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## **Antibody Datasheet**

Clone number: TA22

Isotype: Mouse IgG<sub>1</sub>

Product code: MAB12235-100

**Batch Number:** 

Amount:

Concentration: 1 mg/ml

Buffer: Phosphate Buffered Saline pH7.4

Preservative: 0.09% Sodium Azide (NaN<sub>3</sub>)

0.1mg

Purification: The antibody was purified by affinity chromatography on protein A

**Specificity:** This antibody is specific for *Clostridium difficile* Toxin A. The antibody does not cross react with *Clostridium difficile* Toxin B or *Clostridium difficile* GDH.

Applications:ELISA. The antibody is suitable for use with clone TA35 (MAB12234) and TA38<br/>(MAB12233) in ELISA and lateral flow assays.

Secondary reagents: Goat anti mouse IgG:HRP (PAB21441HRP)

Antigen background: Clostridium difficile (C.difficile) is a gram positive spore-forming anaerobic bacterium, which was first described in the mid-1930s and was later linked to cases of pseudomembranous colitis. C.difficile infection can cause a spectrum of diseases known collectively as C.difficile infections (CDI) that range from mild diarrhoea to severe pseudomembranous colitis and toxic megacolon, which may lead to death. Further studies have shown that C.difficile is predominantly associated with cases of



## NativeAntigen

infectious diarrhoea in patients that have been treated with antibiotics or have disrupted commensal gastrointestinal flora, and is recognised as a leading cause of severe gastrointestinal disease in hospitalised patients (Voth, DE).

The severity of the disease in each case is determined by the virulence of the *C.difficile* strain, the condition of the patient's normal gut flora and the individual's immune response to intestinal damage.

*C.difficile* spores are found in soil, human and animal faeces, and some processed meats and can be transmitted from one individual to another through contact with contaminated surfaces. Toxins A and B have been identified as major *C. difficile* virulence factors, which are encoded by the *tcdA* and *tcdB* genes respectively. Both toxin A and toxin B have proinflammatory and cytotoxic activity, which causes disruption to the intestinal epithelium leading to extensive damage and cell death in the large intestine (<u>Carter, GP</u>).

References:Voth, DE et al. (2005). Clostridium difficile Toxins: Mechanism of Action and Role in<br/>Disease. Clin Microbiol Rev.18(2): 247–263.

Carter, GP et al (2010). The role of toxin A and toxin B in Clostridium difficileassociated disease. Past and present perspectives. Gut Microbes.1(1): 58–64.

Storage:Store at +4°C for up to three months, or at -20°C for longer periods<br/>The antibody is shipped at ambient temperature.<br/>Avoid repeated freeze/thaw cycles.

