

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 87050 Report

This analysis was run 04/05/24 on database version 557.

Pham number 87050 has 16 members, 2 are drafts.

Phages represented in each track:

• Track 1: LittleE\_191, Courthouse\_186, MiaZeal\_192, Ariel\_190

Track 2: Thibault\_170, Squint\_184, Porcelain\_188, Hannaconda\_180,

KashFlow\_185, Lucky2013 184

Track 3 : Constella\_183, Odette\_190

Track 4 : ThreeRngTarjay\_186

Track 5 : Dove\_180Track 6 : Omega 196

Track 7 : Superphikiman\_186

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

The start number called the most often in the published annotations is 6, it was called in 7 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Hannaconda\_180, KashFlow\_185, Lucky2013\_184, Omega\_196, Porcelain\_188, Squint\_184, Thibault\_170,

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

Ariel\_190, Courthouse\_186, LittleE\_191, MiaZeal\_192, Superphikiman\_186,

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

Constella\_183, Dove\_180, Odette\_190, ThreeRngTarjay\_186,

### Summary by start number:

#### Start 3:

- Found in 6 of 16 (37.5%) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Superphikiman\_186 (J),

#### Start 4:

Found in 5 of 16 (31.2%) of genes in pham

- Manual Annotations of this start: 4 of 14
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Ariel\_190 (J), Courthouse\_186 (J), LittleE\_191 (J), MiaZeal\_192 (J),

### Start 6:

- Found in 12 of 16 (75.0%) of genes in pham
- Manual Annotations of this start: 7 of 14
- Called 58.3% of time when present
- Phage (with cluster) where this start called: Hannaconda\_180 (J), KashFlow\_185 (J), Lucky2013\_184 (J), Omega\_196 (J), Porcelain\_188 (J), Squint\_184 (J), Thibault\_170 (J),

#### Start 7:

- Found in 4 of 16 (25.0%) of genes in pham
- Manual Annotations of this start: 2 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Constella\_183 (J), Dove\_180 (J), Odette\_190 (J), ThreeRngTarjay\_186 (J),

## Summary by clusters:

There is one cluster represented in this pham: J

Info for manual annotations of cluster J:

- •Start number 3 was manually annotated 1 time for cluster J.
- •Start number 4 was manually annotated 4 times for cluster J.
- •Start number 6 was manually annotated 7 times for cluster J.
- •Start number 7 was manually annotated 2 times for cluster J.

#### Gene Information:

Gene: Ariel 190 Start: 92422, Stop: 92874, Start Num: 4

Candidate Starts for Ariel\_190:

(Start: 3 @92338 has 1 MA's), (Start: 4 @92422 has 4 MA's), (Start: 6 @92434 has 7 MA's), (9, 92491), (10, 92530), (12, 92623), (15, 92740), (16, 92743), (18, 92860), (19, 92863),

Gene: Constella\_183 Start: 95080, Stop: 95517, Start Num: 7

Candidate Starts for Constella 183:

(1, 94822), (2, 94840), (Start: 7 @95080 has 2 MA's), (8, 95110), (11, 95248), (12, 95266), (13, 95323), (14, 95377), (17, 95425), (18, 95503), (19, 95506),

Gene: Courthouse\_186 Start: 92871, Stop: 93323, Start Num: 4

Candidate Starts for Courthouse\_186:

 $(Start: 3 @92787 \ has 1 \ MA's), \ (Start: 4 @92871 \ has 4 \ MA's), \ (Start: 6 @92883 \ has 7 \ MA's), \ (9, 92940), \ (10, 92979), \ (12, 93072), \ (15, 93189), \ (16, 93192), \ (18, 93309), \ (19, 93312),$ 

Gene: Dove 180 Start: 90941, Stop: 91378, Start Num: 7

Candidate Starts for Dove 180:

(Start: 7 @ 90941 has 2 MA's), (8, 90971), (9, 90995), (11, 91109), (12, 91127), (13, 91184), (14, 91238), (17, 91286), (18, 91364), (19, 91367),

Gene: Hannaconda\_180 Start: 94909, Stop: 95349, Start Num: 6

Candidate Starts for Hannaconda 180:

(5, 94903), (Start: 6 @94909 has 7 MA's), (9, 94966), (10, 95005), (12, 95098), (15, 95215), (16, 95218), (18, 95335), (19, 95338),

Gene: KashFlow\_185 Start: 94722, Stop: 95162, Start Num: 6

Candidate Starts for KashFlow 185:

(5, 94716), (Start: 6 @94722 has 7 MA's), (9, 94779), (10, 94818), (12, 94911), (15, 95028), (16, 95031), (18, 95148), (19, 95151),

Gene: LittleE 191 Start: 95109, Stop: 95561, Start Num: 4

Candidate Starts for LittleE 191:

(Start: 3 @95025 has 1 MA's), (Start: 4 @95109 has 4 MA's), (Start: 6 @95121 has 7 MA's), (9, 95178), (10, 95217), (12, 95310), (15, 95427), (16, 95430), (18, 95547), (19, 95550),

Gene: Lucky2013\_184 Start: 91824, Stop: 92264, Start Num: 6

Candidate Starts for Lucky2013 184:

(5, 91818), (Start: 6 @91824 has 7 MA's), (9, 91881), (10, 91920), (12, 92013), (15, 92130), (16, 92133), (18, 92250), (19, 92253),

Gene: MiaZeal\_192 Start: 93088, Stop: 93540, Start Num: 4

Candidate Starts for MiaZeal 192:

(Start: 3 @93004 has 1 MA's), (Start: 4 @93088 has 4 MA's), (Start: 6 @93100 has 7 MA's), (9, 93157), (10, 93196), (12, 93289), (15, 93406), (16, 93409), (18, 93526), (19, 93529),

Gene: Odette\_190 Start: 97109, Stop: 97546, Start Num: 7

Candidate Starts for Odette 190:

(1, 96851), (2, 96869), (Start: 7 @97109 has 2 MA's), (8, 97139), (11, 97277), (12, 97295), (13, 97352), (14, 97406), (17, 97454), (18, 97532), (19, 97535),

Gene: Omega\_196 Start: 96623, Stop: 97063, Start Num: 6

Candidate Starts for Omega 196:

(Start: 3 @96527 has 1 MA's), (5, 96617), (Start: 6 @96623 has 7 MA's), (9, 96680), (10, 96719), (12, 96812), (15, 96929), (16, 96932), (18, 97049), (19, 97052),

Gene: Porcelain\_188 Start: 92770, Stop: 93210, Start Num: 6

Candidate Starts for Porcelain\_188:

(5, 92764), (Start: 6 @92770 has 7 MA's), (9, 92827), (10, 92866), (12, 92959), (15, 93076), (16, 93079), (18, 93196), (19, 93199),

Gene: Squint\_184 Start: 92711, Stop: 93151, Start Num: 6

Candidate Starts for Squint 184:

(5, 92705), (Start: 6 @92711 has 7 MA's), (9, 92768), (10, 92807), (12, 92900), (15, 93017), (16, 93020), (18, 93137), (19, 93140),

Gene: Superphikiman\_186 Start: 92482, Stop: 93018, Start Num: 3

Candidate Starts for Superphikiman\_186:

(Start: 3 @92482 has 1 MA's), (Start: 4 @92566 has 4 MA's), (Start: 6 @92578 has 7 MA's), (9, 92635), (10, 92674), (12, 92767), (15, 92884), (16, 92887), (18, 93004), (19, 93007),

Gene: Thibault 170 Start: 91951, Stop: 92391, Start Num: 6

Candidate Starts for Thibault\_170:

(5, 91945), (Start: 6 @91951 has 7 MA's), (9, 92008), (10, 92047), (12, 92140), (15, 92257), (16, 92260), (18, 92377), (19, 92380),

Gene: ThreeRngTarjay\_186 Start: 96459, Stop: 96896, Start Num: 7 Candidate Starts for ThreeRngTarjay\_186: (1, 96201), (2, 96219), (Start: 7 @96459 has 2 MA's), (8, 96489), (11, 96627), (13, 96702), (14, 96756), (17, 96804), (18, 96882), (19, 96885),