Native Clostridium Difficile Toxin A

Cat. No. CLO-076 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Clostridium difficile Toxin A is a highly purified preparation manufactured. 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 A, which is derived from this product.
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 pro-inflammatory and cytotoxic activity, which cause disruption to the intestinal epithelium leading to extensive damage and cell death in the large intestine (Carter, GP). In recent years, new hypervirulent strains of C. difficile, including ribotype 027 and 078, have emerged causing new epidemics of C. difficile in the developed world, and are a cause for significant concern within the global health care community (Ghose,

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Purity	>95% pure by SDS-PAGE
Formulation	0.05M hepes, 0.15M NaCl, 5% sucrose.
Stability	Lyophilised vial: 1 year after date of receipt. Reconstituted liquid: 1 month
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.
Storage	Lyophilised vial: +2 to +8 centigrade. Reconstituted liquid: +2 to +8 centigrade.
Notes	This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.
Type	Native
ClassID 1	Infectious Disease

GENE INFORMATION

Synonyms	Clostridium Difficile Toxin A

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