



Clostridium difficile Toxin A (PCG4): sc-57685

BACKGROUND

Clostridium difficile is a major nosocomial pathogen that causes antibiotic-associated colitis. *Clostridium difficile* 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. *Clostridium difficile* Toxin A is a toxin that is composed of 39 repeats that are responsible for binding to intestinal epithelial cell surface carbohydrates. *Clostridium difficile* Toxin A causes significant apoptosis of colonocytes which contributes to the formation of ulcers and pseudomembranes 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.

REFERENCES

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SOURCE

Clostridium difficile Toxin A (PCG4) is a mouse monoclonal antibody raised against full length *Clostridium difficile* Toxin A.

PRODUCT

Each vial contains 100 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Clostridium difficile Toxin A (PCG4) is recommended for detection of Toxin A of *Clostridium difficile* origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with *Clostridium difficile* Toxin B.

Molecular Weight of *Clostridium difficile* Toxin A: 308 kDa.

SELECT PRODUCT CITATIONS

1. Dubois, T., Dancer-Thibonnier, M., Monot, M., Hamiot, A., Bouillaut, L., Soutourina, O., Martin-Verstraete, I. and Dupuy, B. 2016. Control of *Clostridium difficile* physiopathology in response to cysteine availability. Infect. Immun. 84: 2389-2405.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.