

PRODUCT INFORMATION



Toxin B from *Clostridium difficile* Item No. 19665

Overview and Properties

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| Synonym: | TcdB |
| Contents: | Each vial contains 50 µg of <i>C. difficile</i> toxin B in 50 mM Tris, 100 mM NaCl, pH 7.5, at a concentration of 0.2 mg/ml |
| Uniprot No.: | P18177 |
| Storage: | 2-8°C (as supplied) |
| Stability: | As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly |
| Purity: | ≥90% (estimated by SDS-PAGE) |
| Activity: | EC ₅₀ value of 1 pg/ml as tested on Vero cells |
| Special Conditions: | Handle gently; do not vortex; do not freeze |

Description

Toxin B from *Clostridium difficile*, also known as TcdB, is a cytotoxin that has glucosyltransferase and cysteine protease activities. It inactivates host Rho family GTPases by glucosylation, altering cytoskeletal structure, cell division, and cell-cell adhesion.^{1,2} Toxin B can induce activation of the inflammasome and apoptosis.³ While both toxin A (Item No. 19664) and toxin B inactivate Rho family GTPases, toxin B more potently induces mammalian cell rounding in culture.²

References

1. Chen, S., Sun, C., Wang, H., *et al.* The role of rho GTPases in toxicity of *Clostridium difficile* toxins. *Toxins (Basel)* **7(12)**, 5254-5267 (2016).
2. Pruitt, R.N. and Lacy, D.B. Toward a structural understanding of *Clostridium difficile* toxins A and B. *Front. Cell. Infect. Microbiol.* **2(28)**, (2012).
3. Di Bella, S., Ascenzi, P., Siarakas, S., *et al.* *Clostridium difficile* toxins A and B: Insights into pathogenic properties and extraintestinal effects. *Toxins (Basel)* **8(5)**, (2016).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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