



Catalog Number: PR27272

Product Type: Recombinant Protein

Source: E. Coli

Amino Acid Sequence: MGSSHHHHHH SGLVPRGSH MGSQNLFTKD VTVIEGEVAT ISCQVNKSDS SVIQLLNPNR QTIYFRDFRP LKDSRFQLLN FSSSELKVSL TNVISIDEGR YFCQLYTDPQ QESYTTITVL VPPRNLMDI QKDTAVEGEE IEVNCTAMAS KPATTIRWFK GNTELKKGKSE VEEWSDMYTV TSQMLMKVHK EDDGVPVICQ VEHPAVTGNL QTQRYLEVQY KPQVHIQMTY PLQGLTREGD ALELTCEAIG KPQPVMVTWV RVDDEMPQHA VLSGPNLFIN NLNKTDNGTY RCEASNIVGK AHSYDMLYVY DPPTTIPPT TTTTTTTTTT TTILTITDS RAGEEGSIRA VDH.

Description/Molecular Mass: 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.

CADM1 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 353 amino acids (45-374 a.a) and having a molecular mass of 39.4 kDa.

CADM1 is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

Purity: Greater than 85.0% as determined by:
(a) Analysis by SDS-PAGE.

Format: CADM1 protein solution (0.25 mg/ml) containing Phosphate buffered saline (pH7.4), 10% glycerol and 1mM DTT.

Storage: 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.

FOR RESEARCH USE ONLY

NEUROMICS' REAGENTS ARE FOR IN VITRO AND CERTAIN NON-HUMAN IN VIVO EXPERIMENTAL USE ONLY AND NOT INTENDED FOR USE IN ANY HUMAN CLINICAL INVESTIGATION, DIAGNOSIS, PROGNOSIS, OR TREATMENT. THE ABOVE ANALYSES ARE MERELY TYPICAL GUIDES. THEY ARE NOT TO BE CONSTRUED AS BEING SPECIFICATIONS. ALL OF THE ABOVE INFORMATION IS, TO THE BEST OF OUR KNOWLEDGE, TRUE AND ACCURATE. HOWEVER, SINCE THE CONDITIONS OF USE ARE BEYOND OUR CONTROL, ALL RECOMMENDATIONS OR SUGGESTIONS ARE MADE WITHOUT GUARANTEE, EXPRESS OR IMPLIED, ON OUR PART. WE DISCLAIM ALL LIABILITY IN CONNECTION WITH THE USE OF THE INFORMATION CONTAINED HEREIN OR OTHERWISE, AND ALL SUCH RSKS ARE ASSUMED BY THE USER. WE FURTHER EXPRESSLY DISCLAIM ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

03/08v1

www.neuromics.com

Neuromics • 5325 West 74th Street, Suite 8 • Edina, MN 55439
phone 866-350-1500 • fax 612-677-3976 • e-mail pshuster@neuromics.com