9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

CALB1 Human

Calbindin-1 Human Recombinant
RCP0316

Product Overview

Name	CALB1 Human
Description	
Calbindin-1 Human Recombinant	
Accession (Primary)	P05937
Synonyms	
Calbindin, Vitamin D-dependent calcium-binding protein, avian-type, Calbindin D28, D-28K, CALB1, CAB27, CALB, calbindin 1 28kDa.	
Introduction	
Calbindin 1 (CALB1) is a calcium binding protein that is a member of the troponin C superfamily. CALB1 plays a vital role in calcium regulation (including calcium transport and uptake, calcification of bone and teeth) and calcium associated signaling in neurons and transiently in embryological development. CALB1 also has a role in protecting neurons from apoptotic cell death. CALB1 buffers cytosolic calcium and may stimulate a membrane Ca2+-ATPase and a 3',5'-cyclic nucleotide phosphodiesterase. The biological function of CALB1 seems to be tied to the redox state of its five cysteine residues. CALB1 has 4 active calcium-binding domains, and 2 modified domains that seemingly have lost their calcium-binding ability. CALB1 is expressed in neural tissues. In the brain, the CALB1 synthesis is independent of vitamin-D-derived hormones. Disregulation of the CALB1 is associated with epilepsy, amyotrophic lateral sclerosis, Huntington's disease. The neurons in brains of Huntington disease patients are calbindin-depleted.	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile Filtered colorless solution.	
Formulation	
The CALB1 protein solution contains 20mM Tris-HCl buffer (pH8.0), 1mM DTT, 10% glycerol and 2mM EDTA.	
Stability	
Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.	
Purity	

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Greater than 95.0% as determined by SDS-PAGE.

Amino acid sequence

MAESHLQSSL ITASQFFEIW LHFDADGSGY LEGKELQNLI QELQQARKKA GLELSPEMKT FVDQYGQRDD GKIGIVELAH VLPTEENFLL LFRCQQLKSC EEFMKTWRKY DTDHSGFIET EELKNFLKDL LEKANKTVDD TKLAEYTDLM LKLFDSNNDG KLELTEMARL LPVQENFLLK FQGIKMCGKE FNKAFELYDQ DGNGYIDENE LDALLKDLCE KNKQDLDINN ITTYKKNIMA LSDGGKLYRT DLALILCAGD N.

Precautions

CALB1 Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P05937)