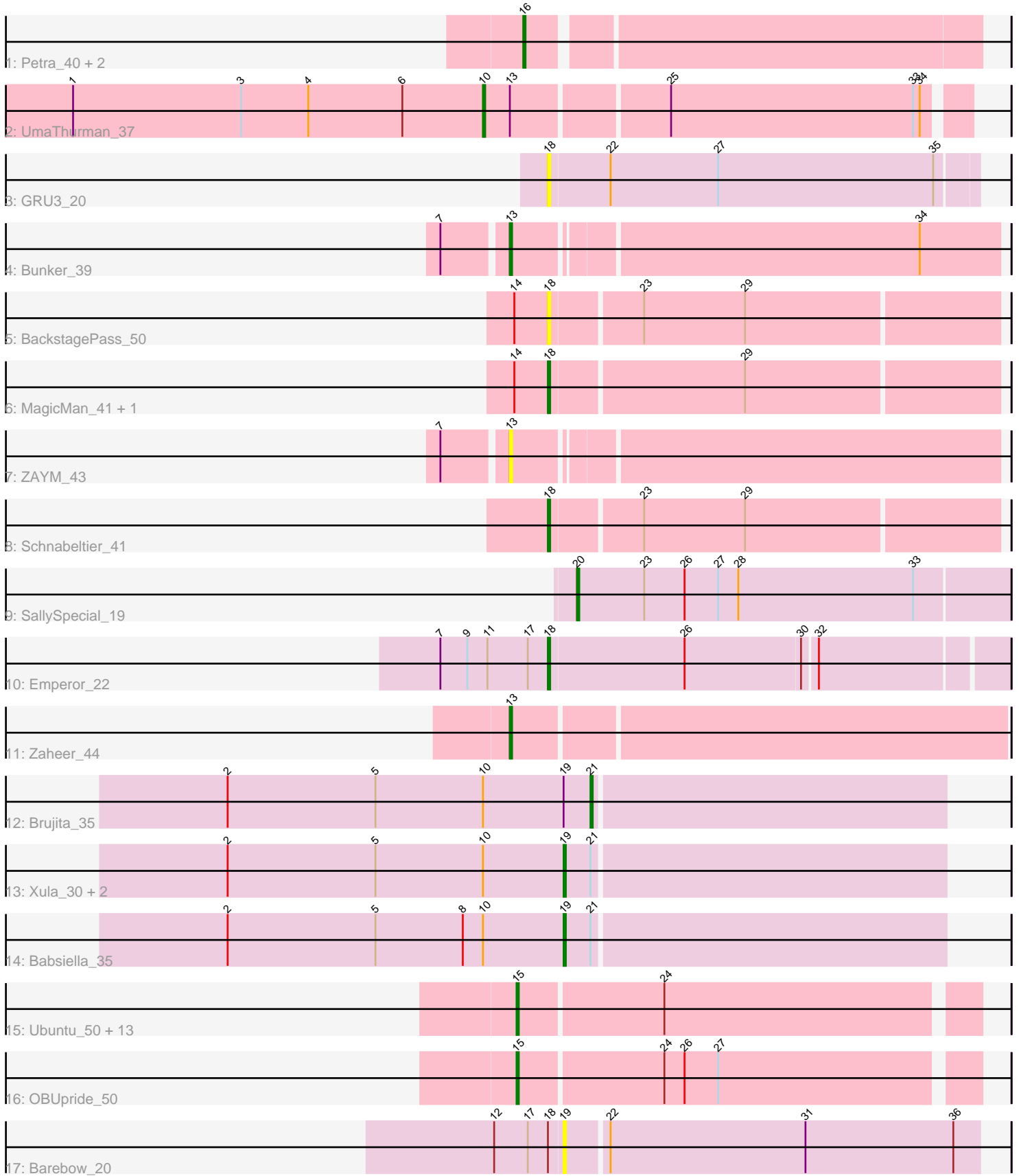


# Pham 194198



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 194198 Report

This analysis was run 11/02/24 on database version 579.

Pham number 194198 has 35 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Petra\_40, Zarbodnamra\_42, Obliviate\_39
- Track 2 : UmaThurman\_37
- Track 3 : GRU3\_20
- Track 4 : Bunker\_39
- Track 5 : BackstagePass\_50
- Track 6 : MagicMan\_41, Eyes\_39
- Track 7 : ZAYM\_43
- Track 8 : Schnabeltier\_41
- Track 9 : SallySpecial\_19
- Track 10 : Emperor\_22
- Track 11 : Zaheer\_44
- Track 12 : Brujita\_35
- Track 13 : Xula\_30, Island3\_35, QueenHazel\_31
- Track 14 : Babsiella\_35
- Track 15 : Ubuntu\_50, Kinbote\_50, LilHazelnut\_50, Hadrien\_50, Forge\_48, Webster2\_50, Ein37\_50, Amymech\_50, DeepSoil15\_50, Amochick\_50, Gancho\_49, Daegal\_52, Luke\_50, Evanesce\_49
- Track 16 : OBUpide\_50
- Track 17 : Barebow\_20

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

The start number called the most often in the published annotations is 15, it was called in 15 of the 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amochick\_50, Amymech\_50, Daegal\_52, DeepSoil15\_50, Ein37\_50, Evanesce\_49, Forge\_48, Gancho\_49, Hadrien\_50, Kinbote\_50, LilHazelnut\_50, Luke\_50, OBUpide\_50, Ubuntu\_50, Webster2\_50,

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

- 

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

- Babsiella\_35, BackstagePass\_50, Barebow\_20, Brujita\_35, Bunker\_39, Emperor\_22, Eyes\_39, GRU3\_20, Island3\_35, MagicMan\_41, Obliviate\_39, Petra\_40, QueenHazel\_31, SallySpecial\_19, Schnabeltier\_41, UmaThurman\_37, Xula\_30, ZAYM\_43, Zaheer\_44, Zarbodnamra\_42,

### Summary by start number:

#### Start 10:

- Found in 6 of 35 ( 17.1% ) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 16.7% of time when present
- Phage (with cluster) where this start called: UmaThurman\_37 (CV),

#### Start 13:

- Found in 4 of 35 ( 11.4% ) of genes in pham
- Manual Annotations of this start: 2 of 31
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Bunker\_39 (DB), ZAYM\_43 (DB), Zaheer\_44 (FF),

#### Start 15:

- Found in 15 of 35 ( 42.9% ) of genes in pham
- Manual Annotations of this start: 15 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amochick\_50 (Q), Amymech\_50 (Q), Daegal\_52 (Q), DeepSoil15\_50 (Q), Ein37\_50 (Q), Evanesce\_49 (Q), Forge\_48 (Q), Gancho\_49 (Q), Hadrien\_50 (Q), Kinbote\_50 (Q), LilHazelNut\_50 (Q), Luke\_50 (Q), OBUpride\_50 (Q), Ubuntu\_50 (Q), Webster2\_50 (Q),

#### Start 16:

- Found in 3 of 35 ( 8.6% ) of genes in pham
- Manual Annotations of this start: 3 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Obliviate\_39 (CV), Petra\_40 (CV), Zarbodnamra\_42 (CV),

#### Start 18:

- Found in 7 of 35 ( 20.0% ) of genes in pham
- Manual Annotations of this start: 4 of 31
- Called 85.7% of time when present
- Phage (with cluster) where this start called: BackstagePass\_50 (DB), Emperor\_22 (DM), Eyes\_39 (DB), GRU3\_20 (CW2), MagicMan\_41 (DB), Schnabeltier\_41 (DB),

#### Start 19:

- Found in 6 of 35 ( 17.1% ) of genes in pham
- Manual Annotations of this start: 4 of 31
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Babsiella\_35 (I1), Barebow\_20 (singleton), Island3\_35 (I1), QueenHazel\_31 (I1), Xula\_30 (I1),

#### Start 20:

- Found in 1 of 35 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 1 of 31

- Called 100.0% of time when present
- Phage (with cluster) where this start called: SallySpecial\_19 (DM),

Start 21:

- Found in 5 of 35 ( 14.3% ) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Brujita\_35 (I1),

### **Summary by clusters:**

There are 8 clusters represented in this pham: singleton, DM, I1, CW2, DB, Q, FF, CV,

Info for manual annotations of cluster CV:

- Start number 10 was manually annotated 1 time for cluster CV.
- Start number 16 was manually annotated 3 times for cluster CV.

Info for manual annotations of cluster DB:

- Start number 13 was manually annotated 1 time for cluster DB.
- Start number 18 was manually annotated 3 times for cluster DB.

Info for manual annotations of cluster DM:

- Start number 18 was manually annotated 1 time for cluster DM.
- Start number 20 was manually annotated 1 time for cluster DM.

Info for manual annotations of cluster FF:

- Start number 13 was manually annotated 1 time for cluster FF.

Info for manual annotations of cluster I1:

- Start number 19 was manually annotated 4 times for cluster I1.
- Start number 21 was manually annotated 1 time for cluster I1.

Info for manual annotations of cluster Q:

- Start number 15 was manually annotated 15 times for cluster Q.

### **Gene Information:**

Gene: Amochick\_50 Start: 36955, Stop: 37152, Start Num: 15

Candidate Starts for Amochick\_50:

(Start: 15 @36955 has 15 MA's), (24, 37018),

Gene: Amymech\_50 Start: 36949, Stop: 37146, Start Num: 15

Candidate Starts for Amymech\_50:

(Start: 15 @36949 has 15 MA's), (24, 37012),

Gene: Babsiella\_35 Start: 28713, Stop: 28880, Start Num: 19

Candidate Starts for Babsiella\_35:

(2, 28563), (5, 28629), (8, 28668), (Start: 10 @28677 has 1 MA's), (Start: 19 @28713 has 4 MA's), (Start: 21 @28725 has 1 MA's),

Gene: BackstagePass\_50 Start: 34306, Stop: 34112, Start Num: 18  
Candidate Starts for BackstagePass\_50:  
(14, 34321), (Start: 18 @34306 has 4 MA's), (23, 34267), (29, 34222),

Gene: Barebow\_20 Start: 15789, Stop: 15971, Start Num: 19  
Candidate Starts for Barebow\_20:  
(12, 15759), (17, 15774), (Start: 18 @15783 has 4 MA's), (Start: 19 @15789 has 4 MA's), (22, 15807),  
(31, 15894), (36, 15960),

Gene: Brujita\_35 Start: 29623, Stop: 29778, Start Num: 21  
Candidate Starts for Brujita\_35:  
(2, 29461), (5, 29527), (Start: 10 @29575 has 1 MA's), (Start: 19 @29611 has 4 MA's), (Start: 21  
@29623 has 1 MA's),

Gene: Bunker\_39 Start: 31881, Stop: 32090, Start Num: 13  
Candidate Starts for Bunker\_39:  
(7, 31854), (Start: 13 @31881 has 2 MA's), (34, 32055),

Gene: Daegal\_52 Start: 37533, Stop: 37730, Start Num: 15  
Candidate Starts for Daegal\_52:  
(Start: 15 @37533 has 15 MA's), (24, 37596),

Gene: DeepSoil15\_50 Start: 36949, Stop: 37146, Start Num: 15  
Candidate Starts for DeepSoil15\_50:  
(Start: 15 @36949 has 15 MA's), (24, 37012),

Gene: Ein37\_50 Start: 36949, Stop: 37146, Start Num: 15  
Candidate Starts for Ein37\_50:  
(Start: 15 @36949 has 15 MA's), (24, 37012),

Gene: Emperor\_22 Start: 15163, Stop: 15360, Start Num: 18  
Candidate Starts for Emperor\_22:  
(7, 15115), (9, 15127), (11, 15136), (17, 15154), (Start: 18 @15163 has 4 MA's), (26, 15223), (30,  
15274), (32, 15280),

Gene: Evanesce\_49 Start: 36949, Stop: 37146, Start Num: 15  
Candidate Starts for Evanesce\_49:  
(Start: 15 @36949 has 15 MA's), (24, 37012),

Gene: Eyes\_39 Start: 32432, Stop: 32626, Start Num: 18  
Candidate Starts for Eyes\_39:  
(14, 32417), (Start: 18 @32432 has 4 MA's), (29, 32516),

Gene: Forge\_48 Start: 36949, Stop: 37146, Start Num: 15  
Candidate Starts for Forge\_48:  
(Start: 15 @36949 has 15 MA's), (24, 37012),

Gene: GRU3\_20 Start: 14761, Stop: 14949, Start Num: 18  
Candidate Starts for GRU3\_20:  
(Start: 18 @14761 has 4 MA's), (22, 14788), (27, 14836), (35, 14932),

Gene: Gancho\_49 Start: 36672, Stop: 36869, Start Num: 15

Candidate Starts for Gancho\_49:  
(Start: 15 @36672 has 15 MA's), (24, 36735),

Gene: Hadrien\_50 Start: 36949, Stop: 37146, Start Num: 15  
Candidate Starts for Hadrien\_50:  
(Start: 15 @36949 has 15 MA's), (24, 37012),

Gene: Island3\_35 Start: 29611, Stop: 29778, Start Num: 19  
Candidate Starts for Island3\_35:  
(2, 29461), (5, 29527), (Start: 10 @29575 has 1 MA's), (Start: 19 @29611 has 4 MA's), (Start: 21 @29623 has 1 MA's),

Gene: Kinbote\_50 Start: 36949, Stop: 37146, Start Num: 15  
Candidate Starts for Kinbote\_50:  
(Start: 15 @36949 has 15 MA's), (24, 37012),

Gene: LilHazelnut\_50 Start: 36949, Stop: 37146, Start Num: 15  
Candidate Starts for LilHazelnut\_50:  
(Start: 15 @36949 has 15 MA's), (24, 37012),

Gene: Luke\_50 Start: 36904, Stop: 37101, Start Num: 15  
Candidate Starts for Luke\_50:  
(Start: 15 @36904 has 15 MA's), (24, 36967),

Gene: MagicMan\_41 Start: 32979, Stop: 33173, Start Num: 18  
Candidate Starts for MagicMan\_41:  
(14, 32964), (Start: 18 @32979 has 4 MA's), (29, 33063),

Gene: OBUpride\_50 Start: 36945, Stop: 37142, Start Num: 15  
Candidate Starts for OBUpride\_50:  
(Start: 15 @36945 has 15 MA's), (24, 37008), (26, 37017), (27, 37032),

Gene: Obliviate\_39 Start: 31330, Stop: 31524, Start Num: 16  
Candidate Starts for Obliviate\_39:  
(Start: 16 @31330 has 3 MA's),

Gene: Petra\_40 Start: 31689, Stop: 31883, Start Num: 16  
Candidate Starts for Petra\_40:  
(Start: 16 @31689 has 3 MA's),

Gene: QueenHazel\_31 Start: 27647, Stop: 27814, Start Num: 19  
Candidate Starts for QueenHazel\_31:  
(2, 27497), (5, 27563), (Start: 10 @27611 has 1 MA's), (Start: 19 @27647 has 4 MA's), (Start: 21 @27659 has 1 MA's),

Gene: SallySpecial\_19 Start: 14475, Stop: 14666, Start Num: 20  
Candidate Starts for SallySpecial\_19:  
(Start: 20 @14475 has 1 MA's), (23, 14505), (26, 14523), (27, 14538), (28, 14547), (33, 14625),

Gene: Schnabeltier\_41 Start: 32611, Stop: 32805, Start Num: 18  
Candidate Starts for Schnabeltier\_41:  
(Start: 18 @32611 has 4 MA's), (23, 32650), (29, 32695),

Gene: Ubuntu\_50 Start: 36949, Stop: 37146, Start Num: 15

Candidate Starts for Ubuntu\_50:

(Start: 15 @36949 has 15 MA's), (24, 37012),

Gene: UmaThurman\_37 Start: 31748, Stop: 31954, Start Num: 10

Candidate Starts for UmaThurman\_37:

(1, 31565), (3, 31640), (4, 31670), (6, 31712), (Start: 10 @31748 has 1 MA's), (Start: 13 @31760 has 2 MA's), (25, 31826), (33, 31934), (34, 31937),

Gene: Webster2\_50 Start: 36949, Stop: 37146, Start Num: 15

Candidate Starts for Webster2\_50:

(Start: 15 @36949 has 15 MA's), (24, 37012),

Gene: Xula\_30 Start: 27171, Stop: 27338, Start Num: 19

Candidate Starts for Xula\_30:

(2, 27021), (5, 27087), (Start: 10 @27135 has 1 MA's), (Start: 19 @27171 has 4 MA's), (Start: 21 @27183 has 1 MA's),

Gene: ZAYM\_43 Start: 32247, Stop: 32456, Start Num: 13

Candidate Starts for ZAYM\_43:

(7, 32220), (Start: 13 @32247 has 2 MA's),

Gene: Zaheer\_44 Start: 31390, Stop: 31605, Start Num: 13

Candidate Starts for Zaheer\_44:

(Start: 13 @31390 has 2 MA's),

Gene: Zarbodnamra\_42 Start: 32451, Stop: 32645, Start Num: 16

Candidate Starts for Zarbodnamra\_42:

(Start: 16 @32451 has 3 MA's),