



Choleraenoid (B8): sc-57683

BACKGROUND

Cholera toxin is a heterohexameric AB₅ enterotoxin released by *Vibrio cholerae* 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 Choleraenoid 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-Choleraenoid immunoglobulin markers. *Neuroreport* 4: 743-746.
4. Rivero-Melián, C., et al. 1993. Demonstration of transganglionically transported Choleraenoid in rat spinal cord by immunofluorescence cytochemistry. *Neurosci. Lett.* 145: 114-117.
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6. Rivero-Melián, C. 1996. Organization of hindlimb nerve projections to the rat spinal cord: a Choleraenoid 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 Choleraenoid-horseradish peroxidase. *J. Comp. Neurol.* 393: 16-24.
8. Wang, H.F., et al. 1998. Retrograde and transganglionic transport of horseradish peroxidase-conjugated cholera toxin B subunit, wheatgerm agglutinin and isolectin B4 from *Griffonia simplicifolia* I in primary afferent neurons innervating the rat urinary bladder. *Neuroscience* 87: 275-288.
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SOURCE

Choleraenoid (B8) is a mouse monoclonal antibody raised against full length native Choleraenoid of *Vibrio cholerae* origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Choleraenoid (B8) is recommended for detection of Choleraenoid of *Vibrio cholerae* origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Choleraenoid: 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 or our catalog for detailed protocols and support products.