

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 164012 Report

This analysis was run 04/28/24 on database version 559.

Pham number 164012 has 15 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Hillester_50, RadFad_50
- Track 2 : Faja 49
- Track 3 : BenchScraper_47
- Track 4 : MidnightRain_50
- Track 5 : Globfish 48
- Track 6 : Aikyam_46
- Track 7: BENtherdunthat 93, CheeseTouch 100
- Track 8 : Sarge_44
- Track 9 : TripleJ_73
- Track 10 : Zucker_38
- Track 11 : Bauer_58
- Track 12: Pitbull 69
- Track 13 : Khuang_35

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

The start number called the most often in the published annotations is 14, it was called in 5 of the 9 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Bauer_58, Faja_49, Globfish_48, Khuang_35, MidnightRain_50, TripleJ_73, Zucker_38,

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

•

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

 Aikyam_46, BENtherdunthat_93, BenchScraper_47, CheeseTouch_100, Hillester_50, Pitbull_69, RadFad_50, Sarge_44,

Summary by start number:

Start 4:

• Found in 1 of 15 (6.7%) of genes in pham

- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aikyam_46 (AY),

Start 9:

- Found in 3 of 15 (20.0%) of genes in pham
- Manual Annotations of this start: 1 of 9
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BenchScraper_47 (AY), Hillester_50 (AY), RadFad_50 (AY),

Start 12:

- Found in 2 of 15 (13.3%) of genes in pham
- Manual Annotations of this start: 2 of 9
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BENtherdunthat_93 (DN1), CheeseTouch_100 (DN1),

Start 14:

- Found in 7 of 15 (46.7%) of genes in pham
- Manual Annotations of this start: 5 of 9
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bauer_58 (FN), Faja_49 (AY), Globfish_48 (AY), Khuang_35 (UNK), MidnightRain_50 (AY), TripleJ_73 (FJ), Zucker_38 (FN),

Start 17:

- Found in 1 of 15 (6.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pitbull 69 (FQ).

Start 26:

- Found in 1 of 15 (6.7%) of genes in pham
- Manual Annotations of this start: 1 of 9
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sarge 44 (FB),

Summary by clusters:

There are 7 clusters represented in this pham: FQ, FB, DN1, AY, FJ, UNK, FN,

Info for manual annotations of cluster AY:

- •Start number 9 was manually annotated 1 time for cluster AY.
- •Start number 14 was manually annotated 2 times for cluster AY.

Info for manual annotations of cluster DN1:

•Start number 12 was manually annotated 2 times for cluster DN1.

Info for manual annotations of cluster FB:

•Start number 26 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster FJ:

•Start number 14 was manually annotated 1 time for cluster FJ.

Info for manual annotations of cluster FN:

•Start number 14 was manually annotated 2 times for cluster FN.

Gene Information:

Gene: Aikyam 46 Start: 27868, Stop: 28284, Start Num: 4

Candidate Starts for Aikyam_46:

(4, 27868), (6, 27877), (15, 27982), (35, 28168), (38, 28234),

Gene: BENtherdunthat 93 Start: 50252, Stop: 50641, Start Num: 12

Candidate Starts for BENtherdunthat 93:

 $(1,\,50147),\,(2,\,50153),\,(5,\,50186),\,(11,\,50243),\,(Start:\,12\,\,@\,50252\,\,has\,\,2\,\,MA's),\,(21,\,50351),\,(23,\,30147),\,(23,\,3014$

50366), (28, 50408), (29, 50414), (36, 50507),

Gene: Bauer_58 Start: 32955, Stop: 33227, Start Num: 14

Candidate Starts for Bauer 58:

(Start: 14 @32955 has 5 MA's), (18, 32964), (20, 32997), (31, 33093), (34, 33135), (38, 33198), (41,

33207), (42, 33210),

Gene: BenchScraper_47 Start: 29609, Stop: 30001, Start Num: 9

Candidate Starts for BenchScraper 47:

(3, 29546), (Start: 9 @ 29609 has 1 MA's), (16, 29678), (22, 29732), (39, 29927), (43, 29945),

Gene: CheeseTouch_100 Start: 49365, Stop: 49754, Start Num: 12

Candidate Starts for CheeseTouch_100:

(1, 49260), (2, 49266), (5, 49299), (11, 49356), (Start: 12 @49365 has 2 MA's), (21, 49464), (23, 4976), (20, 49767), (20,

49479), (28, 49521), (29, 49527), (36, 49620),

Gene: Faja 49 Start: 31772, Stop: 32071, Start Num: 14

Candidate Starts for Faja_49:

 $(8,\,31706),\,(13,\,31736),\,(Start:\,14\,\,@\,31772\,\,has\,\,5\,\,MA's),\,(18,\,31781),\,(32,\,31919),\,(35,\,31955),\,(38,\,31706),\,(31,\,31736),\,(31,\,31$

32021),

Gene: Globfish 48 Start: 30153, Stop: 30452, Start Num: 14

Candidate Starts for Globfish 48:

(Start: 14 @30153 has 5 MA's), (18, 30162), (35, 30336), (38, 30402),

Gene: Hillester_50 Start: 30882, Stop: 31274, Start Num: 9

Candidate Starts for Hillester 50:

(Start: 9 @ 30882 has 1 MA's), (10, 30891), (16, 30951), (22, 31005), (39, 31200), (43, 31218),

Gene: Khuang 35 Start: 24689, Stop: 24417, Start Num: 14

Candidate Starts for Khuang 35:

(Start: 14 @24689 has 5 MA's), (18, 24680), (31, 24551), (34, 24509), (38, 24446), (41, 24437), (42, 24434),

Gene: MidnightRain_50 Start: 31295, Stop: 31621, Start Num: 14

Candidate Starts for MidnightRain_50:

(Start: 14 @31295 has 5 MA's), (18, 31304), (25, 31382), (27, 31397), (33, 31460), (47, 31604),

Gene: Pitbull_69 Start: 37588, Stop: 37938, Start Num: 17

Candidate Starts for Pitbull_69:

(17, 37588), (25, 37669), (30, 37711), (31, 37723), (33, 37756), (37, 37834), (39, 37843), (40, 37846), (46, 37888), (48, 37921),

Gene: RadFad_50 Start: 30882, Stop: 31274, Start Num: 9

Candidate Starts for RadFad_50:

(Start: 9 @ 30882 has 1 MA's), (10, 30891), (16, 30951), (22, 31005), (39, 31200), (43, 31218),

Gene: Sarge_44 Start: 27015, Stop: 27275, Start Num: 26

Candidate Starts for Sarge_44:

(7, 26832), (19, 26961), (24, 27000), (Start: 26 @27015 has 1 MA's), (34, 27111), (37, 27177),

Gene: TripleJ 73 Start: 41236, Stop: 41535, Start Num: 14

Candidate Starts for TripleJ_73:

(Start: 14 @41236 has 5 MA's), (18, 41245), (31, 41374), (35, 41419), (38, 41485), (45, 41518),

Gene: Zucker_38 Start: 28357, Stop: 28737, Start Num: 14

Candidate Starts for Zucker_38:

(Start: 14 @28357 has 5 MA's), (18, 28366), (44, 28639), (49, 28720),