32-3398: CALB1 Recombinant Protein

Alternative Name : Calbindin,Vitamin D-dependent calcium-binding protein,avian-type,Calbindin D28,D-28K,CALB1,CAB27,CALB,calbindin 1 28kDa.

Description

Source : Escherichia Coli. CALB1 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 261 amino acids (1-261 a.a.) and having a molecular mass of 30kDa.The CALB1 is purified by proprietary chromatographic techniques. 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.

Product Info

Amount :	50 µg
Purification :	Greater than 95.0% as determined by SDS-PAGE.
Content :	The CALB1 protein solution contains 20mM Tris-HCl buffer (pH8.0), 1mM DTT, 10% glycerol and 2mM EDTA.
Storage condition :	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.
Amino Acid :	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.