

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 156742 Report

This analysis was run 04/12/24 on database version 558.

Pham number 156742 has 16 members, 8 are drafts.

Phages represented in each track:

Track 1 : GodonK\_78Track 2 : Phendrix\_76

Track 3: BlueNGold\_88, Forza\_89, Mareelih\_87, Boopy\_89

Track 4 : Sixama\_83

Track 5 : GMA2\_18

• Track 6: Talia1610\_87, Bloom\_87, Mimi\_90, Patbob\_84, Racecar\_84

Track 7 : DunneganBoMo\_77

Track 8 : SJReid\_88Track 9 : Atuin\_81

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

The start number called the most often in the published annotations is 1, it was called in 8 of the 8 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Atuin\_81, Bloom\_87, BlueNGold\_88, Boopy\_89, DunneganBoMo\_77, Forza\_89, GMA2\_18, GodonK\_78, Mareelih\_87, Mimi\_90, Patbob\_84, Phendrix\_76, Racecar\_84, SJReid\_88, Sixama\_83, Talia1610\_87,

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

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

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# Summary by start number:

#### Start 1:

- Found in 16 of 16 (100.0%) of genes in pham
- Manual Annotations of this start: 8 of 8
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Atuin\_81 (FC), Bloom\_87 (FC), BlueNGold\_88 (DS), Boopy\_89 (DS), DunneganBoMo\_77 (FC), Forza\_89 (DS),

GMA2\_18 (DS), GodonK\_78 (DK), Mareelih\_87 (DS), Mimi\_90 (FC), Patbob\_84 (FC), Phendrix\_76 (DK), Racecar\_84 (FC), SJReid\_88 (FC), Sixama\_83 (DS), Talia1610\_87 (FC),

### Summary by clusters:

There are 3 clusters represented in this pham: FC, DS, DK,

Info for manual annotations of cluster DK:

Start number 1 was manually annotated 2 times for cluster DK.

Info for manual annotations of cluster DS:

•Start number 1 was manually annotated 5 times for cluster DS.

Info for manual annotations of cluster FC:

•Start number 1 was manually annotated 1 time for cluster FC.

#### Gene Information:

Gene: Atuin 81 Start: 49765, Stop: 50412, Start Num: 1

Candidate Starts for Atuin\_81:

(Start: 1 @49765 has 8 MA's), (10, 50035), (14, 50215), (20, 50326),

Gene: Bloom 87 Start: 51166, Stop: 51822, Start Num: 1

Candidate Starts for Bloom 87:

(Start: 1 @51166 has 8 MA's), (7, 51349), (10, 51436), (14, 51616), (17, 51652), (18, 51655),

Gene: BlueNGold\_88 Start: 44419, Stop: 45063, Start Num: 1

Candidate Starts for BlueNGold 88:

(Start: 1 @44419 has 8 MA's), (3, 44461), (6, 44530), (14, 44866), (16, 44890), (17, 44902), (18, 44905), (19, 44944),

Gene: Boopy 89 Start: 44431, Stop: 45075, Start Num: 1

Candidate Starts for Boopy\_89:

(Start: 1 @44431 has 8 MA's), (3, 44473), (6, 44542), (14, 44878), (16, 44902), (17, 44914), (18, 44917), (19, 44956),

Gene: DunneganBoMo 77 Start: 46623, Stop: 47267, Start Num: 1

Candidate Starts for DunneganBoMo 77:

(Start: 1 @ 46623 has 8 MA's), (5, 46698), (6, 46737), (10, 46893), (14, 47073), (21, 47196),

Gene: Forza\_89 Start: 44347, Stop: 44991, Start Num: 1

Candidate Starts for Forza\_89:

(Start: 1 @44347 has 8 MA's), (3, 44389), (6, 44458), (14, 44794), (16, 44818), (17, 44830), (18, 44833), (19, 44872),

Gene: GMA2 18 Start: 17722, Stop: 18366, Start Num: 1

Candidate Starts for GMA2 18:

(Start: 1 @ 17722 has 8 MA's), (2, 17752), (6, 17833), (14, 18169), (17, 18205), (18, 18208),

Gene: GodonK\_78 Start: 39164, Stop: 39817, Start Num: 1

Candidate Starts for GodonK 78:

(Start: 1 @39164 has 8 MA's), (6, 39278), (11, 39452), (14, 39620), (15, 39641), (17, 39656), (18, 39659),

Gene: Mareelih\_87 Start: 43849, Stop: 44493, Start Num: 1

Candidate Starts for Mareelih\_87:

(Start: 1 @43849 has 8 MA's), (3, 43891), (6, 43960), (14, 44296), (16, 44320), (17, 44332), (18, 44335), (19, 44374),

Gene: Mimi\_90 Start: 50513, Stop: 51169, Start Num: 1

Candidate Starts for Mimi 90:

(Start: 1 @50513 has 8 MA's), (7, 50696), (10, 50783), (14, 50963), (17, 50999), (18, 51002),

Gene: Patbob\_84 Start: 51385, Stop: 52041, Start Num: 1

Candidate Starts for Patbob\_84:

(Start: 1 @51385 has 8 MA's), (7, 51568), (10, 51655), (14, 51835), (17, 51871), (18, 51874),

Gene: Phendrix\_76 Start: 39032, Stop: 39685, Start Num: 1

Candidate Starts for Phendrix 76:

(Start: 1 @39032 has 8 MA's), (6, 39146), (9, 39245), (11, 39320), (14, 39488), (15, 39509), (17, 39524), (18, 39527),

Gene: Racecar\_84 Start: 51166, Stop: 51822, Start Num: 1

Candidate Starts for Racecar\_84:

(Start: 1 @51166 has 8 MA's), (7, 51349), (10, 51436), (14, 51616), (17, 51652), (18, 51655),

Gene: SJReid\_88 Start: 52426, Stop: 53082, Start Num: 1

Candidate Starts for SJReid 88:

(Start: 1 @52426 has 8 MA's), (2, 52459), (12, 52750), (13, 52762), (14, 52888), (22, 53020), (23, 53026),

Gene: Sixama\_83 Start: 44174, Stop: 44824, Start Num: 1

Candidate Starts for Sixama 83:

(Start: 1 @44174 has 8 MA's), (3, 44219), (4, 44246), (6, 44288), (8, 44363), (10, 44444), (14, 44627), (16, 44651), (17, 44663), (18, 44666),

Gene: Talia1610\_87 Start: 50531, Stop: 51187, Start Num: 1

Candidate Starts for Talia1610\_87:

(Start: 1 @50531 has 8 MA's), (7, 50714), (10, 50801), (14, 50981), (17, 51017), (18, 51020),