

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 4758 Report

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

Pham number 4758 has 31 members, 17 are drafts.

Phages represented in each track:

- Track 1 : MidnightRain 100
- Track 2 : AbbyĎaisy\_97
- Track 3: Raphaella\_92, Gorpy\_91, YoungHarleezy\_93, Sakai\_90
- Track 4: EvePickles 94, BillyTP 91, Faja 94, Hillester 97, CookieBear 92, RadFad 98
- Track 5 : Globfish 92
- Track 6 : Seahorse 100
- Track 7 : Anekin\_94, Persistence\_88
- Track 8: Isolde 96
- Track 9 : Sashimi 96
- Track 10 : Tiff81 93
- Track 11 : Phrank15 99
- Track 12 : Aikyam\_91Track 13 : Hestia\_89
- Track 14 : Ragga 99
- Track 15 : Sarge 65
- Track 16 : Bauer 92
- Track 17: Zucker 97, BenchScraper 91, BlackSpider 85
- Track 18 : Pitbull 78
- Track 19: Hum25 76
- Track 20 : MrSmee 77

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

The start number called the most often in the published annotations is 17, it was called in 11 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

 AbbyDaisy\_97, Aikyam\_91, Anekin\_94, BenchScraper\_91, BillyTP\_91, BlackSpider\_85, CookieBear\_92, EvePickles\_94, Faja\_94, Globfish\_92, Gorpy\_91, Hestia\_89, Hillester\_97, Hum25\_76, MidnightRain\_100, MrSmee\_77, Persistence\_88, Pitbull\_78, RadFad\_98, Raphaella\_92, Sakai\_90, Sarge\_65, Sashimi\_96, Tiff81\_93, YoungHarleezy\_93, Zucker\_97,

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

Raqqa\_99,

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

Bauer\_92, Isolde\_96, Phrank15\_99, Seahorse\_100,

# Summary by start number:

#### Start 15:

- Found in 2 of 31 (6.5%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Raqqa\_99 (AY),

#### Start 16:

- Found in 2 of 31 (6.5%) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bauer\_92 (FN), Phrank15\_99 (AY),

#### Start 17:

- Found in 27 of 31 (87.1%) of genes in pham
- Manual Annotations of this start: 11 of 14
- Called 96.3% of time when present
- Phage (with cluster) where this start called: AbbyDaisy\_97 (AY), Aikyam\_91 (AY), Anekin\_94 (AY), BenchScraper\_91 (AY), BillyTP\_91 (AY), BlackSpider\_85 (FN), CookieBear\_92 (AY), EvePickles\_94 (AY), Faja\_94 (AY), Globfish\_92 (AY), Gorpy\_91 (AY), Hestia\_89 (AY), Hillester\_97 (AY), Hum25\_76 (FQ), MidnightRain\_100 (AY), MrSmee\_77 (UNK), Persistence\_88 (AY), Pitbull\_78 (FQ), RadFad\_98 (AY), Raphaella\_92 (AY), Sakai\_90 (AY), Sarge\_65 (FB), Sashimi\_96 (AY), Tiff81\_93 (AY), YoungHarleezy\_93 (AY), Zucker\_97 (FN),

### Start 25:

- Found in 2 of 31 (6.5%) 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: Isolde 96 (AY), Seahorse 100 (AY),

### Summary by clusters:

There are 5 clusters represented in this pham: AY, FQ, FB, UNK, FN,

Info for manual annotations of cluster AY:

- •Start number 17 was manually annotated 9 times for cluster AY.
- •Start number 25 was manually annotated 2 times for cluster AY.

Info for manual annotations of cluster FB:

•Start number 17 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster FN:

- •Start number 16 was manually annotated 1 time for cluster FN.
- •Start number 17 was manually annotated 1 time for cluster FN.

### Gene Information:

Gene: AbbyDaisy\_97 Start: 54077, Stop: 54232, Start Num: 17

Candidate Starts for AbbyDaisy 97:

(11, 54005), (15, 54065), (Start: 17 @54077 has 11 MA's),

Gene: Aikyam 91 Start: 49644, Stop: 49799, Start Num: 17

Candidate Starts for Aikyam 91:

(11, 49569), (Start: 17 @49644 has 11 MA's),

Gene: Anekin\_94 Start: 52076, Stop: 52237, Start Num: 17

Candidate Starts for Anekin\_94: (Start: 17 @52076 has 11 MA's),

Gene: Bauer\_92 Start: 49370, Stop: 49525, Start Num: 16

Candidate Starts for Bauer\_92:

(12, 49325), (Start: 16 @49370 has 1 MA's), (21, 49475), (23, 49511),

Gene: BenchScraper\_91 Start: 50224, Stop: 50385, Start Num: 17

Candidate Starts for BenchScraper\_91:

(Start: 17 @50224 has 11 MA's),

Gene: BillyTP\_91 Start: 52023, Stop: 52184, Start Num: 17

Candidate Starts for BillyTP\_91:

(8, 51855), (13, 51969), (Start: 17 @52023 has 11 MA's),

Gene: BlackSpider\_85 Start: 49765, Stop: 49920, Start Num: 17

Candidate Starts for BlackSpider\_85: (Start: 17 @49765 has 11 MA's),

Gene: CookieBear 92 Start: 51363, Stop: 51524, Start Num: 17

Candidate Starts for CookieBear\_92:

(8, 51195), (13, 51309), (Start: 17 @51363 has 11 MA's),

Gene: EvePickles 94 Start: 52424, Stop: 52585, Start Num: 17

Candidate Starts for EvePickles 94:

(8, 52256), (13, 52370), (Start: 17 @52424 has 11 MA's),

Gene: Faja 94 Start: 51652, Stop: 51813, Start Num: 17

Candidate Starts for Faja\_94:

(8, 51484), (13, 51598), (Start: 17 @51652 has 11 MA's),

Gene: Globfish\_92 Start: 50558, Stop: 50719, Start Num: 17

Candidate Starts for Globfish\_92: (Start: 17 @50558 has 11 MA's),

Gene: Gorpy\_91 Start: 52605, Stop: 52766, Start Num: 17

Candidate Starts for Gorpy 91:

(Start: 17 @52605 has 11 MA's), (24, 52755),

Gene: Hestia\_89 Start: 50065, Stop: 50226, Start Num: 17

Candidate Starts for Hestia\_89: (Start: 17 @50065 has 11 MA's),

Gene: Hillester\_97 Start: 51743, Stop: 51904, Start Num: 17

Candidate Starts for Hillester\_97:

(8, 51575), (13, 51689), (Start: 17 @51743 has 11 MA's),

Gene: Hum25\_76 Start: 41552, Stop: 41713, Start Num: 17

Candidate Starts for Hum25 76:

(Start: 17 @41552 has 11 MA's), (22, 41687), (24, 41702),

Gene: Isolde\_96 Start: 52355, Stop: 52510, Start Num: 25

Candidate Starts for Isolde\_96:

(18, 52229), (20, 52253), (Start: 25 @52355 has 2 MA's), (27, 52496), (28, 52499),

Gene: MidnightRain\_100 Start: 52835, Stop: 52996, Start Num: 17

Candidate Starts for MidnightRain\_100: (13, 52781), (Start: 17 @52835 has 11 MA's),

Gene: MrSmee\_77 Start: 40579, Stop: 40734, Start Num: 17

Candidate Starts for MrSmee\_77: (Start: 17 @40579 has 11 MA's),

Gene: Persistence\_88 Start: 49108, Stop: 49269, Start Num: 17

Candidate Starts for Persistence\_88: (Start: 17 @49108 has 11 MA's),

Gene: Phrank15\_99 Start: 51995, Stop: 52150, Start Num: 16

Candidate Starts for Phrank15\_99:

(Start: 16 @51995 has 1 MA's), (23, 52136),

Gene: Pitbull 78 Start: 40981, Stop: 41142, Start Num: 17

Candidate Starts for Pitbull 78:

(Start: 17 @40981 has 11 MA's), (19, 41032), (26, 41137),

Gene: RadFad\_98 Start: 51743, Stop: 51904, Start Num: 17

Candidate Starts for RadFad 98:

(8, 51575), (13, 51689), (Start: 17 @51743 has 11 MA's),

Gene: Raphaella\_92 Start: 50737, Stop: 50898, Start Num: 17

Candidate Starts for Raphaella 92:

(Start: 17 @50737 has 11 MA's), (24, 50887),

Gene: Ragga\_99 Start: 53331, Stop: 53498, Start Num: 15

Candidate Starts for Raqqa\_99:

(4, 53091), (6, 53130), (11, 53271), (15, 53331), (Start: 17 @53343 has 11 MA's),

Gene: Sakai 90 Start: 51316, Stop: 51477, Start Num: 17

Candidate Starts for Sakai\_90:

(Start: 17 @51316 has 11 MA's), (24, 51466),

Gene: Sarge\_65 Start: 35736, Stop: 35891, Start Num: 17

Candidate Starts for Sarge\_65:

(10, 35652), (14, 35691), (Start: 17 @35736 has 11 MA's), (23, 35877),

Gene: Sashimi\_96 Start: 51382, Stop: 51543, Start Num: 17

Candidate Starts for Sashimi 96:

(Start: 17 @51382 has 11 MA's), (19, 51433),

Gene: Seahorse\_100 Start: 55911, Stop: 56066, Start Num: 25

Candidate Starts for Seahorse\_100:

 $(1,\,55404),\,(2,\,55482),\,(3,\,55485),\,(5,\,55515),\,(18,\,55785),\,(20,\,55809),\,(Start:\,25\,\,@\,55911\,\,has\,\,2)$ 

MA's),

Gene: Tiff81\_93 Start: 49716, Stop: 49871, Start Num: 17

Candidate Starts for Tiff81\_93:

(7, 49536), (9, 49548), (11, 49641), (Start: 17 @ 49716 has 11 MA's),

Gene: YoungHarleezy\_93 Start: 52058, Stop: 52219, Start Num: 17

Candidate Starts for YoungHarleezy\_93: (Start: 17 @52058 has 11 MA's), (24, 52208),

Gene: Zucker\_97 Start: 52916, Stop: 53071, Start Num: 17

Candidate Starts for Zucker\_97: (Start: 17 @52916 has 11 MA's),