

Clostridium difficile (C. diff) Detection Kit

In the United States, an estimated 500,000 people are infected annually, and more than 28,000 die from *Clostridium difficile* infection (CDI). C diff are gram-positive, spore-forming bacteria that are found in soil, water, food and animals. C diff also present as normal flora in human GI tract. Pathogenic strains of C. diff produce toxins and they are a possible cause of antibiotic-associated diarrhea and colitis.

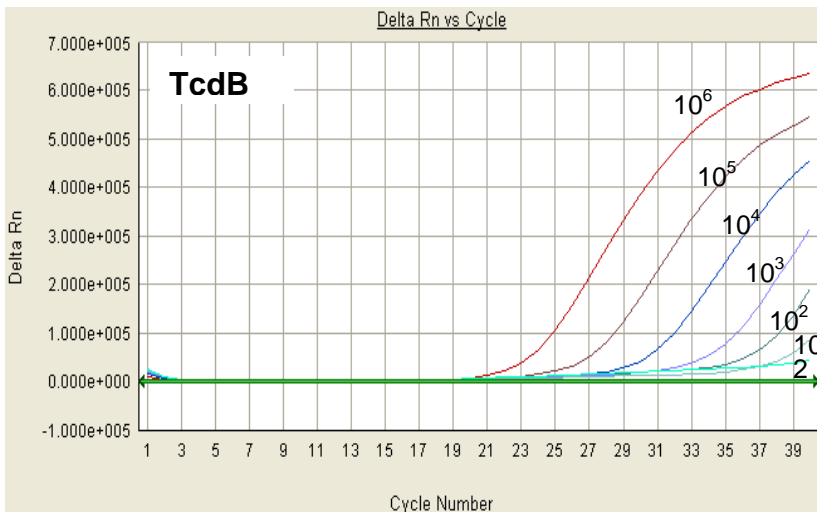
Pathogenesis involves the action of two toxins, toxin A and toxin B, which are encoded by the *tcdA* and *tcdB* genes, respectively. Toxin A is an enterotoxin and Toxin B is a potent cytotoxin and is the major virulence factor. Non-pathogenic strains do not contain the *tcdA* and *tcdB* genes and therefore they do not produce Toxins A&B.

The eQ-PCR™ C. diff Detection Kit is designed to detect *Clostridium difficile* bacteria present in human samples or from the environment, such as irrigation water. These bacteria may carry one of the toxins genes (*tcdA*, *tcdB*), and therefore they are used as the target genes for the detection of C diff bacteria. In addition to the toxic genes, C diff 16S r-RNA gene is used to serve as a PCR reaction control for the detection kit. eQ-PCR™ is a sensitive and powerful real time PCR assay to identify infectious pathogens.

eQ-PCR™ C. diff Detection kit is a highly sensitive test for early detection of the *Clostridium difficile* bacteria in blood, stool or the environment (irrigation water). The test is a multiplexed assay using real-time PCR and performed in a closed-tube, walk-away system. C diff Toxin B (Tcd B) is visualized using the FAM-labeled probe. In contrast, Toxin A (Tcd A) is visualized using the Cy5-labeled probe. 16S-r-RNA of C diff is visualized using the VIC-labeled probe.

Assay Type:	Detection
Sensitivity:	10 - 20 copies / ml sample
Sample Source:	DNA from blood, stool, water
Platform	ABI 7500, 7900 Stratagene Mx3000P LightCycler

eQ-PCR™ C diff kit is able to detect 2 – 100,000 copies of the Toxin B in C. diff bacteria.



Product Information

Name	Kit size	Cat No.
C difficile Bacteria (C diff) Detection Kit	32 tests	EP-510

Please specify the platform used in your lab when ordering

For Research Use Only.
Not for use in diagnostic procedures.



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