Recombinant Human CALD1

Cat. No. CALD1-26059TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length protein, corresponding to amino acids 1-538 of Human Caldesmon, with an N-terminal proprietary tag, predicted MWt 85.25 kDa
Species	Human
Source	Wheat Germ
ProteinLength	538 amino acids
Description	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.
Molecular Weight	85.250kDa inclusive of tags
Tissue specificity	High-molecular-weight caldesmon (isoform 1) is predominantly expressed in smooth muscles, whereas low-molecular-weight caldesmon (isoforms 2, 3, 4 and 5) are widely distributed in non-muscle tissues and cells. Not expressed in skeletal muscle or heart.
Form	Liquid

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Purity	Proprietary Purification
Storage buffer	pH: 8.00Constituents:0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequence Similarities	Belongs to the caldesmon family.

GENE INFORMATION

Gene Name	CALD1 caldesmon 1 [Homo sapiens]
Official Symbol	CALD1
Synonyms	CALD1; caldesmon 1; caldesmon; CDM; H CAD; L CAD;
Gene ID	800
mRNA Refseq	NM_004342
Protein Refseq	NP_004333
MIM	114213
Uniprot ID	Q05682
Chromosome Location	7q33
Pathway	Muscle contraction, organism-specific biosystem; Myometrial Relaxation and

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	Contraction Pathways, organism-specific biosystem; Smooth Muscle Contraction, organism-specific biosystem; Vascular smooth muscle contraction, organism-specific biosystem; Vascular smooth muscle contraction, conserved biosystem;
Function	actin binding; calmodulin binding; myosin binding; tropomyosin binding;

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