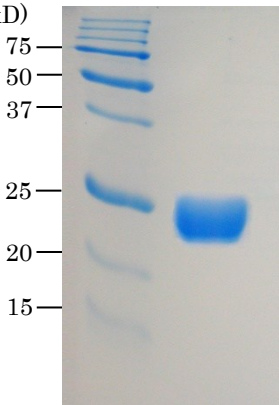


Cholera Toxin A-subunit, functional

Product code	01-521
Size	50 µg
Storage	-80°C. Avoid freeze-thaw cycles.
Product Description	This product was highly purified from purified Cholera toxin produced by <i>V. cholerae</i> , Inaba 569B strain by gel-filtration (in the presence of urea) and ion-exchange chromatography. the A-subunit is not toxic.
Concentration	1.0 mg/ml
Buffer	20 mM Tris-HCl pH 8.2, 0.2M NaCl, 10% glycerol
Purity	<p>No contamination of B-subunit as examined by SDS-PAGE and morphological changes of the treated cells.</p> <p>Fig.1 SDS-PAGE of the purified Cholera toxin A-subunit (27.2 kDa)</p> 
Application	<ol style="list-style-type: none"> ADP ribosylation assay Study of signal transduction
Background	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 kDa) and 5 molecules of B subunit (11.6 kDa). 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 α subunit of Gs (a kind of GTP-binding protein) by ADP ribosylation activity.
Data Link	UniProtKB P01555 (CHTA_VIBCH)
References	<ol style="list-style-type: none"> Hirst TR & D'Souza in <i>The Comprehensive Sourcebook of Bacterial Protein Toxins</i>. 3rd ed. p 270-290, Academic Press (2006) Finkelstein RA and LoSpalluto JJ "Pathogenesis of experimental cholera. Preparation and isolation of choleragen and choleragenoid." <i>J Exp Med</i> 130: 185-202 (1969) PMID: 4978880 Iijima Y and Honda T "Enterotoxin of <i>Vibrio Cholerae</i>." In <i>Recent Advances in Marine Biotechnology</i>, Fingerman M and Nagabhushanam R ed. Science Pub. Inc. 7: 41 (2002)
Related Products	01-511 Cholera Toxin 01-525 Cholera Toxin B-subunit
Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE HUMAN and IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.	