

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 4111 Report

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

Pham number 4111 has 21 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Beuffert 8
- Track 2 : Blueeyedbeauty\_11, Annadreamy\_9, Limpid\_9, Faust\_10
- Track 3: Emma1919\_11, Gilson\_11, Jada\_9, MeganTheeKilla\_9
- Track 4: Moab 9, Patelgo 10
- Track 5: Kenrey\_11, Forrest\_11, Phredrick\_10
  Track 6: Karp\_9, Stigma\_9, Comrade\_9, Belfort\_11, SparkleGoddess\_9
- Track 7 : SeresaTree 9
- Track 8 : TunaTartare 10

# 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 8 of the 20 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

 Annadreamy\_9, Blueeyedbeauty\_11, Emma1919\_11, Faust\_10, Gilson\_11, Jada\_9, Limpid\_9, MeganTheeKilla 9.

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

SeresaTree 9,

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

 Belfort\_11, Beuffert\_8, Comrade\_9, Forrest\_11, Karp\_9, Kenrey\_11, Moab\_9, Patelgo\_10, Phredrick\_10, SparkleGoddess\_9, Stigma\_9, TunaTartare\_10,

## Summary by start number:

- Found in 9 of 21 (42.9%) of genes in pham
- Manual Annotations of this start: 8 of 20
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Annadreamy\_9 (BK1), Blueeyedbeauty\_11 (BK1), Emma1919\_11 (BK1), Faust\_10 (BK1), Gilson\_11 (BK1), Jada\_9 (BK1), Limpid\_9 (BK1), MeganTheeKilla\_9 (BK1),

#### Start 2:

- Found in 5 of 21 (23.8%) of genes in pham
- Manual Annotations of this start: 5 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Belfort\_11 (BK1), Comrade\_9 (BK1), Karp\_9 (BK1), SparkleGoddess\_9 (BK1), Stigma\_9 (BK1),

#### Start 3:

- Found in 1 of 21 (4.8%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beuffert\_8 (BK1),

### Start 4:

- Found in 1 of 21 (4.8%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TunaTartare\_10 (BK1),

#### Start 5:

- Found in 5 of 21 (23.8%) of genes in pham
- Manual Annotations of this start: 5 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Forrest\_11 (BK1), Kenrey\_11 (BK1), Moab\_9 (BK1), Patelgo\_10 (BK1), Phredrick\_10 (BK1),

## Start 7:

- Found in 13 of 21 (61.9%) of genes in pham
- No Manual Annotations of this start.
- Called 7.7% of time when present
- Phage (with cluster) where this start called: SeresaTree 9 (BK1),

# Summary by clusters:

There is one cluster represented in this pham: BK1

#### Info for manual annotations of cluster BK1:

- •Start number 1 was manually annotated 8 times for cluster BK1.
- •Start number 2 was manually annotated 5 times for cluster BK1.
- •Start number 3 was manually annotated 1 time for cluster BK1.
- •Start number 4 was manually annotated 1 time for cluster BK1.
- •Start number 5 was manually annotated 5 times for cluster BK1.

#### Gene Information:

Gene: Annadreamy 9 Start: 3283, Stop: 3068, Start Num: 1

Candidate Starts for Annadreamy 9:

(Start: 1 @3283 has 8 MA's), (7, 3226), (8, 3193), (9, 3181), (10, 3178), (11, 3151), (12, 3115), (14, 3091),

Gene: Belfort\_11 Start: 4063, Stop: 3833, Start Num: 2

Candidate Starts for Belfort\_11:

(Start: 2 @4063 has 5 MA's), (7, 4009), (8, 3976), (9, 3964), (10, 3961), (11, 3934), (12, 3898), (14, 3874), (15, 3862),

Gene: Beuffert\_8 Start: 3109, Stop: 2900, Start Num: 3

Candidate Starts for Beuffert\_8:

(Start: 3 @3109 has 1 MA's), (7, 3058), (8, 3025), (9, 3013), (10, 3010), (11, 2983), (12, 2947), (14, 2923),

Gene: Blueeyedbeauty\_11 Start: 3946, Stop: 3731, Start Num: 1

Candidate Starts for Blueeyedbeauty 11:

(Start: 1 @3946 has 8 MA's), (7, 3889), (8, 3856), (9, 3844), (10, 3841), (11, 3814), (12, 3778), (14, 3754),

Gene: Comrade\_9 Start: 3279, Stop: 3049, Start Num: 2

Candidate Starts for Comrade\_9:

(Start: 2 @3279 has 5 MA's), (7, 3225), (8, 3192), (9, 3180), (10, 3177), (11, 3150), (12, 3114), (14, 3090), (15, 3078),

Gene: Emma1919\_11 Start: 3893, Stop: 3669, Start Num: 1

Candidate Starts for Emma1919\_11:

(Start: 1 @ 3893 has 8 MA's), (10, 3788), (11, 3761), (12, 3725), (14, 3701), (15, 3689),

Gene: Faust\_10 Start: 3965, Stop: 3747, Start Num: 1

Candidate Starts for Faust\_10:

(Start: 1 @3965 has 8 MA's), (7, 3908), (8, 3875), (9, 3863), (10, 3860), (11, 3833), (12, 3797), (14, 3773),

Gene: Forrest\_11 Start: 4027, Stop: 3809, Start Num: 5

Candidate Starts for Forrest\_11:

(Start: 5 @ 4027 has 5 MA's), (6, 3997), (10, 3931), (11, 3904), (12, 3868), (14, 3844), (15, 3832),

Gene: Gilson 11 Start: 3846, Stop: 3616, Start Num: 1

Candidate Starts for Gilson 11:

(Start: 1 @3846 has 8 MA's), (10, 3741), (11, 3714), (12, 3678), (14, 3654), (15, 3642),

Gene: Jada\_9 Start: 3207, Stop: 2980, Start Num: 1

Candidate Starts for Jada\_9:

(Start: 1 @ 3207 has 8 MA's), (10, 3102), (11, 3075), (12, 3039), (14, 3015), (15, 3003),

Gene: Karp\_9 Start: 3279, Stop: 3049, Start Num: 2

Candidate Starts for Karp 9:

(Start: 2 @ 3279 has 5 MA's), (7, 3225), (8, 3192), (9, 3180), (10, 3177), (11, 3150), (12, 3114), (14, 3090), (15, 3078),

Gene: Kenrey\_11 Start: 3898, Stop: 3677, Start Num: 5

Candidate Starts for Kenrey\_11:

(Start: 5 @3898 has 5 MA's), (6, 3868), (10, 3802), (11, 3775), (12, 3739), (14, 3715), (15, 3703),

Gene: Limpid\_9 Start: 3282, Stop: 3067, Start Num: 1

Candidate Starts for Limpid 9:

(Start: 1 @3282 has 8 MA's), (7, 3225), (8, 3192), (9, 3180), (10, 3177), (11, 3150), (12, 3114), (14, 3090),

Gene: MeganTheeKilla\_9 Start: 3207, Stop: 2980, Start Num: 1

Candidate Starts for MeganTheeKilla\_9:

(Start: 1 @ 3207 has 8 MA's), (10, 3102), (11, 3075), (12, 3039), (14, 3015), (15, 3003),

Gene: Moab 9 Start: 3404, Stop: 3186, Start Num: 5

Candidate Starts for Moab\_9:

(Start: 5 @ 3404 has 5 MA's), (7, 3356), (9, 3311), (10, 3308), (11, 3281), (12, 3245), (14, 3221),

Gene: Patelgo\_10 Start: 3404, Stop: 3186, Start Num: 5

Candidate Starts for Patelgo\_10:

(Start: 5 @ 3404 has 5 MA's), (7, 3356), (9, 3311), (10, 3308), (11, 3281), (12, 3245), (14, 3221),

Gene: Phredrick\_10 Start: 3506, Stop: 3288, Start Num: 5

Candidate Starts for Phredrick 10:

(Start: 5 @ 3506 has 5 MA's), (6, 3476), (10, 3410), (11, 3383), (12, 3347), (14, 3323), (15, 3311),

Gene: SeresaTree\_9 Start: 3298, Stop: 3137, Start Num: 7

Candidate Starts for SeresaTree 9:

(Start: 1 @3355 has 8 MA's), (7, 3298), (8, 3265), (9, 3253), (10, 3250), (11, 3223), (12, 3187), (14, 3163),

Gene: SparkleGoddess\_9 Start: 3275, Stop: 3045, Start Num: 2

Candidate Starts for SparkleGoddess\_9:

(Start: 2 @ 3275 has 5 MA's), (7, 3221), (8, 3188), (9, 3176), (10, 3173), (11, 3146), (12, 3110), (14, 3086), (15, 3074),

Gene: Stigma\_9 Start: 3279, Stop: 3049, Start Num: 2

Candidate Starts for Stigma\_9:

(Start: 2 @3279 has 5 MA's), (7, 3225), (8, 3192), (9, 3180), (10, 3177), (11, 3150), (12, 3114), (14, 3090), (15, 3078),

Gene: TunaTartare\_10 Start: 3529, Stop: 3296, Start Num: 4

Candidate Starts for TunaTartare\_10:

(Start: 4 @ 3529 has 1 MA's), (10, 3430), (11, 3403), (12, 3367), (13, 3364), (14, 3343), (15, 3331),