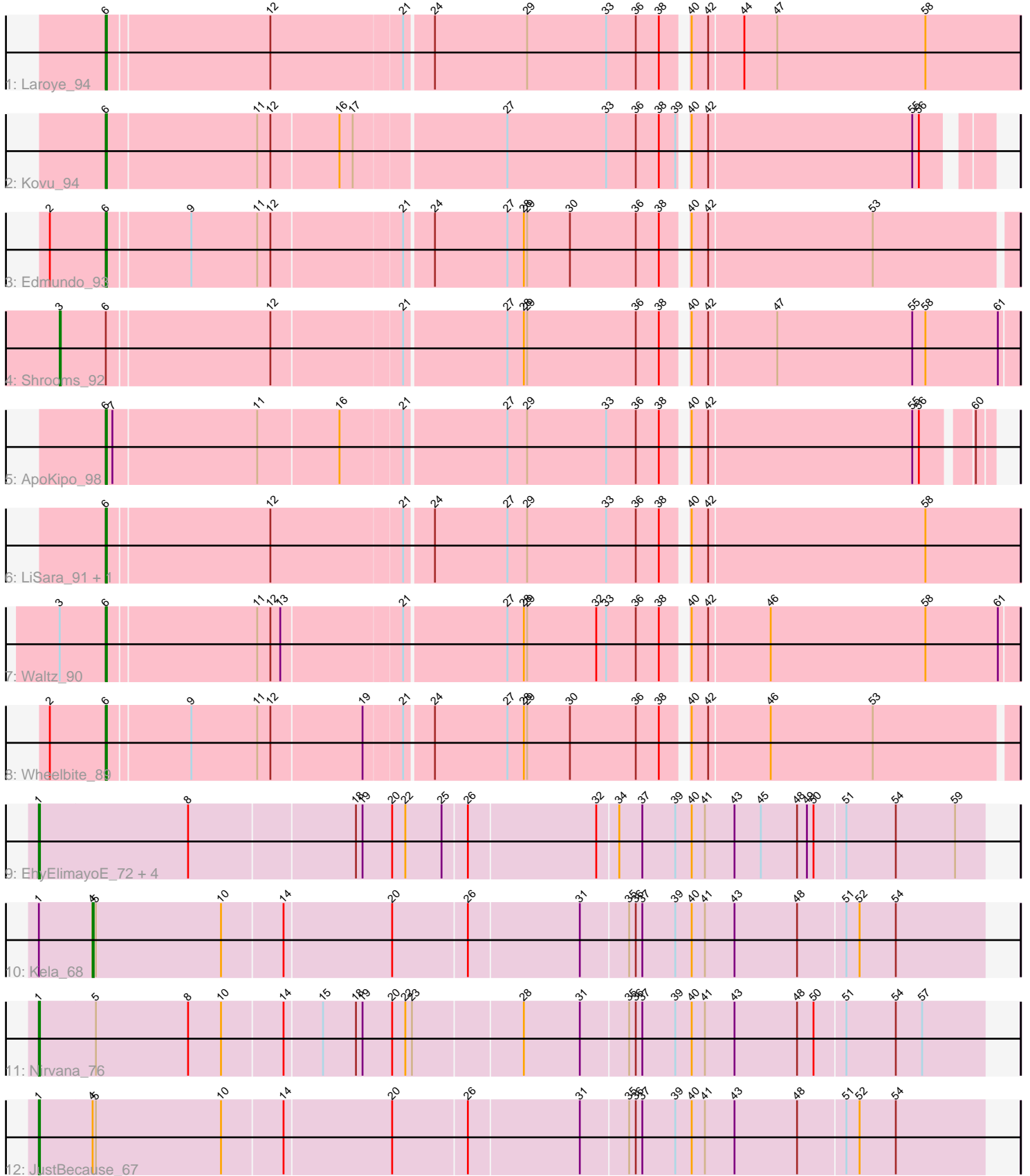


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 305365 Report

This analysis was run 06/08/26 on database version 649.

Pham number 305365 has 17 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Laroye\_94
- Track 2 : Kovu\_94
- Track 3 : Edmundo\_93
- Track 4 : Shrooms\_92
- Track 5 : ApoKipo\_98
- Track 6 : LiSara\_91, Salgado\_94
- Track 7 : Waltz\_90
- Track 8 : Wheelbite\_89
- Track 9 : EhyElimayoE\_72, Satis\_72, Quantum\_71, Kradal\_72, Sarkar\_76
- Track 10 : Kela\_68
- Track 11 : Nirvana\_76
- Track 12 : JustBecause\_67

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

Genes that call this "Most Annotated" start:

- ApoKipo\_98, Edmundo\_93, Kovu\_94, Laroye\_94, LiSara\_91, Salgado\_94, Waltz\_90, Wheelbite\_89,

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

- Shrooms\_92,

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

- EhyElimayoE\_72, JustBecause\_67, Kela\_68, Kradal\_72, Nirvana\_76, Quantum\_71, Sarkar\_76, Satis\_72,

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

Start 1:

- Found in 8 of 17 ( 47.1% ) of genes in pham
- Manual Annotations of this start: 6 of 16

- Called 87.5% of time when present
- Phage (with cluster) where this start called: EhyElimayoE\_72 (BM), JustBecause\_67 (BM), Kradal\_72 (BM), Nirvana\_76 (BM), Quantum\_71 (BM), Sarkar\_76 (BM), Satis\_72 (BM),

#### Start 3:

- Found in 2 of 17 ( 11.8% ) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Shrooms\_92 (AL),

#### Start 4:

- Found in 2 of 17 ( 11.8% ) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Kela\_68 (BM),

#### Start 6:

- Found in 9 of 17 ( 52.9% ) of genes in pham
- Manual Annotations of this start: 8 of 16
- Called 88.9% of time when present
- Phage (with cluster) where this start called: ApoKipo\_98 (AL), Edmundo\_93 (AL), Kovu\_94 (AL), Laroye\_94 (AL), LiSara\_91 (AL), Salgado\_94 (AL), Waltz\_90 (AL), Wheelbite\_89 (AL),

### **Summary by clusters:**

There are 2 clusters represented in this pham: BM, AL,

Info for manual annotations of cluster AL:

- Start number 3 was manually annotated 1 time for cluster AL.
- Start number 6 was manually annotated 8 times for cluster AL.

Info for manual annotations of cluster BM:

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

### **Gene Information:**

Gene: ApoKipo\_98 Start: 55915, Stop: 56679, Start Num: 6

Candidate Starts for ApoKipo\_98:

(Start: 6 @55915 has 8 MA's), (7, 55921), (11, 56050), (16, 56122), (21, 56176), (27, 56266), (29, 56284), (33, 56356), (36, 56383), (38, 56404), (40, 56422), (42, 56437), (55, 56620), (56, 56626), (60, 56665),

Gene: Edmundo\_93 Start: 54507, Stop: 55298, Start Num: 6

Candidate Starts for Edmundo\_93:

(2, 54456), (Start: 6 @54507 has 8 MA's), (9, 54579), (11, 54639), (12, 54651), (21, 54765), (24, 54789), (27, 54855), (28, 54870), (29, 54873), (30, 54912), (36, 54972), (38, 54993), (40, 55011), (42, 55026), (53, 55173),

Gene: EhyElimayoE\_72 Start: 53494, Stop: 52652, Start Num: 1

Candidate Starts for EhyElimayoE\_72:

(Start: 1 @53494 has 6 MA's), (8, 53359), (18, 53212), (19, 53206), (20, 53179), (22, 53167), (25, 53134), (26, 53113), (32, 52999), (34, 52981), (37, 52960), (39, 52930), (40, 52915), (41, 52903), (43, 52876), (45, 52852), (48, 52819), (49, 52810), (50, 52804), (51, 52777), (54, 52732), (59, 52678),

Gene: JustBecause\_67 Start: 50858, Stop: 50016, Start Num: 1

Candidate Starts for JustBecause\_67:

(Start: 1 @50858 has 6 MA's), (Start: 4 @50810 has 1 MA's), (5, 50807), (10, 50693), (14, 50639), (20, 50543), (26, 50477), (31, 50378), (35, 50336), (36, 50330), (37, 50324), (39, 50294), (40, 50279), (41, 50267), (43, 50240), (48, 50183), (51, 50141), (52, 50129), (54, 50096),

Gene: Kela\_68 Start: 50675, Stop: 49881, Start Num: 4

Candidate Starts for Kela\_68:

(Start: 1 @50723 has 6 MA's), (Start: 4 @50675 has 1 MA's), (5, 50672), (10, 50558), (14, 50504), (20, 50408), (26, 50342), (31, 50243), (35, 50201), (36, 50195), (37, 50189), (39, 50159), (40, 50144), (41, 50132), (43, 50105), (48, 50048), (51, 50006), (52, 49994), (54, 49961),

Gene: Kovu\_94 Start: 55384, Stop: 56145, Start Num: 6

Candidate Starts for Kovu\_94:

(Start: 6 @55384 has 8 MA's), (11, 55519), (12, 55531), (16, 55591), (17, 55603), (27, 55735), (33, 55825), (36, 55852), (38, 55873), (39, 55888), (40, 55891), (42, 55906), (55, 56089), (56, 56095),

Gene: Kradal\_72 Start: 53494, Stop: 52652, Start Num: 1

Candidate Starts for Kradal\_72:

(Start: 1 @53494 has 6 MA's), (8, 53359), (18, 53212), (19, 53206), (20, 53179), (22, 53167), (25, 53134), (26, 53113), (32, 52999), (34, 52981), (37, 52960), (39, 52930), (40, 52915), (41, 52903), (43, 52876), (45, 52852), (48, 52819), (49, 52810), (50, 52804), (51, 52777), (54, 52732), (59, 52678),

Gene: Laroye\_94 Start: 54308, Stop: 55111, Start Num: 6

Candidate Starts for Laroye\_94:

(Start: 6 @54308 has 8 MA's), (12, 54452), (21, 54569), (24, 54593), (29, 54677), (33, 54749), (36, 54776), (38, 54797), (40, 54815), (42, 54830), (44, 54860), (47, 54890), (58, 55025),

Gene: LiSara\_91 Start: 54440, Stop: 55243, Start Num: 6

Candidate Starts for LiSara\_91:

(Start: 6 @54440 has 8 MA's), (12, 54584), (21, 54701), (24, 54725), (27, 54791), (29, 54809), (33, 54881), (36, 54908), (38, 54929), (40, 54947), (42, 54962), (58, 55157),

Gene: Nirvana\_76 Start: 55587, Stop: 54745, Start Num: 1

Candidate Starts for Nirvana\_76:

(Start: 1 @55587 has 6 MA's), (5, 55536), (8, 55452), (10, 55422), (14, 55368), (15, 55335), (18, 55305), (19, 55299), (20, 55272), (22, 55260), (23, 55254), (28, 55158), (31, 55107), (35, 55065), (36, 55059), (37, 55053), (39, 55023), (40, 55008), (41, 54996), (43, 54969), (48, 54912), (50, 54897), (51, 54870), (54, 54825), (57, 54801),

Gene: Quantum\_71 Start: 53494, Stop: 52652, Start Num: 1

Candidate Starts for Quantum\_71:

(Start: 1 @53494 has 6 MA's), (8, 53359), (18, 53212), (19, 53206), (20, 53179), (22, 53167), (25, 53134), (26, 53113), (32, 52999), (34, 52981), (37, 52960), (39, 52930), (40, 52915), (41, 52903), (43, 52876), (45, 52852), (48, 52819), (49, 52810), (50, 52804), (51, 52777), (54, 52732), (59, 52678),

Gene: Salgado\_94 Start: 54110, Stop: 54913, Start Num: 6

Candidate Starts for Salgado\_94:

(Start: 6 @54110 has 8 MA's), (12, 54254), (21, 54371), (24, 54395), (27, 54461), (29, 54479), (33, 54551), (36, 54578), (38, 54599), (40, 54617), (42, 54632), (58, 54827),

Gene: Sarkar\_76 Start: 53494, Stop: 52652, Start Num: 1

Candidate Starts for Sarkar\_76:

(Start: 1 @53494 has 6 MA's), (8, 53359), (18, 53212), (19, 53206), (20, 53179), (22, 53167), (25, 53134), (26, 53113), (32, 52999), (34, 52981), (37, 52960), (39, 52930), (40, 52915), (41, 52903), (43, 52876), (45, 52852), (48, 52819), (49, 52810), (50, 52804), (51, 52777), (54, 52732), (59, 52678),

Gene: Satis\_72 Start: 53490, Stop: 52648, Start Num: 1

Candidate Starts for Satis\_72:

(Start: 1 @53490 has 6 MA's), (8, 53355), (18, 53208), (19, 53202), (20, 53175), (22, 53163), (25, 53130), (26, 53109), (32, 52995), (34, 52977), (37, 52956), (39, 52926), (40, 52911), (41, 52899), (43, 52872), (45, 52848), (48, 52815), (49, 52806), (50, 52800), (51, 52773), (54, 52728), (59, 52674),

Gene: Shrooms\_92 Start: 53698, Stop: 54537, Start Num: 3

Candidate Starts for Shrooms\_92:

(Start: 3 @53698 has 1 MA's), (Start: 6 @53740 has 8 MA's), (12, 53884), (21, 53998), (27, 54088), (28, 54103), (29, 54106), (36, 54205), (38, 54226), (40, 54244), (42, 54259), (47, 54319), (55, 54442), (58, 54454), (61, 54520),

Gene: Waltz\_90 Start: 52528, Stop: 53325, Start Num: 6

Candidate Starts for Waltz\_90:

(Start: 3 @52486 has 1 MA's), (Start: 6 @52528 has 8 MA's), (11, 52660), (12, 52672), (13, 52681), (21, 52786), (27, 52876), (28, 52891), (29, 52894), (32, 52957), (33, 52966), (36, 52993), (38, 53014), (40, 53032), (42, 53047), (46, 53101), (58, 53242), (61, 53308),

Gene: Wheelbite\_89 Start: 54204, Stop: 54995, Start Num: 6

Candidate Starts for Wheelbite\_89:

(2, 54153), (Start: 6 @54204 has 8 MA's), (9, 54276), (11, 54336), (12, 54348), (19, 54429), (21, 54462), (24, 54486), (27, 54552), (28, 54567), (29, 54570), (30, 54609), (36, 54669), (38, 54690), (40, 54708), (42, 54723), (46, 54777), (53, 54870),