

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 200595 Report

This analysis was run 01/18/25 on database version 583.

Pham number 200595 has 21 members, 1 are drafts.

Phages represented in each track:

Track 1 : Killigrew\_40

Track 2 : Ariel\_198, Courthouse\_194, Minerva\_192

• Track 3: Beem\_193, EricMillard\_188, JuicyJay\_186, Ejimix\_181, Klein\_196,

Duke13\_192, Yeet\_182, Halley\_192, Optimus\_190, Dallas\_191

• Track 4 : Bobby\_180

Track 5 : Constella\_188

Track 6 : Gonephishing\_187, Omega\_200

Track 7 : Kalah2\_193Track 8 : KashFlow\_189

Track 9 : Thibault\_174

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

The start number called the most often in the published annotations is 11, it was called in 10 of the 20 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Beem\_193, Dallas\_191, Duke13\_192, Ejimix\_181, EricMillard\_188, Halley\_192, JuicyJay\_186, Klein\_196, Optimus\_190, Yeet\_182,

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

Ariel\_198, Courthouse\_194, Kalah2\_193, Minerva\_192,

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

• Bobby\_180, Constella\_188, Gonephishing\_187, KashFlow\_189, Killigrew\_40, Omega\_200, Thibault\_174,

## Summary by start number:

#### Start 6:

- Found in 4 of 21 (19.0%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Bobby 180 (J).

### Start 7:

- Found in 4 of 21 (19.0%) of genes in pham
- Manual Annotations of this start: 2 of 20
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Gonephishing\_187 (J), Omega\_200 (J), Thibault\_174 (J),

### Start 8:

- Found in 2 of 21 (9.5%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Constella\_188 (J),

## Start 11:

- Found in 14 of 21 (66.7%) of genes in pham
- Manual Annotations of this start: 10 of 20
- Called 71.4% of time when present
- Phage (with cluster) where this start called: Beem\_193 (J), Dallas\_191 (J), Duke13\_192 (J), Ejimix\_181 (J), EricMillard\_188 (J), Halley\_192 (J), JuicyJay\_186 (J), Klein\_196 (J), Optimus\_190 (J), Yeet\_182 (J),

#### Start 12:

- Found in 1 of 21 (4.8%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Killigrew\_40 (A1),

#### Start 14:

- Found in 2 of 21 (9.5%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 50.0% of time when present
- Phage (with cluster) where this start called: KashFlow 189 (J),

## Start 15:

- Found in 14 of 21 (66.7%) of genes in pham
- Manual Annotations of this start: 4 of 20
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Ariel\_198 (J), Courthouse\_194 (J), Kalah2\_193 (J), Minerva\_192 (J),

## Summary by clusters:

There are 2 clusters represented in this pham: A1, J,

Info for manual annotations of cluster A1:

•Start number 12 was manually annotated 1 time for cluster A1.

## Info for manual annotations of cluster J:

- •Start number 6 was manually annotated 1 time for cluster J.
- •Start number 7 was manually annotated 2 times for cluster J.
- •Start number 8 was manually annotated 1 time for cluster J.
- •Start number 11 was manually annotated 10 times for cluster J.

- •Start number 14 was manually annotated 1 time for cluster J.
- •Start number 15 was manually annotated 4 times for cluster J.

## Gene Information:

Gene: Ariel\_198 Start: 94883, Stop: 94761, Start Num: 15

Candidate Starts for Ariel 198:

(9, 94913), (Start: 11 @94898 has 10 MA's), (Start: 15 @94883 has 4 MA's), (19, 94859), (20, 94814),

Gene: Beem\_193 Start: 97362, Stop: 97177, Start Num: 11

Candidate Starts for Beem 193:

(9, 97377), (Start: 11 @97362 has 10 MA's), (Start: 15 @97347 has 4 MA's), (19, 97323), (20, 97278),

Gene: Bobby 180 Start: 97296, Stop: 97087, Start Num: 6

Candidate Starts for Bobby 180:

(Start: 6 @ 97296 has 1 MA's), (Start: 7 @ 97293 has 2 MA's), (16, 97221), (17, 97209), (20, 97158),

Gene: Constella\_188 Start: 96823, Stop: 96650, Start Num: 8

Candidate Starts for Constella 188:

(1, 97132), (2, 97090), (3, 96961), (4, 96904), (5, 96895), (Start: 8 @96823 has 1 MA's), (13, 96802),

(Start: 14 @96799 has 1 MA's), (20, 96721),

Gene: Courthouse\_194 Start: 95332, Stop: 95210, Start Num: 15

Candidate Starts for Courthouse 194:

(9, 95362), (Start: 11 @95347 has 10 MA's), (Start: 15 @95332 has 4 MA's), (19, 95308), (20, 95263),

Gene: Dallas\_191 Start: 96382, Stop: 96197, Start Num: 11

Candidate Starts for Dallas 191:

(9, 96397), (Start: 11 @96382 has 10 MA's), (Start: 15 @96367 has 4 MA's), (19, 96343), (20, 96298),

Gene: Duke13 192 Start: 96651, Stop: 96496, Start Num: 11

Candidate Starts for Duke13 192:

(9, 96666), (Start: 11 @96651 has 10 MA's), (Start: 15 @96636 has 4 MA's), (19, 96612), (20, 96567),

Gene: Ejimix\_181 Start: 95720, Stop: 95535, Start Num: 11

Candidate Starts for Ejimix\_181:

(9, 95735), (Start: 11 @95720 has 10 MA's), (Start: 15 @95705 has 4 MA's), (19, 95681), (20, 95636),

Gene: EricMillard 188 Start: 97430, Stop: 97245, Start Num: 11

Candidate Starts for EricMillard 188:

(9, 97445), (Start: 11 @97430 has 10 MA's), (Start: 15 @97415 has 4 MA's), (19, 97391), (20, 97346),

Gene: Gonephishing\_187 Start: 95052, Stop: 94846, Start Num: 7

Candidate Starts for Gonephishing\_187:

(Start: 6 @ 95055 has 1 MA's), (Start: 7 @ 95052 has 2 MA's), (16, 94980), (20, 94917),

Gene: Halley 192 Start: 95888, Stop: 95703, Start Num: 11

Candidate Starts for Halley 192:

(9, 95903), (Start: 11 @95888 has 10 MA's), (Start: 15 @95873 has 4 MA's), (19, 95849), (20, 95804),

Gene: JuicyJay\_186 Start: 97314, Stop: 97132, Start Num: 11

Candidate Starts for JuicyJay\_186:

(9, 97329), (Start: 11 @97314 has 10 MA's), (Start: 15 @97299 has 4 MA's), (19, 97275), (20, 97230),

Gene: Kalah2\_193 Start: 98691, Stop: 98569, Start Num: 15

Candidate Starts for Kalah2\_193:

(9, 98721), (Start: 11 @98706 has 10 MA's), (Start: 15 @98691 has 4 MA's), (18, 98670), (19, 98667), (20, 98622),

Gene: KashFlow\_189 Start: 96734, Stop: 96537, Start Num: 14

Candidate Starts for KashFlow 189:

(1, 97067), (2, 97025), (3, 96896), (4, 96839), (5, 96830), (Start: 8 @96758 has 1 MA's), (13, 96737), (Start: 14 @96734 has 1 MA's), (20, 96656),

Gene: Killigrew\_40 Start: 32035, Stop: 31868, Start Num: 12

Candidate Starts for Killigrew\_40:

(10, 32044), (Start: 12 @32035 has 1 MA's), (17, 32002), (20, 31951),

Gene: Klein\_196 Start: 96245, Stop: 96060, Start Num: 11

Candidate Starts for Klein 196:

(9, 96260), (Start: 11 @96245 has 10 MA's), (Start: 15 @96230 has 4 MA's), (19, 96206), (20, 96161),

Gene: Minerva\_192 Start: 95866, Stop: 95696, Start Num: 15

Candidate Starts for Minerva 192:

(9, 95896), (Start: 11 @95881 has 10 MA's), (Start: 15 @95866 has 4 MA's), (19, 95842), (20, 95797),

Gene: Omega\_200 Start: 98575, Stop: 98357, Start Num: 7

Candidate Starts for Omega\_200:

(Start: 6 @98578 has 1 MA's), (Start: 7 @98575 has 2 MA's), (16, 98503), (20, 98440),

Gene: Optimus\_190 Start: 96797, Stop: 96612, Start Num: 11

Candidate Starts for Optimus\_190:

(9, 96812), (Start: 11 @96797 has 10 MA's), (Start: 15 @96782 has 4 MA's), (19, 96758), (20, 96713),

Gene: Thibault 174 Start: 93435, Stop: 93229, Start Num: 7

Candidate Starts for Thibault 174:

(Start: 6 @ 93438 has 1 MA's), (Start: 7 @ 93435 has 2 MA's), (16, 93363), (20, 93300), (21, 93237),

Gene: Yeet\_182 Start: 95030, Stop: 94845, Start Num: 11

Candidate Starts for Yeet\_182:

(9, 95045), (Start: 11 @95030 has 10 MA's), (Start: 15 @95015 has 4 MA's), (19, 94991), (20, 94946),