

Native Clostridium Difficile Toxin B

Product Information

Cat#

CLO-079

Product Name

Native Clostridium Difficile Toxin B

Description

Clostridium difficile Toxin B is a highly purified preparation. Developed either for use with clinical diagnostic assays, it serves as a positive control and for determination of assay range or for use by researchers in techniques such as cytotoxicity testing. The product is presented in a choice of pack sizes and is lyophilised for ease of use. We also offer Clostridium difficile Toxoid B, which is derived from this product.

Type

Native

Gene

Toxin B

Species

Clostridium Difficile

Synonyms

Clostridium Difficile Toxin B

Formulation

Contents when reconstituted in 250ul sterile distilled water will contain: Toxin B at a concentration of 0.2 mg/mL in 0.05M Hepes, 0.15M NaCl and 5% sucrose.

Stability

Lyophilised vial: 1 year after date of receipt.

Reconstituted liquid: 1 month

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Purity

>95% pure by SDS-PAGE

Storage

Lyophilised vial: +2 to +8 centigrade.

Reconstituted liquid: +2 to +8 centigrade.

Freezing

Reconstituted liquid can be frozen at -80 centigrade to extend stability to 1 year; however every freeze/thaw cycle will cause increased aggregation. Avoid multiple freeze/thaw cycles and multiple temperature fluctuations.

Background

Clostridium difficile (C. difficile) is a gram positive spore-forming anaerobic bacterium, which was first described in the mid-1930s. Recent studies have shown that C. difficile is predominantly associated with cases of infectious diarrhoea in patients that have been treated with antibiotics (antibiotic-associated diarrhoea AAD), or have disrupted commensal gastrointestinal flora. C. difficile infection can cause severe disease and death in a significant number of cases and is recognised as a leading cause of severe gastrointestinal disease and AAD 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.

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 cause disruption to the intestinal epithelium leading to extensive damage and cell death in the large intestine (Carter, GP).
