## **Product Information**

## FITC AND BIOTIN CONJUGATES OF CHOLERA TOXIN B SUBUNIT

Conjugates of cholera toxin and cholera toxin B subunit (choleragenoid) have been employed as histochemical markers in both axoplasmic transport and neuronal connectivity studies. The basis of this lies in the binding specificity of choleragenoid to GM1 ganglioside receptors on neuronal cell surfaces. Cholera toxin B subunit retains the full binding capacity of the intact toxin, yet has the advantage of being completely nontoxic.

List Biological Laboratories, Inc. offers cholera toxin B subunit conjugated to fluorescein (CTB FITC), a sensitive fluorescent probe suitable for use in flow cytometry and microscopy,<sup>3</sup> and biotinylated cholera toxin B subunit (CTB biotin) for high affinity cytochemistry for microscopy.<sup>4,5</sup> Each of these conjugates are supplied as aseptically packaged lyophilized powders. A detailed lot analysis and instructions on reconstitution, storage and handling are provided with each shipment.

Goat anti-choleragenoid, suitable for neutralization and binding assays or immunohistochemical studies in conjunction with unconjugated cholera toxin B subunit or either of the above products, is also available from List Biological Laboratories, Inc.<sup>6,7,8</sup> This product is provided as an aseptically packaged lyophilized powder and contains 0.1% sodium azide 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
104	Cholera Toxin B Subunit (Low Salt)	0.5 mg
106	Cholera Toxin B Subunit Fluorescein Isothiocyanate Conjugate (CTB FITC)	0.2 mg
112	Cholera Toxin B Subunit Biotin Conjugate (CTB Biotin)	0.2 mg
703	Goat Anti-Choleragenoid Serum	0.1 ml

See how others have used List Labs' products on our citations page: https://www.listlabs.com/citations

## References

- 1. Grafstein B, Forman D. Intracellular transport in neurons. Physiol. Rev. 1980; 60(4):1168-1283. PMID:6159657
- 2. Van Heyningen WE. <u>Gangliosides as membrane receptor for tetanus toxin, cholera toxin and serotonin.</u> Nature 1974; 249:415-417.
- 3. Mishima H, Sears M, Bausher L, Gregory D. Ultracytochemistry of cholera-toxin binding sites in ciliary processes. Cell Tissue Research. 1982; 223(2):241-253. <a href="mailto:PMID:7066973">PMID:7066973</a>
- 4. Bayer EA, Skatelsky E, Wilchek M. The Avidin-Biotin Complex in Affinity Cytochemistry. Meth. Enz. 1979; 62(D):308-315. PMID:440114
- 5. Asou H, Brunngraber EG, Jeng I. Cellular localization of G<sub>M1</sub>-ganglioside with biotinylated choleragen and avidin peroxidase in primary cultured cells from rat brain. J. Histochem. Cytochem. 1983; 31(12):1375-1379. PMID:6195214
- 6. Hayakawa T, Zheng JQ, Seki M. Direct parabrachial nuclear projections to the pharyngeal motoneurons in the rat: an anterograde and retrograde double-labeling study. Brain Research. 1999; 816(2):364-374. <a href="PMID:9878830">PMID:9878830</a>
- 7. Gaillard F, Letang J, Frappe I, Gaillard A. Laminar distribution of isocortical neurons projecting to occipital grafts in neonate and adult rats. Experimental Neurology. 2000; 162(1):225-233. <a href="PMID:10716903">PMID:10716903</a>
- 8. Ruigrok TJ, van Touw S, Coulon P. Caveats in Transneuronal Tracing with Unmodified Rabies Virus: An Evaluation of Aberrant Results Using a Nearly Perfect Tracing Technique. Front Neural Circuits. 2016; 10:46. <a href="PMID:27462206">PMID:27462206</a>.

©1983 LBL, Inc. Rev. 09/2017

Office: (408) 866-6363 <u>www.listlabs.com</u> Fax: (408) 866-6364 <u>info@listlabs.com</u>

