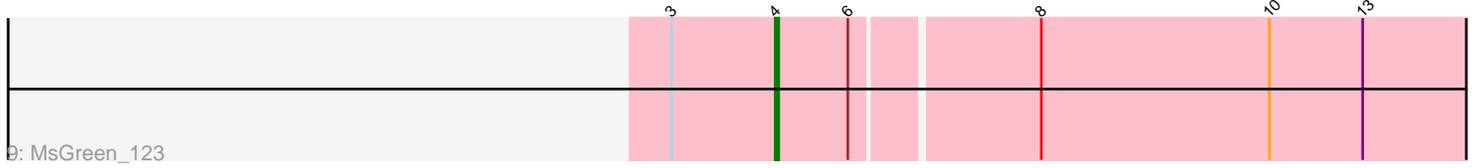
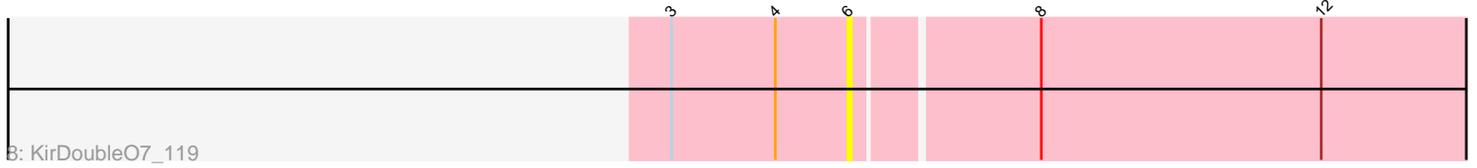
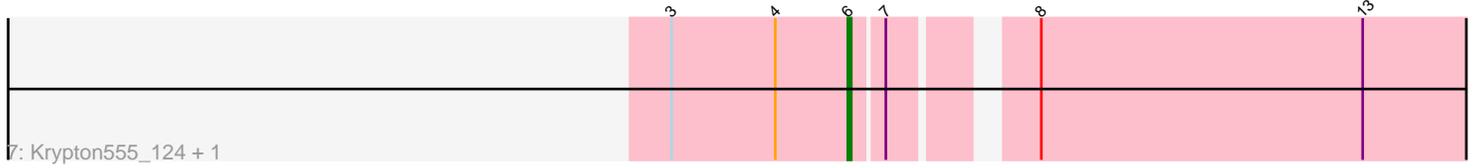
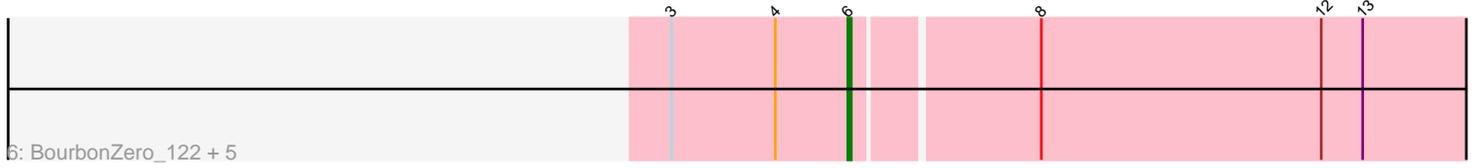
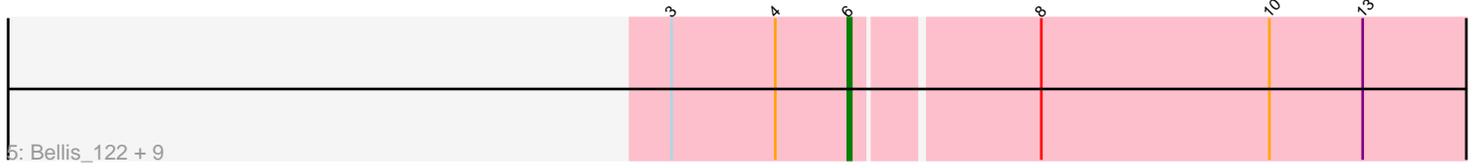
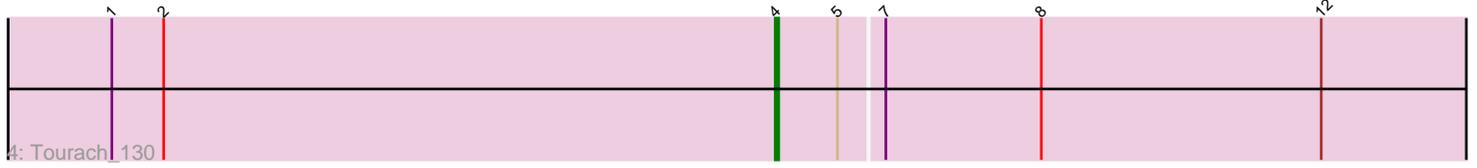
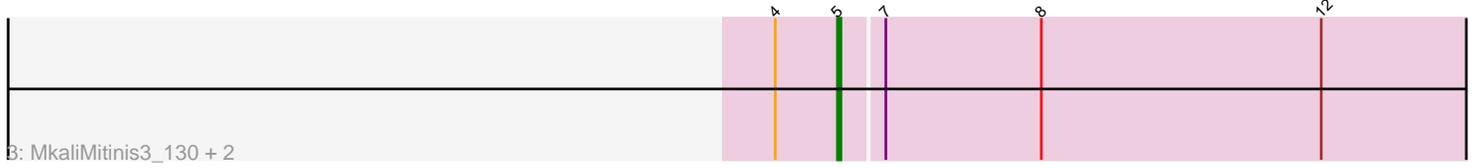
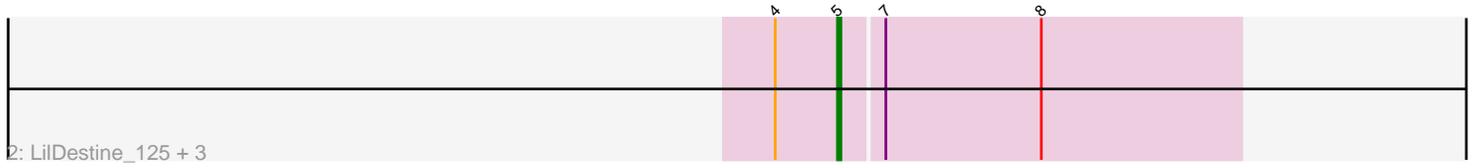
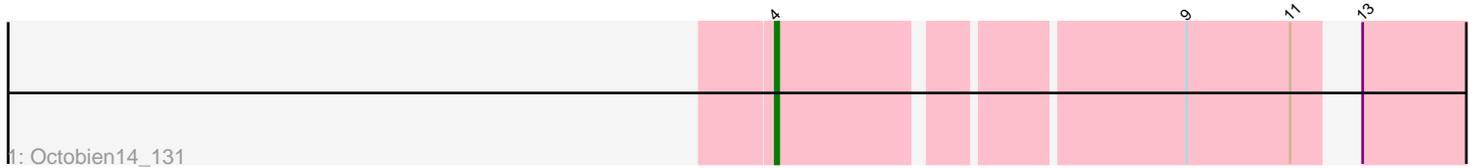


# Pham 284073



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 284073 Report

This analysis was run 02/23/26 on database version 636.

Pham number 284073 has 29 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Octobien14\_131
- Track 2 : LilDestine\_125, Kahlid\_128, Wilder\_129, Lynnae\_129
- Track 3 : MkaliMitinis3\_130, GuuelaD\_126, Finemlucis\_128
- Track 4 : Tourach\_130
- Track 5 : Bellis\_122, Kingsolomon\_118, Clautastrophe\_121, Finnry\_120, TriFive\_123, Jobypre\_122, Nicholas\_118, Samty\_120, Jubie\_122, Lumos\_122
- Track 6 : BourbonZero\_122, MiniMac\_126, DuncansLeg\_122, Lolly9\_122, Ellson\_120, MiniLon\_126
- Track 7 : Krypton555\_124, Whirlwind\_122
- Track 8 : KirDoubleO7\_119
- Track 9 : MsGreen\_123

### ***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 16 of the 25 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bellis\_122, BourbonZero\_122, Clautastrophe\_121, DuncansLeg\_122, Ellson\_120, Finnry\_120, Jobypre\_122, Jubie\_122, Kingsolomon\_118, KirDoubleO7\_119, Krypton555\_124, Lolly9\_122, Lumos\_122, MiniLon\_126, MiniMac\_126, Nicholas\_118, Samty\_120, TriFive\_123, Whirlwind\_122,

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

- MsGreen\_123,

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

- Finemlucis\_128, GuuelaD\_126, Kahlid\_128, LilDestine\_125, Lynnae\_129, MkaliMitinis3\_130, Octobien14\_131, Tourach\_130, Wilder\_129,

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

Start 4:

- Found in 29 of 29 ( 100.0% ) of genes in pham

- Manual Annotations of this start: 3 of 25
- Called 10.3% of time when present
- Phage (with cluster) where this start called: MsGreen\_123 (L3), Octobien14\_131 (DU1), Tourach\_130 (L2),

#### Start 5:

- Found in 8 of 29 ( 27.6% ) of genes in pham
- Manual Annotations of this start: 6 of 25
- Called 87.5% of time when present
- Phage (with cluster) where this start called: Finemlucis\_128 (L2), GuuelaD\_126 (L2), Kahlid\_128 (L2), LilDestine\_125 (L2), Lynnae\_129 (L2), MkaliMitinis3\_130 (L2), Wilder\_129 (L2),

#### Start 6:

- Found in 20 of 29 ( 69.0% ) of genes in pham
- Manual Annotations of this start: 16 of 25
- Called 95.0% of time when present
- Phage (with cluster) where this start called: Bellis\_122 (L3), BourbonZero\_122 (L3), Clautastrophe\_121 (L3), DuncansLeg\_122 (L3), Ellson\_120 (L3), Finnry\_120 (L3), Jobypre\_122 (L3), Jubie\_122 (L3), Kingsolomon\_118 (L3), KirDoubleO7\_119 (L3), Krypton555\_124 (L3), Lolly9\_122 (L3), Lumos\_122 (L3), MiniLon\_126 (L3), MiniMac\_126 (L3), Nicholas\_118 (L3), Samty\_120 (L3), TriFive\_123 (L3), Whirlwind\_122 (L3),

### **Summary by clusters:**

There are 3 clusters represented in this pham: DU1, L2, L3,

Info for manual annotations of cluster DU1:

- Start number 4 was manually annotated 1 time for cluster DU1.

Info for manual annotations of cluster L2:

- Start number 4 was manually annotated 1 time for cluster L2.
- Start number 5 was manually annotated 6 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 4 was manually annotated 1 time for cluster L3.
- Start number 6 was manually annotated 16 times for cluster L3.

### **Gene Information:**

Gene: Bellis\_122 Start: 66993, Stop: 66754, Start Num: 6

Candidate Starts for Bellis\_122:

(3, 67044), (Start: 4 @67014 has 3 MA's), (Start: 6 @66993 has 16 MA's), (8, 66942), (10, 66876), (13, 66849),

Gene: BourbonZero\_122 Start: 67259, Stop: 67020, Start Num: 6

Candidate Starts for BourbonZero\_122:

(3, 67310), (Start: 4 @67280 has 3 MA's), (Start: 6 @67259 has 16 MA's), (8, 67208), (12, 67127), (13, 67115),

Gene: Clautastrophe\_121 Start: 67103, Stop: 66864, Start Num: 6

Candidate Starts for Clautastrophe\_121:

(3, 67154), (Start: 4 @67124 has 3 MA's), (Start: 6 @67103 has 16 MA's), (8, 67052), (10, 66986), (13, 66959),

Gene: DuncansLeg\_122 Start: 67285, Stop: 67046, Start Num: 6

Candidate Starts for DuncansLeg\_122:

(3, 67336), (Start: 4 @67306 has 3 MA's), (Start: 6 @67285 has 16 MA's), (8, 67234), (12, 67153), (13, 67141),

Gene: Ellson\_120 Start: 67541, Stop: 67302, Start Num: 6

Candidate Starts for Ellson\_120:

(3, 67592), (Start: 4 @67562 has 3 MA's), (Start: 6 @67541 has 16 MA's), (8, 67490), (12, 67409), (13, 67397),

Gene: Finemlucis\_128 Start: 69047, Stop: 68802, Start Num: 5

Candidate Starts for Finemlucis\_128:

(Start: 4 @69065 has 3 MA's), (Start: 5 @69047 has 6 MA's), (7, 69035), (8, 68990), (12, 68909),

Gene: Finnry\_120 Start: 67341, Stop: 67102, Start Num: 6

Candidate Starts for Finnry\_120:

(3, 67392), (Start: 4 @67362 has 3 MA's), (Start: 6 @67341 has 16 MA's), (8, 67290), (10, 67224), (13, 67197),

Gene: GuuelaD\_126 Start: 67948, Stop: 67703, Start Num: 5

Candidate Starts for GuuelaD\_126:

(Start: 4 @67966 has 3 MA's), (Start: 5 @67948 has 6 MA's), (7, 67936), (8, 67891), (12, 67810),

Gene: Jobypre\_122 Start: 67101, Stop: 66862, Start Num: 6

Candidate Starts for Jobypre\_122:

(3, 67152), (Start: 4 @67122 has 3 MA's), (Start: 6 @67101 has 16 MA's), (8, 67050), (10, 66984), (13, 66957),

Gene: Jubie\_122 Start: 67236, Stop: 66997, Start Num: 6

Candidate Starts for Jubie\_122:

(3, 67287), (Start: 4 @67257 has 3 MA's), (Start: 6 @67236 has 16 MA's), (8, 67185), (10, 67119), (13, 67092),

Gene: Kahlid\_128 Start: 67898, Stop: 67728, Start Num: 5

Candidate Starts for Kahlid\_128:

(Start: 4 @67916 has 3 MA's), (Start: 5 @67898 has 6 MA's), (7, 67886), (8, 67841),

Gene: Kingsolomon\_118 Start: 67097, Stop: 66858, Start Num: 6

Candidate Starts for Kingsolomon\_118:

(3, 67148), (Start: 4 @67118 has 3 MA's), (Start: 6 @67097 has 16 MA's), (8, 67046), (10, 66980), (13, 66953),

Gene: KirDoubleO7\_119 Start: 67232, Stop: 66993, Start Num: 6

Candidate Starts for KirDoubleO7\_119:

(3, 67283), (Start: 4 @67253 has 3 MA's), (Start: 6 @67232 has 16 MA's), (8, 67181), (12, 67100),

Gene: Krypton555\_124 Start: 67480, Stop: 67250, Start Num: 6

Candidate Starts for Krypton555\_124:

(3, 67531), (Start: 4 @67501 has 3 MA's), (Start: 6 @67480 has 16 MA's), (7, 67471), (8, 67438), (13, 67345),

Gene: LilDestine\_125 Start: 67068, Stop: 66898, Start Num: 5

Candidate Starts for LilDestine\_125:

(Start: 4 @67086 has 3 MA's), (Start: 5 @67068 has 6 MA's), (7, 67056), (8, 67011),

Gene: Lolly9\_122 Start: 67634, Stop: 67395, Start Num: 6

Candidate Starts for Lolly9\_122:

(3, 67685), (Start: 4 @67655 has 3 MA's), (Start: 6 @67634 has 16 MA's), (8, 67583), (12, 67502), (13, 67490),

Gene: Lumos\_122 Start: 67098, Stop: 66859, Start Num: 6

Candidate Starts for Lumos\_122:

(3, 67149), (Start: 4 @67119 has 3 MA's), (Start: 6 @67098 has 16 MA's), (8, 67047), (10, 66981), (13, 66954),

Gene: Lynnae\_129 Start: 67711, Stop: 67541, Start Num: 5

Candidate Starts for Lynnae\_129:

(Start: 4 @67729 has 3 MA's), (Start: 5 @67711 has 6 MA's), (7, 67699), (8, 67654),

Gene: MiniLon\_126 Start: 67635, Stop: 67396, Start Num: 6

Candidate Starts for MiniLon\_126:

(3, 67686), (Start: 4 @67656 has 3 MA's), (Start: 6 @67635 has 16 MA's), (8, 67584), (12, 67503), (13, 67491),

Gene: MiniMac\_126 Start: 67637, Stop: 67398, Start Num: 6

Candidate Starts for MiniMac\_126:

(3, 67688), (Start: 4 @67658 has 3 MA's), (Start: 6 @67637 has 16 MA's), (8, 67586), (12, 67505), (13, 67493),

Gene: MkaliMitinis3\_130 Start: 67984, Stop: 67739, Start Num: 5

Candidate Starts for MkaliMitinis3\_130:

(Start: 4 @68002 has 3 MA's), (Start: 5 @67984 has 6 MA's), (7, 67972), (8, 67927), (12, 67846),

Gene: MsGreen\_123 Start: 67121, Stop: 66861, Start Num: 4

Candidate Starts for MsGreen\_123:

(3, 67151), (Start: 4 @67121 has 3 MA's), (Start: 6 @67100 has 16 MA's), (8, 67049), (10, 66983), (13, 66956),

Gene: Nicholas\_118 Start: 67097, Stop: 66858, Start Num: 6

Candidate Starts for Nicholas\_118:

(3, 67148), (Start: 4 @67118 has 3 MA's), (Start: 6 @67097 has 16 MA's), (8, 67046), (10, 66980), (13, 66953),

Gene: Octobien14\_131 Start: 69849, Stop: 69610, Start Num: 4

Candidate Starts for Octobien14\_131:

(Start: 4 @69849 has 3 MA's), (9, 69741), (11, 69711), (13, 69702),

Gene: Samty\_120 Start: 67084, Stop: 66845, Start Num: 6

Candidate Starts for Samty\_120:

(3, 67135), (Start: 4 @67105 has 3 MA's), (Start: 6 @67084 has 16 MA's), (8, 67033), (10, 66967), (13, 66940),

Gene: Tourach\_130 Start: 69507, Stop: 69244, Start Num: 4

Candidate Starts for Tourach\_130:

(1, 69699), (2, 69684), (Start: 4 @69507 has 3 MA's), (Start: 5 @69489 has 6 MA's), (7, 69477), (8, 69432), (12, 69351),

Gene: TriFive\_123 Start: 67214, Stop: 66975, Start Num: 6

Candidate Starts for TriFive\_123:

(3, 67265), (Start: 4 @67235 has 3 MA's), (Start: 6 @67214 has 16 MA's), (8, 67163), (10, 67097), (13, 67070),

Gene: Whirlwind\_122 Start: 67361, Stop: 67131, Start Num: 6

Candidate Starts for Whirlwind\_122:

(3, 67412), (Start: 4 @67382 has 3 MA's), (Start: 6 @67361 has 16 MA's), (7, 67352), (8, 67319), (13, 67226),

Gene: Wilder\_129 Start: 67752, Stop: 67582, Start Num: 5

Candidate Starts for Wilder\_129:

(Start: 4 @67770 has 3 MA's), (Start: 5 @67752 has 6 MA's), (7, 67740), (8, 67695),