SANTA CRUZ BIOTECHNOLOGY, INC.

Choleragenoid (2/63): sc-80748

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cholera toxin is a heterohexameric AB5 enterotoxin released by *Vibrio cholera* that causes a profuse amount of secretory diarrhea in susceptible hosts. The holotoxin consists of a pentameric ring of B subunits whose central pore is occupied by the A subunit. The B subunit of cholera toxin, also referred to as Choleragenoid or CtxB, binds to a GM1-ganglioside receptor, an ubiquitous glycolipid cell surface receptor, and directs the enzymatic A subunit to its target by binding the GM1 gangliosides exposed on luminal surface of intestinal epithelial cells to initiate toxin action. The A subunit contains two chains, A1 and A2, linked by a disulfide bridge. This subunit activates the adenylate cyclase enzyme in the cells of the intestinal mucosa leading to increased levels of intracellular cAMP, thereby causing water to flood and burst the cell.

REFERENCES

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3. Rivero-Melián, C. 1993. Simultaneous demonstration of central projections of different peripheral nerves by anti-Choleragenoid immunoglobulin markers. Neuroreport 4: 743-746.
4. Rivero-Melián, C., et al. 1993. Demonstration of transganglionically transported Choleragenoid in rat spinal cord by immunofluorescence cytochemistry. Neurosci. Lett. 145: 114-117.
5. Zhang, R.G., et al. 1995. The 2.4 A crystal structure of cholera toxin B subunit pentamer: Choleragenoid. J. Mol. Biol. 251: 550-562.
6. Rivero-Melián, C. 1996. Organization of hindlimb nerve projections to the rat spinal cord: a Choleragenoid horseradish peroxidase study. J. Comp. Neurol. 364: 651-663.
7. Roche, A.K., et al. 1998. Central projections of nerves innervating the using wheat germ agglutinin-horseradish peroxidase or Choleragenoid-horseradish peroxidase. J. Comp. Neurol. 393: 16-24.
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9. Sántha, P., et al. 2003. Transganglionic transport of Choleragenoid by capsaicin-sensitive C-fibre afferents to the substantia gelatinosa of the spinal dorsal horn after peripheral nerve section. Neuroscience 116: 621-627.

SOURCE

Choleragenoid (2/63) is a mouse monoclonal antibody raised against Choleragenoid.

PRODUCT

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

APPLICATIONS

Choleragenoid (2/63) is recommended for detection of Choleragenoid of *Vibrio cholerae* origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of Choleragenoid: 16 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 for detailed protocols and support products.