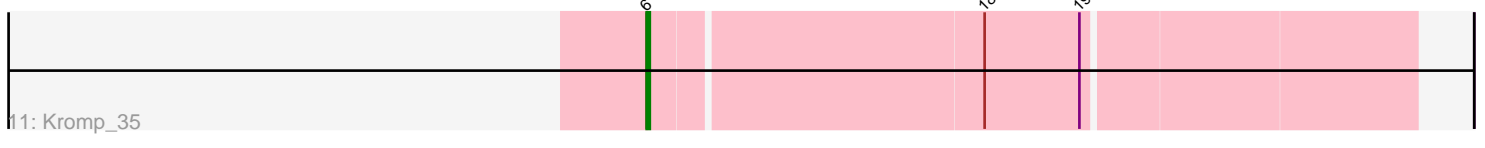
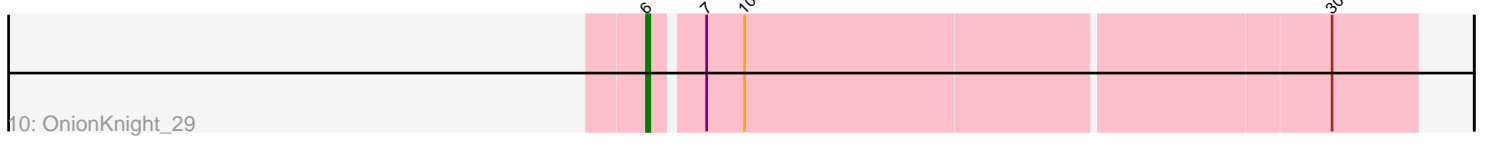
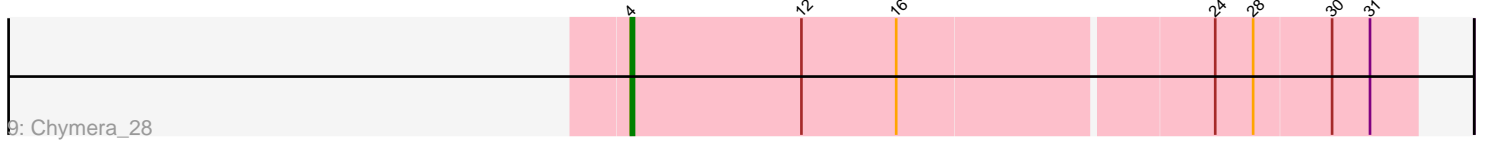
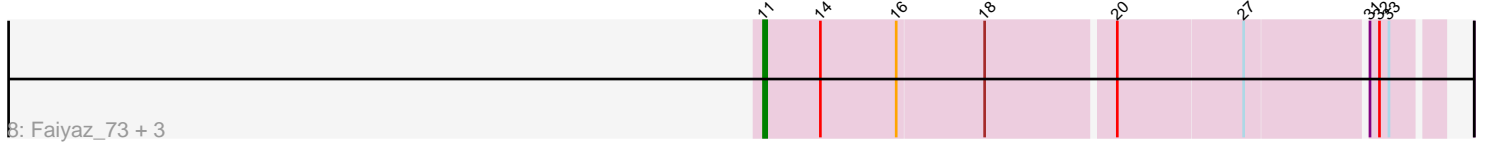
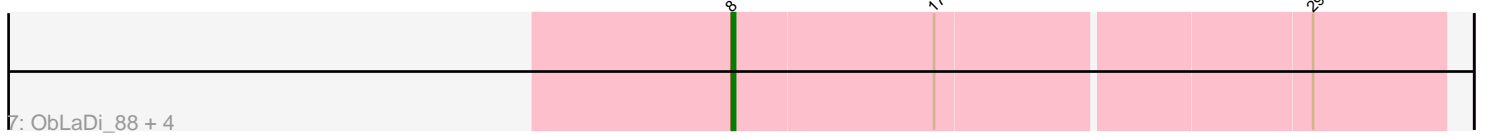
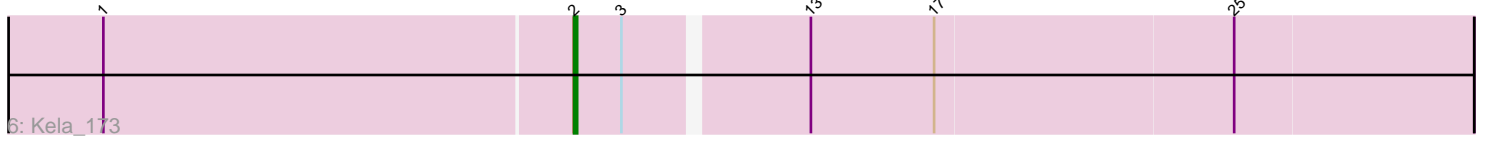
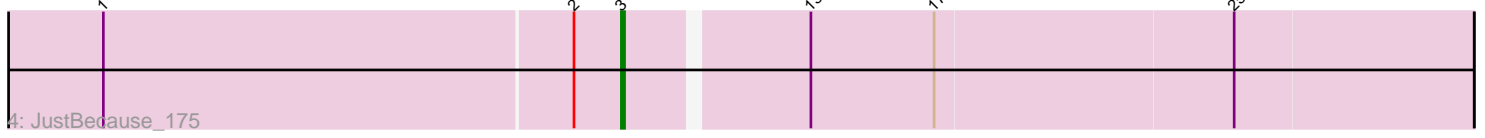
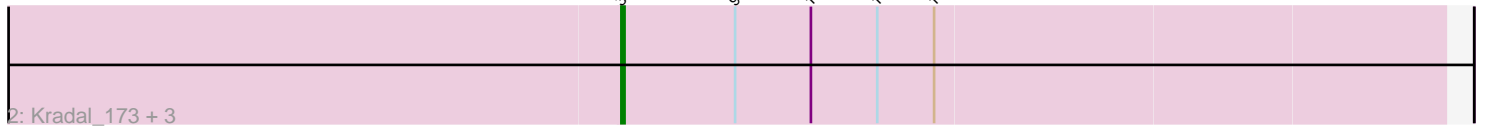


Pham 309292



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 309292 Report

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

Pham number 309292 has 21 members, 1 are drafts.

Phages represented in each track:

- Track 1 : VWB\_28
- Track 2 : Kradal\_173, Quantum\_172, Sarkar\_173, EhyElimayoE\_174
- Track 3 : Satis\_173
- Track 4 : JustBecause\_175
- Track 5 : Nirvana\_183
- Track 6 : Kela\_173
- Track 7 : ObLaDi\_88, Morgana\_95, Aleemily\_87, ModicumRichard\_88, Cafasso\_88
- Track 8 : Faiyaz\_73, Hilltopfarm\_72, AuntGwenStacy\_73, Typha\_72
- Track 9 : Chymera\_28
- Track 10 : OnionKnight\_29
- Track 11 : Kromp\_35

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

The start number called the most often in the published annotations is 3, it was called in 7 of the 20 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- EhyElimayoE\_174, JustBecause\_175, Kradal\_173, Nirvana\_183, Quantum\_172, Sarkar\_173, Satis\_173,

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

- Kela\_173,

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

- Aleemily\_87, AuntGwenStacy\_73, Cafasso\_88, Chymera\_28, Faiyaz\_73, Hilltopfarm\_72, Kromp\_35, ModicumRichard\_88, Morgana\_95, ObLaDi\_88, OnionKnight\_29, Typha\_72, VWB\_28,

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

Start 2:

- Found in 2 of 21 ( 9.5% ) of genes in pham
- Manual Annotations of this start: 1 of 20

- Called 50.0% of time when present
- Phage (with cluster) where this start called: Kela\_173 (BM),

#### Start 3:

- Found in 8 of 21 ( 38.1% ) of genes in pham
- Manual Annotations of this start: 7 of 20
- Called 87.5% of time when present
- Phage (with cluster) where this start called: EhyElimayoE\_174 (BM), JustBecause\_175 (BM), Kradal\_173 (BM), Nirvana\_183 (BM), Quantum\_172 (BM), Sarkar\_173 (BM), Satis\_173 (BM),

#### 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: Chymera\_28 (singleton),

#### Start 6:

- Found in 3 of 21 ( 14.3% ) of genes in pham
- Manual Annotations of this start: 2 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kromp\_35 (singleton), OnionKnight\_29 (singleton), VWB\_28 (BA),

#### Start 8:

- 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: Aleemily\_87 (DZ), Cafasso\_88 (DZ), ModicumRichard\_88 (DZ), Morgana\_95 (DZ), ObLaDi\_88 (DZ),

#### Start 11:

- Found in 4 of 21 ( 19.0% ) of genes in pham
- Manual Annotations of this start: 4 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AuntGwenStacy\_73 (Y), Faiyaz\_73 (Y), Hilltopfarm\_72 (Y), Typha\_72 (Y),

### **Summary by clusters:**

There are 5 clusters represented in this pham: Y, BM, singleton, DZ, BA,

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

- Start number 2 was manually annotated 1 time for cluster BM.
- Start number 3 was manually annotated 7 times for cluster BM.

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

- Start number 8 was manually annotated 5 times for cluster DZ.

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

- Start number 11 was manually annotated 4 times for cluster Y.

**Gene Information:**

Gene: Aleemily\_87 Start: 52753, Stop: 52971, Start Num: 8

Candidate Starts for Aleemily\_87:

(Start: 8 @52753 has 5 MA's), (17, 52816), (29, 52930),

Gene: AuntGwenStacy\_73 Start: 49703, Stop: 49906, Start Num: 11

Candidate Starts for AuntGwenStacy\_73:

(Start: 11 @49703 has 4 MA's), (14, 49721), (16, 49745), (18, 49772), (20, 49811), (27, 49850), (31, 49886), (32, 49889), (33, 49892),

Gene: Cafasso\_88 Start: 52905, Stop: 53123, Start Num: 8

Candidate Starts for Cafasso\_88:

(Start: 8 @52905 has 5 MA's), (17, 52968), (29, 53082),

Gene: Chymera\_28 Start: 21061, Stop: 20819, Start Num: 4

Candidate Starts for Chymera\_28:

(Start: 4 @21061 has 1 MA's), (12, 21007), (16, 20977), (24, 20881), (28, 20869), (30, 20845), (31, 20833),

Gene: EhyElimayoE\_174 Start: 112216, Stop: 111959, Start Num: 3

Candidate Starts for EhyElimayoE\_174:

(Start: 3 @112216 has 7 MA's), (9, 112180), (13, 112156), (15, 112135), (17, 112117),

Gene: Faiyaz\_73 Start: 49709, Stop: 49912, Start Num: 11

Candidate Starts for Faiyaz\_73:

(Start: 11 @49709 has 4 MA's), (14, 49727), (16, 49751), (18, 49778), (20, 49817), (27, 49856), (31, 49892), (32, 49895), (33, 49898),

Gene: Hilltopfarm\_72 Start: 49409, Stop: 49612, Start Num: 11

Candidate Starts for Hilltopfarm\_72:

(Start: 11 @49409 has 4 MA's), (14, 49427), (16, 49451), (18, 49478), (20, 49517), (27, 49556), (31, 49592), (32, 49595), (33, 49598),

Gene: JustBecause\_175 Start: 109723, Stop: 109463, Start Num: 3

Candidate Starts for JustBecause\_175:

(1, 109885), (Start: 2 @109738 has 1 MA's), (Start: 3 @109723 has 7 MA's), (13, 109669), (17, 109630), (25, 109537),

Gene: Kela\_173 Start: 109612, Stop: 109337, Start Num: 2

Candidate Starts for Kela\_173:

(1, 109759), (Start: 2 @109612 has 1 MA's), (Start: 3 @109597 has 7 MA's), (13, 109543), (17, 109504), (25, 109411),

Gene: Kradal\_173 Start: 112213, Stop: 111956, Start Num: 3

Candidate Starts for Kradal\_173:

(Start: 3 @112213 has 7 MA's), (9, 112177), (13, 112153), (15, 112132), (17, 112114),

Gene: Kromp\_35 Start: 27947, Stop: 27714, Start Num: 6

Candidate Starts for Kromp\_35:

(Start: 6 @27947 has 2 MA's), (18, 27845), (19, 27815),

Gene: ModicumRichard\_88 Start: 52973, Stop: 53191, Start Num: 8

Candidate Starts for ModicumRichard\_88:

(Start: 8 @52973 has 5 MA's), (17, 53036), (29, 53150),

Gene: Morgana\_95 Start: 55142, Stop: 55360, Start Num: 8

Candidate Starts for Morgana\_95:

(Start: 8 @55142 has 5 MA's), (17, 55205), (29, 55319),

Gene: Nirvana\_183 Start: 120173, Stop: 119910, Start Num: 3

Candidate Starts for Nirvana\_183:

(Start: 3 @120173 has 7 MA's), (13, 120113), (17, 120074), (23, 119993), (28, 119975),

Gene: ObLaDi\_88 Start: 52999, Stop: 53217, Start Num: 8

Candidate Starts for ObLaDi\_88:

(Start: 8 @52999 has 5 MA's), (17, 53062), (29, 53176),

Gene: OnionKnight\_29 Start: 22224, Stop: 21991, Start Num: 6

Candidate Starts for OnionKnight\_29:

(Start: 6 @22224 has 2 MA's), (7, 22209), (10, 22197), (30, 22017),

Gene: Quantum\_172 Start: 112213, Stop: 111956, Start Num: 3

Candidate Starts for Quantum\_172:

(Start: 3 @112213 has 7 MA's), (9, 112177), (13, 112153), (15, 112132), (17, 112114),

Gene: Sarkar\_173 Start: 112213, Stop: 111956, Start Num: 3

Candidate Starts for Sarkar\_173:

(Start: 3 @112213 has 7 MA's), (9, 112177), (13, 112153), (15, 112132), (17, 112114),

Gene: Satis\_173 Start: 112209, Stop: 111952, Start Num: 3

Candidate Starts for Satis\_173:

(Start: 3 @112209 has 7 MA's), (5, 112203), (9, 112173), (13, 112149), (15, 112128), (17, 112110),

Gene: Typha\_72 Start: 49703, Stop: 49906, Start Num: 11

Candidate Starts for Typha\_72:

(Start: 11 @49703 has 4 MA's), (14, 49721), (16, 49745), (18, 49772), (20, 49811), (27, 49850), (31, 49886), (32, 49889), (33, 49892),

Gene: VWB\_28 Start: 25376, Stop: 25146, Start Num: 6

Candidate Starts for VWB\_28:

(Start: 6 @25376 has 2 MA's), (21, 25235), (22, 25223), (26, 25199), (30, 25172), (31, 25160), (33, 25154),