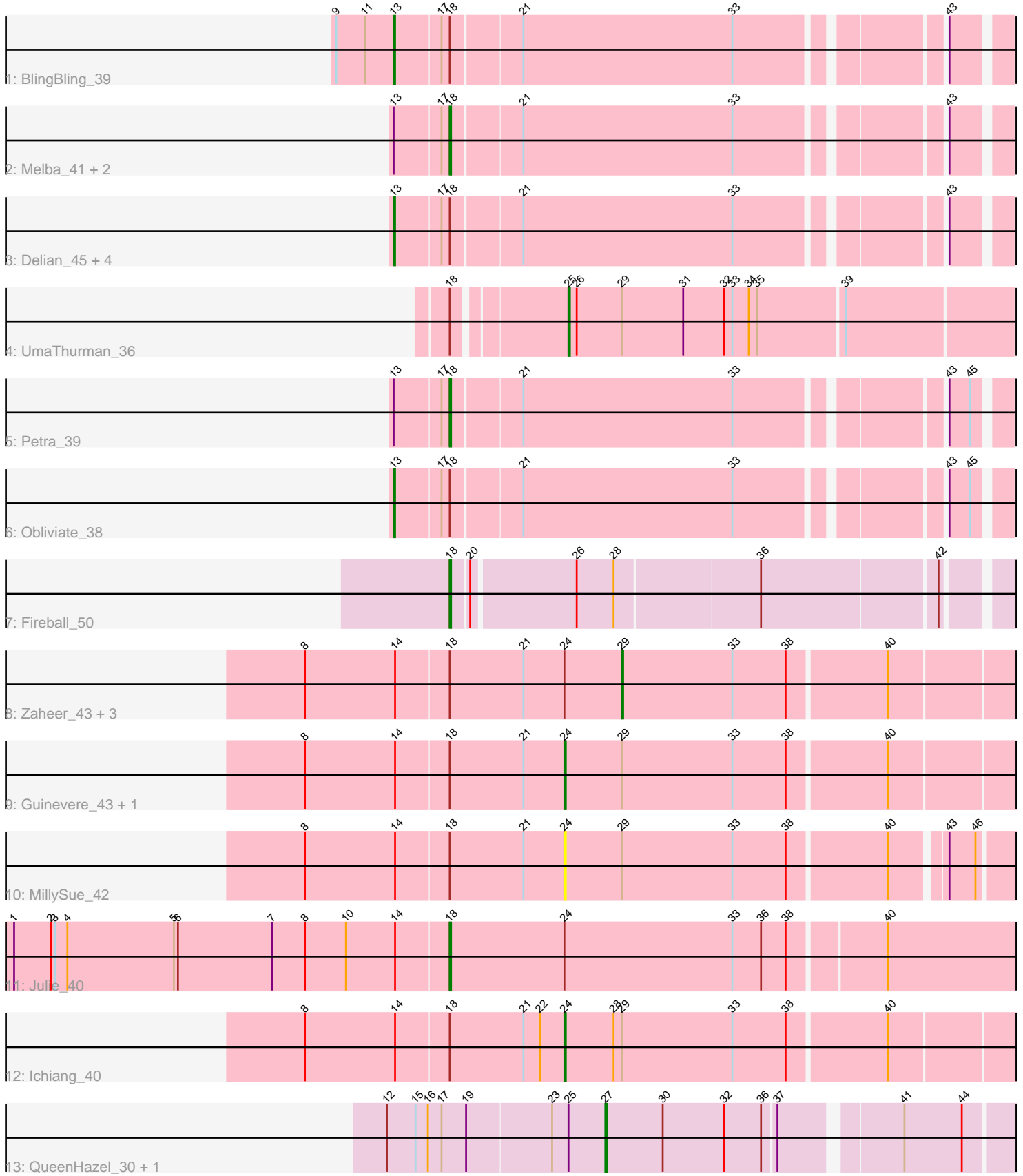


Pham 295032



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 295032 Report

This analysis was run 04/18/26 on database version 643.

Pham number 295032 has 24 members, 3 are drafts.

Phages represented in each track:

- Track 1 : BlingBling\_39
- Track 2 : Melba\_41, Zilla\_41, Barco\_40
- Track 3 : Delian\_45, CaptainKirk2\_42, Zarbodnamra\_41, Archis\_45, MintFen\_42
- Track 4 : UmaThurman\_36
- Track 5 : Petra\_39
- Track 6 : Obliviate\_38
- Track 7 : Fireball\_50
- Track 8 : Zaheer\_43, GoodLuckBabe\_43, Schism\_45, Cole\_40
- Track 9 : Guinevere\_43, Halloweekend\_38
- Track 10 : MillySue\_42
- Track 11 : Julie\_40
- Track 12 : Ichiang\_40
- Track 13 : QueenHazel\_30, Xula\_29

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

The start number called the most often in the published annotations is 13, it was called in 7 of the 21 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Archis\_45, BlingBling\_39, CaptainKirk2\_42, Delian\_45, MintFen\_42, Obliviate\_38, Zarbodnamra\_41,

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

- Barco\_40, Melba\_41, Petra\_39, Zilla\_41,

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

- Cole\_40, Fireball\_50, GoodLuckBabe\_43, Guinevere\_43, Halloweekend\_38, Ichiang\_40, Julie\_40, MillySue\_42, QueenHazel\_30, Schism\_45, UmaThurman\_36, Xula\_29, Zaheer\_43,

### **Summary by start number:**

Start 13:

- Found in 11 of 24 ( 45.8% ) of genes in pham
- Manual Annotations of this start: 7 of 21
- Called 63.6% of time when present
- Phage (with cluster) where this start called: Archis\_45 (CV), BlingBling\_39 (CV), CaptainKirk2\_42 (CV), Delian\_45 (CV), MintFen\_42 (CV), Obliviate\_38 (CV), Zarbodnamra\_41 (CV),

#### Start 18:

- Found in 22 of 24 ( 91.7% ) of genes in pham
- Manual Annotations of this start: 5 of 21
- Called 27.3% of time when present
- Phage (with cluster) where this start called: Barco\_40 (CV), Fireball\_50 (DC1), Julie\_40 (FF), Melba\_41 (CV), Petra\_39 (CV), Zilla\_41 (CV),

#### Start 24:

- Found in 9 of 24 ( 37.5% ) of genes in pham
- Manual Annotations of this start: 3 of 21
- Called 44.4% of time when present
- Phage (with cluster) where this start called: Guinevere\_43 (FF), Halloweekend\_38 (FF), Ichiang\_40 (FF), MillySue\_42 (FF),

#### Start 25:

- Found in 3 of 24 ( 12.5% ) of genes in pham
- Manual Annotations of this start: 1 of 21
- Called 33.3% of time when present
- Phage (with cluster) where this start called: UmaThurman\_36 (CV),

#### Start 27:

- Found in 2 of 24 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 2 of 21
- Called 100.0% of time when present
- Phage (with cluster) where this start called: QueenHazel\_30 (I1), Xula\_29 (I1),

#### Start 29:

- Found in 9 of 24 ( 37.5% ) of genes in pham
- Manual Annotations of this start: 3 of 21
- Called 44.4% of time when present
- Phage (with cluster) where this start called: Cole\_40 (FF), GoodLuckBabe\_43 (FF), Schism\_45 (FF), Zaheer\_43 (FF),

### **Summary by clusters:**

There are 4 clusters represented in this pham: I1, CV, FF, DC1,

Info for manual annotations of cluster CV:

- Start number 13 was manually annotated 7 times for cluster CV.
- Start number 18 was manually annotated 3 times for cluster CV.
- Start number 25 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster DC1:

- Start number 18 was manually annotated 1 time for cluster DC1.

Info for manual annotations of cluster FF:

- Start number 18 was manually annotated 1 time for cluster FF.
- Start number 24 was manually annotated 3 times for cluster FF.
- Start number 29 was manually annotated 3 times for cluster FF.

Info for manual annotations of cluster I1:

- Start number 27 was manually annotated 2 times for cluster I1.

### **Gene Information:**

Gene: Archis\_45 Start: 33058, Stop: 32636, Start Num: 13

Candidate Starts for Archis\_45:

(Start: 13 @33058 has 7 MA's), (17, 33028), (Start: 18 @33022 has 5 MA's), (21, 32974), (33, 32821), (43, 32689),

Gene: Barco\_40 Start: 32072, Stop: 31686, Start Num: 18

Candidate Starts for Barco\_40:

(Start: 13 @32108 has 7 MA's), (17, 32078), (Start: 18 @32072 has 5 MA's), (21, 32024), (33, 31871), (43, 31739),

Gene: BlingBling\_39 Start: 33071, Stop: 32649, Start Num: 13

Candidate Starts for BlingBling\_39:

(9, 33113), (11, 33092), (Start: 13 @33071 has 7 MA's), (17, 33041), (Start: 18 @33035 has 5 MA's), (21, 32987), (33, 32834), (43, 32702),

Gene: CaptainKirk2\_42 Start: 32356, Stop: 31934, Start Num: 13

Candidate Starts for CaptainKirk2\_42:

(Start: 13 @32356 has 7 MA's), (17, 32326), (Start: 18 @32320 has 5 MA's), (21, 32272), (33, 32119), (43, 31987),

Gene: Cole\_40 Start: 29705, Stop: 29412, Start Num: 29

Candidate Starts for Cole\_40:

(8, 29933), (14, 29867), (Start: 18 @29831 has 5 MA's), (21, 29777), (Start: 24 @29747 has 3 MA's), (Start: 29 @29705 has 3 MA's), (33, 29624), (38, 29585), (40, 29516),

Gene: Delian\_45 Start: 32354, Stop: 31932, Start Num: 13

Candidate Starts for Delian\_45:

(Start: 13 @32354 has 7 MA's), (17, 32324), (Start: 18 @32318 has 5 MA's), (21, 32270), (33, 32117), (43, 31985),

Gene: Fireball\_50 Start: 40315, Stop: 39920, Start Num: 18

Candidate Starts for Fireball\_50:

(Start: 18 @40315 has 5 MA's), (20, 40303), (26, 40231), (28, 40204), (36, 40102), (42, 39979),

Gene: GoodLuckBabe\_43 Start: 30339, Stop: 30046, Start Num: 29

Candidate Starts for GoodLuckBabe\_43:

(8, 30567), (14, 30501), (Start: 18 @30465 has 5 MA's), (21, 30411), (Start: 24 @30381 has 3 MA's), (Start: 29 @30339 has 3 MA's), (33, 30258), (38, 30219), (40, 30150),

Gene: Guinevere\_43 Start: 29972, Stop: 29637, Start Num: 24

Candidate Starts for Guinevere\_43:

(8, 30158), (14, 30092), (Start: 18 @30056 has 5 MA's), (21, 30002), (Start: 24 @29972 has 3 MA's), (Start: 29 @29930 has 3 MA's), (33, 29849), (38, 29810), (40, 29741),

Gene: Halloweekend\_38 Start: 29380, Stop: 29045, Start Num: 24

Candidate Starts for Halloweekend\_38:

(8, 29566), (14, 29500), (Start: 18 @29464 has 5 MA's), (21, 29410), (Start: 24 @29380 has 3 MA's), (Start: 29 @29338 has 3 MA's), (33, 29257), (38, 29218), (40, 29149),

Gene: Ichiang\_40 Start: 29399, Stop: 29064, Start Num: 24

Candidate Starts for Ichiang\_40:

(8, 29585), (14, 29519), (Start: 18 @29483 has 5 MA's), (21, 29429), (22, 29417), (Start: 24 @29399 has 3 MA's), (28, 29363), (Start: 29 @29357 has 3 MA's), (33, 29276), (38, 29237), (40, 29168),

Gene: Julie\_40 Start: 30481, Stop: 30059, Start Num: 18

Candidate Starts for Julie\_40:

(1, 30796), (2, 30769), (3, 30766), (4, 30757), (5, 30679), (6, 30676), (7, 30607), (8, 30583), (10, 30553), (14, 30517), (Start: 18 @30481 has 5 MA's), (Start: 24 @30397 has 3 MA's), (33, 30274), (36, 30253), (38, 30235), (40, 30169),

Gene: Melba\_41 Start: 32860, Stop: 32474, Start Num: 18

Candidate Starts for Melba\_41:

(Start: 13 @32896 has 7 MA's), (17, 32866), (Start: 18 @32860 has 5 MA's), (21, 32812), (33, 32659), (43, 32527),

Gene: MillySue\_42 Start: 30226, Stop: 29900, Start Num: 24

Candidate Starts for MillySue\_42:

(8, 30412), (14, 30346), (Start: 18 @30310 has 5 MA's), (21, 30256), (Start: 24 @30226 has 3 MA's), (Start: 29 @30184 has 3 MA's), (33, 30103), (38, 30064), (40, 29995), (43, 29959), (46, 29941),

Gene: MintFen\_42 Start: 32970, Stop: 32548, Start Num: 13

Candidate Starts for MintFen\_42:

(Start: 13 @32970 has 7 MA's), (17, 32940), (Start: 18 @32934 has 5 MA's), (21, 32886), (33, 32733), (43, 32601),

Gene: Obliviate\_38 Start: 31257, Stop: 30835, Start Num: 13

Candidate Starts for Obliviate\_38:

(Start: 13 @31257 has 7 MA's), (17, 31227), (Start: 18 @31221 has 5 MA's), (21, 31173), (33, 31020), (43, 30888), (45, 30873),

Gene: Petra\_39 Start: 31580, Stop: 31194, Start Num: 18

Candidate Starts for Petra\_39:

(Start: 13 @31616 has 7 MA's), (17, 31586), (Start: 18 @31580 has 5 MA's), (21, 31532), (33, 31379), (43, 31247), (45, 31232),

Gene: QueenHazel\_30 Start: 27405, Stop: 27109, Start Num: 27

Candidate Starts for QueenHazel\_30:

(12, 27561), (15, 27540), (16, 27531), (17, 27522), (19, 27504), (23, 27444), (Start: 25 @27432 has 1 MA's), (Start: 27 @27405 has 2 MA's), (30, 27363), (32, 27318), (36, 27291), (37, 27282), (41, 27204), (44, 27162),

Gene: Schism\_45 Start: 30719, Stop: 30426, Start Num: 29

Candidate Starts for Schism\_45:

(8, 30947), (14, 30881), (Start: 18 @30845 has 5 MA's), (21, 30791), (Start: 24 @30761 has 3 MA's), (Start: 29 @30719 has 3 MA's), (33, 30638), (38, 30599), (40, 30530),

Gene: UmaThurman\_36 Start: 31566, Stop: 31237, Start Num: 25

Candidate Starts for UmaThurman\_36:

(Start: 18 @31641 has 5 MA's), (Start: 25 @31566 has 1 MA's), (26, 31560), (Start: 29 @31527 has 3 MA's), (31, 31482), (32, 31452), (33, 31446), (34, 31434), (35, 31428), (39, 31368),

Gene: Xula\_29 Start: 26929, Stop: 26633, Start Num: 27

Candidate Starts for Xula\_29:

(12, 27085), (15, 27064), (16, 27055), (17, 27046), (19, 27028), (23, 26968), (Start: 25 @26956 has 1 MA's), (Start: 27 @26929 has 2 MA's), (30, 26887), (32, 26842), (36, 26815), (37, 26806), (41, 26728), (44, 26686),

Gene: Zaheer\_43 Start: 31154, Stop: 30861, Start Num: 29

Candidate Starts for Zaheer\_43:

(8, 31382), (14, 31316), (Start: 18 @31280 has 5 MA's), (21, 31226), (Start: 24 @31196 has 3 MA's), (Start: 29 @31154 has 3 MA's), (33, 31073), (38, 31034), (40, 30965),

Gene: Zarbodnamra\_41 Start: 32378, Stop: 31956, Start Num: 13

Candidate Starts for Zarbodnamra\_41:

(Start: 13 @32378 has 7 MA's), (17, 32348), (Start: 18 @32342 has 5 MA's), (21, 32294), (33, 32141), (43, 32009),

Gene: Zilla\_41 Start: 32089, Stop: 31703, Start Num: 18

Candidate Starts for Zilla\_41:

(Start: 13 @32125 has 7 MA's), (17, 32095), (Start: 18 @32089 has 5 MA's), (21, 32041), (33, 31888), (43, 31756),