

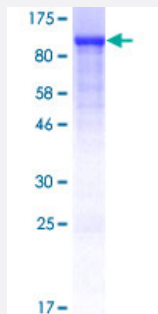
Full-Length

CALD1 (Human) Recombinant Protein (P01)

Catalog # H00000800-P01

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human CALD1 full-length ORF (NP_004333.1, 1 a.a. - 538 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MDDFERRRELRRQKREEMRLEAERIA YQRNDDDEEEAARERRRRARQERLRQKQEEESLGQVT
DQVEVNAQNSVPDEEAKTTTTNTQVEGDDEAAFLERLARREERRQKRLQEALERQKEFDPTTID
ASLSLPSRRMQNDTAENETTEKEEKSESQRQERYEIEETETVTKSYQKNDWRDAEENKKEDKEKE
EEEEKPKRGSIGENQIKDEKIKDKKEPKKEEVKSFMDRKKGFTVKSQNGEFMTHKLKHTENTFS
RPGGRASVDTKEAEGAPQVEAGKRLEELRRRRGETESEFEKLKQKQQAEELEELKKKREE
RRKVLQEEEEQRRKQEEADRLREEEERRLKEEIERRRRAEAAEKRQKMPEDGLSDDKKPFKCF
TPKGSSLKIEERAFLNKSQKSSGVKSTHQAAMSKIDSRLEQYTS AIEGTKSAKPTKPAASDLPV
PAEGVRNIKSMWEKGNVFSSPTAAGTPNKETAGLKVGVSRRINEWLTKTPDGNKSPAPKPSDLR
PGDVSSKRNLWEKQSVDKVTSP TKV

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

89.1

Preparation Method

[in vitro wheat germ expression system](#)

Purification

Glutathione Sepharose 4 Fast Flow

Quality Control Testing

12.5% SDS-PAGE Stained with Coomassie Blue.

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

Storage Instruction

Store at -80°C. Aliquot to avoid repeated freezing and thawing.

Note

Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — CALD1

Entrez GeneID[800](#)**GeneBank Accession#**[NM_004342.5](#)**Protein Accession#**[NP_004333.1](#)**Gene Name**

CALD1

Gene Alias

CDM, H-CAD, L-CAD, MGC21352, NAG22

Gene Description

caldesmon 1

Omim ID[114213](#)**Gene Ontology**[Hyperlink](#)**Gene Summary**

This gene encodes a calmodulin- and actin-binding protein that plays an essential role in the regulation of smooth muscle and nonmuscle contraction. The conserved domain of this protein possesses the binding activities to Ca(2+)-calmodulin, actin, tropomyosin, myosin, and phospholipids. This protein is a potent inhibitor of the actin-tropomyosin activated myosin MgATPase, and serves as a mediating factor for Ca(2+)-dependent inhibition of smooth muscle contraction. Alternative splicing of this gene results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq]

Other Designations

-

Publication Reference

- [Improved detection of prostate cancer using a magneto-nanosensor assay for serum circulating autoantibodies.](#)

Xu L, Lee JR, Hao S, Ling XB, Brooks JD, Wang SX, Gambhir SS.

PLoS One 2019 Aug; 14(8):e0221051.

Application: Func, Human, As a standard, Human serum

Pathway

- [Vascular smooth muscle contraction](#)

Disease

- [Diabetes Mellitus](#)
- [Diabetic Nephropathies](#)
- [Genetic Predisposition to Disease](#)
- [Tobacco Use Disorder](#)