

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 171887 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171887 has 13 members, 0 are drafts.

Phages represented in each track:

Track 1 : Qyrzula\_43

• Track 2 : Karp\_256

Track 3 : Comrade\_252

Track 4: Belfort\_257, SparkleGoddess\_256, Stigma\_254

• Track 5 : Gustav 54

• Track 6 : A3Wally\_31, A3Wally\_384

Track 7 : PauloDiaboli 31, PauloDiaboli 386

Track 8 : Cece\_335, Cece\_33

## 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 6 of the 13 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• A3Wally\_31, A3Wally\_384, Cece\_33, Cece\_335, PauloDiaboli\_31, PauloDiaboli\_386,

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

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

 Belfort\_257, Comrade\_252, Gustav\_54, Karp\_256, Qyrzula\_43, SparkleGoddess\_256, Stigma\_254,

### Summary by start number:

#### Start 1

- Found in 6 of 13 (46.2%) of genes in pham
- Manual Annotations of this start: 6 of 13
- Called 100.0% of time when present
- Phage (with cluster) where this start called: A3Wally\_31 (GD1), A3Wally\_384 (GD1), Cece\_33 (GD3), Cece\_335 (GD3), PauloDiaboli\_31 (GD1), PauloDiaboli\_386 (GD1).

#### Start 4:

- Found in 6 of 13 (46.2%) of genes in pham
- Manual Annotations of this start: 1 of 13
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Qyrzula\_43 (B2),

#### Start 5:

- Found in 5 of 13 (38.5%) of genes in pham
- Manual Annotations of this start: 1 of 13
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Gustav\_54 (CD),

#### Start 6:

- Found in 5 of 13 (38.5%) of genes in pham
- Manual Annotations of this start: 5 of 13
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Belfort\_257 (BK1), Comrade\_252 (BK1), Karp\_256 (BK1), SparkleGoddess\_256 (BK1), Stigma\_254 (BK1),

### **Summary by clusters:**

There are 5 clusters represented in this pham: GD1, GD3, BK1, B2, CD,

Info for manual annotations of cluster B2:

•Start number 4 was manually annotated 1 time for cluster B2.

Info for manual annotations of cluster BK1:

•Start number 6 was manually annotated 5 times for cluster BK1.

Info for manual annotations of cluster CD:

•Start number 5 was manually annotated 1 time for cluster CD.

Info for manual annotations of cluster GD1:

•Start number 1 was manually annotated 4 times for cluster GD1.

Info for manual annotations of cluster GD3:

•Start number 1 was manually annotated 2 times for cluster GD3.

#### Gene Information:

Gene: A3Wally\_31 Start: 10518, Stop: 11093, Start Num: 1

Candidate Starts for A3Wally\_31:

(Start: 1 @10518 has 6 MA's), (2, 10575), (Start: 5 @10599 has 1 MA's), (13, 10752), (14, 10758), (17, 10788), (19, 10803), (22, 10833), (23, 10839), (24, 10848), (26, 10869), (27, 10878), (31, 10908), (32, 10914), (33, 10926), (34, 10938), (42, 11037),

Gene: A3Wally 384 Start: 189739, Stop: 190314, Start Num: 1

Candidate Starts for A3Wally 384:

(Start: 1 @189739 has 6 MA's), (2, 189796), (Start: 5 @189820 has 1 MA's), (13, 189973), (14, 189979), (17, 190009), (19, 190024), (22, 190054), (23, 190060), (24, 190069), (26, 190090), (27,

190099), (31, 190129), (32, 190135), (33, 190147), (34, 190159), (42, 190258),

Gene: Belfort\_257 Start: 123112, Stop: 123585, Start Num: 6

Candidate Starts for Belfort\_257:

(Start: 4 @ 123094 has 1 MA's), (Start: 6 @ 123112 has 5 MA's), (11, 123238), (12, 123241), (16, 123274), (25, 123349), (28, 123385), (35, 123442), (38, 123460), (43, 123565),

Gene: Cece 335 Start: 181006, Stop: 181578, Start Num: 1

Candidate Starts for Cece\_335:

(Start: 1 @181006 has 6 MA's), (3, 181066), (8, 181141), (10, 181219), (11, 181225), (13, 181240), (23, 181327), (36, 181435), (40, 181510),

Gene: Cece\_33 Start: 12572, Stop: 13144, Start Num: 1

Candidate Starts for Cece 33:

(Start: 1 @12572 has 6 MA's), (3, 12632), (8, 12707), (10, 12785), (11, 12791), (13, 12806), (23, 12893), (36, 13001), (40, 13076),

Gene: Comrade\_252 Start: 123254, Stop: 123727, Start Num: 6

Candidate Starts for Comrade 252:

(Start: 4 @123236 has 1 MA's), (Start: 6 @123254 has 5 MA's), (11, 123380), (12, 123383), (16, 123416), (25, 123491), (28, 123527), (29, 123530), (35, 123584), (38, 123602), (41, 123668), (43, 123707),

Gene: Gustav\_54 Start: 38579, Stop: 38097, Start Num: 5

Candidate Starts for Gustav 54:

(Start: 5 @38579 has 1 MA's), (7, 38540), (18, 38393), (20, 38372), (30, 38291), (31, 38273), (37, 38228), (39, 38180),

Gene: Karp\_256 Start: 124709, Stop: 125182, Start Num: 6

Candidate Starts for Karp\_256:

(Start: 4 @124691 has 1 MA's), (Start: 6 @124709 has 5 MA's), (11, 124835), (12, 124838), (16, 124871), (25, 124946), (28, 124982), (35, 125039), (38, 125057), (41, 125123), (43, 125162),

Gene: PauloDiaboli 31 Start: 10358, Stop: 10933, Start Num: 1

Candidate Starts for PauloDiaboli 31:

(Start: 1 @10358 has 6 MA's), (2, 10415), (Start: 5 @10439 has 1 MA's), (13, 10592), (14, 10598), (17, 10628), (19, 10643), (23, 10679), (24, 10688), (26, 10709), (27, 10718), (31, 10748), (32, 10754), (33, 10766), (34, 10778),

Gene: PauloDiaboli\_386 Start: 186987, Stop: 187562, Start Num: 1

Candidate Starts for PauloDiaboli 386:

(Start: 1 @ 186987 has 6 MA's), (2, 187044), (Start: 5 @ 187068 has 1 MA's), (13, 187221), (14, 187227), (17, 187257), (19, 187272), (23, 187308), (24, 187317), (26, 187338), (27, 187347), (31, 187377), (32, 187383), (33, 187395), (34, 187407),

Gene: Qyrzula\_43 Start: 40579, Stop: 40082, Start Num: 4

Candidate Starts for Qyrzula\_43:

(Start: 4 @ 40579 has 1 MA's), (9, 40495), (15, 40402), (21, 40351), (27, 40300), (32, 40261),

Gene: SparkleGoddess 256 Start: 123985, Stop: 124458, Start Num: 6

Candidate Starts for SparkleGoddess 256:

(Start: 4 @123967 has 1 MA's), (Start: 6 @123985 has 5 MA's), (11, 124111), (12, 124114), (16, 124147), (25, 124222), (28, 124258), (35, 124315), (38, 124333), (43, 124438),

Gene: Stigma\_254 Start: 123698, Stop: 124171, Start Num: 6

Candidate Starts for Stigma\_254:

(Start: 4 @ 123680 has 1 MA's), (Start: 6 @ 123698 has 5 MA's), (11, 123824), (12, 123827), (16, 123860), (25, 123935), (28, 123971), (35, 124028), (38, 124046), (43, 124151),