_84 (DC1), Nubi\_83 (DC1), TillyBobJoe\_79 (DC1),

#### Start 23:

- Found in 7 of 28 (25.0%) of genes in pham
- Manual Annotations of this start: 7 of 26
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Barb\_84 (DC1), Evamon\_81 (DC1), Halo3\_79 (DC1), Mutzi\_79 (DC1), Salvador\_81 (DC1), SmokingBunny\_82 (DC1), Togo\_81 (DC1),

#### Start 24:

- Found in 2 of 28 (7.1%) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Vincenzo\_87 (B4),

### Start 25:

- Found in 13 of 28 (46.4%) of genes in pham
- Manual Annotations of this start: 8 of 26
- Called 69.2% of time when present
- Phage (with cluster) where this start called: AlanGrant\_88 (B4), Apex\_88 (B4), ChrisnMich\_88 (B4), Clown\_87 (DC2), Cooper\_88 (B4), JAMaL\_86 (B4), Mudslide\_87 (B4), Prince\_86 (B4), VioletZ\_89 (B4),

# **Summary by clusters:**

There are 5 clusters represented in this pham: B4, B11, DC2, B9, DC1,

Info for manual annotations of cluster B11:

•Start number 21 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B4:

- •Start number 20 was manually annotated 2 times for cluster B4.
- •Start number 24 was manually annotated 1 time for cluster B4.
- •Start number 25 was manually annotated 7 times for cluster B4.

Info for manual annotations of cluster B9:

- •Start number 16 was manually annotated 1 time for cluster B9.
- •Start number 19 was manually annotated 1 time for cluster B9.
- •Start number 21 was manually annotated 2 times for cluster B9.

Info for manual annotations of cluster DC1:

- •Start number 22 was manually annotated 3 times for cluster DC1.
- •Start number 23 was manually annotated 7 times for cluster DC1.

Info for manual annotations of cluster DC2:

•Start number 25 was manually annotated 1 time for cluster DC2.

#### Gene Information:

Gene: AlanGrant\_88 Start: 66948, Stop: 66805, Start Num: 25

Candidate Starts for AlanGrant\_88:

(Start: 22 @66960 has 3 MA's), (Start: 24 @66951 has 1 MA's), (Start: 25 @66948 has 8 MA's), (34, 66846), (37, 66825),

Gene: Apex\_88 Start: 66270, Stop: 66127, Start Num: 25

Candidate Starts for Apex\_88:

(Start: 20 @66297 has 2 MA's), (Start: 25 @66270 has 8 MA's), (33, 66171), (34, 66168), (37, 66147),

Gene: Barb 84 Start: 53980, Stop: 54156, Start Num: 23

Candidate Starts for Barb 84:

(2, 53392), (4, 53566), (9, 53845), (Start: 23 @53980 has 7 MA's),

Gene: CRB2 85 Start: 66826, Stop: 66605, Start Num: 21

Candidate Starts for CRB2 85:

(13, 66907), (15, 66892), (Start: 21 @66826 has 3 MA's), (27, 66781), (36, 66652), (38, 66634), (39, 66622), (40, 66619),

Gene: ChrisnMich\_88 Start: 65061, Stop: 64909, Start Num: 25

Candidate Starts for ChrisnMich\_88:

(Start: 21 @65082 has 3 MA's), (Start: 25 @65061 has 8 MA's), (31, 64998), (33, 64962), (34, 64959),

Gene: Clown\_87 Start: 55358, Stop: 55522, Start Num: 25

Candidate Starts for Clown\_87:

(11, 55235), (Start: 25 @55358 has 8 MA's), (28, 55388), (29, 55403),

Gene: Cooper\_88 Start: 65574, Stop: 65422, Start Num: 25

Candidate Starts for Cooper 88:

(7, 65730), (17, 65625), (18, 65622), (Start: 21 @65595 has 3 MA's), (Start: 25 @65574 has 8 MA's), (31, 65511), (33, 65475), (34, 65472),

Gene: Evamon\_81 Start: 53374, Stop: 53550, Start Num: 23

Candidate Starts for Evamon\_81: (Start: 23 @53374 has 7 MA's),

Gene: Fireball 84 Start: 53836, Stop: 54012, Start Num: 22

Candidate Starts for Fireball\_84: (Start: 22 @53836 has 3 MA's),

Gene: Halo3 79 Start: 53805, Stop: 53981, Start Num: 23

Candidate Starts for Halo3\_79:

(9, 53670), (Start: 23 @53805 has 7 MA's),

Gene: Heath\_80 Start: 64111, Stop: 63941, Start Num: 20

Candidate Starts for Heath 80:

(Start: 20 @64111 has 2 MA's), (Start: 25 @64084 has 8 MA's), (33, 63985), (34, 63982), (37, 63961),

Gene: Indlovu\_85 Start: 66174, Stop: 65995, Start Num: 21

Candidate Starts for Indlovu\_85:

(Start: 21 @66174 has 3 MA's), (34, 66054),

Gene: JAMaL\_86 Start: 65643, Stop: 65500, Start Num: 25

Candidate Starts for JAMaL 86:

(8, 65790), (10, 65775), (14, 65730), (Start: 25 @65643 has 8 MA's), (31, 65580), (33, 65544), (34, 65541), (37, 65520),

Gene: JaguarMi\_81 Start: 66176, Stop: 66006, Start Num: 20

Candidate Starts for JaguarMi\_81:

(Start: 20 @66176 has 2 MA's), (Start: 25 @66149 has 8 MA's), (31, 66086), (33, 66050), (34, 66047), (37, 66026),

Gene: Knocker 85 Start: 66543, Stop: 66316, Start Num: 16

Candidate Starts for Knocker\_85:

(5, 66699), (12, 66585), (13, 66570), (Start: 16 @66543 has 1 MA's), (26, 66474), (32, 66402), (35, 66363), (36, 66360), (38, 66345), (39, 66333), (40, 66330),

Gene: Lolalove 88 Start: 66142, Stop: 65972, Start Num: 20

Candidate Starts for Lolalove 88:

(Start: 20 @66142 has 2 MA's), (Start: 25 @66115 has 8 MA's), (33, 66016), (34, 66013), (37, 65992),

Gene: Mudslide\_87 Start: 66345, Stop: 66202, Start Num: 25

Candidate Starts for Mudslide\_87:

(Start: 20 @66372 has 2 MA's), (Start: 25 @66345 has 8 MA's), (33, 66246), (34, 66243), (37, 66222),

Gene: Mutzi\_79 Start: 53940, Stop: 54116, Start Num: 23

Candidate Starts for Mutzi\_79: (Start: 23 @53940 has 7 MA's),

Gene: Nubi\_83 Start: 53251, Stop: 53427, Start Num: 22

Candidate Starts for Nubi\_83: (Start: 22 @53251 has 3 MA's),

Gene: PenguinLover67\_85 Start: 64569, Stop: 64360, Start Num: 21

Candidate Starts for PenguinLover67\_85:

(1, 65436), (3, 65109), (6, 64743), (Start: 21 @64569 has 3 MA's), (27, 64527), (30, 64467), (34, 64416), (40, 64374),

Gene: Prince\_86 Start: 66212, Stop: 66069, Start Num: 25

Candidate Starts for Prince 86:

(Start: 20 @66239 has 2 MA's), (Start: 25 @66212 has 8 MA's), (31, 66149), (33, 66113), (34, 66110), (37, 66089),

Gene: Quesadilla\_87 Start: 65727, Stop: 65512, Start Num: 19

Candidate Starts for Quesadilla\_87: (Start: 19 @65727 has 1 MA's),

Gene: Salvador\_81 Start: 53372, Stop: 53548, Start Num: 23

Candidate Starts for Salvador\_81: (Start: 23 @53372 has 7 MA's),

Gene: SmokingBunny\_82 Start: 54368, Stop: 54544, Start Num: 23

Candidate Starts for SmokingBunny\_82:

(Start: 23 @54368 has 7 MA's),

Gene: TillyBobJoe\_79 Start: 53254, Stop: 53430, Start Num: 22

Candidate Starts for TillyBobJoe\_79: (Start: 22 @53254 has 3 MA's),

Gene: Togo\_81 Start: 54368, Stop: 54544, Start Num: 23

Candidate Starts for Togo\_81: (Start: 23 @54368 has 7 MA's),

Gene: Vincenzo\_87 Start: 66981, Stop: 66835, Start Num: 24

Candidate Starts for Vincenzo 87:

(Start: 22 @66990 has 3 MA's), (Start: 24 @66981 has 1 MA's), (Start: 25 @66978 has 8 MA's), (34, 66876), (37, 66855),

Gene: VioletZ\_89 Start: 66302, Stop: 66159, Start Num: 25

Candidate Starts for VioletZ\_89:

(Start: 20 @66329 has 2 MA's), (Start: 25 @66302 has 8 MA's), (31, 66239), (33, 66203), (34, 66200), (37, 66179),