ARG62379
anti-Caldesmon antibody [h-CALD]

Package: 100 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [h-CALD] recognizes Caldesmon
Tested Reactivity	Hu
Tested Application	ICC/IF, IHC-Fr, IHC-P, WB
Specificity	Specific to human caldesmon (150 kDa protein)
Host	Mouse
Clonality	Monoclonal
Clone	h-CALD
Isotype	IgG1
Target Name	Caldesmon
Species	Human
Immunogen	BALB / C mice were injected with crude human uterus extract.
Conjugation	Un-conjugated
Alternate Names	CDM; HCAD; Caldesmon; NAG22; L-CAD; LCAD; H-CAD

Application Instructions

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	Uterus

Properties

Form	Liquid
Purification	Protein G purified
Buffer	10mM PBS (pH 7.4), 0.2% BSA and 0.09% Sodium azide
Preservative	0.09% Sodium azide
Stabilizer	0.2% BSA
Concentration	0.2 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 800 Human Swiss-port # Q05682 Human
Gene Symbol	CALD1
Gene Full Name	caldesmon 1
Background	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, Jul 2008]
Function	Actin- and myosin-binding protein implicated in the regulation of actomyosin interactions in smooth muscle and nonmuscle cells (could act as a bridge between myosin and actin filaments). Stimulates actin binding of tropomyosin which increases the stabilization of actin filament structure. In muscle tissues, inhibits the actomyosin ATPase by binding to F-actin. This inhibition is attenuated by calcium-calmodulin and is potentiated by tropomyosin. Interacts with actin, myosin, two molecules of tropomyosin and with calmodulin. Also play an essential role during cellular mitosis and receptor capping. Involved in Schwann cell migration during peripheral nerve regeneration (By similarity). [UniProt]
Research Area	Cell Biology and Cellular Response antibody; Signaling Transduction antibody
Calculated Mw	93 kDa
PTM	In non-muscle cells, phosphorylation by CDK1 during mitosis causes caldesmon to dissociate from microfilaments. Phosphorylation reduces caldesmon binding to actin, myosin, and calmodulin as well as its inhibition of actomyosin ATPase activity. Phosphorylation also occurs in both quiescent and dividing smooth muscle cells with similar effects on the interaction with actin and calmodulin and on microfilaments reorganization. CDK1-mediated phosphorylation promotes Schwann cell migration during peripheral nerve regeneration (By similarity).