# **PRODUCT INFORMATION**

**Expression system** E.coli

**Domain** 1-261aa

**UniProt No.** P05937

NCBI Accession No. NP\_004920

Alternative Names CAB27, Calbindin D28, D-28K, CALB1, calbindin 1 28kDa, CALB, Calbindin1,

# **PRODUCT SPECIFICATION**

Molecular Weight 30 kDa (261aa) confirmed by MALDI-TOF

**Concentration** 1mg/ml (determined by Bradford assay)

#### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol, 2mM EDTA

Purity

> 95% by SDS-PAGE

**Endotoxin level** < 1 EU per 1ug of protein (determined by LAL method)

Tag Non-Tagged

Application SDS-PAGE

#### **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

### BACKGROUND

#### Description

Calbindin 1 is a calcium binding protein belonging to the troponin C superfamily. Calbindin is expressed in neural tissues. It plays an essential role in calcium regulation (including calcium transport and uptake, calcification of bone and teeth) and calcium related signalling in neurons and transiently in embryological development. This calbindin also has a role in protecting neurons from apoptotic cell death. Disregulation of this calbindin protein



relates to epilepsy, amyotrophic lateral sclerosis, Huntington's disease. Recombinant human Calbindin1 was expressed in E. coli and purified by using conventional chromatography techniques.

#### **Amino acid Sequence**

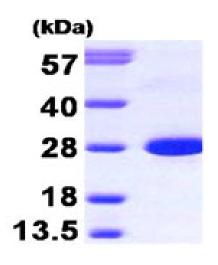
MAESHLQSSL ITASQFFEIW LHFDADGSGY LEGKELQNLI QELQQARKKA GLELSPEMKT FVDQYGQRDD GKIGIVELAH VLPTEENFLL LFRCQQLKSC EEFMKTWRKY DTDHSGFIET EELKNFLKDL LEKANKTVDD TKLAEYTDLM LKLFDSNNDG KLELTEMARL LPVQENFLLK FQGIKMCGKE FNKAFELYDQ DGNGYIDENE LDALLKDLCE KNKQDLDINN ITTYKKNIMA LSDGGKLYRT DLALILCAGD N

#### **General References**

Heizmann CW., et al. (1988) J Cardiovasc Pharmacol. 5:S30-7. Kaqi u., et al. (1988) Cell Tissue Res. 252(2):359-65.

### DATA

#### SDS-PAGE



15% SDS-PAGE (3ug)

3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.