

Datasheet



Mouse mAb to **Clostridium difficile Toxin A**
Clone **EBS-I-100**
Isotype **IgG3-κ**

Source

A BALB/c mouse was immunized with *C. difficile* toxin A.
Fusion partner: Sp2/0.

Specifications

EBS-I-100 reacts with *C. difficile* Toxin A, but not with *V. cholerae* subunit a, *V. cholerae* toxin, *Pseudomonas aeruginosa* exotoxin A, H-LT, P-LT. *C. difficile* is a major nosocomial pathogen that causes antibiotic-associated colitis and mediates inflammatory diarrhea by releasing two large protein enterotoxins (toxin A and toxin B) that are able to disrupt intestinal epithelial cells via their transferase activity and ability to monoglucosylate members of the Rho family. *C. difficile* toxin A is a toxin that is composed of 39 repeats that are responsible for binding to intestinal epithelial cell surface carbohydrates. *C. difficile* toxin A causes significant apoptosis of colonocytes which contributes to the formation of ulcers and pseudo-membranes in a pathway that involves p38-dependent activation of p53 and induction of p21, leading to cytochrome c release and caspase-3 activation through Bak activation.



Figure 1: Clostridium difficile (Gram staining)

Species reactivity

Positive: *C. difficile*.
Negative: *V. cholera*, *Pseudomonas aeruginosa*.

Applications

Test for presence of *C. difficile* toxin A in native samples. No heat treatment necessary.

ELISA	Frozen sections	Immunofluorescence
+	+	+

Format

Produced in tissue culture, contains no host Ig. Antibodies are affinity purified and presented in PBS with 0,02% sodium azide. Stored at 4°C-8°C, shelf life is at least 24 months after purchase.

Dilution advice

- ELISA (solid phase: not known; tracer: 0,001-100 µg/ml for 30 min at RT).
- Immunofluorescence (0.5-1 µg/ml).
- Immunohistology (1-2 µg/ml for 30 min at RT; an appropriate antigen retrieval method for staining of formalin-fixed tissues has not been established to date).

Positive control

Clostridium difficile extract or infected cells or tissue.

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References

- Kim H, et al, *Gastroenterology* **129**: 1875-1888 (2005).
- Carter JP, et al, *Gut Microbes*. **1(1)**: 58-64 (2010).