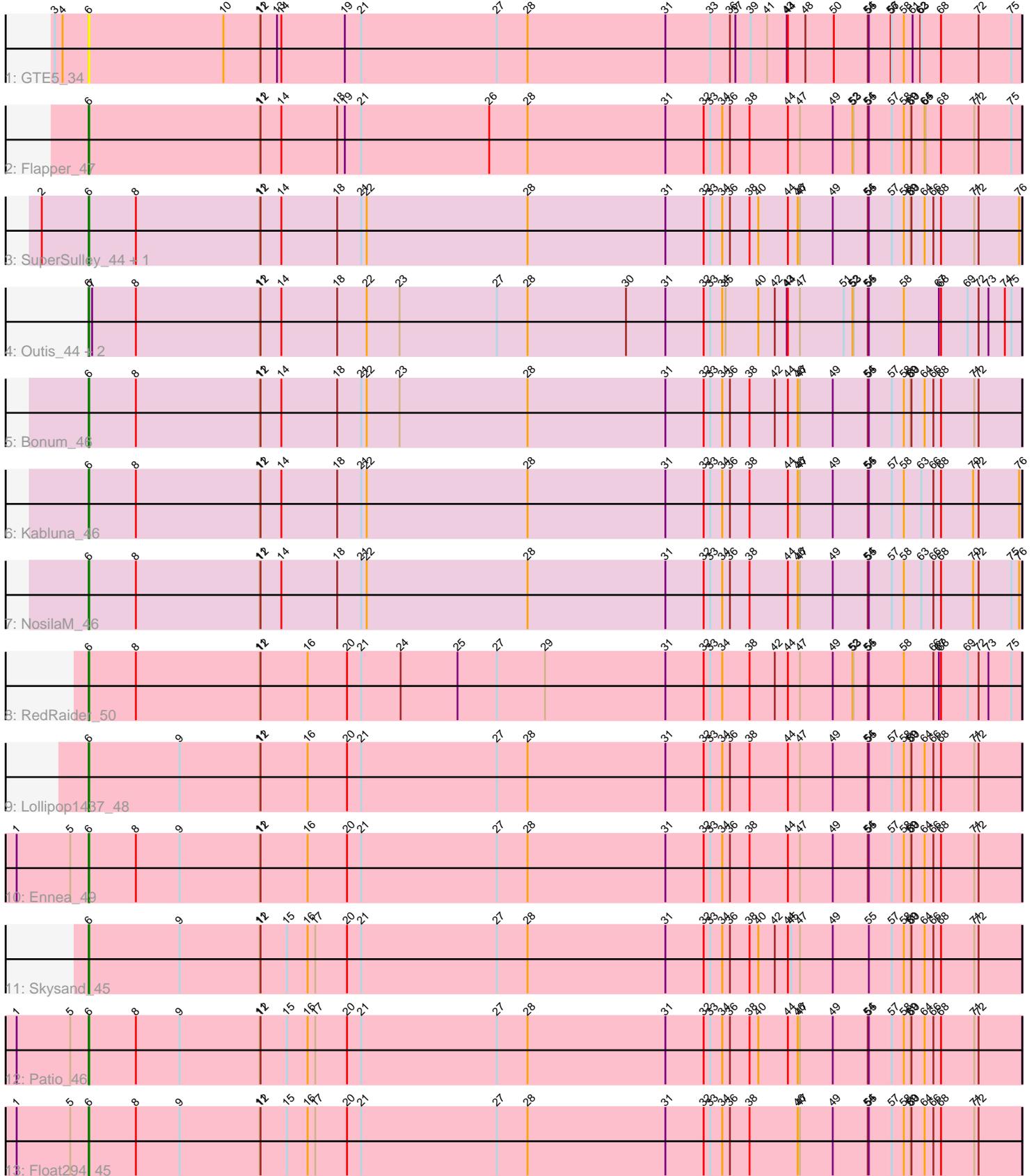


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 284264 Report

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

Pham number 284264 has 16 members, 1 are drafts.

Phages represented in each track:

- Track 1 : GTE5\_34
- Track 2 : Flapper\_47
- Track 3 : SuperSulley\_44, Buggaboo\_44
- Track 4 : Outis\_44, MerCougar\_44, StarStruck\_44
- Track 5 : Bonum\_46
- Track 6 : Kabluna\_46
- Track 7 : NosilaM\_46
- Track 8 : RedRaider\_50
- Track 9 : Lollipop1437\_48
- Track 10 : Ennea\_49
- Track 11 : Skysand\_45
- Track 12 : Patio\_46
- Track 13 : Float294\_45

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

Genes that call this "Most Annotated" start:

- Bonum\_46, Buggaboo\_44, Ennea\_49, Flapper\_47, Float294\_45, GTE5\_34, Kabluna\_46, Lollipop1437\_48, MerCougar\_44, NosilaM\_46, Outis\_44, Patio\_46, RedRaider\_50, Skysand\_45, StarStruck\_44, SuperSulley\_44,

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

- 

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

- 

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

Start 6:

- Found in 16 of 16 ( 100.0% ) of genes in pham

- Manual Annotations of this start: 15 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bonum\_46 (CR2), Buggaboo\_44 (CR2), Ennea\_49 (CR3), Flapper\_47 (CR1), Float294\_45 (CR3), GTE5\_34 (CR1), Kabluna\_46 (CR2), Lollipop1437\_48 (CR3), MerCougar\_44 (CR2), NosilaM\_46 (CR2), Outis\_44 (CR2), Patio\_46 (CR3), RedRaider\_50 (CR3), Skysand\_45 (CR3), StarStruck\_44 (CR2), SuperSulley\_44 (CR2),

### **Summary by clusters:**

There are 3 clusters represented in this pham: CR2, CR3, CR1,

Info for manual annotations of cluster CR1:

- Start number 6 was manually annotated 1 time for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 6 was manually annotated 8 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 6 was manually annotated 6 times for cluster CR3.

### **Gene Information:**

Gene: Bonum\_46 Start: 32908, Stop: 35466, Start Num: 6

Candidate Starts for Bonum\_46:

(Start: 6 @32908 has 15 MA's), (8, 33037), (11, 33376), (12, 33379), (14, 33436), (18, 33589), (21, 33655), (22, 33670), (23, 33760), (28, 34111), (31, 34489), (32, 34594), (33, 34612), (34, 34645), (36, 34666), (38, 34720), (42, 34789), (44, 34825), (46, 34852), (47, 34858), (49, 34948), (54, 35044), (55, 35047), (57, 35110), (58, 35143), (59, 35161), (60, 35164), (64, 35200), (66, 35224), (68, 35245), (71, 35335), (72, 35347),

Gene: Buggaboo\_44 Start: 33387, Stop: 35945, Start Num: 6

Candidate Starts for Buggaboo\_44:

(2, 33258), (Start: 6 @33387 has 15 MA's), (8, 33516), (11, 33855), (12, 33858), (14, 33915), (18, 34068), (21, 34134), (22, 34149), (28, 34590), (31, 34968), (32, 35073), (33, 35091), (34, 35124), (36, 35145), (38, 35199), (40, 35223), (44, 35304), (46, 35331), (47, 35337), (49, 35427), (54, 35523), (55, 35526), (57, 35589), (58, 35622), (59, 35640), (60, 35643), (64, 35679), (66, 35703), (68, 35724), (71, 35814), (72, 35826), (76, 35937),

Gene: Ennea\_49 Start: 34236, Stop: 36794, Start Num: 6

Candidate Starts for Ennea\_49:

(1, 34038), (5, 34185), (Start: 6 @34236 has 15 MA's), (8, 34365), (9, 34485), (11, 34704), (12, 34707), (16, 34836), (20, 34944), (21, 34983), (27, 35355), (28, 35439), (31, 35817), (32, 35922), (33, 35940), (34, 35973), (36, 35994), (38, 36048), (44, 36153), (47, 36186), (49, 36276), (54, 36372), (55, 36375), (57, 36438), (58, 36471), (59, 36489), (60, 36492), (64, 36528), (66, 36552), (68, 36573), (71, 36663), (72, 36675),

Gene: Flapper\_47 Start: 33951, Stop: 36509, Start Num: 6

Candidate Starts for Flapper\_47:

(Start: 6 @33951 has 15 MA's), (11, 34419), (12, 34422), (14, 34479), (18, 34632), (19, 34653), (21, 34698), (26, 35049), (28, 35154), (31, 35532), (32, 35637), (33, 35655), (34, 35688), (36, 35709), (38,

35763), (44, 35868), (47, 35901), (49, 35991), (52, 36045), (53, 36048), (54, 36087), (55, 36090), (57, 36153), (58, 36186), (59, 36204), (60, 36207), (64, 36243), (65, 36246), (68, 36288), (71, 36378), (72, 36390), (75, 36480),

Gene: Float294\_45 Start: 33678, Stop: 36236, Start Num: 6

Candidate Starts for Float294\_45:

(1, 33480), (5, 33627), (Start: 6 @33678 has 15 MA's), (8, 33807), (9, 33927), (11, 34146), (12, 34149), (15, 34221), (16, 34278), (17, 34299), (20, 34386), (21, 34425), (27, 34797), (28, 34881), (31, 35259), (32, 35364), (33, 35382), (34, 35415), (36, 35436), (38, 35490), (46, 35622), (47, 35628), (49, 35718), (54, 35814), (55, 35817), (57, 35880), (58, 35913), (59, 35931), (60, 35934), (64, 35970), (66, 35994), (68, 36015), (71, 36105), (72, 36117),

Gene: GTE5\_34 Start: 26806, Stop: 29361, Start Num: 6

Candidate Starts for GTE5\_34:

(3, 26713), (4, 26734), (Start: 6 @26806 has 15 MA's), (10, 27175), (11, 27274), (12, 27277), (13, 27322), (14, 27334), (19, 27508), (21, 27553), (27, 27925), (28, 28009), (31, 28387), (33, 28510), (36, 28564), (37, 28579), (39, 28621), (41, 28666), (43, 28720), (44, 28723), (48, 28771), (50, 28849), (54, 28942), (55, 28945), (56, 29005), (57, 29008), (58, 29041), (61, 29065), (62, 29086), (63, 29089), (68, 29143), (72, 29245), (75, 29335),

Gene: Kabluna\_46 Start: 32323, Stop: 34881, Start Num: 6

Candidate Starts for Kabluna\_46:

(Start: 6 @32323 has 15 MA's), (8, 32452), (11, 32791), (12, 32794), (14, 32851), (18, 33004), (21, 33070), (22, 33085), (28, 33526), (31, 33904), (32, 34009), (33, 34027), (34, 34060), (36, 34081), (38, 34135), (44, 34240), (46, 34267), (47, 34273), (49, 34363), (54, 34459), (55, 34462), (57, 34525), (58, 34558), (63, 34606), (66, 34639), (68, 34660), (70, 34747), (72, 34762), (76, 34873),

Gene: Lollipop1437\_48 Start: 34224, Stop: 36782, Start Num: 6

Candidate Starts for Lollipop1437\_48:

(Start: 6 @34224 has 15 MA's), (9, 34473), (11, 34692), (12, 34695), (16, 34824), (20, 34932), (21, 34971), (27, 35343), (28, 35427), (31, 35805), (32, 35910), (33, 35928), (34, 35961), (36, 35982), (38, 36036), (44, 36141), (47, 36174), (49, 36264), (54, 36360), (55, 36363), (57, 36426), (58, 36459), (59, 36477), (60, 36480), (64, 36516), (66, 36540), (68, 36561), (71, 36651), (72, 36663),

Gene: MerCougar\_44 Start: 33507, Stop: 36065, Start Num: 6

Candidate Starts for MerCougar\_44:

(Start: 6 @33507 has 15 MA's), (7, 33516), (8, 33636), (11, 33975), (12, 33978), (14, 34035), (18, 34188), (22, 34269), (23, 34359), (27, 34626), (28, 34710), (30, 34980), (31, 35088), (32, 35193), (33, 35211), (34, 35244), (35, 35253), (40, 35343), (42, 35388), (43, 35421), (44, 35424), (47, 35457), (51, 35577), (52, 35601), (53, 35604), (54, 35643), (55, 35646), (58, 35742), (67, 35838), (68, 35844), (69, 35916), (72, 35946), (73, 35973), (74, 36018), (75, 36036),

Gene: NosilaM\_46 Start: 33220, Stop: 35778, Start Num: 6

Candidate Starts for NosilaM\_46:

(Start: 6 @33220 has 15 MA's), (8, 33349), (11, 33688), (12, 33691), (14, 33748), (18, 33901), (21, 33967), (22, 33982), (28, 34423), (31, 34801), (32, 34906), (33, 34924), (34, 34957), (36, 34978), (38, 35032), (44, 35137), (46, 35164), (47, 35170), (49, 35260), (54, 35356), (55, 35359), (57, 35422), (58, 35455), (63, 35503), (66, 35536), (68, 35557), (70, 35644), (72, 35659), (75, 35749), (76, 35770),

Gene: Outis\_44 Start: 33201, Stop: 35759, Start Num: 6

Candidate Starts for Outis\_44:

(Start: 6 @33201 has 15 MA's), (7, 33210), (8, 33330), (11, 33669), (12, 33672), (14, 33729), (18, 33882), (22, 33963), (23, 34053), (27, 34320), (28, 34404), (30, 34674), (31, 34782), (32, 34887), (33,

34905), (34, 34938), (35, 34947), (40, 35037), (42, 35082), (43, 35115), (44, 35118), (47, 35151), (51, 35271), (52, 35295), (53, 35298), (54, 35337), (55, 35340), (58, 35436), (67, 35532), (68, 35538), (69, 35610), (72, 35640), (73, 35667), (74, 35712), (75, 35730),

Gene: Patio\_46 Start: 33460, Stop: 36018, Start Num: 6

Candidate Starts for Patio\_46:

(1, 33262), (5, 33409), (Start: 6 @33460 has 15 MA's), (8, 33589), (9, 33709), (11, 33928), (12, 33931), (15, 34003), (16, 34060), (17, 34081), (20, 34168), (21, 34207), (27, 34579), (28, 34663), (31, 35041), (32, 35146), (33, 35164), (34, 35197), (36, 35218), (38, 35272), (40, 35296), (44, 35377), (46, 35404), (47, 35410), (49, 35500), (54, 35596), (55, 35599), (57, 35662), (58, 35695), (59, 35713), (60, 35716), (64, 35752), (66, 35776), (68, 35797), (71, 35887), (72, 35899),

Gene: RedRaider\_50 Start: 35482, Stop: 38040, Start Num: 6

Candidate Starts for RedRaider\_50:

(Start: 6 @35482 has 15 MA's), (8, 35611), (11, 35950), (12, 35953), (16, 36082), (20, 36190), (21, 36229), (24, 36337), (25, 36493), (27, 36601), (29, 36733), (31, 37063), (32, 37168), (33, 37186), (34, 37219), (38, 37294), (42, 37363), (44, 37399), (47, 37432), (49, 37522), (52, 37576), (53, 37579), (54, 37618), (55, 37621), (58, 37717), (66, 37798), (67, 37813), (68, 37819), (69, 37891), (72, 37921), (73, 37948), (75, 38011),

Gene: Skysand\_45 Start: 33680, Stop: 36238, Start Num: 6

Candidate Starts for Skysand\_45:

(Start: 6 @33680 has 15 MA's), (9, 33929), (11, 34148), (12, 34151), (15, 34223), (16, 34280), (17, 34301), (20, 34388), (21, 34427), (27, 34799), (28, 34883), (31, 35261), (32, 35366), (33, 35384), (34, 35417), (36, 35438), (38, 35492), (40, 35516), (42, 35561), (44, 35597), (45, 35606), (47, 35630), (49, 35720), (55, 35819), (57, 35882), (58, 35915), (59, 35933), (60, 35936), (64, 35972), (66, 35996), (68, 36017), (71, 36107), (72, 36119),

Gene: StarStruck\_44 Start: 33201, Stop: 35759, Start Num: 6

Candidate Starts for StarStruck\_44:

(Start: 6 @33201 has 15 MA's), (7, 33210), (8, 33330), (11, 33669), (12, 33672), (14, 33729), (18, 33882), (22, 33963), (23, 34053), (27, 34320), (28, 34404), (30, 34674), (31, 34782), (32, 34887), (33, 34905), (34, 34938), (35, 34947), (40, 35037), (42, 35082), (43, 35115), (44, 35118), (47, 35151), (51, 35271), (52, 35295), (53, 35298), (54, 35337), (55, 35340), (58, 35436), (67, 35532), (68, 35538), (69, 35610), (72, 35640), (73, 35667), (74, 35712), (75, 35730),

Gene: SuperSulley\_44 Start: 33387, Stop: 35945, Start Num: 6

Candidate Starts for SuperSulley\_44:

(2, 33258), (Start: 6 @33387 has 15 MA's), (8, 33516), (11, 33855), (12, 33858), (14, 33915), (18, 34068), (21, 34134), (22, 34149), (28, 34590), (31, 34968), (32, 35073), (33, 35091), (34, 35124), (36, 35145), (38, 35199), (40, 35223), (44, 35304), (46, 35331), (47, 35337), (49, 35427), (54, 35523), (55, 35526), (57, 35589), (58, 35622), (59, 35640), (60, 35643), (64, 35679), (66, 35703), (68, 35724), (71, 35814), (72, 35826), (76, 35937),