

## Native Cholera Toxin B

### SPECIFICATION

<b>Cat.No.</b>	ctxB-146V
<b>Species</b>	<i>V. cholerae</i>
<b>Product Name</b>	Native Cholera Toxin B
<b>Product Overview</b>	The protein was highly purified from <i>V. cholerae</i> , Inaba 569B strain by gel-filtration (in the presence of urea) and ion-exchange chromatography.
<b>Description</b>	<p>Cholera toxin, a main enterotoxin, interacts with G proteins and increases cyclic AMP in the intestinal lining to open ion channels. As ions flow into the intestinal lumen (lining), body fluids (mostly water) flows out of the body due to osmosis leading to massive diarrhea as the fluid is expelled from the body. Cholera toxin is a complex consisting of one molecule of A-subunit (27.2 kD) and 5 molecules of B-subunit (11.6 kD). It adsorbs to GM1 ganglioside on the surface of target cells by B subunit and penetrates into cells where A subunit is dissociated and processed into A1, which constitutively activates adenyl cyclase activity of <math>\alpha</math> subunit of Gs (a kind of GTP-binding protein) by ADP ribosylation activity.</p>
<b>Source</b>	<i>V. cholerae</i>
<b>Form</b>	1.5 mg/ml in 20 mM Tris-HCl pH 6.8, 0.2M NaCl , 10% glycerol, sterilized by filtration
<b>Purity</b>	No contamination of A-subunit as examined by SDS-PAGE and the morphological changes of the treated cells
<b>Applications</b>	1. Adjuvant for mucosal immunity. Stimulate B-lymphocytes. Vaccine development. 2. Tract tracing in neurological research, taking advantage of GM1 ganglioside binding and retrograde transport.
<b>Storage</b>	Store at -80°C