

## Antibody Datasheet

<b>Product Name:</b>	Mouse anti <i>Clostridium difficile</i> Toxin A
<b>Clone number:</b>	TA7
<b>Isotype:</b>	Mouse IgG <sub>1</sub>
<b>Product code:</b>	MAB12142-100
<b>Batch Number:</b>	
<b>Amount:</b>	0.1mg
<b>Concentration:</b>	1 mg/ml
<b>Buffer:</b>	Phosphate Buffered Saline pH7.4
<b>Preservative:</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Purification:</b>	The antibody was purified by affinity chromatography on protein A
<b>Specificity:</b>	<p>This antibody is specific for <i>Clostridium difficile</i> Toxin A, and also binds equally strongly to Clostridium difficile Toxoid A. The antibody does not cross react with <i>Clostridium difficile</i> Toxin B.</p> <p>The antibody may be used in a pair with MAB12143. In LFD assays this antibody has been used as membrane bound capture reagent in combination with gold labelled MAB12143.</p>
<b>Applications:</b>	ELISA, LFD



**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 pseudomembranous colitis and toxic megacolon, severe disease which may lead to death. Further studies have shown that *C.difficile* is predominantly associated with cases of 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 ([Carter, GP](#)).

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

Carter, GP et al (2010). The role of toxin A and toxin B in Clostridium difficile-associated 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  
The antibody is shipped at ambient temperature.  
Avoid repeated freeze/thaw cycles.

