

Pham 216248



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 216248 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216248 has 50 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Dori\_49
- Track 2 : Mask\_50, Xavia\_40
- Track 3 : BritBrat\_41
- Track 4 : Nettuno\_41, Lamberg\_41, GemG\_45, TuertoX\_45, Gizermo\_45, Ebert\_47, Wrigley\_50, JCole\_43, Matteo\_38, Mocha12\_45, Sahara\_44, Bjanes7\_42, Sproutie\_45, Savage\_45, Bosnia\_47, Whiteclaw\_45, Cynthia\_45, Clap\_45, Haley23\_45
- Track 5 : Vasanti\_42
- Track 6 : FroggyToad\_45
- Track 7 : BaxterFox\_44, PantheRoc\_43
- Track 8 : Oregano\_45, Dolores\_45, WinkNick\_46, Annalisa\_42
- Track 9 : Shlim410\_44, Twinkle\_45, Howe\_46, Mcklovin\_42, Adora\_43, Hortense\_46
- Track 10 : PhriskyACE\_43
- Track 11 : Easley\_41
- Track 12 : Lucky10\_39
- Track 13 : ODay\_56, Getalong\_56
- Track 14 : Periwinkle\_59
- Track 15 : MakCheese\_57, Suerte\_41, Zodiariah\_45, Floral\_43, Pollux\_45
- Track 16 : Toron\_45
- Track 17 : Tortellini\_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 40 of the 44 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adora\_43, Annalisa\_42, BaxterFox\_44, Bjanes7\_42, Bosnia\_47, Clap\_45, Cynthia\_45, Dolores\_45, Dori\_49, Easley\_41, Ebert\_47, Floral\_43, FroggyToad\_45, GemG\_45, Getalong\_56, Gizermo\_45, Haley23\_45, Hortense\_46, Howe\_46, JCole\_43, Lamberg\_41, Lucky10\_39, MakCheese\_57, Matteo\_38, Mcklovin\_42, Mocha12\_45, Nettuno\_41, ODay\_56, Oregano\_45, PantheRoc\_43, Periwinkle\_59, PhriskyACE\_43, Pollux\_45, Sahara\_44, Savage\_45, Shlim410\_44, Sproutie\_45,

Suerte\_41, Toron\_45, TuertoX\_45, Twinkle\_45, Vasanti\_42, Whiteclaw\_45, WinkNick\_46, Wrigley\_50, Zodiariah\_45,

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

- BritBrat\_41, Mask\_50, Tortellini\_38, Xavia\_40,

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

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### Summary by start number:

Start 11:

- Found in 4 of 50 ( 8.0% ) of genes in pham
- Manual Annotations of this start: 4 of 44
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BritBrat\_41 (CY2), Mask\_50 (AD), Tortellini\_38 (P2), Xavia\_40 (P3),

Start 14:

- Found in 50 of 50 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 40 of 44
- Called 92.0% of time when present
- Phage (with cluster) where this start called: Adora\_43 (CZ4), Annalisa\_42 (CZ4), BaxterFox\_44 (CZ3), Bjaner7\_42 (CZ2), Bosnia\_47 (CZ1), Clap\_45 (CZ2), Cynthia\_45 (CZ2), Dolores\_45 (CZ4), Dori\_49 (AD), Easley\_41 (CZ4), Ebert\_47 (CZ2), Floral\_43 (CY1), FroggyToad\_45 (CZ2), GemG\_45 (CZ2), Getalong\_56 (DN1), Gizermo\_45 (CZ2), Haley23\_45 (CZ2), Hortense\_46 (CZ4), Howe\_46 (CZ4), JCole\_43 (CZ2), Lamberg\_41 (CZ2), Lucky10\_39 (DH), MakCheese\_57 (DW), Matteo\_38 (CZ2), Mcklovin\_42 (CZ4), Mocha12\_45 (CZ2), Nettuno\_41 (CZ2), ODay\_56 (DN), Oregano\_45 (CZ4), PantheRoc\_43 (CZ3), Periwinkle\_59 (DN1), PhriskyACE\_43 (CZ4), Pollux\_45 (CY1), Sahara\_44 (CZ2), Savage\_45 (CZ2), Shlim410\_44 (CZ4), Sproutie\_45 (CZ2), Suerte\_41 (CZ4), Toron\_45 (F6), TuertoX\_45 (CZ2), Twinkle\_45 (CZ4), Vasanti\_42 (CZ2), Whiteclaw\_45 (CZ2), WinkNick\_46 (CZ4), Wrigley\_50 (CY), Zodiariah\_45 (DW),

### Summary by clusters:

There are 15 clusters represented in this pham: P2, DN, CY1, AD, F6, CY2, CZ2, CZ3, P3, CZ1, CZ4, CY, DN1, DH, DW,

Info for manual annotations of cluster AD:

- Start number 11 was manually annotated 1 time for cluster AD.
- Start number 14 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster CY:

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

Info for manual annotations of cluster CY1:

- Start number 14 was manually annotated 2 times for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 11 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CZ1:

- Start number 14 was manually annotated 1 time for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 14 was manually annotated 17 times for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 14 was manually annotated 2 times for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 14 was manually annotated 12 times for cluster CZ4.

Info for manual annotations of cluster DH:

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

Info for manual annotations of cluster DN:

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

Info for manual annotations of cluster DN1:

- Start number 14 was manually annotated 2 times for cluster DN1.

Info for manual annotations of cluster P2:

- Start number 11 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 11 was manually annotated 1 time for cluster P3.

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

Gene: Adora\_43 Start: 35227, Stop: 35499, Start Num: 14

Candidate Starts for Adora\_43:

(3, 35137), (4, 35146), (6, 35161), (7, 35173), (Start: 14 @35227 has 40 MA's), (20, 35302), (21, 35305), (23, 35359), (29, 35449), (30, 35452),

Gene: Annalisa\_42 Start: 32284, Stop: 32544, Start Num: 14

Candidate Starts for Annalisa\_42:

(9, 32236), (Start: 14 @32284 has 40 MA's), (19, 32356), (30, 32509), (33, 32533),

Gene: BaxterFox\_44 Start: 35506, Stop: 35778, Start Num: 14

Candidate Starts for BaxterFox\_44:

(3, 35416), (4, 35425), (6, 35440), (7, 35452), (Start: 14 @35506 has 40 MA's), (21, 35584), (23, 35638), (30, 35731),

Gene: Bjaner7\_42 Start: 32133, Stop: 32396, Start Num: 14

Candidate Starts for Bjaner7\_42:

(5, 32058), (9, 32085), (Start: 14 @32133 has 40 MA's), (15, 32139), (19, 32205), (30, 32358), (33, 32385),

Gene: Bosnia\_47 Start: 38497, Stop: 38760, Start Num: 14

Candidate Starts for Bosnia\_47:

(5, 38422), (9, 38449), (Start: 14 @38497 has 40 MA's), (15, 38503), (19, 38569), (30, 38722), (33, 38749),

Gene: BritBrat\_41 Start: 34303, Stop: 34614, Start Num: 11

Candidate Starts for BritBrat\_41:

(Start: 11 @34303 has 4 MA's), (Start: 14 @34345 has 40 MA's), (15, 34351), (21, 34423), (22, 34468), (31, 34582),

Gene: Clap\_45 Start: 32312, Stop: 32575, Start Num: 14

Candidate Starts for Clap\_45:

(5, 32237), (9, 32264), (Start: 14 @32312 has 40 MA's), (15, 32318), (19, 32384), (30, 32537), (33, 32564),

Gene: Cynthia\_45 Start: 32312, Stop: 32575, Start Num: 14

Candidate Starts for Cynthia\_45:

(5, 32237), (9, 32264), (Start: 14 @32312 has 40 MA's), (15, 32318), (19, 32384), (30, 32537), (33, 32564),

Gene: Dolores\_45 Start: 33363, Stop: 33623, Start Num: 14

Candidate Starts for Dolores\_45:

(9, 33315), (Start: 14 @33363 has 40 MA's), (19, 33435), (30, 33588), (33, 33612),

Gene: Dori\_49 Start: 44285, Stop: 44563, Start Num: 14

Candidate Starts for Dori\_49:

(9, 44237), (10, 44240), (Start: 14 @44285 has 40 MA's), (17, 44309), (21, 44363), (25, 44435), (27, 44495), (33, 44552),

Gene: Easley\_41 Start: 31894, Stop: 32160, Start Num: 14

Candidate Starts for Easley\_41:

(5, 31819), (9, 31846), (Start: 14 @31894 has 40 MA's), (19, 31966), (22, 32017), (33, 32149),

Gene: Ebert\_47 Start: 32236, Stop: 32499, Start Num: 14

Candidate Starts for Ebert\_47:

(5, 32161), (9, 32188), (Start: 14 @32236 has 40 MA's), (15, 32242), (19, 32308), (30, 32461), (33, 32488),

Gene: Floral\_43 Start: 36167, Stop: 36430, Start Num: 14

Candidate Starts for Floral\_43:

(5, 36092), (9, 36119), (Start: 14 @36167 has 40 MA's), (19, 36239), (30, 36392), (33, 36419),

Gene: FroggyToad\_45 Start: 32883, Stop: 33119, Start Num: 14

Candidate Starts for FroggyToad\_45:

(1, 32709), (2, 32766), (3, 32790), (4, 32799), (7, 32826), (13, 32877), (Start: 14 @32883 has 40 MA's), (28, 33093), (29, 33099), (30, 33102),

Gene: GemG\_45 Start: 32312, Stop: 32575, Start Num: 14

Candidate Starts for GemG\_45:

(5, 32237), (9, 32264), (Start: 14 @32312 has 40 MA's), (15, 32318), (19, 32384), (30, 32537), (33, 32564),

Gene: Getalong\_56 Start: 37752, Stop: 38012, Start Num: 14

Candidate Starts for Getalong\_56:

(5, 37677), (9, 37704), (12, 37734), (Start: 14 @37752 has 40 MA's), (19, 37824), (25, 37902), (30, 37977),

Gene: Gizermo\_45 Start: 32312, Stop: 32575, Start Num: 14

Candidate Starts for Gizermo\_45:

(5, 32237), (9, 32264), (Start: 14 @32312 has 40 MA's), (15, 32318), (19, 32384), (30, 32537), (33, 32564),

Gene: Haley23\_45 Start: 32312, Stop: 32575, Start Num: 14

Candidate Starts for Haley23\_45:

(5, 32237), (9, 32264), (Start: 14 @32312 has 40 MA's), (15, 32318), (19, 32384), (30, 32537), (33, 32564),

Gene: Hortense\_46 Start: 36582, Stop: 36854, Start Num: 14

Candidate Starts for Hortense\_46:

(3, 36492), (4, 36501), (6, 36516), (7, 36528), (Start: 14 @36582 has 40 MA's), (20, 36657), (21, 36660), (23, 36714), (29, 36804), (30, 36807),

Gene: Howe\_46 Start: 36582, Stop: 36854, Start Num: 14

Candidate Starts for Howe\_46:

(3, 36492), (4, 36501), (6, 36516), (7, 36528), (Start: 14 @36582 has 40 MA's), (20, 36657), (21, 36660), (23, 36714), (29, 36804), (30, 36807),

Gene: JCole\_43 Start: 31330, Stop: 31593, Start Num: 14

Candidate Starts for JCole\_43:

(5, 31255), (9, 31282), (Start: 14 @31330 has 40 MA's), (15, 31336), (19, 31402), (30, 31555), (33, 31582),

Gene: Lamberg\_41 Start: 30821, Stop: 31084, Start Num: 14

Candidate Starts for Lamberg\_41:

(5, 30746), (9, 30773), (Start: 14 @30821 has 40 MA's), (15, 30827), (19, 30893), (30, 31046), (33, 31073),

Gene: Lucky10\_39 Start: 30804, Stop: 31070, Start Num: 14

Candidate Starts for Lucky10\_39:

(5, 30729), (9, 30756), (Start: 14 @30804 has 40 MA's), (19, 30876), (26, 30993), (30, 31029), (32, 31050), (33, 31059),

Gene: MakCheese\_57 Start: 39370, Stop: 39636, Start Num: 14

Candidate Starts for MakCheese\_57:

(5, 39295), (9, 39322), (Start: 14 @39370 has 40 MA's), (19, 39442), (30, 39595), (33, 39625),

Gene: Mask\_50 Start: 45382, Stop: 45696, Start Num: 11

Candidate Starts for Mask\_50:

(Start: 11 @45382 has 4 MA's), (Start: 14 @45424 has 40 MA's), (18, 45490), (22, 45547), (31, 45661),

Gene: Matteo\_38 Start: 29863, Stop: 30126, Start Num: 14

Candidate Starts for Matteo\_38:

(5, 29788), (9, 29815), (Start: 14 @29863 has 40 MA's), (15, 29869), (19, 29935), (30, 30088), (33, 30115),

Gene: Mcklovin\_42 Start: 38049, Stop: 38321, Start Num: 14

Candidate Starts for Mcklovin\_42:

(3, 37959), (4, 37968), (6, 37983), (7, 37995), (Start: 14 @38049 has 40 MA's), (20, 38124), (21, 38127), (23, 38181), (29, 38271), (30, 38274),

Gene: Mocha12\_45 Start: 32312, Stop: 32575, Start Num: 14

Candidate Starts for Mocha12\_45:

(5, 32237), (9, 32264), (Start: 14 @32312 has 40 MA's), (15, 32318), (19, 32384), (30, 32537), (33, 32564),

Gene: Nettuno\_41 Start: 30821, Stop: 31084, Start Num: 14

Candidate Starts for Nettuno\_41:

(5, 30746), (9, 30773), (Start: 14 @30821 has 40 MA's), (15, 30827), (19, 30893), (30, 31046), (33, 31073),

Gene: ODay\_56 Start: 36641, Stop: 36901, Start Num: 14

Candidate Starts for ODay\_56:

(5, 36566), (9, 36593), (12, 36623), (Start: 14 @36641 has 40 MA's), (19, 36713), (25, 36791), (30, 36866),

Gene: Oregano\_45 Start: 32917, Stop: 33177, Start Num: 14

Candidate Starts for Oregano\_45:

(9, 32869), (Start: 14 @32917 has 40 MA's), (19, 32989), (30, 33142), (33, 33166),

Gene: PantheRoc\_43 Start: 34481, Stop: 34753, Start Num: 14

Candidate Starts for PantheRoc\_43:

(3, 34391), (4, 34400), (6, 34415), (7, 34427), (Start: 14 @34481 has 40 MA's), (21, 34559), (23, 34613), (30, 34706),

Gene: Periwinkle\_59 Start: 37039, Stop: 37299, Start Num: 14

Candidate Starts for Periwinkle\_59:

(5, 36964), (9, 36991), (Start: 14 @37039 has 40 MA's), (19, 37111), (30, 37264),

Gene: PhriskyACE\_43 Start: 33638, Stop: 33901, Start Num: 14

Candidate Starts for PhriskyACE\_43:

(5, 33563), (9, 33590), (Start: 14 @33638 has 40 MA's), (15, 33644), (19, 33710), (22, 33761), (24, 33782), (30, 33863),

Gene: Pollux\_45 Start: 36167, Stop: 36430, Start Num: 14

Candidate Starts for Pollux\_45:

(5, 36092), (9, 36119), (Start: 14 @36167 has 40 MA's), (19, 36239), (30, 36392), (33, 36419),

Gene: Sahara\_44 Start: 32059, Stop: 32322, Start Num: 14

Candidate Starts for Sahara\_44:

(5, 31984), (9, 32011), (Start: 14 @32059 has 40 MA's), (15, 32065), (19, 32131), (30, 32284), (33, 32311),

Gene: Savage\_45 Start: 32312, Stop: 32575, Start Num: 14

Candidate Starts for Savage\_45:

(5, 32237), (9, 32264), (Start: 14 @32312 has 40 MA's), (15, 32318), (19, 32384), (30, 32537), (33, 32564),

Gene: Shlim410\_44 Start: 36582, Stop: 36854, Start Num: 14

Candidate Starts for Shlim410\_44:

(3, 36492), (4, 36501), (6, 36516), (7, 36528), (Start: 14 @36582 has 40 MA's), (20, 36657), (21, 36660), (23, 36714), (29, 36804), (30, 36807),

Gene: Sproutie\_45 Start: 32312, Stop: 32575, Start Num: 14

Candidate Starts for Sproutie\_45:

(5, 32237), (9, 32264), (Start: 14 @32312 has 40 MA's), (15, 32318), (19, 32384), (30, 32537), (33, 32564),

Gene: Suerte\_41 Start: 32461, Stop: 32724, Start Num: 14

Candidate Starts for Suerte\_41:

(5, 32386), (9, 32413), (Start: 14 @32461 has 40 MA's), (19, 32533), (30, 32686), (33, 32713),

Gene: Toron\_45 Start: 35058, Stop: 35324, Start Num: 14

Candidate Starts for Toron\_45:

(5, 34983), (8, 35007), (9, 35010), (Start: 14 @35058 has 40 MA's), (16, 35079), (22, 35181), (24, 35202), (30, 35283),

Gene: Tortellini\_38 Start: 33573, Stop: 33887, Start Num: 11

Candidate Starts for Tortellini\_38:

(Start: 11 @33573 has 4 MA's), (Start: 14 @33615 has 40 MA's), (18, 33681), (22, 33738), (31, 33852),

Gene: TuertoX\_45 Start: 32312, Stop: 32575, Start Num: 14

Candidate Starts for TuertoX\_45:

(5, 32237), (9, 32264), (Start: 14 @32312 has 40 MA's), (15, 32318), (19, 32384), (30, 32537), (33, 32564),

Gene: Twinkle\_45 Start: 37641, Stop: 37913, Start Num: 14

Candidate Starts for Twinkle\_45:

(3, 37551), (4, 37560), (6, 37575), (7, 37587), (Start: 14 @37641 has 40 MA's), (20, 37716), (21, 37719), (23, 37773), (29, 37863), (30, 37866),

Gene: Vasanti\_42 Start: 31327, Stop: 31590, Start Num: 14

Candidate Starts for Vasanti\_42:

(5, 31252), (9, 31279), (Start: 14 @31327 has 40 MA's), (15, 31333), (19, 31399), (21, 31405), (30, 31552), (33, 31579),

Gene: Whiteclaw\_45 Start: 32312, Stop: 32575, Start Num: 14

Candidate Starts for Whiteclaw\_45:

(5, 32237), (9, 32264), (Start: 14 @32312 has 40 MA's), (15, 32318), (19, 32384), (30, 32537), (33, 32564),

Gene: WinkNick\_46 Start: 33286, Stop: 33546, Start Num: 14

Candidate Starts for WinkNick\_46:

(9, 33238), (Start: 14 @33286 has 40 MA's), (19, 33358), (30, 33511), (33, 33535),

Gene: Wrigley\_50 Start: 36007, Stop: 36270, Start Num: 14

Candidate Starts for Wrigley\_50:

(5, 35932), (9, 35959), (Start: 14 @36007 has 40 MA's), (15, 36013), (19, 36079), (30, 36232), (33, 36259),

Gene: Xavia\_40 Start: 34156, Stop: 34470, Start Num: 11

Candidate Starts for Xavia\_40:

(Start: 11 @34156 has 4 MA's), (Start: 14 @34198 has 40 MA's), (18, 34264), (22, 34321), (31, 34435),



Gene: Zodiariah\_45 Start: 36395, Stop: 36658, Start Num: 14

Candidate Starts for Zodiariah\_45:

(5, 36320), (9, 36347), (Start: 14 @36395 has 40 MA's), (19, 36467), (30, 36620), (33, 36647),