

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 115328 Report

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

Pham number 115328 has 20 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Dori 59, Mask 59
- Track 2: Piper2020\_56, ChickenDinner\_57, DocMcStuffins\_54
- Track 3 : Frankie\_61
- Track 4 : Sbash\_52
- Track 5 : Raymond7\_40, Redi\_46, PhancyPhin\_46, Nenae\_46, Rebel\_38, ShrimpFriedEgg\_46, BabeRuth\_47
- Track 6: Purgamenstris 46
- Track 7 : SkinnyPete\_40, Sejanus\_56
- Track 8 : Shweta 41
- Track 9 : Xavia\_48, Tortellini\_48

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

The start number called the most often in the published annotations is 9, it was called in 13 of the 18 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• BabeRuth\_47, ChickenDinner\_57, DocMcStuffins\_54, Frankie\_61, Nenae\_46, PhancyPhin\_46, Piper2020\_56, Raymond7\_40, Rebel\_38, Redi\_46, Sejanus\_56, ShrimpFriedEgg\_46, SkinnyPete\_40, Tortellini\_48, Xavia\_48,

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

Purgamenstris\_46,

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

Dori\_59, Mask\_59, Sbash\_52, Shweta\_41,

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

#### Start 7:

- Found in 12 of 20 (60.0%) of genes in pham
- Manual Annotations of this start: 1 of 18
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Purgamenstris 46 (N).

#### Start 8:

- Found in 3 of 20 (15.0%) of genes in pham
- Manual Annotations of this start: 3 of 18
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dori\_59 (AD), Mask\_59 (AD), Sbash\_52 (I2),

#### Start 9:

- Found in 16 of 20 (80.0%) of genes in pham
- Manual Annotations of this start: 13 of 18
- Called 93.8% of time when present
- Phage (with cluster) where this start called: BabeRuth\_47 (N), ChickenDinner\_57 (F1), DocMcStuffins\_54 (F1), Frankie\_61 (F1), Nenae\_46 (N), PhancyPhin\_46 (N), Piper2020\_56 (F1), Raymond7\_40 (N), Rebel\_38 (N), Redi\_46 (N), Sejanus\_56 (AD), ShrimpFriedEgg\_46 (N), SkinnyPete\_40 (N), Tortellini\_48 (P2), Xavia\_48 (P3),

#### Start 10:

- Found in 4 of 20 (20.0%) of genes in pham
- Manual Annotations of this start: 1 of 18
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Shweta\_41 (N),

### **Summary by clusters:**

There are 6 clusters represented in this pham: P2, F1, AD, P3, I2, N,

Info for manual annotations of cluster AD:

- •Start number 8 was manually annotated 2 times for cluster AD.
- •Start number 9 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster F1:

•Start number 9 was manually annotated 2 times for cluster F1.

Info for manual annotations of cluster I2:

•Start number 8 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster N:

- •Start number 7 was manually annotated 1 time for cluster N.
- •Start number 9 was manually annotated 8 times for cluster N.
- •Start number 10 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster P2:

•Start number 9 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

•Start number 9 was manually annotated 1 time for cluster P3.

#### Gene Information:

Gene: BabeRuth\_47 Start: 32063, Stop: 32236, Start Num: 9

Candidate Starts for BabeRuth 47:

(6, 32030), (Start: 7 @32036 has 1 MA's), (Start: 9 @32063 has 13 MA's), (11, 32078), (13, 32144), (14, 32153), (15, 32165), (16, 32180), (17, 32189), (18, 32225),

Gene: ChickenDinner\_57 Start: 38348, Stop: 38545, Start Num: 9

Candidate Starts for ChickenDinner 57:

(1, 38195), (Start: 9 @38348 has 13 MA's), (13, 38429), (16, 38465), (17, 38474), (19, 38528), (20, 38534),

Gene: DocMcStuffins 54 Start: 38348, Stop: 38545, Start Num: 9

Candidate Starts for DocMcStuffins 54:

(1, 38195), (Start: 9 @38348 has 13 MA's), (13, 38429), (16, 38465), (17, 38474), (19, 38528), (20, 38534),

Gene: Dori\_59 Start: 48092, Stop: 48304, Start Num: 8

Candidate Starts for Dori 59:

(5, 48047), (Start: 8 @48092 has 3 MA's), (Start: 10 @48098 has 1 MA's), (11, 48110), (13, 48176), (14, 48185), (16, 48212), (17, 48221),

Gene: Frankie\_61 Start: 40829, Stop: 41050, Start Num: 9

Candidate Starts for Frankie 61:

(1, 40676), (Start: 9 @40829 has 13 MA's), (11, 40844), (13, 40910), (16, 40946), (17, 40955), (21, 41021), (23, 41030),

Gene: Mask\_59 Start: 48835, Stop: 49047, Start Num: 8

Candidate Starts for Mask 59:

(5, 48790), (Start: 8 @48835 has 3 MA's), (Start: 10 @48841 has 1 MA's), (11, 48853), (13, 48919), (14, 48928), (16, 48955), (17, 48964),

Gene: Nenae\_46 Start: 32065, Stop: 32238, Start Num: 9

Candidate Starts for Nenae\_46:

(6, 32032), (Start: 7 @32038 has 1 MA's), (Start: 9 @32065 has 13 MA's), (11, 32080), (13, 32146), (14, 32155), (15, 32167), (16, 32182), (17, 32191), (18, 32227),

Gene: PhancyPhin\_46 Start: 32059, Stop: 32232, Start Num: 9

Candidate Starts for PhancyPhin 46:

(6, 32026), (Start: 7 @32032 has 1 MA's), (Start: 9 @32059 has 13 MA's), (11, 32074), (13, 32140), (14, 32149), (15, 32161), (16, 32176), (17, 32185), (18, 32221),

Gene: Piper2020\_56 Start: 38331, Stop: 38528, Start Num: 9

Candidate Starts for Piper2020\_56:

(1, 38178), (Start: 9 @38331 has 13 MA's), (13, 38412), (16, 38448), (17, 38457), (19, 38511), (20, 38517),

Gene: Purgamenstris 46 Start: 32036, Stop: 32236, Start Num: 7

Candidate Starts for Purgamenstris 46:

(6, 32030), (Start: 7 @32036 has 1 MA's), (Start: 9 @32063 has 13 MA's), (11, 32078), (13, 32144), (14, 32153), (15, 32165), (16, 32180), (17, 32189), (18, 32225),

Gene: Raymond7\_40 Start: 31851, Stop: 32024, Start Num: 9

Candidate Starts for Raymond7\_40:

(6, 31818), (Start: 7 @31824 has 1 MA's), (Start: 9 @31851 has 13 MA's), (11, 31866), (13, 31932), (14, 31941), (15, 31953), (16, 31968), (17, 31977), (18, 32013),

Gene: Rebel\_38 Start: 28193, Stop: 28366, Start Num: 9

Candidate Starts for Rebel 38:

(6, 28160), (Start: 7 @28166 has 1 MA's), (Start: 9 @28193 has 13 MA's), (11, 28208), (13, 28274), (14, 28283), (15, 28295), (16, 28310), (17, 28319), (18, 28355),

Gene: Redi\_46 Start: 32062, Stop: 32235, Start Num: 9

Candidate Starts for Redi 46:

(6, 32029), (Start: 7 @32035 has 1 MA's), (Start: 9 @32062 has 13 MA's), (11, 32077), (13, 32143), (14, 32152), (15, 32164), (16, 32179), (17, 32188), (18, 32224),

Gene: Sbash 52 Start: 39507, Stop: 39710, Start Num: 8

Candidate Starts for Sbash 52:

(Start: 8 @39507 has 3 MA's), (Start: 10 @39513 has 1 MA's), (11, 39525), (13, 39591), (16, 39627), (17, 39636),

Gene: Sejanus 56 Start: 47338, Stop: 47547, Start Num: 9

Candidate Starts for Sejanus 56:

(Start: 7 @ 47311 has 1 MA's), (Start: 9 @ 47338 has 13 MA's), (11, 47353), (12, 47377), (13, 47419), (14, 47428), (16, 47455), (17, 47464), (21, 47530), (22, 47536),

Gene: ShrimpFriedEgg\_46 Start: 32062, Stop: 32235, Start Num: 9

Candidate Starts for ShrimpFriedEgg\_46:

(6, 32029), (Start: 7 @ 32035 has 1 MA's), (Start: 9 @ 32062 has 13 MA's), (11, 32077), (13, 32143), (14, 32152), (15, 32164), (16, 32179), (17, 32188), (18, 32224),

Gene: Shweta\_41 Start: 30432, Stop: 30629, Start Num: 10

Candidate Starts for Shweta 41:

(3, 30342), (4, 30372), (5, 30381), (Start: 10 @30432 has 1 MA's), (11, 30444), (13, 30510), (14, 30519), (16, 30546), (17, 30555),

Gene: SkinnyPete\_40 Start: 29521, Stop: 29730, Start Num: 9

Candidate Starts for SkinnyPete\_40:

(Start: 7 @29494 has 1 MA's), (Start: 9 @29521 has 13 MA's), (11, 29536), (12, 29560), (13, 29602), (14, 29611), (16, 29638), (17, 29647), (21, 29713), (22, 29719),

Gene: Tortellini\_48 Start: 37529, Stop: 37738, Start Num: 9

Candidate Starts for Tortellini\_48:

(1, 37379), (2, 37406), (Start: 7 @ 37502 has 1 MA's), (Start: 9 @ 37529 has 13 MA's), (11, 37544), (13, 37610), (14, 37619), (16, 37646), (17, 37655),

Gene: Xavia\_48 Start: 37365, Stop: 37574, Start Num: 9

Candidate Starts for Xavia 48:

(1, 37215), (2, 37242), (Start: 7 @ 37338 has 1 MA's), (Start: 9 @ 37365 has 13 MA's), (11, 37380), (13, 37446), (14, 37455), (16, 37482), (17, 37491),