

PRODUCT INFORMATION

Diphtheria Toxin CRM₁₉₇ mutant from *Corynebacterium diphtheriae*
Item No. 23218

Overview and Properties

Contents: Each vial, when reconstituted to 0.25 ml with water, contains 250 µg of diphtheria toxin CRM₁₉₇ mutant in 0.01 M sodium phosphate with 5% lactose at pH 7.4

Storage: 2-8°C (as supplied); after reconstitution store at -20°C

Stability: ≥4 years

Purity: ≥90% (estimated by SDS-PAGE)

Protein

Concentration: Determined by absorbance at 280 nm using an extinction coefficient of 0.93 for a concentration of 1 mg/ml

Special Conditions: Handle gently; do not vortex

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

Diphtheria toxin CRM₁₉₇ mutant from *C. diphtheriae* is an inactive and non-toxic version of diphtheria toxin. It contains a single base change in the structural gene resulting in the substitution of glutamic acid for glycine which blocks ADP-ribosylation.¹ Diphtheria toxin CRM₁₉₇ mutant has no enzymatic activity but is immunologically indistinguishable from diphtheria toxin. Formulations containing diphtheria toxin CRM₁₉₇ mutant have been used as carriers of conjugated polysaccharides in the development of vaccines against encapsulated bacterial pathogens.²

References

1. Pappenheimer, A.M., Jr., Uchida, T., and Harper, A.A. An immunological study of the diphtheria toxin molecule. *Immunochemistry* **9**(9), 891-906 (1972).
2. Benaissa-Trouw, B., Lefeber, D.J., Kamerling, J.P., et al. Synthetic polysaccharide type 3-related di-, tri-, and tetrasaccharide-CRM₁₉₇ conjugates induce protection against *Streptococcus pneumoniae* type 3 in mice. *Infect. Immun.* **69**(7), 4698-4701 (2001).

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.

WARRANTY AND LIMITATION OF REMEDY
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