CHOLERA TOXIN AND RELATED PRODUCTS

Cholera toxin is an oligomeric protein of MW 84,000 daltons which consists of a single A subunit surrounded by five B subunits.[1,2,3] It is a potent activator of adenylate cyclase and is the pathogenic agent responsible for the symptoms of cholera.[4] The B subunit (a.k.a. choleragenoid) is responsible for the binding of the holotoxin to GM1 ganglioside receptors on mammalian cell surfaces[5,6] and facilitates entry of the A subunit into the cell. The A subunit bears the ADP-ribosyl-transferase activity, which deregulates the G_s protein causing activation of adenylate cyclase.[7] Due to the ubiquitous occurrence of the GM1 ganglioside receptor on eukaryotic cell membranes, cholera toxin activates adenylate cyclase in a wide variety of model systems.[8]

Cholera toxin has become a powerful research tool not only in microbiology, but in the fields of physiology, cell biology and biochemistry, as well. Because of the effect on adenylate cyclase, cholera toxin is frequently used for the study of signal transduction mechanisms. In addition, cholera toxin acts as an adjuvant through the stimulation of B-lymphocytes. The cholera toxin B subunit alone is used for track tracing in neurological research, taking advantage of GM1 ganglioside binding and retrograde transport. Several B subunit conjugates are discussed in another information sheet.

Cholera toxin from List Biological Laboratories, Inc. is isolated from *Vibrio cholerae* type Inaba 569B. In addition to the intact toxin, highly purified B subunit is also available.

Cholera toxin and native B subunit undergo treatment for the removal of contaminating endotoxin and are aseptically packaged. Each is supplied as a lyophilized powder. A detailed lot analysis documenting purity and biological activity accompanies each product shipment.

High titer polyclonal anti-choleragenoid from goat, suitable for use in either toxin neutralization or binding assays, is also available, and is provided as a lyophilized powder containing 0.1% NaN_3 as a preservative.

The above products are intended for research purposes only and are not for use in humans or as diagnostic agents.

Ordering Information

Product No.	Description	Size
100B	Cholera Toxin (azide-free)	1.0 mg
9100B	QD Cholera Toxin (azide-free)	1.0 mg
101B,C	Cholera Toxin	1.0, 2.0 mg
103B	Cholera Toxin B Subunit (Choleragenoid)	1.0, 2.0 mg
104	Cholera Toxin B Subunit (low salt)	0.5 mg
106	Cholera Toxin B Subunit, CTB FITC, Conjugate	0.2 mg
112	Cholera Toxin B Subunit, CTB Biotinylated, Conjuate	0.2 mg
703	Goat Anti-Choleragenoid	0.1 ml

For information regarding B Subunit conjugates, refer to the product information page regarding conjugates.
See how others have used List Labs' products on our citations page: https://www.listlabs.com/citations

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