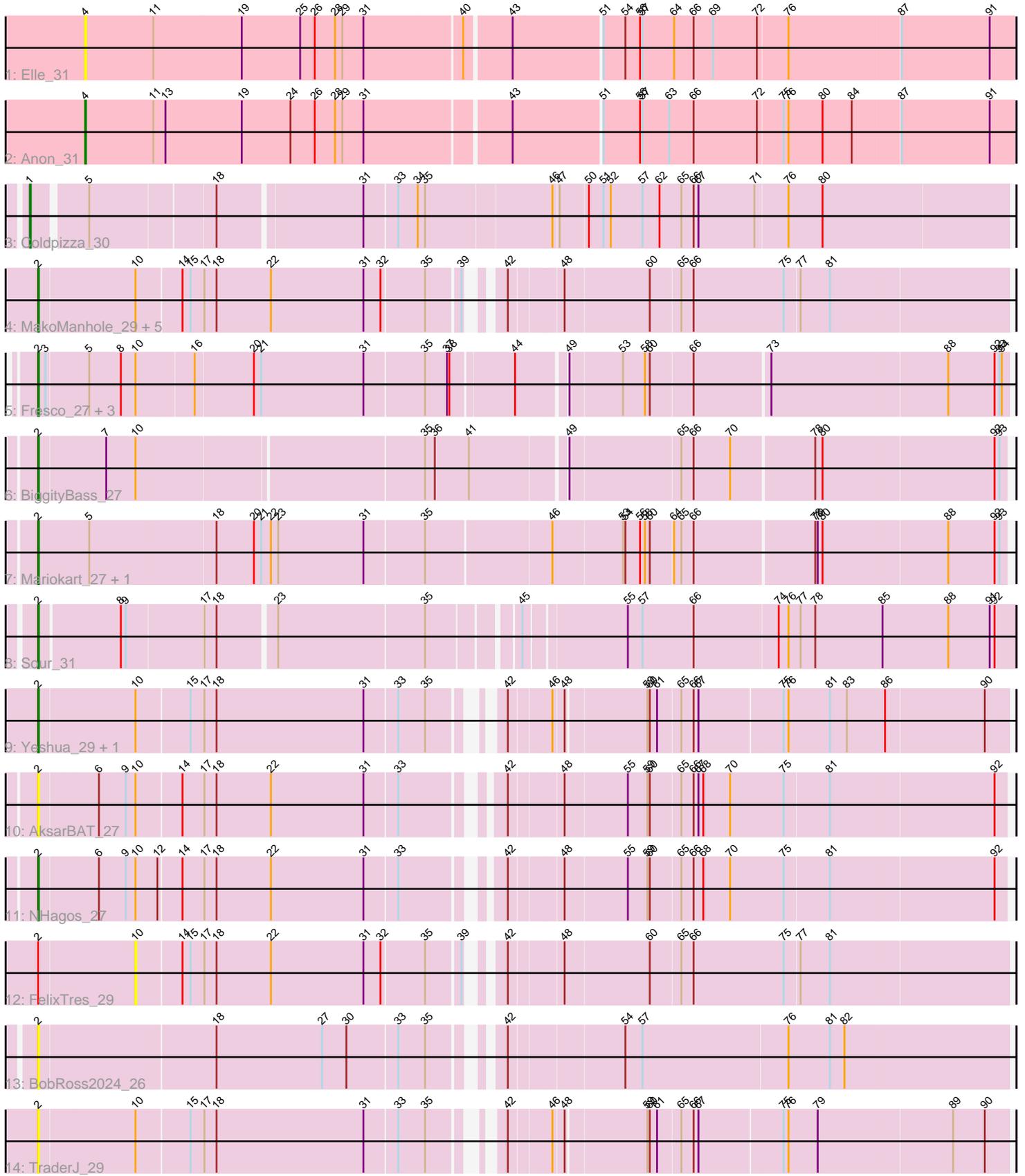


Pham 291500



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 291500 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291500 has 24 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Elle\_31
- Track 2 : Anon\_31
- Track 3 : Coldpizza\_30
- Track 4 : MakoManhole\_29, AnarQue\_29, CloverMinnie\_29, Blackpen\_29, MossRose\_29, CaiB\_29
- Track 5 : Fresco\_27, Axumite\_27, Shatter\_27, Ligma\_27
- Track 6 : BiggityBass\_27
- Track 7 : Mariokart\_27, CharlottesWeb\_27
- Track 8 : Sour\_31
- Track 9 : Yeshua\_29, Wooper\_29
- Track 10 : AksarBAT\_27
- Track 11 : NHagos\_27
- Track 12 : FelixTres\_29
- Track 13 : BobRoss2024\_26
- Track 14 : TraderJ\_29

### ***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 15 of the 17 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AksarBAT\_27, AnarQue\_29, Axumite\_27, BiggityBass\_27, Blackpen\_29, BobRoss2024\_26, CaiB\_29, CharlottesWeb\_27, CloverMinnie\_29, Fresco\_27, Ligma\_27, MakoManhole\_29, Mariokart\_27, MossRose\_29, NHagos\_27, Shatter\_27, Sour\_31, TraderJ\_29, Wooper\_29, Yeshua\_29,

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

- FelixTres\_29,

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

- Anon\_31, Coldpizza\_30, Elle\_31,

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

Start 1:

- Found in 1 of 24 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 1 of 17
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Coldpizza\_30 (DR),

Start 2:

- Found in 21 of 24 ( 87.5% ) of genes in pham
- Manual Annotations of this start: 15 of 17
- Called 95.2% of time when present
- Phage (with cluster) where this start called: AksarBAT\_27 (DR), AnarQue\_29 (DR), Axumite\_27 (DR), BiggityBass\_27 (DR), Blackpen\_29 (DR), BobRoss2024\_26 (DR), CaiB\_29 (DR), CharlottesWeb\_27 (DR), CloverMinnie\_29 (DR), Fresco\_27 (DR), Ligma\_27 (DR), MakoManhole\_29 (DR), Mariokart\_27 (DR), MossRose\_29 (DR), NHagos\_27 (DR), Shatter\_27 (DR), Sour\_31 (DR), TraderJ\_29 (DR), Wooper\_29 (DR), Yeshua\_29 (DR),

Start 4:

- Found in 2 of 24 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 1 of 17
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anon\_31 (A15), Elle\_31 (A15),

Start 10:

- Found in 17 of 24 ( 70.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 5.9% of time when present
- Phage (with cluster) where this start called: FelixTres\_29 (DR),

**Summary by clusters:**

There are 2 clusters represented in this pham: A15, DR,

Info for manual annotations of cluster A15:

- Start number 4 was manually annotated 1 time for cluster A15.

Info for manual annotations of cluster DR:

- Start number 1 was manually annotated 1 time for cluster DR.
- Start number 2 was manually annotated 15 times for cluster DR.

**Gene Information:**

Gene: AksarBAT\_27 Start: 26586, Stop: 27698, Start Num: 2

Candidate Starts for AksarBAT\_27:

(Start: 2 @26586 has 15 MA's), (6, 26655), (9, 26688), (10, 26700), (14, 26751), (17, 26775), (18, 26790), (22, 26856), (31, 26970), (33, 27009), (42, 27108), (48, 27168), (55, 27243), (59, 27267), (60, 27270), (65, 27306), (66, 27321), (67, 27327), (68, 27333), (70, 27366), (75, 27432), (81, 27486), (92, 27684),

Gene: AnarQue\_29 Start: 28071, Stop: 29183, Start Num: 2

Candidate Starts for AnarQue\_29:

(Start: 2 @28071 has 15 MA's), (10, 28185), (14, 28236), (15, 28245), (17, 28260), (18, 28275), (22, 28341), (31, 28455), (32, 28476), (35, 28527), (39, 28566), (42, 28590), (48, 28650), (60, 28752), (65, 28788), (66, 28803), (75, 28914), (77, 28932), (81, 28968),

Gene: Anon\_31 Start: 22310, Stop: 23416, Start Num: 4

Candidate Starts for Anon\_31:

(Start: 4 @22310 has 1 MA's), (11, 22391), (13, 22406), (19, 22499), (24, 22559), (26, 22589), (28, 22613), (29, 22622), (31, 22646), (43, 22814), (51, 22919), (56, 22964), (57, 22967), (63, 23000), (66, 23030), (72, 23108), (75, 23138), (76, 23144), (80, 23186), (84, 23222), (87, 23279), (91, 23387),

Gene: Axumite\_27 Start: 26078, Stop: 27217, Start Num: 2

Candidate Starts for Axumite\_27:

(Start: 2 @26078 has 15 MA's), (3, 26087), (5, 26135), (8, 26174), (10, 26192), (16, 26261), (20, 26330), (21, 26339), (31, 26465), (35, 26537), (37, 26564), (38, 26567), (44, 26639), (49, 26693), (53, 26756), (58, 26783), (60, 26789), (66, 26840), (73, 26930), (88, 27143), (92, 27200), (93, 27206), (94, 27209),

Gene: BiggityBass\_27 Start: 28347, Stop: 29480, Start Num: 2

Candidate Starts for BiggityBass\_27:

(Start: 2 @28347 has 15 MA's), (7, 28425), (10, 28461), (35, 28797), (36, 28809), (41, 28851), (49, 28959), (65, 29091), (66, 29106), (70, 29151), (78, 29250), (80, 29259), (92, 29466), (93, 29472),

Gene: Blackpen\_29 Start: 27489, Stop: 28601, Start Num: 2

Candidate Starts for Blackpen\_29:

(Start: 2 @27489 has 15 MA's), (10, 27603), (14, 27654), (15, 27663), (17, 27678), (18, 27693), (22, 27759), (31, 27873), (32, 27894), (35, 27945), (39, 27984), (42, 28008), (48, 28068), (60, 28170), (65, 28206), (66, 28221), (75, 28332), (77, 28350), (81, 28386),

Gene: BobRoss2024\_26 Start: 26114, Stop: 27235, Start Num: 2

Candidate Starts for BobRoss2024\_26:

(Start: 2 @26114 has 15 MA's), (18, 26321), (27, 26450), (30, 26480), (33, 26540), (35, 26573), (42, 26636), (54, 26768), (57, 26789), (76, 26966), (81, 27017), (82, 27035),

Gene: CaiB\_29 Start: 28057, Stop: 29169, Start Num: 2

Candidate Starts for CaiB\_29:

(Start: 2 @28057 has 15 MA's), (10, 28171), (14, 28222), (15, 28231), (17, 28246), (18, 28261), (22, 28327), (31, 28441), (32, 28462), (35, 28513), (39, 28552), (42, 28576), (48, 28636), (60, 28738), (65, 28774), (66, 28789), (75, 28900), (77, 28918), (81, 28954),

Gene: CharlottesWeb\_27 Start: 26001, Stop: 27152, Start Num: 2

Candidate Starts for CharlottesWeb\_27:

(Start: 2 @26001 has 15 MA's), (5, 26061), (18, 26211), (20, 26256), (21, 26265), (22, 26277), (23, 26286), (31, 26391), (35, 26463), (46, 26610), (53, 26694), (54, 26697), (56, 26715), (58, 26721), (60, 26727), (64, 26754), (65, 26763), (66, 26778), (78, 26922), (79, 26925), (80, 26931), (88, 27081), (92, 27138), (93, 27144),

Gene: CloverMinnie\_29 Start: 27997, Stop: 29109, Start Num: 2

Candidate Starts for CloverMinnie\_29:

(Start: 2 @27997 has 15 MA's), (10, 28111), (14, 28162), (15, 28171), (17, 28186), (18, 28201), (22, 28267), (31, 28381), (32, 28402), (35, 28453), (39, 28492), (42, 28516), (48, 28576), (60, 28678), (65, 28714), (66, 28729), (75, 28840), (77, 28858), (81, 28894),

Gene: Coldpizza\_30 Start: 30502, Stop: 31638, Start Num: 1

Candidate Starts for Coldpizza\_30:

(Start: 1 @30502 has 1 MA's), (5, 30559), (18, 30706), (31, 30868), (33, 30907), (34, 30931), (35, 30940), (46, 31090), (47, 31096), (50, 31129), (51, 31147), (52, 31156), (57, 31195), (62, 31216), (65, 31243), (66, 31258), (67, 31264), (71, 31333), (76, 31372), (80, 31414),

Gene: Elle\_31 Start: 21644, Stop: 22750, Start Num: 4

Candidate Starts for Elle\_31:

(Start: 4 @21644 has 1 MA's), (11, 21725), (19, 21833), (25, 21905), (26, 21923), (28, 21947), (29, 21956), (31, 21980), (40, 22097), (43, 22148), (51, 22253), (54, 22280), (56, 22298), (57, 22301), (64, 22340), (66, 22364), (69, 22388), (72, 22442), (76, 22478), (87, 22613), (91, 22721),

Gene: FelixTres\_29 Start: 28174, Stop: 29172, Start Num: 10

Candidate Starts for FelixTres\_29:

(Start: 2 @28060 has 15 MA's), (10, 28174), (14, 28225), (15, 28234), (17, 28249), (18, 28264), (22, 28330), (31, 28444), (32, 28465), (35, 28516), (39, 28555), (42, 28579), (48, 28639), (60, 28741), (65, 28777), (66, 28792), (75, 28903), (77, 28921), (81, 28957),

Gene: Fresco\_27 Start: 26078, Stop: 27217, Start Num: 2

Candidate Starts for Fresco\_27:

(Start: 2 @26078 has 15 MA's), (3, 26087), (5, 26135), (8, 26174), (10, 26192), (16, 26261), (20, 26330), (21, 26339), (31, 26465), (35, 26537), (37, 26564), (38, 26567), (44, 26639), (49, 26693), (53, 26756), (58, 26783), (60, 26789), (66, 26840), (73, 26930), (88, 27143), (92, 27200), (93, 27206), (94, 27209),

Gene: Ligma\_27 Start: 26078, Stop: 27217, Start Num: 2

Candidate Starts for Ligma\_27:

(Start: 2 @26078 has 15 MA's), (3, 26087), (5, 26135), (8, 26174), (10, 26192), (16, 26261), (20, 26330), (21, 26339), (31, 26465), (35, 26537), (37, 26564), (38, 26567), (44, 26639), (49, 26693), (53, 26756), (58, 26783), (60, 26789), (66, 26840), (73, 26930), (88, 27143), (92, 27200), (93, 27206), (94, 27209),

Gene: MakoManhole\_29 Start: 28075, Stop: 29187, Start Num: 2

Candidate Starts for MakoManhole\_29:

(Start: 2 @28075 has 15 MA's), (10, 28189), (14, 28240), (15, 28249), (17, 28264), (18, 28279), (22, 28345), (31, 28459), (32, 28480), (35, 28531), (39, 28570), (42, 28594), (48, 28654), (60, 28756), (65, 28792), (66, 28807), (75, 28918), (77, 28936), (81, 28972),

Gene: Mariokart\_27 Start: 26000, Stop: 27151, Start Num: 2

Candidate Starts for Mariokart\_27:

(Start: 2 @26000 has 15 MA's), (5, 26060), (18, 26210), (20, 26255), (21, 26264), (22, 26276), (23, 26285), (31, 26390), (35, 26462), (46, 26609), (53, 26693), (54, 26696), (56, 26714), (58, 26720), (60, 26726), (64, 26753), (65, 26762), (66, 26777), (78, 26921), (79, 26924), (80, 26930), (88, 27080), (92, 27137), (93, 27143),

Gene: MossRose\_29 Start: 28054, Stop: 29166, Start Num: 2

Candidate Starts for MossRose\_29:

(Start: 2 @28054 has 15 MA's), (10, 28168), (14, 28219), (15, 28228), (17, 28243), (18, 28258), (22, 28324), (31, 28438), (32, 28459), (35, 28510), (39, 28549), (42, 28573), (48, 28633), (60, 28735), (65, 28771), (66, 28786), (75, 28897), (77, 28915), (81, 28951),

Gene: NHagos\_27 Start: 26589, Stop: 27701, Start Num: 2

Candidate Starts for NHagos\_27:

(Start: 2 @26589 has 15 MA's), (6, 26658), (9, 26691), (10, 26703), (12, 26727), (14, 26754), (17, 26778), (18, 26793), (22, 26859), (31, 26973), (33, 27012), (42, 27111), (48, 27171), (55, 27246), (59, 27270), (60, 27273), (65, 27309), (66, 27324), (68, 27336), (70, 27369), (75, 27435), (81, 27489), (92, 27687),

Gene: Shatter\_27 Start: 26078, Stop: 27217, Start Num: 2

Candidate Starts for Shatter\_27:

(Start: 2 @26078 has 15 MA's), (3, 26087), (5, 26135), (8, 26174), (10, 26192), (16, 26261), (20, 26330), (21, 26339), (31, 26465), (35, 26537), (37, 26564), (38, 26567), (44, 26639), (49, 26693), (53, 26756), (58, 26783), (60, 26789), (66, 26840), (73, 26930), (88, 27143), (92, 27200), (93, 27206), (94, 27209),

Gene: Sour\_31 Start: 30307, Stop: 31437, Start Num: 2

Candidate Starts for Sour\_31:

(Start: 2 @30307 has 15 MA's), (8, 30400), (9, 30406), (17, 30496), (18, 30511), (23, 30577), (35, 30754), (45, 30850), (55, 30967), (57, 30985), (66, 31048), (74, 31150), (76, 31162), (77, 31177), (78, 31195), (85, 31276), (88, 31354), (91, 31405), (92, 31411),

Gene: TraderJ\_29 Start: 28060, Stop: 29157, Start Num: 2

Candidate Starts for TraderJ\_29:

(Start: 2 @28060 has 15 MA's), (10, 28174), (15, 28234), (17, 28249), (18, 28264), (31, 28444), (33, 28483), (35, 28516), (42, 28573), (46, 28621), (48, 28633), (59, 28726), (60, 28729), (61, 28738), (65, 28765), (66, 28780), (67, 28786), (75, 28885), (76, 28891), (79, 28927), (89, 29089), (90, 29128),

Gene: Wooper\_29 Start: 28066, Stop: 29163, Start Num: 2

Candidate Starts for Wooper\_29:

(Start: 2 @28066 has 15 MA's), (10, 28180), (15, 28240), (17, 28255), (18, 28270), (31, 28450), (33, 28489), (35, 28522), (42, 28579), (46, 28627), (48, 28639), (59, 28732), (60, 28735), (61, 28744), (65, 28771), (66, 28786), (67, 28792), (75, 28891), (76, 28897), (81, 28948), (83, 28969), (86, 29014), (90, 29134),

Gene: Yeshua\_29 Start: 28043, Stop: 29140, Start Num: 2

Candidate Starts for Yeshua\_29:

(Start: 2 @28043 has 15 MA's), (10, 28157), (15, 28217), (17, 28232), (18, 28247), (31, 28427), (33, 28466), (35, 28499), (42, 28556), (46, 28604), (48, 28616), (59, 28709), (60, 28712), (61, 28721), (65, 28748), (66, 28763), (67, 28769), (75, 28868), (76, 28874), (81, 28925), (83, 28946), (86, 28991), (90, 29111),