



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 311845 Report

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

Pham number 311845 has 33 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Ryadel\_20, Wogge42\_19, YoyoKar\_18, Vagabond\_18
- Track 2 : NiebruSaylor\_18, Firecracker\_18, Murai\_18, Dylan\_18, Schuy\_19, Smooch\_19, Zakhe101\_19
- Track 3 : Bora\_18, Shida\_18, Catdawg\_17, FoulBall\_17, KingPhillip3\_17, Krili\_18, Blessica\_18, Vorrrps\_18, Familton\_18, Corndog\_20, Mori\_18, JangDynasty\_17, TelAviv\_17, Alkhayr\_18, MadKillah\_19, Winget\_18, Zebo\_17, SchoolBus\_17, Idergollasper\_17
- Track 4 : Wildflower\_18
- Track 5 : YungJamal\_19
- Track 6 : Ashwin\_19

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

The start number called the most often in the published annotations is 2, it was called in 27 of the 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alkhayr\_18, Blessica\_18, Bora\_18, Catdawg\_17, Corndog\_20, Dylan\_18, Familton\_18, Firecracker\_18, FoulBall\_17, Idergollasper\_17, JangDynasty\_17, KingPhillip3\_17, Krili\_18, MadKillah\_19, Mori\_18, Murai\_18, NiebruSaylor\_18, SchoolBus\_17, Schuy\_19, Shida\_18, Smooch\_19, TelAviv\_17, Vorrrps\_18, Wildflower\_18, Winget\_18, Zakhe101\_19, Zebo\_17,

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

- Ashwin\_19, Ryadel\_20, Vagabond\_18, Wogge42\_19, YoyoKar\_18, YungJamal\_19,

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

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### **Summary by start number:**

Start 1:

- Found in 33 of 33 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 3 of 31

- Called 15.2% of time when present
- Phage (with cluster) where this start called: Ashwin\_19 (O), Ryadel\_20 (O), Vagabond\_18 (O), Wogge42\_19 (O), YoyoKar\_18 (O),

#### Start 2:

- Found in 33 of 33 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 27 of 31
- Called 81.8% of time when present
- Phage (with cluster) where this start called: Alkhayr\_18 (O), Blessica\_18 (O), Bora\_18 (O), Catdawg\_17 (O), Corndog\_20 (O), Dylan\_18 (O), Familton\_18 (O), Firecracker\_18 (O), FoulBall\_17 (O), Idergollasper\_17 (O), JangDynasty\_17 (O), KingPhillip3\_17 (O), Krili\_18 (O), MadKillah\_19 (O), Mori\_18 (O), Murai\_18 (O), NiebruSaylor\_18 (O), SchoolBus\_17 (O), Schuy\_19 (O), Shida\_18 (O), Smooch\_19 (O), TelAviv\_17 (O), Vorrrps\_18 (O), Wildflower\_18 (O), Winget\_18 (O), Zakhe101\_19 (O), Zebo\_17 (O),

#### Start 4:

- Found in 33 of 33 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 3.0% of time when present
- Phage (with cluster) where this start called: YungJamal\_19 (O),

### Summary by clusters:

There is one cluster represented in this pham: O

Info for manual annotations of cluster O:

- Start number 1 was manually annotated 3 times for cluster O.
- Start number 2 was manually annotated 27 times for cluster O.
- Start number 4 was manually annotated 1 time for cluster O.

### Gene Information:

Gene: Alkhayr\_18 Start: 7441, Stop: 7668, Start Num: 2

Candidate Starts for Alkhayr\_18:

(Start: 1 @7432 has 3 MA's), (Start: 2 @7441 has 27 MA's), (Start: 4 @7468 has 1 MA's), (5, 7504), (6, 7528), (7, 7558), (8, 7564), (9, 7660),

Gene: Ashwin\_19 Start: 7652, Stop: 7888, Start Num: 1

Candidate Starts for Ashwin\_19:

(Start: 1 @7652 has 3 MA's), (Start: 2 @7661 has 27 MA's), (Start: 4 @7688 has 1 MA's), (5, 7724), (7, 7778), (8, 7784), (9, 7880),

Gene: Blessica\_18 Start: 7464, Stop: 7691, Start Num: 2

Candidate Starts for Blessica\_18:

(Start: 1 @7455 has 3 MA's), (Start: 2 @7464 has 27 MA's), (Start: 4 @7491 has 1 MA's), (5, 7527), (6, 7551), (7, 7581), (8, 7587), (9, 7683),

Gene: Bora\_18 Start: 7471, Stop: 7698, Start Num: 2

Candidate Starts for Bora\_18:

(Start: 1 @7462 has 3 MA's), (Start: 2 @7471 has 27 MA's), (Start: 4 @7498 has 1 MA's), (5, 7534), (6, 7558), (7, 7588), (8, 7594), (9, 7690),

Gene: Catdawg\_17 Start: 7070, Stop: 7297, Start Num: 2

Candidate Starts for Catdawg\_17:

(Start: 1 @7061 has 3 MA's), (Start: 2 @7070 has 27 MA's), (Start: 4 @7097 has 1 MA's), (5, 7133), (6, 7157), (7, 7187), (8, 7193), (9, 7289),

Gene: Corndog\_20 Start: 7773, Stop: 8000, Start Num: 2

Candidate Starts for Corndog\_20:

(Start: 1 @7764 has 3 MA's), (Start: 2 @7773 has 27 MA's), (Start: 4 @7800 has 1 MA's), (5, 7836), (6, 7860), (7, 7890), (8, 7896), (9, 7992),

Gene: Dylan\_18 Start: 7661, Stop: 7888, Start Num: 2

Candidate Starts for Dylan\_18:

(Start: 1 @7652 has 3 MA's), (Start: 2 @7661 has 27 MA's), (Start: 4 @7688 has 1 MA's), (5, 7724), (7, 7778), (8, 7784), (9, 7880),

Gene: Familton\_18 Start: 7071, Stop: 7298, Start Num: 2

Candidate Starts for Familton\_18:

(Start: 1 @7062 has 3 MA's), (Start: 2 @7071 has 27 MA's), (Start: 4 @7098 has 1 MA's), (5, 7134), (6, 7158), (7, 7188), (8, 7194), (9, 7290),

Gene: Firecracker\_18 Start: 7394, Stop: 7621, Start Num: 2

Candidate Starts for Firecracker\_18:

(Start: 1 @7385 has 3 MA's), (Start: 2 @7394 has 27 MA's), (Start: 4 @7421 has 1 MA's), (5, 7457), (7, 7511), (8, 7517), (9, 7613),

Gene: FoulBall\_17 Start: 7071, Stop: 7298, Start Num: 2

Candidate Starts for FoulBall\_17:

(Start: 1 @7062 has 3 MA's), (Start: 2 @7071 has 27 MA's), (Start: 4 @7098 has 1 MA's), (5, 7134), (6, 7158), (7, 7188), (8, 7194), (9, 7290),

Gene: Idergollasper\_17 Start: 7071, Stop: 7298, Start Num: 2

Candidate Starts for Idergollasper\_17:

(Start: 1 @7062 has 3 MA's), (Start: 2 @7071 has 27 MA's), (Start: 4 @7098 has 1 MA's), (5, 7134), (6, 7158), (7, 7188), (8, 7194), (9, 7290),

Gene: JangDynasty\_17 Start: 7160, Stop: 7387, Start Num: 2

Candidate Starts for JangDynasty\_17:

(Start: 1 @7151 has 3 MA's), (Start: 2 @7160 has 27 MA's), (Start: 4 @7187 has 1 MA's), (5, 7223), (6, 7247), (7, 7277), (8, 7283), (9, 7379),

Gene: KingPhillip3\_17 Start: 7071, Stop: 7298, Start Num: 2

Candidate Starts for KingPhillip3\_17:

(Start: 1 @7062 has 3 MA's), (Start: 2 @7071 has 27 MA's), (Start: 4 @7098 has 1 MA's), (5, 7134), (6, 7158), (7, 7188), (8, 7194), (9, 7290),

Gene: Krili\_18 Start: 7430, Stop: 7657, Start Num: 2

Candidate Starts for Krili\_18:

(Start: 1 @7421 has 3 MA's), (Start: 2 @7430 has 27 MA's), (Start: 4 @7457 has 1 MA's), (5, 7493), (6, 7517), (7, 7547), (8, 7553), (9, 7649),

Gene: MadKillah\_19 Start: 7463, Stop: 7690, Start Num: 2

Candidate Starts for MadKillah\_19:

(Start: 1 @7454 has 3 MA's), (Start: 2 @7463 has 27 MA's), (Start: 4 @7490 has 1 MA's), (5, 7526), (6, 7550), (7, 7580), (8, 7586), (9, 7682),

Gene: Mori\_18 Start: 7302, Stop: 7529, Start Num: 2

Candidate Starts for Mori\_18:

(Start: 1 @7293 has 3 MA's), (Start: 2 @7302 has 27 MA's), (Start: 4 @7329 has 1 MA's), (5, 7365), (6, 7389), (7, 7419), (8, 7425), (9, 7521),

Gene: Murai\_18 Start: 7302, Stop: 7529, Start Num: 2

Candidate Starts for Murai\_18:

(Start: 1 @7293 has 3 MA's), (Start: 2 @7302 has 27 MA's), (Start: 4 @7329 has 1 MA's), (5, 7365), (7, 7419), (8, 7425), (9, 7521),

Gene: NiebruSaylor\_18 Start: 7302, Stop: 7529, Start Num: 2

Candidate Starts for NiebruSaylor\_18:

(Start: 1 @7293 has 3 MA's), (Start: 2 @7302 has 27 MA's), (Start: 4 @7329 has 1 MA's), (5, 7365), (7, 7419), (8, 7425), (9, 7521),

Gene: Ryadel\_20 Start: 7875, Stop: 8111, Start Num: 1

Candidate Starts for Ryadel\_20:

(Start: 1 @7875 has 3 MA's), (Start: 2 @7884 has 27 MA's), (Start: 4 @7911 has 1 MA's), (5, 7947), (6, 7971), (7, 8001), (8, 8007), (9, 8103),

Gene: SchoolBus\_17 Start: 7071, Stop: 7298, Start Num: 2

Candidate Starts for SchoolBus\_17:

(Start: 1 @7062 has 3 MA's), (Start: 2 @7071 has 27 MA's), (Start: 4 @7098 has 1 MA's), (5, 7134), (6, 7158), (7, 7188), (8, 7194), (9, 7290),

Gene: Schuy\_19 Start: 7463, Stop: 7690, Start Num: 2

Candidate Starts for Schuy\_19:

(Start: 1 @7454 has 3 MA's), (Start: 2 @7463 has 27 MA's), (Start: 4 @7490 has 1 MA's), (5, 7526), (7, 7580), (8, 7586), (9, 7682),

Gene: Shida\_18 Start: 7368, Stop: 7595, Start Num: 2

Candidate Starts for Shida\_18:

(Start: 1 @7359 has 3 MA's), (Start: 2 @7368 has 27 MA's), (Start: 4 @7395 has 1 MA's), (5, 7431), (6, 7455), (7, 7485), (8, 7491), (9, 7587),

Gene: Smooch\_19 Start: 7617, Stop: 7844, Start Num: 2

Candidate Starts for Smooch\_19:

(Start: 1 @7608 has 3 MA's), (Start: 2 @7617 has 27 MA's), (Start: 4 @7644 has 1 MA's), (5, 7680), (7, 7734), (8, 7740), (9, 7836),

Gene: TelAviv\_17 Start: 7068, Stop: 7295, Start Num: 2

Candidate Starts for TelAviv\_17:

(Start: 1 @7059 has 3 MA's), (Start: 2 @7068 has 27 MA's), (Start: 4 @7095 has 1 MA's), (5, 7131), (6, 7155), (7, 7185), (8, 7191), (9, 7287),

Gene: Vagabond\_18 Start: 7336, Stop: 7572, Start Num: 1

Candidate Starts for Vagabond\_18:

(Start: 1 @7336 has 3 MA's), (Start: 2 @7345 has 27 MA's), (Start: 4 @7372 has 1 MA's), (5, 7408), (6, 7432), (7, 7462), (8, 7468), (9, 7564),

Gene: Vorrps\_18 Start: 7302, Stop: 7529, Start Num: 2

Candidate Starts for Vorrps\_18:

(Start: 1 @7293 has 3 MA's), (Start: 2 @7302 has 27 MA's), (Start: 4 @7329 has 1 MA's), (5, 7365), (6, 7389), (7, 7419), (8, 7425), (9, 7521),

Gene: Wildflower\_18 Start: 7325, Stop: 7552, Start Num: 2

Candidate Starts for Wildflower\_18:

(Start: 1 @7316 has 3 MA's), (Start: 2 @7325 has 27 MA's), (3, 7349), (Start: 4 @7352 has 1 MA's), (5, 7388), (6, 7412), (7, 7442), (8, 7448), (9, 7544),

Gene: Winget\_18 Start: 7344, Stop: 7571, Start Num: 2

Candidate Starts for Winget\_18:

(Start: 1 @7335 has 3 MA's), (Start: 2 @7344 has 27 MA's), (Start: 4 @7371 has 1 MA's), (5, 7407), (6, 7431), (7, 7461), (8, 7467), (9, 7563),

Gene: Wogge42\_19 Start: 7424, Stop: 7660, Start Num: 1

Candidate Starts for Wogge42\_19:

(Start: 1 @7424 has 3 MA's), (Start: 2 @7433 has 27 MA's), (Start: 4 @7460 has 1 MA's), (5, 7496), (6, 7520), (7, 7550), (8, 7556), (9, 7652),

Gene: YoyoKar\_18 Start: 7063, Stop: 7299, Start Num: 1

Candidate Starts for YoyoKar\_18:

(Start: 1 @7063 has 3 MA's), (Start: 2 @7072 has 27 MA's), (Start: 4 @7099 has 1 MA's), (5, 7135), (6, 7159), (7, 7189), (8, 7195), (9, 7291),

Gene: YungJamal\_19 Start: 7680, Stop: 7880, Start Num: 4

Candidate Starts for YungJamal\_19:

(Start: 1 @7644 has 3 MA's), (Start: 2 @7653 has 27 MA's), (Start: 4 @7680 has 1 MA's), (5, 7716), (6, 7740), (7, 7770), (8, 7776), (9, 7872),

Gene: Zakhe101\_19 Start: 7665, Stop: 7892, Start Num: 2

Candidate Starts for Zakhe101\_19:

(Start: 1 @7656 has 3 MA's), (Start: 2 @7665 has 27 MA's), (Start: 4 @7692 has 1 MA's), (5, 7728), (7, 7782), (8, 7788), (9, 7884),

Gene: Zebo\_17 Start: 7071, Stop: 7298, Start Num: 2

Candidate Starts for Zebo\_17:

(Start: 1 @7062 has 3 MA's), (Start: 2 @7071 has 27 MA's), (Start: 4 @7098 has 1 MA's), (5, 7134), (6, 7158), (7, 7188), (8, 7194), (9, 7290),