

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 192846 Report

This analysis was run 11/02/24 on database version 579.

Pham number 192846 has 24 members, 3 are drafts.

Phages represented in each track:

- Track 1: MrMiyagi 4, Fowlmouth 4
- Track 2 : Keelan\_134
- Track 3: Guey18\_138, Ziko\_137
- Track 4: Fryberger\_133, Volt\_138, Ronaldo\_135
- Track 5: JordanFarm\_49, Waterlily\_50, Truong\_47, Ashton\_48, AloeVera\_48, Akoni 47
- Track 6 : Barroma 46
- Track 7 : Atuin 139
- Track 8 : SJReid 146
- Track 9 : Hum25 84
- Track 10 : PauloDiaboli\_181
- Track 11 : A3Wally\_182
- Track 12 : Zooman\_159
- Track 13 : Big4\_173
- Track 14 : Cece 168
- Track 15: Pumpernickel 175

### 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 6 of the 21 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• A3Wally\_182, Big4\_173, Cece\_168, PauloDiaboli\_181, Pumpernickel\_175, Zooman\_159,

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

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

• Akoni\_47, AloeVera\_48, Ashton\_48, Atuin\_139, Barroma\_46, Fowlmouth\_4, Fryberger\_133, Guey18\_138, Hum25\_84, JordanFarm\_49, Keelan\_134, MrMiyagi\_4, Ronaldo\_135, SJReid\_146, Truong\_47, Volt\_138, Waterlily\_50, Ziko\_137,

## **Summary by start number:**

#### Start 4:

- Found in 5 of 24 (20.8%) of genes in pham
- Manual Annotations of this start: 5 of 21
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fryberger\_133 (DP), Guey18\_138 (DP), Ronaldo\_135 (DP), Volt\_138 (DP), Ziko\_137 (DP),

#### Start 5:

- Found in 6 of 24 (25.0%) of genes in pham
- Manual Annotations of this start: 1 of 21
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Keelan 134 (DP),

#### Start 6:

- Found in 6 of 24 (25.0%) of genes in pham
- Manual Annotations of this start: 6 of 21
- Called 100.0% of time when present
- Phage (with cluster) where this start called: A3Wally\_182 (GD1), Big4\_173 (GD2), Cece\_168 (GD3), PauloDiaboli\_181 (GD1), Pumpernickel\_175 (GD4), Zooman\_159 (GD2),

#### Start 7:

- Found in 2 of 24 (8.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Atuin\_139 (FC), SJReid\_146 (FC),

#### Start 9:

- Found in 7 of 24 (29.2%) of genes in pham
- Manual Annotations of this start: 6 of 21
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Akoni\_47 (EK2), AloeVera\_48 (EK2), Ashton\_48 (EK2), Barroma\_46 (EK2), JordanFarm\_49 (EK2), Truong\_47 (EK2), Waterlily\_50 (EK2),

#### Start 10:

- Found in 1 of 24 (4.2%) of genes in pham
- Manual Annotations of this start: 1 of 21
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hum25 84 (FQ),

#### Start 13:

- Found in 2 of 24 (8.3%) of genes in pham
- Manual Annotations of this start: 2 of 21
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fowlmouth 4 (AC), MrMiyagi 4 (AC),

### **Summary by clusters:**

There are 9 clusters represented in this pham: GD1, GD2, GD3, GD4, FQ, AC, FC, EK2, DP,

Info for manual annotations of cluster AC:

•Start number 13 was manually annotated 2 times for cluster AC.

Info for manual annotations of cluster DP:

- •Start number 4 was manually annotated 5 times for cluster DP.
- •Start number 5 was manually annotated 1 time for cluster DP.

Info for manual annotations of cluster EK2:

•Start number 9 was manually annotated 6 times for cluster EK2.

Info for manual annotations of cluster FQ:

•Start number 10 was manually annotated 1 time for cluster FQ.

Info for manual annotations of cluster GD1:

•Start number 6 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD2:

•Start number 6 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:

•Start number 6 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4:

•Start number 6 was manually annotated 1 time for cluster GD4.

#### Gene Information:

Gene: A3Wally 182 Start: 100432, Stop: 100740, Start Num: 6

Candidate Starts for A3Wally 182:

(Start: 6 @ 100432 has 6 MA's), (12, 100456), (15, 100483), (36, 100600), (40, 100666), (43, 100705),

Gene: Akoni\_47 Start: 48233, Stop: 48451, Start Num: 9

Candidate Starts for Akoni\_47:

(8, 48230), (Start: 9 @48233 has 6 MA's), (15, 48272), (16, 48275),

Gene: AloeVera 48 Start: 48446, Stop: 48664, Start Num: 9

Candidate Starts for AloeVera 48:

(8, 48443), (Start: 9 @ 48446 has 6 MA's), (15, 48485), (16, 48488),

Gene: Ashton\_48 Start: 48445, Stop: 48663, Start Num: 9

Candidate Starts for Ashton\_48:

(8, 48442), (Start: 9 @ 48445 has 6 MA's), (15, 48484), (16, 48487),

Gene: Atuin\_139 Start: 97267, Stop: 97545, Start Num: 7

Candidate Starts for Atuin 139:

(7, 97267), (33, 97414),

Gene: Barroma 46 Start: 48235, Stop: 48453, Start Num: 9

Candidate Starts for Barroma\_46:

(Start: 9 @48235 has 6 MA's), (15, 48274), (16, 48277),

Gene: Big4\_173 Start: 97536, Stop: 97844, Start Num: 6

Candidate Starts for Big4\_173:

(1, 97461), (2, 97470), (Start: 6 @ 97536 has 6 MA's), (11, 97557), (15, 97587), (18, 97614), (36, 97704), (39, 97746),

Gene: Cece 168 Start: 102563, Stop: 102877, Start Num: 6

Candidate Starts for Cece\_168:

(Start: 6 @ 102563 has 6 MA's), (12, 102587), (15, 102614), (22, 102656), (29, 102698), (42, 102830),

Gene: Fowlmouth 4 Start: 3411, Stop: 3611, Start Num: 13

Candidate Starts for Fowlmouth\_4:

(Start: 13 @3411 has 2 MA's), (14, 3423), (22, 3468), (23, 3474), (32, 3519), (33, 3522), (36, 3540),

Gene: Fryberger\_133 Start: 63596, Stop: 63859, Start Num: 4

Candidate Starts for Fryberger\_133:

(Start: 4 @63596 has 5 MA's), (Start: 5 @63602 has 1 MA's), (16, 63659), (17, 63680), (19, 63686), (24, 63707), (25, 63716), (27, 63734), (33, 63755), (35, 63770), (37, 63794), (38, 63806), (39, 63815),

Gene: Guey18\_138 Start: 64810, Stop: 65070, Start Num: 4

Candidate Starts for Guey18\_138:

(Start: 4 @64810 has 5 MA's), (Start: 5 @64816 has 1 MA's), (16, 64873), (17, 64894), (19, 64900), (24, 64921), (27, 64948), (33, 64969), (35, 64984), (37, 65008), (39, 65029),

Gene: Hum25\_84 Start: 41844, Stop: 42065, Start Num: 10

Candidate Starts for Hum25\_84:

(3, 41805), (Start: 10 @41844 has 1 MA's), (26, 41940), (28, 41958), (33, 41976),

Gene: JordanFarm\_49 Start: 48446, Stop: 48664, Start Num: 9

Candidate Starts for JordanFarm\_49:

(8, 48443), (Start: 9 @ 48446 has 6 MA's), (15, 48485), (16, 48488),

Gene: Keelan 134 Start: 64318, Stop: 64569, Start Num: 5

Candidate Starts for Keelan 134:

(Start: 5 @64318 has 1 MA's), (16, 64375), (21, 64411), (25, 64432), (26, 64435), (30, 64462), (33, 64471), (34, 64477), (36, 64489), (37, 64510),

Gene: MrMiyagi\_4 Start: 3411, Stop: 3611, Start Num: 13

Candidate Starts for MrMiyagi\_4:

(Start: 13 @3411 has 2 MA's), (14, 3423), (22, 3468), (23, 3474), (32, 3519), (33, 3522), (36, 3540),

Gene: PauloDiaboli\_181 Start: 98479, Stop: 98787, Start Num: 6

Candidate Starts for PauloDiaboli 181:

(Start: 6 @ 98479 has 6 MA's), (12, 98503), (15, 98530), (36, 98647), (43, 98752),

Gene: Pumpernickel\_175 Start: 100142, Stop: 100450, Start Num: 6

Candidate Starts for Pumpernickel\_175:

(Start: 6 @100142 has 6 MA's), (11, 100163), (12, 100166), (15, 100193), (20, 100229), (21, 100232), (22, 100235), (25, 100253), (35, 100307), (39, 100352), (41, 100400),

Gene: Ronaldo 135 Start: 64501, Stop: 64764, Start Num: 4

Candidate Starts for Ronaldo\_135:

(Start: 4 @ 64501 has 5 MA's), (Start: 5 @ 64507 has 1 MA's), (16, 64564), (17, 64585), (19, 64591), (24, 64612), (25, 64621), (27, 64639), (33, 64660), (35, 64675), (37, 64699), (38, 64711), (39, 64720),

Gene: SJReid\_146 Start: 88739, Stop: 88987, Start Num: 7

Candidate Starts for SJReid\_146:

(7, 88739), (31, 88880), (32, 88883), (33, 88886),

Gene: Truong\_47 Start: 48235, Stop: 48453, Start Num: 9

Candidate Starts for Truong\_47:

(8, 48232), (Start: 9 @ 48235 has 6 MA's), (15, 48274), (16, 48277),

Gene: Volt\_138 Start: 64665, Stop: 64928, Start Num: 4

Candidate Starts for Volt\_138:

(Start: 4 @ 64665 has 5 MA's), (Start: 5 @ 64671 has 1 MA's), (16, 64728), (17, 64749), (19, 64755), (24, 64776), (25, 64785), (27, 64803), (33, 64824), (35, 64839), (37, 64863), (38, 64875), (39, 64884),

Gene: Waterlily\_50 Start: 48486, Stop: 48704, Start Num: 9

Candidate Starts for Waterlily\_50:

(8, 48483), (Start: 9 @ 48486 has 6 MA's), (15, 48525), (16, 48528),

Gene: Ziko\_137 Start: 64772, Stop: 65032, Start Num: 4

Candidate Starts for Ziko 137:

(Start: 4 @ 64772 has 5 MA's), (Start: 5 @ 64778 has 1 MA's), (16, 64835), (17, 64856), (19, 64862), (24, 64883), (27, 64910), (33, 64931), (35, 64946), (37, 64970), (39, 64991),

Gene: Zooman\_159 Start: 94719, Stop: 95027, Start Num: 6

Candidate Starts for Zooman\_159:

(Start: 6 @ 94719 has 6 MA's), (11, 94740), (15, 94770), (21, 94809), (36, 94887), (39, 94929),