

# Product Information

## Cholera Toxin Subunit B (Recombinant)

### Product List

Product	Cat. No.	Unit Size
Cholera Toxin Subunit B (Recombinant)	29130-100ug	100 ug
	29130-1mg	1 mg
	29130-2mg	2 mg

### Storage and Handling

Store at 4°C. Product is stable for at least 12 months from date of receipt when stored as recommended.

Reconstitute lyophilized CTB with sterile deionized water to make a stock solution of 1 mg/mL. The resulting stock solution will be in 1X PBS. Mix gently for 30 to 60 minutes at room temperature to dissolve, avoiding vigorous mixing or vortexing. Reconstituted CTB is stable for 3 months at 4°C. Do not freeze.

**Molecular Weight:** 11.7 kDa (under reducing conditions)

**Purity:** > 95% pure, determined by reducing SDS-PAGE

**Endotoxin Level:** < 1 EU/ug, determined by Pyrogene® Recombinant Factor C Assay

### Product Description

Biotium's recombinant cholera toxin subunit B (CTB) is purified from *E. coli* as a single, non-glycosylated polypeptide chain. Cholera toxin is the symptom-causing toxin produced by the bacteria *Vibrio cholerae* during cholera infection.

The active holo-toxin from Cholera is composed of a hexamer. Subunit A is the toxic enzymatic subunit present in one copy per toxin. Subunit B is the receptor binding subunit that is found as a pentamer in each toxin and is non-toxic, making it useful for cell biological studies. CTB is used as a macrophage stimulant (1) and a vaccine adjuvant (2). CTB also been used to determine endotoxin sensitivity of transgenic mice expressing human caspase-4 (3).

This purified recombinant CTB is free of stabilizers and ready to conjugate after reconstitution. Biotium also offers CF® Dye labeled cholera toxin subunit B that may be used as a lipid raft marker and endocytic tracer for imaging live or fixed cells (see Related Products).

### References

1. Ther Adv Vaccines 3(5-6), 155-163 (2015); 2. Infect Immun. 75(6), 3150-3159 (2007); 3. J Immunol. 193(1), 335-343 (2014).

### CTB (Recombinant) Sequence

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      10      20      30      40
MTPQNI10TDLC AEYHNTQ20IHT LNDKIFS30SYTE SLAGKREMA40I
      50      60      70      80
ITFKNGATF50Q VEVPGSQ60HID SQKKAIER70MK DTLRIAYL80TE
      90      100
AKVEKLCV90WN NKTPHAI100AAI SMAN
  
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Figure 1. Amino acid sequence for recombinant CTB.

### Related Products

Cat. No.	Product
00068... 00079	Cholera Toxin Subunit B CF® Dye Conjugates
30111- 30114	ExoBrite™ CTB EV Staining Kits
00002... 00026	α-Bungarotoxin Conjugates
00028... 00064	Phalloidin Conjugates
00081- 00087	Transferrin (Human) CF® Dye Conjugates
70030... 70034	Nerve Terminal Staining Kits
22023	Paraformaldehyde, 4% in PBS, Ready-to-Use Fixative
23001- 23002	EverBrite™ Mounting Medium
23008- 23009	Drop-n-Stain EverBrite™ Mounting Medium
23003... 23016	EverBrite™ Mounting Medium
23005	CoverGrip™ Coverslip Sealant
23024	Super <sup>HT</sup> PAP Pen 2.0
23023	Mini Super <sup>HT</sup> PAP Pen 2.0

Please visit our website at [www.biotium.com](http://www.biotium.com) for information on our life science research products, including fluorescent CF® Dye conjugates and antibodies, neuronal probes, apoptosis reagents, and kits for cell biology research.

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