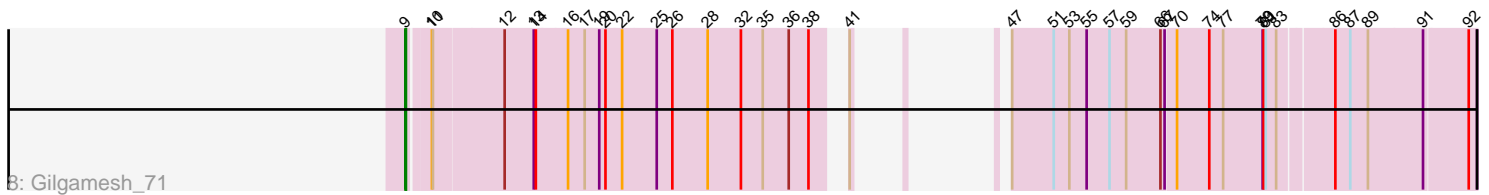
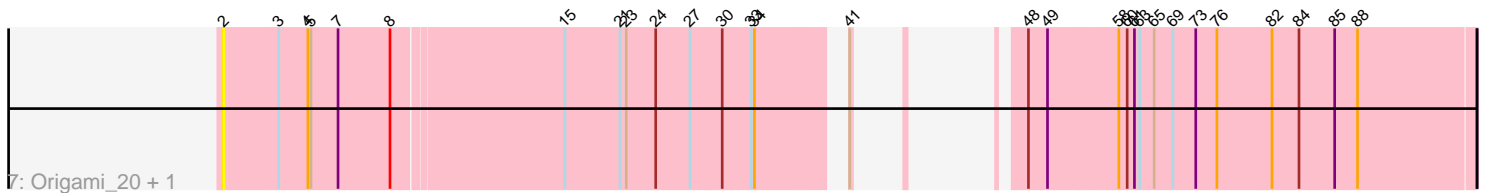
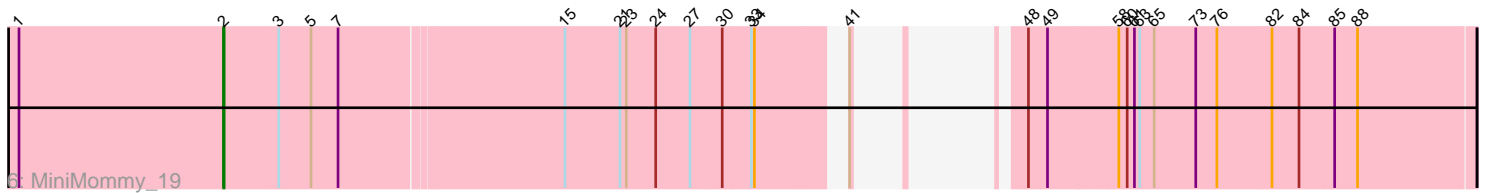
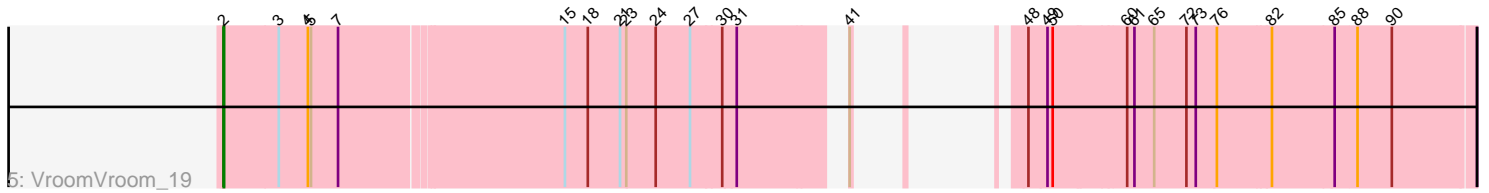
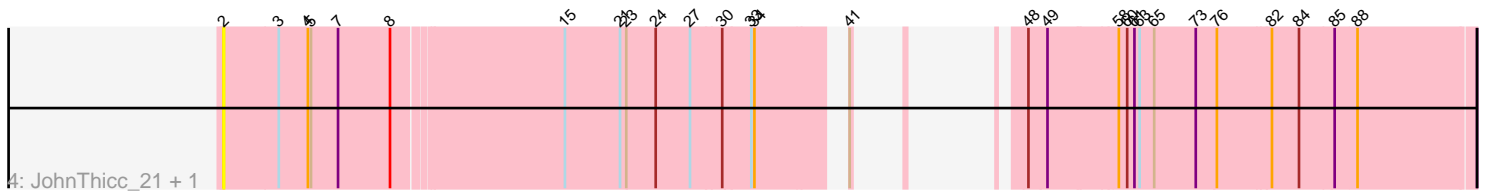
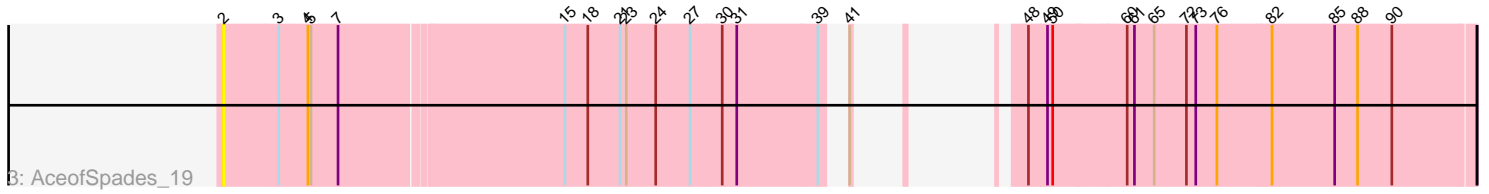
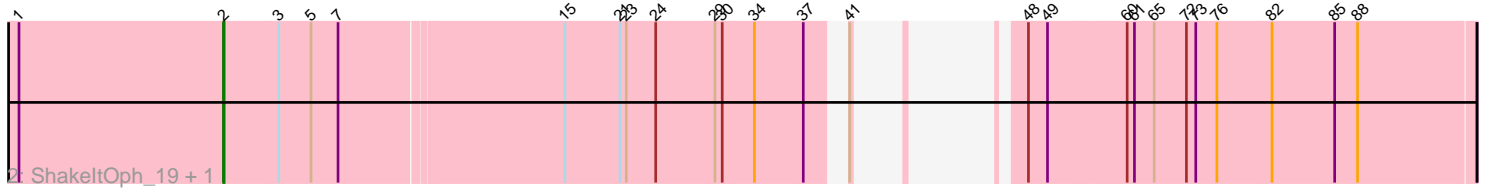
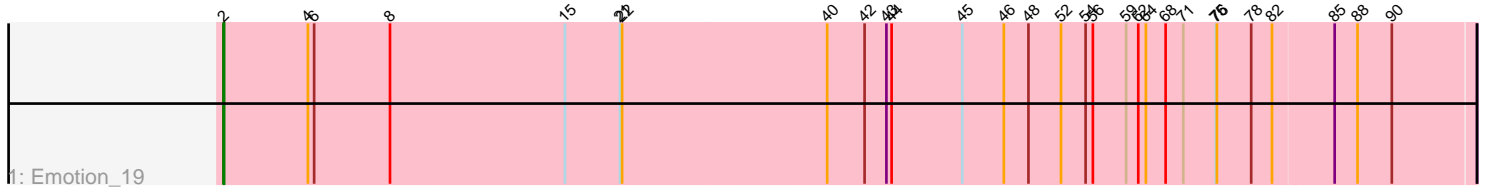


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 297156 Report

This analysis was run 04/25/26 on database version 644.

Pham number 297156 has 11 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Emotion\_19
- Track 2 : ShakeltOph\_19, JasmineDragon\_19
- Track 3 : AceofSpades\_19
- Track 4 : JohnThicc\_21, FiveHead\_21
- Track 5 : VroomVroom\_19
- Track 6 : MiniMommy\_19
- Track 7 : Origami\_20, LadyAstra\_20
- Track 8 : Gilgamesh\_71

### ***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 5 of the 6 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AceofSpades\_19, Emotion\_19, FiveHead\_21, JasmineDragon\_19, JohnThicc\_21, LadyAstra\_20, MiniMommy\_19, Origami\_20, ShakeltOph\_19, VroomVroom\_19,

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

- 

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

- Gilgamesh\_71,

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

Start 2:

- Found in 10 of 11 ( 90.9% ) of genes in pham
- Manual Annotations of this start: 5 of 6
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AceofSpades\_19 (AZ4), Emotion\_19 (AZ4), FiveHead\_21 (AZ4), JasmineDragon\_19 (AZ4), JohnThicc\_21 (AZ4), LadyAstra\_20 (AZ4), MiniMommy\_19 (AZ4), Origami\_20 (AZ4), ShakeltOph\_19 (AZ4), VroomVroom\_19 (AZ4),

Start 9:

- Found in 1 of 11 ( 9.1% ) of genes in pham
- Manual Annotations of this start: 1 of 6
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gilgamesh\_71 (singleton),

### Summary by clusters:

There are 2 clusters represented in this pham: singleton, AZ4,

Info for manual annotations of cluster AZ4:

- Start number 2 was manually annotated 5 times for cluster AZ4.

### Gene Information:

Gene: AceofSpades\_19 Start: 14338, Stop: 17349, Start Num: 2

Candidate Starts for AceofSpades\_19:

(Start: 2 @14338 has 5 MA's), (3, 14494), (4, 14578), (5, 14587), (7, 14665), (15, 15286), (18, 15352), (21, 15445), (23, 15463), (24, 15547), (27, 15646), (30, 15736), (31, 15775), (39, 16003), (41, 16027), (48, 16096), (49, 16150), (50, 16165), (60, 16369), (61, 16390), (65, 16447), (72, 16540), (73, 16567), (76, 16627), (82, 16780), (85, 16957), (88, 17017), (90, 17116),

Gene: Emotion\_19 Start: 14446, Stop: 17979, Start Num: 2

Candidate Starts for Emotion\_19:

(Start: 2 @14446 has 5 MA's), (4, 14686), (6, 14704), (8, 14923), (15, 15427), (21, 15586), (22, 15592), (40, 16171), (42, 16279), (43, 16342), (44, 16357), (45, 16561), (46, 16681), (48, 16750), (52, 16843), (54, 16912), (56, 16933), (59, 17023), (62, 17056), (64, 17077), (68, 17134), (71, 17185), (75, 17275), (76, 17278), (78, 17368), (82, 17422), (85, 17587), (88, 17647), (90, 17746),

Gene: FiveHead\_21 Start: 14327, Stop: 17338, Start Num: 2

Candidate Starts for FiveHead\_21:

(Start: 2 @14327 has 5 MA's), (3, 14483), (4, 14567), (5, 14576), (7, 14654), (8, 14804), (15, 15275), (21, 15434), (23, 15452), (24, 15536), (27, 15635), (30, 15725), (33, 15806), (34, 15815), (41, 16016), (48, 16085), (49, 16139), (58, 16334), (60, 16358), (61, 16379), (63, 16394), (65, 16436), (73, 16556), (76, 16616), (82, 16769), (84, 16847), (85, 16946), (88, 17006),

Gene: Gilgamesh\_71 Start: 66004, Stop: 68451, Start Num: 9

Candidate Starts for Gilgamesh\_71:

(Start: 9 @66004 has 1 MA's), (10, 66052), (11, 66055), (12, 66250), (13, 66334), (14, 66340), (16, 66427), (17, 66472), (19, 66511), (20, 66529), (22, 66571), (25, 66667), (26, 66712), (28, 66814), (32, 66907), (35, 66970), (36, 67045), (38, 67102), (41, 67153), (47, 67183), (51, 67303), (53, 67345), (55, 67393), (57, 67459), (59, 67507), (66, 67600), (67, 67612), (70, 67639), (74, 67732), (77, 67771), (79, 67879), (80, 67882), (81, 67888), (83, 67918), (86, 68059), (87, 68101), (89, 68152), (91, 68308), (92, 68428),

Gene: JasmineDragon\_19 Start: 14321, Stop: 17332, Start Num: 2

Candidate Starts for JasmineDragon\_19:

(1, 13733), (Start: 2 @14321 has 5 MA's), (3, 14477), (5, 14570), (7, 14648), (15, 15269), (21, 15428), (23, 15446), (24, 15530), (29, 15698), (30, 15719), (34, 15809), (37, 15944), (41, 16010), (48, 16079), (49, 16133), (60, 16352), (61, 16373), (65, 16430), (72, 16523), (73, 16550), (76, 16610), (82, 16763),

(85, 16940), (88, 17000),

Gene: JohnThicc\_21 Start: 14327, Stop: 17338, Start Num: 2

Candidate Starts for JohnThicc\_21:

(Start: 2 @14327 has 5 MA's), (3, 14483), (4, 14567), (5, 14576), (7, 14654), (8, 14804), (15, 15275), (21, 15434), (23, 15452), (24, 15536), (27, 15635), (30, 15725), (33, 15806), (34, 15815), (41, 16016), (48, 16085), (49, 16139), (58, 16334), (60, 16358), (61, 16379), (63, 16394), (65, 16436), (73, 16556), (76, 16616), (82, 16769), (84, 16847), (85, 16946), (88, 17006),

Gene: LadyAstra\_20 Start: 14327, Stop: 17338, Start Num: 2

Candidate Starts for LadyAstra\_20:

(Start: 2 @14327 has 5 MA's), (3, 14483), (4, 14567), (5, 14576), (7, 14654), (8, 14804), (15, 15275), (21, 15434), (23, 15452), (24, 15536), (27, 15635), (30, 15725), (33, 15806), (34, 15815), (41, 16016), (48, 16085), (49, 16139), (58, 16334), (60, 16358), (61, 16379), (63, 16394), (65, 16436), (69, 16490), (73, 16556), (76, 16616), (82, 16769), (84, 16847), (85, 16946), (88, 17006),

Gene: MiniMommy\_19 Start: 14322, Stop: 17333, Start Num: 2

Candidate Starts for MiniMommy\_19:

(1, 13734), (Start: 2 @14322 has 5 MA's), (3, 14478), (5, 14571), (7, 14649), (15, 15270), (21, 15429), (23, 15447), (24, 15531), (27, 15630), (30, 15720), (33, 15801), (34, 15810), (41, 16011), (48, 16080), (49, 16134), (58, 16329), (60, 16353), (61, 16374), (63, 16389), (65, 16431), (73, 16551), (76, 16611), (82, 16764), (84, 16842), (85, 16941), (88, 17001),

Gene: Origami\_20 Start: 14327, Stop: 17338, Start Num: 2

Candidate Starts for Origami\_20:

(Start: 2 @14327 has 5 MA's), (3, 14483), (4, 14567), (5, 14576), (7, 14654), (8, 14804), (15, 15275), (21, 15434), (23, 15452), (24, 15536), (27, 15635), (30, 15725), (33, 15806), (34, 15815), (41, 16016), (48, 16085), (49, 16139), (58, 16334), (60, 16358), (61, 16379), (63, 16394), (65, 16436), (69, 16490), (73, 16556), (76, 16616), (82, 16769), (84, 16847), (85, 16946), (88, 17006),

Gene: ShakeltOph\_19 Start: 14321, Stop: 17332, Start Num: 2

Candidate Starts for ShakeltOph\_19:

(1, 13733), (Start: 2 @14321 has 5 MA's), (3, 14477), (5, 14570), (7, 14648), (15, 15269), (21, 15428), (23, 15446), (24, 15530), (29, 15698), (30, 15719), (34, 15809), (37, 15944), (41, 16010), (48, 16079), (49, 16133), (60, 16352), (61, 16373), (65, 16430), (72, 16523), (73, 16550), (76, 16610), (82, 16763), (85, 16940), (88, 17000),

Gene: VroomVroom\_19 Start: 14338, Stop: 17349, Start Num: 2

Candidate Starts for VroomVroom\_19:

(Start: 2 @14338 has 5 MA's), (3, 14494), (4, 14578), (5, 14587), (7, 14665), (15, 15286), (18, 15352), (21, 15445), (23, 15463), (24, 15547), (27, 15646), (30, 15736), (31, 15775), (41, 16027), (48, 16096), (49, 16150), (50, 16165), (60, 16369), (61, 16390), (65, 16447), (72, 16540), (73, 16567), (76, 16627), (82, 16780), (85, 16957), (88, 17017), (90, 17116),