



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 311799 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311799 has 39 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Popy\_9, DrGrey\_9, TonyStarch\_10, FrodoSwaggins\_9, TieDye\_9, Namu\_10, OlympicHelado\_10, Espio\_9, Rima\_10
- Track 2 : Meibysrarus\_10, CherryBlossom\_10, HazuAndZazu\_9, Spectropatronm\_10, Indigenous\_10, FidgetOrca\_10, Maya\_10, Jaylociraptor\_10, IceWarrior\_10, Hoshi\_10, Soshi\_9, Esketit\_10
- Track 3 : Madamoto\_10
- Track 4 : LibertyBell\_8
- Track 5 : FromIndy\_8, Miek\_8, Regigigas\_8, SendItCS\_8
- Track 6 : Thiqqums\_8, Rainydai\_8, CricKo\_8
- Track 7 : Bing\_8, Wigberry\_8
- Track 8 : Bing\_9
- Track 9 : Wigberry\_9
- Track 10 : Bing\_10
- Track 11 : Kardashian\_8
- Track 12 : ClubPenguin\_8
- Track 13 : Count\_16
- Track 14 : Pippin15\_14

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

The start number called the most often in the published annotations is 9, it was called in 25 of the 37 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bing\_8, CherryBlossom\_10, DrGrey\_9, Esketit\_10, Espio\_9, FidgetOrca\_10, FrodoSwaggins\_9, HazuAndZazu\_9, Hoshi\_10, IceWarrior\_10, Indigenous\_10, Jaylociraptor\_10, Madamoto\_10, Maya\_10, Meibysrarus\_10, Namu\_10, OlympicHelado\_10, Pippin15\_14, Popy\_9, Rima\_10, Soshi\_9, Spectropatronm\_10, TieDye\_9, TonyStarch\_10, Wigberry\_8,

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

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

- Bing\_10, Bing\_9, ClubPenguin\_8, Count\_16, CricKo\_8, FromIndy\_8, Kardashian\_8, LibertyBell\_8, Miek\_8, Rainydai\_8, Regigigas\_8, SendItCS\_8, Thiqqums\_8, Wigberry\_9,

### Summary by start number:

#### Start 1:

- Found in 1 of 39 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 1 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ClubPenguin\_8 (BI7),

#### Start 4:

- Found in 1 of 39 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 1 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bing\_10 (BI5),

#### Start 5:

- Found in 2 of 39 ( 5.1% ) of genes in pham
- Manual Annotations of this start: 2 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kardashian\_8 (BI6), LibertyBell\_8 (BI3),

#### Start 6:

- Found in 7 of 39 ( 17.9% ) of genes in pham
- Manual Annotations of this start: 5 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CricKo\_8 (BI4), FromIndy\_8 (BI4), Miek\_8 (BI4), Rainydai\_8 (BI4), Regigigas\_8 (BI4), SendItCS\_8 (BI4), Thiqqums\_8 (BI4),

#### Start 7:

- Found in 1 of 39 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 1 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Count\_16 (EL),

#### Start 9:

- Found in 25 of 39 ( 64.1% ) of genes in pham
- Manual Annotations of this start: 25 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bing\_8 (BI5), CherryBlossom\_10 (BI1), DrGrey\_9 (BI1), Esketit\_10 (BI1), Espio\_9 (BI1), FidgetOrca\_10 (BI1), FrodoSwaggins\_9 (BI1), HazuAndZazu\_9 (BI1), Hoshi\_10 (BI1), IceWarrior\_10 (BI1), Indigenous\_10 (BI1), Jaylociraptor\_10 (BI1), Madamoto\_10 (BI1), Maya\_10 (BI1), Meibysrarus\_10 (BI1), Namu\_10 (BI1), OlympicHelado\_10 (BI1), Pippin15\_14 (JA), Popy\_9 (BI1), Rima\_10 (BI1), Soshi\_9 (BI1), Spectropatronm\_10 (BI1), TieDye\_9 (BI1), TonyStarch\_10 (BI1), Wigberry\_8 (BI5),

#### Start 10:

- Found in 2 of 39 ( 5.1% ) of genes in pham
- Manual Annotations of this start: 2 of 37

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bing\_9 (BI5), Wigberry\_9 (BI5),

### **Summary by clusters:**

There are 8 clusters represented in this pham: EL, BI3, BI6, BI7, BI4, BI5, JA, BI1,

Info for manual annotations of cluster BI1:

- Start number 9 was manually annotated 22 times for cluster BI1.

Info for manual annotations of cluster BI3:

- Start number 5 was manually annotated 1 time for cluster BI3.

Info for manual annotations of cluster BI4:

- Start number 6 was manually annotated 5 times for cluster BI4.

Info for manual annotations of cluster BI5:

- Start number 4 was manually annotated 1 time for cluster BI5.
- Start number 9 was manually annotated 2 times for cluster BI5.
- Start number 10 was manually annotated 2 times for cluster BI5.

Info for manual annotations of cluster BI6:

- Start number 5 was manually annotated 1 time for cluster BI6.

Info for manual annotations of cluster BI7:

- Start number 1 was manually annotated 1 time for cluster BI7.

Info for manual annotations of cluster EL:

- Start number 7 was manually annotated 1 time for cluster EL.

Info for manual annotations of cluster JA:

- Start number 9 was manually annotated 1 time for cluster JA.

### **Gene Information:**

Gene: Bing\_8 Start: 4569, Stop: 4931, Start Num: 9

Candidate Starts for Bing\_8:

(Start: 9 @4569 has 25 MA's), (12, 4605), (14, 4656), (20, 4707), (23, 4728),

Gene: Bing\_9 Start: 4934, Stop: 5356, Start Num: 10

Candidate Starts for Bing\_9:

(Start: 10 @4934 has 2 MA's), (12, 4967), (24, 5087), (26, 5144), (30, 5189), (33, 5219), (37, 5273),

Gene: Bing\_10 Start: 5375, Stop: 5869, Start Num: 4

Candidate Starts for Bing\_10:

(Start: 4 @5375 has 1 MA's), (12, 5441), (17, 5498), (31, 5678), (38, 5780), (40, 5843),

Gene: CherryBlossom\_10 Start: 5973, Stop: 6326, Start Num: 9

Candidate Starts for CherryBlossom\_10:

(Start: 9 @5973 has 25 MA's), (12, 6009), (19, 6099), (24, 6147),

Gene: ClubPenguin\_8 Start: 5706, Stop: 6251, Start Num: 1  
Candidate Starts for ClubPenguin\_8:  
(Start: 1 @5706 has 1 MA's), (2, 5757), (3, 5760), (12, 5862), (24, 5982), (29, 6081), (37, 6168),

Gene: Count\_16 Start: 8567, Stop: 9079, Start Num: 7  
Candidate Starts for Count\_16:  
(Start: 7 @8567 has 1 MA's), (8, 8573), (12, 8621), (13, 8654), (25, 8795), (35, 8951),

Gene: CricKo\_8 Start: 5150, Stop: 5542, Start Num: 6  
Candidate Starts for CricKo\_8:  
(Start: 6 @5150 has 5 MA's), (12, 5204), (15, 5264), (18, 5291), (22, 5315), (28, 5399), (34, 5489),

Gene: DrGrey\_9 Start: 5660, Stop: 6013, Start Num: 9  
Candidate Starts for DrGrey\_9:  
(Start: 9 @5660 has 25 MA's), (12, 5696), (16, 5762), (19, 5786), (21, 5807),

Gene: Esketit\_10 Start: 5956, Stop: 6309, Start Num: 9  
Candidate Starts for Esketit\_10:  
(Start: 9 @5956 has 25 MA's), (12, 5992), (19, 6082), (24, 6130),

Gene: Espio\_9 Start: 5661, Stop: 6014, Start Num: 9  
Candidate Starts for Espio\_9:  
(Start: 9 @5661 has 25 MA's), (12, 5697), (16, 5763), (19, 5787), (21, 5808),

Gene: FidgetOrca\_10 Start: 5956, Stop: 6309, Start Num: 9  
Candidate Starts for FidgetOrca\_10:  
(Start: 9 @5956 has 25 MA's), (12, 5992), (19, 6082), (24, 6130),

Gene: FrodoSwaggins\_9 Start: 5660, Stop: 6013, Start Num: 9  
Candidate Starts for FrodoSwaggins\_9:  
(Start: 9 @5660 has 25 MA's), (12, 5696), (16, 5762), (19, 5786), (21, 5807),

Gene: FromIndy\_8 Start: 5150, Stop: 5542, Start Num: 6  
Candidate Starts for FromIndy\_8:  
(Start: 6 @5150 has 5 MA's), (12, 5204),

Gene: HazuAndZazu\_9 Start: 5660, Stop: 6013, Start Num: 9  
Candidate Starts for HazuAndZazu\_9:  
(Start: 9 @5660 has 25 MA's), (12, 5696), (19, 5786), (24, 5834),

Gene: Hoshi\_10 Start: 5956, Stop: 6309, Start Num: 9  
Candidate Starts for Hoshi\_10:  
(Start: 9 @5956 has 25 MA's), (12, 5992), (19, 6082), (24, 6130),

Gene: IceWarrior\_10 Start: 5956, Stop: 6309, Start Num: 9  
Candidate Starts for IceWarrior\_10:  
(Start: 9 @5956 has 25 MA's), (12, 5992), (19, 6082), (24, 6130),

Gene: Indigenous\_10 Start: 5956, Stop: 6309, Start Num: 9  
Candidate Starts for Indigenous\_10:  
(Start: 9 @5956 has 25 MA's), (12, 5992), (19, 6082), (24, 6130),

Gene: Jaylociraptor\_10 Start: 5956, Stop: 6309, Start Num: 9

Candidate Starts for Jaylociraptor\_10:

(Start: 9 @5956 has 25 MA's), (12, 5992), (19, 6082), (24, 6130),

Gene: Kardashian\_8 Start: 5144, Stop: 5656, Start Num: 5

Candidate Starts for Kardashian\_8:

(Start: 5 @5144 has 2 MA's), (12, 5198), (13, 5234), (24, 5357), (37, 5573), (39, 5651),

Gene: LibertyBell\_8 Start: 4509, Stop: 4946, Start Num: 5

Candidate Starts for LibertyBell\_8:

(Start: 5 @4509 has 2 MA's), (12, 4563), (24, 4677), (27, 4734), (32, 4797), (39, 4941),

Gene: Madamoto\_10 Start: 5949, Stop: 6302, Start Num: 9

Candidate Starts for Madamoto\_10:

(Start: 9 @5949 has 25 MA's), (12, 5985), (16, 6051), (19, 6075), (21, 6096),

Gene: Maya\_10 Start: 5964, Stop: 6317, Start Num: 9

Candidate Starts for Maya\_10:

(Start: 9 @5964 has 25 MA's), (12, 6000), (19, 6090), (24, 6138),

Gene: Meibysrarus\_10 Start: 5956, Stop: 6309, Start Num: 9

Candidate Starts for Meibysrarus\_10:

(Start: 9 @5956 has 25 MA's), (12, 5992), (19, 6082), (24, 6130),

Gene: Miek\_8 Start: 5150, Stop: 5542, Start Num: 6

Candidate Starts for Miek\_8:

(Start: 6 @5150 has 5 MA's), (12, 5204),

Gene: Namo\_10 Start: 5956, Stop: 6309, Start Num: 9

Candidate Starts for Namo\_10:

(Start: 9 @5956 has 25 MA's), (12, 5992), (16, 6058), (19, 6082), (21, 6103),

Gene: OlympicHelado\_10 Start: 5956, Stop: 6309, Start Num: 9

Candidate Starts for OlympicHelado\_10:

(Start: 9 @5956 has 25 MA's), (12, 5992), (16, 6058), (19, 6082), (21, 6103),

Gene: Pippin15\_14 Start: 9692, Stop: 10120, Start Num: 9

Candidate Starts for Pippin15\_14:

(Start: 9 @9692 has 25 MA's), (11, 9725), (12, 9734), (36, 10055),

Gene: Popy\_9 Start: 5660, Stop: 6013, Start Num: 9

Candidate Starts for Popy\_9:

(Start: 9 @5660 has 25 MA's), (12, 5696), (16, 5762), (19, 5786), (21, 5807),

Gene: Rainydai\_8 Start: 5150, Stop: 5542, Start Num: 6

Candidate Starts for Rainydai\_8:

(Start: 6 @5150 has 5 MA's), (12, 5204), (15, 5264), (18, 5291), (22, 5315), (28, 5399), (34, 5489),

Gene: Regigigas\_8 Start: 5150, Stop: 5542, Start Num: 6

Candidate Starts for Regigigas\_8:

(Start: 6 @5150 has 5 MA's), (12, 5204),

Gene: Rima\_10 Start: 5956, Stop: 6309, Start Num: 9

Candidate Starts for Rima\_10:

(Start: 9 @5956 has 25 MA's), (12, 5992), (16, 6058), (19, 6082), (21, 6103),

Gene: SendItCS\_8 Start: 5150, Stop: 5542, Start Num: 6

Candidate Starts for SendItCS\_8:

(Start: 6 @5150 has 5 MA's), (12, 5204),

Gene: Soshi\_9 Start: 5660, Stop: 6013, Start Num: 9

Candidate Starts for Soshi\_9:

(Start: 9 @5660 has 25 MA's), (12, 5696), (19, 5786), (24, 5834),

Gene: Spectropatronm\_10 Start: 5956, Stop: 6309, Start Num: 9

Candidate Starts for Spectropatronm\_10:

(Start: 9 @5956 has 25 MA's), (12, 5992), (19, 6082), (24, 6130),

Gene: Thiqqums\_8 Start: 5150, Stop: 5542, Start Num: 6

Candidate Starts for Thiqqums\_8:

(Start: 6 @5150 has 5 MA's), (12, 5204), (15, 5264), (18, 5291), (22, 5315), (28, 5399), (34, 5489),

Gene: TieDye\_9 Start: 5666, Stop: 6019, Start Num: 9

Candidate Starts for TieDye\_9:

(Start: 9 @5666 has 25 MA's), (12, 5702), (16, 5768), (19, 5792), (21, 5813),

Gene: TonyStarch\_10 Start: 5956, Stop: 6309, Start Num: 9

Candidate Starts for TonyStarch\_10:

(Start: 9 @5956 has 25 MA's), (12, 5992), (16, 6058), (19, 6082), (21, 6103),

Gene: Wigberry\_9 Start: 4930, Stop: 5355, Start Num: 10

Candidate Starts for Wigberry\_9:

(Start: 10 @4930 has 2 MA's), (12, 4963), (24, 5083), (27, 5143), (37, 5272),

Gene: Wigberry\_8 Start: 4565, Stop: 4927, Start Num: 9

Candidate Starts for Wigberry\_8:

(Start: 9 @4565 has 25 MA's), (12, 4601), (14, 4652), (20, 4703), (23, 4724),