



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 291899 Report

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

Pham number 291899 has 6 members, 0 are drafts.

Phages represented in each track:

- Track 1 : Ronaldo\_54, Ziko\_54, Volt\_53
- Track 2 : Fryberger\_51
- Track 3 : Keelan\_49
- Track 4 : Guey18\_56

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

Genes that call this "Most Annotated" start:

- Fryberger\_51, Guey18\_56, Keelan\_49, Ronaldo\_54, Volt\_53, Ziko\_54,

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 2:

- Found in 6 of 6 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 6 of 6
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fryberger\_51 (DP), Guey18\_56 (DP), Keelan\_49 (DP), Ronaldo\_54 (DP), Volt\_53 (DP), Ziko\_54 (DP),

### **Summary by clusters:**

There is one cluster represented in this pham: DP

Info for manual annotations of cluster DP:

- Start number 2 was manually annotated 6 times for cluster DP.

### **Gene Information:**

Gene: Fryberger\_51 Start: 21435, Stop: 26990, Start Num: 2

Candidate Starts for Fryberger\_51:

(Start: 2 @21435 has 6 MA's), (3, 21501), (4, 21513), (5, 21585), (7, 21654), (8, 21714), (9, 21729), (10, 21747), (11, 21759), (12, 21789), (13, 21822), (14, 21924), (15, 21927), (17, 21969), (18, 21993), (20, 22044), (21, 22164), (22, 22167), (23, 22185), (24, 22200), (25, 22284), (26, 22290), (27, 22371), (28, 22395), (29, 22431), (30, 22443), (31, 22470), (32, 22497), (34, 22605), (36, 22650), (39, 22719), (40, 22731), (43, 23070), (44, 23100), (45, 23121), (46, 23127), (47, 23193), (48, 23259), (53, 23412), (55, 23442), (56, 23481), (57, 23484), (58, 23514), (59, 23556), (61, 23610), (62, 23661), (63, 23676), (64, 23682), (66, 23703), (68, 23757), (69, 23796), (70, 23826), (71, 23856), (72, 23880), (74, 23970), (75, 23979), (76, 24009), (77, 24021), (78, 24102), (81, 24168), (82, 24180), (84, 24333), (85, 24336), (86, 24381), (90, 24498), (93, 24588), (94, 24618), (95, 24657), (96, 24666), (97, 24681), (99, 24756), (101, 25035), (102, 25041), (103, 25173), (104, 25272), (105, 25368), (107, 25446), (110, 25653), (111, 25764), (112, 25929), (113, 25953), (114, 26010), (116, 26097), (117, 26235), (118, 26253), (119, 26274), (121, 26376), (122, 26421), (123, 26445), (124, 26595), (125, 26655), (127, 26685), (129, 26712), (130, 26727), (131, 26781), (133, 26796), (135, 26877), (136, 26892), (138, 26967),

Gene: Guey18\_56 Start: 22628, Stop: 28183, Start Num: 2

Candidate Starts for Guey18\_56:

(Start: 2 @22628 has 6 MA's), (3, 22694), (4, 22706), (5, 22778), (8, 22907), (9, 22922), (10, 22940), (11, 22952), (12, 22982), (13, 23015), (14, 23117), (15, 23120), (17, 23162), (18, 23186), (20, 23237), (21, 23357), (22, 23360), (23, 23378), (24, 23393), (25, 23477), (26, 23483), (27, 23564), (28, 23588), (29, 23624), (30, 23636), (31, 23663), (32, 23690), (34, 23798), (36, 23843), (39, 23912), (40, 23924), (43, 24263), (44, 24293), (45, 24314), (46, 24320), (47, 24386), (48, 24452), (53, 24605), (54, 24617), (55, 24635), (56, 24674), (57, 24677), (58, 24707), (59, 24749), (61, 24803), (62, 24854), (63, 24869), (64, 24875), (66, 24896), (68, 24950), (69, 24989), (70, 25019), (71, 25049), (74, 25163), (75, 25172), (76, 25202), (77, 25214), (78, 25295), (81, 25361), (82, 25373), (84, 25526), (85, 25529), (86, 25574), (90, 25691), (93, 25781), (94, 25811), (95, 25850), (96, 25859), (97, 25874), (99, 25949), (101, 26228), (102, 26234), (103, 26366), (104, 26465), (105, 26561), (107, 26639), (109, 26819), (110, 26846), (111, 26957), (112, 27122), (113, 27146), (114, 27203), (116, 27290), (117, 27428), (118, 27446), (119, 27467), (121, 27569), (123, 27638), (127, 27878), (129, 27905), (130, 27920), (131, 27974), (135, 28070), (136, 28085), (138, 28160),

Gene: Keelan\_49 Start: 21419, Stop: 26977, Start Num: 2

Candidate Starts for Keelan\_49:

(1, 21353), (Start: 2 @21419 has 6 MA's), (4, 21497), (5, 21569), (6, 21584), (8, 21698), (10, 21731), (11, 21743), (12, 21773), (13, 21806), (14, 21908), (15, 21911), (16, 21920), (17, 21953), (19, 22007), (20, 22028), (21, 22148), (23, 22169), (24, 22184), (27, 22355), (33, 22505), (35, 22601), (37, 22640), (38, 22691), (39, 22703), (40, 22715), (41, 22937), (42, 22946), (46, 23099), (49, 23264), (50, 23276), (52, 23372), (53, 23384), (55, 23414), (57, 23456), (58, 23486), (59, 23528), (60, 23540), (61, 23582), (62, 23633), (64, 23654), (65, 23672), (66, 23675), (67, 23717), (68, 23729), (69, 23768), (71, 23828), (73, 23903), (75, 23951), (77, 23993), (78, 24074), (79, 24080), (80, 24128), (81, 24140), (83, 24296), (87, 24377), (88, 24425), (89, 24452), (90, 24470), (91, 24518), (92, 24542), (93, 24560), (98, 24671), (99, 24740), (100, 24815), (102, 25025), (103, 25157), (104, 25256), (105, 25352), (106, 25376), (107, 25430), (108, 25541), (110, 25643), (111, 25754), (112, 25919), (113, 25943), (115, 26075), (118, 26240), (119, 26261), (120, 26318), (121, 26363), (122, 26408), (123, 26432), (124, 26582), (126, 26654), (127, 26672), (128, 26693), (129, 26699), (131, 26768), (132, 26777), (134, 26801), (137, 26891), (138, 26954),

Gene: Ronaldo\_54 Start: 22393, Stop: 27948, Start Num: 2

Candidate Starts for Ronaldo\_54:

(Start: 2 @22393 has 6 MA's), (3, 22459), (4, 22471), (5, 22543), (7, 22612), (8, 22672), (9, 22687), (10, 22705), (11, 22717), (12, 22747), (13, 22780), (14, 22882), (15, 22885), (17, 22927), (18, 22951), (20, 23002), (21, 23122), (22, 23125), (23, 23143), (24, 23158), (25, 23242), (26, 23248), (27, 23329), (28, 23353), (30, 23401), (31, 23428), (32, 23455), (34, 23563), (36, 23608), (39, 23677), (40, 23689), (43, 24028), (44, 24058), (45, 24079), (46, 24085), (48, 24217), (51, 24298), (53, 24370), (55, 24400), (56, 24439), (57, 24442), (58, 24472), (59, 24514), (61, 24568), (62, 24619), (63, 24634), (64, 24640), (66, 24661), (68, 24715), (69, 24754), (70, 24784), (71, 24814), (72, 24838), (74, 24928), (75, 24937), (76, 24967), (77, 24979), (78, 25060), (81, 25126), (82, 25138), (84, 25291), (85, 25294), (86, 25339), (90, 25456), (93, 25546), (94, 25576), (95, 25615), (96, 25624), (97, 25639), (99, 25714), (101, 25993), (102, 25999), (103, 26131), (104, 26230), (105, 26326), (107, 26404), (110, 26611), (111, 26722), (112, 26887), (113, 26911), (114, 26968), (116, 27055), (117, 27193), (118, 27211), (119, 27232), (121, 27334), (122, 27379), (123, 27403), (124, 27553), (125, 27613), (127, 27643), (129, 27670), (130, 27685), (131, 27739), (133, 27754), (135, 27835), (136, 27850), (138, 27925),

Gene: Volt\_53 Start: 22393, Stop: 27948, Start Num: 2

Candidate Starts for Volt\_53:

(Start: 2 @22393 has 6 MA's), (3, 22459), (4, 22471), (5, 22543), (7, 22612), (8, 22672), (9, 22687), (10, 22705), (11, 22717), (12, 22747), (13, 22780), (14, 22882), (15, 22885), (17, 22927), (18, 22951), (20, 23002), (21, 23122), (22, 23125), (23, 23143), (24, 23158), (25, 23242), (26, 23248), (27, 23329), (28, 23353), (30, 23401), (31, 23428), (32, 23455), (34, 23563), (36, 23608), (39, 23677), (40, 23689), (43, 24028), (44, 24058), (45, 24079), (46, 24085), (48, 24217), (51, 24298), (53, 24370), (55, 24400), (56, 24439), (57, 24442), (58, 24472), (59, 24514), (61, 24568), (62, 24619), (63, 24634), (64, 24640), (66, 24661), (68, 24715), (69, 24754), (70, 24784), (71, 24814), (72, 24838), (74, 24928), (75, 24937), (76, 24967), (77, 24979), (78, 25060), (81, 25126), (82, 25138), (84, 25291), (85, 25294), (86, 25339), (90, 25456), (93, 25546), (94, 25576), (95, 25615), (96, 25624), (97, 25639), (99, 25714), (101, 25993), (102, 25999), (103, 26131), (104, 26230), (105, 26326), (107, 26404), (110, 26611), (111, 26722), (112, 26887), (113, 26911), (114, 26968), (116, 27055), (117, 27193), (118, 27211), (119, 27232), (121, 27334), (122, 27379), (123, 27403), (124, 27553), (125, 27613), (127, 27643), (129, 27670), (130, 27685), (131, 27739), (133, 27754), (135, 27835), (136, 27850), (138, 27925),

Gene: Ziko\_54 Start: 22333, Stop: 27888, Start Num: 2

Candidate Starts for Ziko\_54:

(Start: 2 @22333 has 6 MA's), (3, 22399), (4, 22411), (5, 22483), (7, 22552), (8, 22612), (9, 22627), (10, 22645), (11, 22657), (12, 22687), (13, 22720), (14, 22822), (15, 22825), (17, 22867), (18, 22891), (20, 22942), (21, 23062), (22, 23065), (23, 23083), (24, 23098), (25, 23182), (26, 23188), (27, 23269), (28, 23293), (30, 23341), (31, 23368), (32, 23395), (34, 23503), (36, 23548), (39, 23617), (40, 23629), (43, 23968), (44, 23998), (45, 24019), (46, 24025), (48, 24157), (51, 24238), (53, 24310), (55, 24340), (56, 24379), (57, 24382), (58, 24412), (59, 24454), (61, 24508), (62, 24559), (63, 24574), (64, 24580), (66, 24601), (68, 24655), (69, 24694), (70, 24724), (71, 24754), (72, 24778), (74, 24868), (75, 24877), (76, 24907), (77, 24919), (78, 25000), (81, 25066), (82, 25078), (84, 25231), (85, 25234), (86, 25279), (90, 25396), (93, 25486), (94, 25516), (95, 25555), (96, 25564), (97, 25579), (99, 25654), (101, 25933), (102, 25939), (103, 26071), (104, 26170), (105, 26266), (107, 26344), (110, 26551), (111, 26662), (112, 26827), (113, 26851), (114, 26908), (116, 26995), (117, 27133), (118, 27151), (119, 27172), (121, 27274), (122, 27319), (123, 27343), (124, 27493), (125, 27553), (127, 27583), (129, 27610), (130, 27625), (131, 27679), (133, 27694), (135, 27775), (136, 27790), (138, 27865),