www.bioss.com.cn
sales@bioss.com.cn
techsupport@bioss.com.cn
400-901-9800

Recombinant Cholera Toxin B subunit

产品编号： D10692

CAS: 24730-31-2

保存条件： Store at -20°C. DO NOT FREEZE.

产品介绍： The B subunit of cholera toxin (CtxB) binds to a GM1-ganglioside receptor, a ubiquitous glycolipid cell surface receptor. This binding is widely accepted to initiate toxin action by triggering uptake and delivery of the toxin A subunit into cells. The beta chain has no toxic activity by itself. The holotoxin consists of a pentameric ring of B subunits whose central pore is occupied by the A subunit. The A subunit contains two chains, A1 and A2, linked by a disulfide bridge. The A subunit (and Cholera toxin) activates the adenylate cyclase enzyme in cells of the intestinal mucosa leading to increased levels of intracellular cAMP.

基本信息：

CAS：131096-89-4

分子量：11 kDa

种属：Vibrio cholerae

来源：E. coli.

内毒素：Less than 0.1EU/μg of rCTB as determined by LAL method.

纯度：>98% by SDS-PAGE and HPLC analyses.

外观：Sterile colorless liquid.

缓冲体系：Supplied as a 0.2μM filtered solution in 5mM PB, pH7.0, 75mM NaCl, with 50% glycerol. (Sodium azide free.)

描述：霍乱毒素B亚基 (Cholera Toxin B subunit）属于毒素的AB5-亚单位家族。天然六聚体蛋白的分子量约为85 kDa，包含两个亚单位。它由负责ADP核糖基化活性的单个a亚单位（~27.2 kDa）和五个B亚单位（~11.6 kDa）组成，排列为五聚环，具有明显的5倍对称性，与细胞表面受体结合和酶组分的后续内化（跨膜转运）有关。

背景资料：

Cholera toxin is protein complex secreted by the bacterium Vibrio cholerae. CTX is responsible for the massive, watery diarrhea characteristic of cholera infection. The cholera toxin is an oligomeric complex made up of six protein subunits: a single copy of the A subunit (part A, enzymatic), and five copies of the B subunit (part B, receptor binding), denoted as AB5. Subunit B binds while subunit A activates the G protein which activates adenylate cyclase. The five B subunits - each weighing 11 kDa, form a five-membered ring. The A subunit which is 28 kDa, has two important segments. The A1 portion of the chain (CTA1) is a globular enzyme payload that ADP-ribosylates G proteins, while the A2 chain

(CTA2) forms an extended alpha helix which sits snugly in the central pore of the B subunit ring. This structure is similar in shape, mechanism, and sequence to the heat-labile enterotoxin secreted by some strains of the Escherichia coli bacterium.