



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 295253 Report

This analysis was run 04/18/26 on database version 643.

Pham number 295253 has 12 members, 2 are drafts.

Phages represented in each track:

- Track 1 : PondAmelia\_22
- Track 2 : Elva\_19
- Track 3 : Stromboli\_18
- Track 4 : Icarian\_19
- Track 5 : DirtyBubble\_18
- Track 6 : SanaSana\_19, Stoor\_18
- Track 7 : WalkingDead\_18
- Track 8 : Quenya\_18
- Track 9 : Loviatar\_18, Akino08\_17
- Track 10 : BabyYoda\_18

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

The start number called the most often in the published annotations is 1, it was called in 10 of the 10 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Akino08\_17, BabyYoda\_18, DirtyBubble\_18, Elva\_19, Icarian\_19, Loviatar\_18, PondAmelia\_22, Quenya\_18, SanaSana\_19, Stoor\_18, Stromboli\_18, WalkingDead\_18,

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 1:

- Found in 12 of 12 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 10 of 10
- Called 100.0% of time when present

• Phage (with cluster) where this start called: Akino08\_17 (EB), BabyYoda\_18 (EB), DirtyBubble\_18 (EB), Elva\_19 (EB), Icarian\_19 (EB), Loviatar\_18 (EB), PondAmelia\_22 (EB), Quenya\_18 (EB), SanaSana\_19 (EB), Stoor\_18 (EB), Stromboli\_18 (EB), WalkingDead\_18 (EB),

### Summary by clusters:

There is one cluster represented in this pham: EB

Info for manual annotations of cluster EB:

•Start number 1 was manually annotated 10 times for cluster EB.

### Gene Information:

Gene: Akino08\_17 Start: 13904, Stop: 16030, Start Num: 1

Candidate Starts for Akino08\_17:

(Start: 1 @13904 has 10 MA's), (5, 14105), (6, 14147), (9, 14210), (10, 14222), (11, 14225), (13, 14321), (14, 14333), (15, 14372), (16, 14390), (17, 14444), (22, 14672), (26, 14834), (27, 14858), (28, 14900), (30, 14906), (32, 14942), (34, 14987), (37, 15065), (39, 15128), (40, 15155), (44, 15344), (48, 15428), (49, 15470), (50, 15473), (52, 15491), (54, 15521), (63, 15665), (68, 15773), (70, 16010),

Gene: BabyYoda\_18 Start: 13988, Stop: 16123, Start Num: 1

Candidate Starts for BabyYoda\_18:

(Start: 1 @13988 has 10 MA's), (5, 14189), (6, 14231), (9, 14294), (13, 14405), (14, 14417), (15, 14456), (17, 14528), (22, 14756), (27, 14942), (28, 14984), (32, 15026), (35, 15083), (36, 15128), (37, 15149), (39, 15212), (40, 15239), (43, 15416), (44, 15428), (48, 15518), (50, 15563), (51, 15575), (53, 15605), (54, 15617), (55, 15638), (58, 15707), (62, 15749), (66, 15809), (70, 16103),

Gene: DirtyBubble\_18 Start: 13946, Stop: 16081, Start Num: 1

Candidate Starts for DirtyBubble\_18:

(Start: 1 @13946 has 10 MA's), (5, 14147), (6, 14189), (9, 14252), (13, 14363), (14, 14375), (17, 14486), (22, 14714), (27, 14900), (28, 14942), (32, 14984), (34, 15029), (35, 15041), (36, 15086), (37, 15107), (39, 15170), (40, 15197), (43, 15374), (44, 15386), (48, 15476), (50, 15521), (51, 15533), (53, 15563), (54, 15575), (55, 15596), (58, 15665), (62, 15707), (65, 15764), (66, 15767), (70, 16061),

Gene: Elva\_19 Start: 13907, Stop: 16039, Start Num: 1

Candidate Starts for Elva\_19:

(Start: 1 @13907 has 10 MA's), (2, 13943), (5, 14108), (6, 14150), (13, 14324), (14, 14336), (16, 14393), (17, 14447), (20, 14540), (24, 14771), (27, 14861), (28, 14903), (31, 14936), (32, 14945), (34, 14990), (36, 15047), (42, 15245), (43, 15332), (44, 15344), (45, 15365), (48, 15434), (50, 15479), (51, 15491), (53, 15521), (54, 15533), (55, 15554), (58, 15623), (65, 15722), (66, 15725), (70, 16019),

Gene: Icarian\_19 Start: 13828, Stop: 15954, Start Num: 1

Candidate Starts for Icarian\_19:

(Start: 1 @13828 has 10 MA's), (5, 14029), (6, 14071), (9, 14134), (10, 14146), (11, 14149), (12, 14242), (13, 14245), (17, 14368), (22, 14596), (27, 14782), (28, 14824), (30, 14830), (32, 14866), (34, 14911), (37, 14989), (39, 15052), (40, 15079), (44, 15268), (48, 15352), (49, 15394), (50, 15397), (53, 15433), (54, 15445), (55, 15466), (56, 15487), (63, 15589), (70, 15934),

Gene: Loviatar\_18 Start: 13919, Stop: 16045, Start Num: 1

Candidate Starts for Loviatar\_18:

(Start: 1 @13919 has 10 MA's), (5, 14120), (6, 14162), (9, 14225), (10, 14237), (11, 14240), (13, 14336), (14, 14348), (15, 14387), (16, 14405), (17, 14459), (22, 14687), (26, 14849), (27, 14873), (28, 14915), (30, 14921), (32, 14957), (34, 15002), (37, 15080), (39, 15143), (40, 15170), (44, 15359), (48, 15443), (49, 15485), (50, 15488), (52, 15506), (54, 15536), (63, 15680), (68, 15788), (70, 16025),

Gene: PondAmelia\_22 Start: 13971, Stop: 16097, Start Num: 1

Candidate Starts for PondAmelia\_22:

(Start: 1 @13971 has 10 MA's), (5, 14172), (6, 14214), (9, 14277), (10, 14289), (13, 14388), (14, 14400), (15, 14439), (16, 14457), (17, 14511), (22, 14739), (24, 14835), (27, 14925), (28, 14967), (30, 14973), (32, 15009), (34, 15054), (37, 15132), (39, 15195), (40, 15222), (44, 15411), (48, 15495), (49, 15537), (50, 15540), (52, 15558), (53, 15576), (54, 15588), (55, 15609), (56, 15630), (63, 15732), (68, 15840), (70, 16077),

Gene: Quenya\_18 Start: 13518, Stop: 15635, Start Num: 1

Candidate Starts for Quenya\_18:

(Start: 1 @13518 has 10 MA's), (3, 13611), (4, 13704), (5, 13722), (6, 13764), (7, 13815), (8, 13818), (9, 13827), (13, 13938), (14, 13950), (17, 14061), (19, 14136), (21, 14256), (23, 14328), (25, 14436), (26, 14451), (27, 14475), (28, 14517), (29, 14520), (30, 14523), (31, 14550), (33, 14598), (34, 14604), (35, 14616), (38, 14709), (39, 14727), (41, 14808), (46, 14979), (47, 14985), (48, 15036), (51, 15093), (52, 15099), (53, 15120), (54, 15132), (55, 15153), (56, 15174), (57, 15222), (60, 15252), (61, 15255), (64, 15279), (65, 15318), (68, 15378), (69, 15399), (70, 15615),

Gene: SanaSana\_19 Start: 13858, Stop: 15984, Start Num: 1

Candidate Starts for SanaSana\_19:

(Start: 1 @13858 has 10 MA's), (5, 14059), (6, 14101), (9, 14164), (10, 14176), (11, 14179), (13, 14275), (14, 14287), (15, 14326), (16, 14344), (17, 14398), (18, 14461), (22, 14626), (27, 14812), (28, 14854), (32, 14896), (34, 14941), (37, 15019), (40, 15109), (44, 15298), (48, 15382), (49, 15424), (50, 15427), (53, 15463), (54, 15475), (56, 15517), (59, 15574), (63, 15619), (70, 15964),

Gene: Stoor\_18 Start: 13855, Stop: 15981, Start Num: 1

Candidate Starts for Stoor\_18:

(Start: 1 @13855 has 10 MA's), (5, 14056), (6, 14098), (9, 14161), (10, 14173), (11, 14176), (13, 14272), (14, 14284), (15, 14323), (16, 14341), (17, 14395), (18, 14458), (22, 14623), (27, 14809), (28, 14851), (32, 14893), (34, 14938), (37, 15016), (40, 15106), (44, 15295), (48, 15379), (49, 15421), (50, 15424), (53, 15460), (54, 15472), (56, 15514), (59, 15571), (63, 15616), (70, 15961),

Gene: Stromboli\_18 Start: 13986, Stop: 16121, Start Num: 1

Candidate Starts for Stromboli\_18:

(Start: 1 @13986 has 10 MA's), (5, 14187), (6, 14229), (9, 14292), (13, 14403), (14, 14415), (15, 14454), (17, 14526), (22, 14754), (27, 14940), (28, 14982), (32, 15024), (34, 15069), (35, 15081), (36, 15126), (37, 15147), (39, 15210), (40, 15237), (43, 15414), (44, 15426), (48, 15516), (50, 15561), (51, 15573), (53, 15603), (54, 15615), (55, 15636), (58, 15705), (62, 15747), (66, 15807), (70, 16101),

Gene: WalkingDead\_18 Start: 13978, Stop: 16113, Start Num: 1

Candidate Starts for WalkingDead\_18:

(Start: 1 @13978 has 10 MA's), (5, 14179), (6, 14221), (9, 14284), (10, 14296), (13, 14395), (14, 14407), (15, 14446), (16, 14464), (17, 14518), (22, 14746), (27, 14932), (28, 14974), (32, 15016), (34, 15061), (37, 15139), (39, 15202), (40, 15229), (44, 15418), (48, 15508), (50, 15553), (51, 15565), (53, 15595), (54, 15607), (55, 15628), (62, 15739), (65, 15796), (66, 15799), (67, 15838), (70, 16093),