SANTA CRUZ BIOTECHNOLOGY, INC.

Diphtheria Toxoid (17.6B9): sc-80475

BACKGROUND

Diphtheria Toxoid is a 567 amino acid proenzyme that is produced by Corynephage-β infection of *Corynebacterium diphtheriae*. Functioning as an enzymatic catalyst, Diphtheria Toxoid participates in the covalent attachment of elongation factor 2 (EF-2) to the ADP ribose moiety of NAD, thereby killing the infected cell. Diphtheria Toxoid works in three sequential steps, the first of which is penetration of the cell via receptor-mediated endocytosis. The toxin then translocates across the membrane into the cytoplasm where it ultimately attaches an ADP-ribosyl group to a modified histidine on EF-2, thus blocking protein synthesis and causing cell death. These steps are performed by three distinct structural domains: the receptor-binding domain (R), the pore-forming membrane-translocation domain (T) and the catalytic domain (C). Although only a single molecule of Diphtheria Toxoid is sufficient to kill a cell, toxicity can be repressed by DtxR, an iron-dependent transcriptional repressor that downregulates the expression of various virulence factors, including Diphtheria Toxoid.

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SOURCE

Diphtheria Toxoid (17.6B9) is a mouse monoclonal antibody raised against Diphtheria Toxoid.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Diphtheria Toxoid (17.6B9) is recommended for detection of Diphtheria Toxoid of *Corynebacterium diphtheriae* origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Diphtheria Toxoid: 62 kDa.

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 or our catalog for detailed protocols and support products.