

Pham 224677



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 224677 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224677 has 46 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Pytheas\_47, Jablanski\_47
- Track 2 : Marteena\_44, EMSquaredA\_45
- Track 3 : Confidence\_44
- Track 4 : BritBrat\_50
- Track 5 : Pepperoni\_37
- Track 6 : Madeline\_43, Ohgeesy\_46
- Track 7 : Lamberg\_42, Nettuno\_42, TuertoX\_46, Ebert\_48, Gizermo\_46, Matteo\_39, Bosnia\_48, Mocha12\_46, Sahara\_45, Bjanes7\_43, Sproutie\_46, Whiteclaw\_46, Savage\_46, Haley23\_46, Clap\_46
- Track 8 : JCole\_44
- Track 9 : FroggyToad\_46
- Track 10 : Yeezy\_41
- Track 11 : Easley\_42
- Track 12 : Beenie\_39, DobbysSock\_38, Dorito\_41, MichaelScott\_46, Thimann\_43, Clark\_45, Sekhmet\_46, Samman98\_46, Invecetra\_47
- Track 13 : Powerball\_43
- Track 14 : PhriskyACE\_44
- Track 15 : Suerte\_43
- Track 16 : Denise\_40
- Track 17 : OneDirection\_36
- Track 18 : RavenCo17\_45
- Track 19 : Lucky10\_41
- Track 20 : MakCheese\_58
- Track 21 : GAL1\_38

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

The start number called the most often in the published annotations is 14, it was called in 38 of the 39 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Beenie\_39, Bjanes7\_43, Bosnia\_48, BritBrat\_50, Clap\_46, Clark\_45, Confidence\_44, Denise\_40, DobbysSock\_38, Dorito\_41, EMSquaredA\_45, Ebert\_48, Gizermo\_46, Haley23\_46, Invecetra\_47, JCole\_44, Jablanski\_47, Lamberg\_42,

Lucky10\_41, Madeline\_43, MakCheese\_58, Marteena\_44, Matteo\_39, MichaelScott\_46, Mocha12\_46, Nettuno\_42, Ohgeesy\_46, OneDirection\_36, Pepperoni\_37, PhriskyACE\_44, Powerball\_43, Pytheas\_47, RavenCo17\_45, Sahara\_45, Samman98\_46, Savage\_46, Sekhmet\_46, Sproutie\_46, Suerte\_43, Thimann\_43, TuertoX\_46, Whiteclaw\_46, Yeezy\_41,

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

- GAL1\_38,

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

- Easley\_42, FroggyToad\_46,

### Summary by start number:

Start 7:

- Found in 1 of 46 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 1 of 39
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Easley\_42 (CZ4),

Start 12:

- Found in 1 of 46 ( 2.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: FroggyToad\_46 (CZ2),

Start 14:

- Found in 44 of 46 ( 95.7% ) of genes in pham
- Manual Annotations of this start: 38 of 39
- Called 97.7% of time when present
- Phage (with cluster) where this start called: Beenie\_39 (CZ4), Bjaner7\_43 (CZ2), Bosnia\_48 (CZ1), BritBrat\_50 (CY2), Clap\_46 (CZ2), Clark\_45 (CZ4), Confidence\_44 (CY1), Denise\_40 (CZ5), DobbysSock\_38 (CZ4), Dorito\_41 (CZ4), EMsquaredA\_45 (CY1), Ebert\_48 (CZ2), Gizermo\_46 (CZ2), Haley23\_46 (CZ2), Invectra\_47 (CZ4), JCole\_44 (CZ2), Jablanski\_47 (CY), Lamberg\_42 (CZ2), Lucky10\_41 (DH), Madeline\_43 (CZ1), MakCheese\_58 (DW), Marteena\_44 (CY1), Matteo\_39 (CZ2), MichaelScott\_46 (CZ4), Mocha12\_46 (CZ2), Nettuno\_42 (CZ2), Ohgeesy\_46 (CZ), OneDirection\_36 (CZ6), Pepperoni\_37 (CZ), PhriskyACE\_44 (CZ4), Powerball\_43 (CZ4), Pytheas\_47 (CY), RavenCo17\_45 (CZ8), Sahara\_45 (CZ2), Samman98\_46 (CZ4), Savage\_46 (CZ2), Sekhmet\_46 (CZ4), Sproutie\_46 (CZ2), Suerte\_43 (CZ4), Thimann\_43 (CZ4), TuertoX\_46 (CZ2), Whiteclaw\_46 (CZ2), Yeezy\_41 (CZ3),

Start 15:

- Found in 37 of 46 ( 80.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 2.7% of time when present
- Phage (with cluster) where this start called: GAL1\_38 (singleton),

### Summary by clusters:

There are 14 clusters represented in this pham: CY2, CY1, DH, CZ2, CZ3, CZ1, CZ6, singleton, CZ4, CZ5, CZ, CY, CZ8, DW,

Info for manual annotations of cluster CY:

- Start number 14 was manually annotated 2 times for cluster CY.

Info for manual annotations of cluster CY1:

- Start number 14 was manually annotated 3 times for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 14 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CZ:

- Start number 14 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 14 was manually annotated 2 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 14 was manually annotated 14 times for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 14 was manually annotated 1 time for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 7 was manually annotated 1 time for cluster CZ4.
- Start number 14 was manually annotated 10 times for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 14 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:

- Start number 14 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster CZ8:

- Start number 14 was manually annotated 1 time for cluster CZ8.

Info for manual annotations of cluster DH:

- Start number 14 was manually annotated 1 time for cluster DH.

### ***Gene Information:***

Gene: Beenie\_39 Start: 33102, Stop: 33449, Start Num: 14

Candidate Starts for Beenie\_39:

(Start: 14 @33102 has 38 MA's), (15, 33114), (19, 33147), (23, 33186), (24, 33189),

Gene: Bjanes7\_43 Start: 32393, Stop: 32713, Start Num: 14

Candidate Starts for Bjanes7\_43:

(Start: 14 @32393 has 38 MA's), (15, 32405), (22, 32474),

Gene: Bosnia\_48 Start: 38757, Stop: 39077, Start Num: 14

Candidate Starts for Bosnia\_48:

(Start: 14 @38757 has 38 MA's), (15, 38769), (22, 38838),

Gene: BritBrat\_50 Start: 36655, Stop: 36975, Start Num: 14

Candidate Starts for BritBrat\_50:

(13, 36634), (Start: 14 @36655 has 38 MA's), (15, 36667), (24, 36742), (39, 36832), (47, 36934),

Gene: Clap\_46 Start: 32572, Stop: 32892, Start Num: 14

Candidate Starts for Clap\_46:

(Start: 14 @32572 has 38 MA's), (15, 32584), (22, 32653),

Gene: Clark\_45 Start: 32919, Stop: 33266, Start Num: 14

Candidate Starts for Clark\_45:

(Start: 14 @32919 has 38 MA's), (15, 32931), (19, 32964), (23, 33003), (24, 33006),

Gene: Confidence\_44 Start: 32986, Stop: 33315, Start Num: 14

Candidate Starts for Confidence\_44:

(Start: 14 @32986 has 38 MA's), (15, 32998), (19, 33034), (23, 33079), (24, 33082), (28, 33106), (29, 33115), (31, 33124), (35, 33148), (42, 33226),

Gene: Denise\_40 Start: 30667, Stop: 30972, Start Num: 14

Candidate Starts for Denise\_40:

(Start: 14 @30667 has 38 MA's), (15, 30679), (29, 30793), (37, 30826), (40, 30853),

Gene: DobbysSock\_38 Start: 31761, Stop: 32108, Start Num: 14

Candidate Starts for DobbysSock\_38:

(Start: 14 @31761 has 38 MA's), (15, 31773), (19, 31806), (23, 31845), (24, 31848),

Gene: Dorito\_41 Start: 31405, Stop: 31752, Start Num: 14

Candidate Starts for Dorito\_41:

(Start: 14 @31405 has 38 MA's), (15, 31417), (19, 31450), (23, 31489), (24, 31492),

Gene: EMSquaredA\_45 Start: 35353, Stop: 35673, Start Num: 14

Candidate Starts for EMSquaredA\_45:

(Start: 14 @35353 has 38 MA's), (15, 35365), (44, 35593),

Gene: Easley\_42 Start: 32157, Stop: 32597, Start Num: 7

Candidate Starts for Easley\_42:

(Start: 7 @32157 has 1 MA's), (8, 32169), (9, 32202), (15, 32304), (16, 32316), (17, 32322), (21, 32367), (34, 32433), (46, 32544),

Gene: Ebert\_48 Start: 32496, Stop: 32816, Start Num: 14

Candidate Starts for Ebert\_48:

(Start: 14 @32496 has 38 MA's), (15, 32508), (22, 32577),

Gene: FroggyToad\_46 Start: 33116, Stop: 33466, Start Num: 12

Candidate Starts for FroggyToad\_46:

(1, 32783), (2, 32819), (3, 32879), (12, 33116),

Gene: GAL1\_38 Start: 32000, Stop: 32320, Start Num: 15

Candidate Starts for GAL1\_38:

(4, 31772), (5, 31787), (6, 31805), (11, 31922), (Start: 14 @31988 has 38 MA's), (15, 32000), (19, 32033), (20, 32057), (29, 32114), (30, 32117), (32, 32132), (39, 32174),

Gene: Gizermo\_46 Start: 32572, Stop: 32892, Start Num: 14

Candidate Starts for Gizermo\_46:  
(Start: 14 @32572 has 38 MA's), (15, 32584), (22, 32653),

Gene: Haley23\_46 Start: 32572, Stop: 32892, Start Num: 14  
Candidate Starts for Haley23\_46:  
(Start: 14 @32572 has 38 MA's), (15, 32584), (22, 32653),

Gene: Invectra\_47 Start: 34493, Stop: 34840, Start Num: 14  
Candidate Starts for Invectra\_47:  
(Start: 14 @34493 has 38 MA's), (15, 34505), (19, 34538), (23, 34577), (24, 34580),

Gene: JCole\_44 Start: 31590, Stop: 31910, Start Num: 14  
Candidate Starts for JCole\_44:  
(Start: 14 @31590 has 38 MA's),

Gene: Jablanski\_47 Start: 37597, Stop: 37914, Start Num: 14  
Candidate Starts for Jablanski\_47:  
(Start: 14 @37597 has 38 MA's), (41, 37822),

Gene: Lamberg\_42 Start: 31081, Stop: 31401, Start Num: 14  
Candidate Starts for Lamberg\_42:  
(Start: 14 @31081 has 38 MA's), (15, 31093), (22, 31162),

Gene: Lucky10\_41 Start: 31564, Stop: 31848, Start Num: 14  
Candidate Starts for Lucky10\_41:  
(Start: 14 @31564 has 38 MA's), (15, 31576), (18, 31600), (19, 31609), (25, 31651), (26, 31654), (27, 31660), (33, 31690), (36, 31711),

Gene: Madeline\_43 Start: 35165, Stop: 35497, Start Num: 14  
Candidate Starts for Madeline\_43:  
(Start: 14 @35165 has 38 MA's), (19, 35213), (23, 35258), (24, 35261), (29, 35294), (31, 35303), (35, 35327), (43, 35408), (45, 35438),

Gene: MakCheese\_58 Start: 39633, Stop: 39959, Start Num: 14  
Candidate Starts for MakCheese\_58:  
(Start: 14 @39633 has 38 MA's), (15, 39645), (24, 39720),

Gene: Marteena\_44 Start: 35353, Stop: 35673, Start Num: 14  
Candidate Starts for Marteena\_44:  
(Start: 14 @35353 has 38 MA's), (15, 35365), (44, 35593),

Gene: Matteo\_39 Start: 30123, Stop: 30443, Start Num: 14  
Candidate Starts for Matteo\_39:  
(Start: 14 @30123 has 38 MA's), (15, 30135), (22, 30204),

Gene: MichaelScott\_46 Start: 34395, Stop: 34742, Start Num: 14  
Candidate Starts for MichaelScott\_46:  
(Start: 14 @34395 has 38 MA's), (15, 34407), (19, 34440), (23, 34479), (24, 34482),

Gene: Mocha12\_46 Start: 32572, Stop: 32892, Start Num: 14  
Candidate Starts for Mocha12\_46:  
(Start: 14 @32572 has 38 MA's), (15, 32584), (22, 32653),

Gene: Nettuno\_42 Start: 31081, Stop: 31401, Start Num: 14

Candidate Starts for Nettuno\_42:

(Start: 14 @31081 has 38 MA's), (15, 31093), (22, 31162),

Gene: Ohgeesy\_46 Start: 35960, Stop: 36292, Start Num: 14

Candidate Starts for Ohgeesy\_46:

(Start: 14 @35960 has 38 MA's), (19, 36008), (23, 36053), (24, 36056), (29, 36089), (31, 36098), (35, 36122), (43, 36203), (45, 36233),

Gene: OneDirection\_36 Start: 28076, Stop: 28360, Start Num: 14

Candidate Starts for OneDirection\_36:

(10, 27998), (Start: 14 @28076 has 38 MA's), (15, 28088), (18, 28112), (19, 28121), (26, 28166), (27, 28172), (33, 28202), (36, 28223),

Gene: Pepperoni\_37 Start: 29393, Stop: 29698, Start Num: 14

Candidate Starts for Pepperoni\_37:

(Start: 14 @29393 has 38 MA's), (15, 29405), (19, 29438), (37, 29549), (38, 29552),

Gene: PhriskyACE\_44 Start: 33898, Stop: 34227, Start Num: 14

Candidate Starts for PhriskyACE\_44:

(Start: 14 @33898 has 38 MA's), (24, 33985), (45, 34168),

Gene: Powerball\_43 Start: 33298, Stop: 33615, Start Num: 14

Candidate Starts for Powerball\_43:

(Start: 14 @33298 has 38 MA's), (24, 33385),

Gene: Pytheas\_47 Start: 37596, Stop: 37913, Start Num: 14

Candidate Starts for Pytheas\_47:

(Start: 14 @37596 has 38 MA's), (41, 37821),

Gene: RavenCo17\_45 Start: 35658, Stop: 35978, Start Num: 14

Candidate Starts for RavenCo17\_45:

(Start: 14 @35658 has 38 MA's), (15, 35670), (35, 35805), (41, 35883), (44, 35898),

Gene: Sahara\_45 Start: 32319, Stop: 32639, Start Num: 14

Candidate Starts for Sahara\_45:

(Start: 14 @32319 has 38 MA's), (15, 32331), (22, 32400),

Gene: Samman98\_46 Start: 33022, Stop: 33369, Start Num: 14

Candidate Starts for Samman98\_46:

(Start: 14 @33022 has 38 MA's), (15, 33034), (19, 33067), (23, 33106), (24, 33109),

Gene: Savage\_46 Start: 32572, Stop: 32892, Start Num: 14

Candidate Starts for Savage\_46:

(Start: 14 @32572 has 38 MA's), (15, 32584), (22, 32653),

Gene: Sekhmet\_46 Start: 33922, Stop: 34269, Start Num: 14

Candidate Starts for Sekhmet\_46:

(Start: 14 @33922 has 38 MA's), (15, 33934), (19, 33967), (23, 34006), (24, 34009),

Gene: Sproutie\_46 Start: 32572, Stop: 32892, Start Num: 14

Candidate Starts for Sproutie\_46:

(Start: 14 @32572 has 38 MA's), (15, 32584), (22, 32653),

Gene: Suerte\_43 Start: 33581, Stop: 33910, Start Num: 14

Candidate Starts for Suerte\_43:

(Start: 14 @33581 has 38 MA's), (15, 33593), (23, 33665), (24, 33668), (45, 33851),

Gene: Thimann\_43 Start: 32287, Stop: 32634, Start Num: 14

Candidate Starts for Thimann\_43:

(Start: 14 @32287 has 38 MA's), (15, 32299), (19, 32332), (23, 32371), (24, 32374),

Gene: TuertoX\_46 Start: 32572, Stop: 32892, Start Num: 14

Candidate Starts for TuertoX\_46:

(Start: 14 @32572 has 38 MA's), (15, 32584), (22, 32653),

Gene: Whiteclaw\_46 Start: 32572, Stop: 32892, Start Num: 14

Candidate Starts for Whiteclaw\_46:

(Start: 14 @32572 has 38 MA's), (15, 32584), (22, 32653),

Gene: Yeezy\_41 Start: 32253, Stop: 32549, Start Num: 14

Candidate Starts for Yeezy\_41:

(Start: 14 @32253 has 38 MA's),