

Anti-Caldesmon (Smooth) Antibody (Monoclonal, hHCD)
Catalog # ABO10404**Specification**

Anti-Caldesmon (Smooth) Antibody (Monoclonal, hHCD) - Product Information

| | |
|-------------------|------------------------|
| Application | IHC |
| Primary Accession | Q62736 |
| Host | Mouse |
| Isotype | Mouse IgG1 |
| Reactivity | Human, Mouse |
| Clonality | Monoclonal |
| Format | Liquid |

Description

Mouse IgG monoclonal antibody for Caldesmon (smooth), caldesmon 1 (CALD1) detection. Tested with WB, IHC-P in Human;mouse;rabbit. No cross reactivity with other proteins.

Anti-Caldesmon (Smooth) Antibody (Monoclonal, hHCD) - Additional Information

Gene ID 25687

Other Names

Non-muscle caldesmon, CDM, L-caldesmon, Cald1

Calculated MW

60584 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, mouse, rabbit, By Heat

Western blot, 0.25-0.5 µg/ml, Human, mouse, rabbit

Subcellular Localization

Cytoplasm, cytoskeleton . Cytoplasm, myofibril . On thin filaments in smooth muscle and on stress fibers in fibroblasts (nonmuscle). .

Tissue Specificity

High-molecular-weight caldesmon (h-caldesmon) is predominantly expressed in smooth muscles, whereas low- molecular-weight caldesmon (l-caldesmon) is widely distributed in non-muscle tissues and cells. Not expressed in skeletal muscle or heart.

Protein Name

Caldesmon

Contents

Each vial contains 50% glycerol, 1.2% Sodium acetate, 1% BSA, 0.02% NaN3.

Immunogen

Human uterus smooth muscle extract.

Purification

Ascites

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year, at 4°C for one month. Avoid repeated freezing and thawing.

Anti-Caldesmon (Smooth) Antibody (Monoclonal, hHCD) - Protein Information

Name Cald1

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 plays an essential role during cellular mitosis and receptor capping. Involved in Schwann cell migration during peripheral nerve regeneration.

Cellular Location

Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:P13505}. Cytoplasm, myofibril {ECO:0000250|UniProtKB:P13505}. Cytoplasm, cytoskeleton, stress fiber {ECO:0000250|UniProtKB:P13505}. Note=On thin filaments in smooth muscle and on stress fibers in fibroblasts (nonmuscle) {ECO:0000250|UniProtKB:P13505}

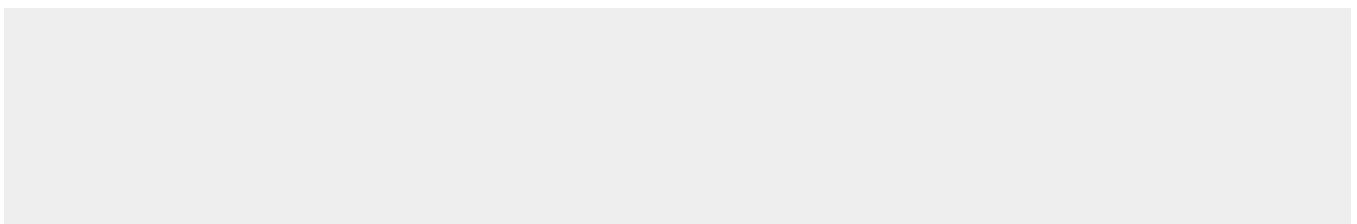
Tissue Location

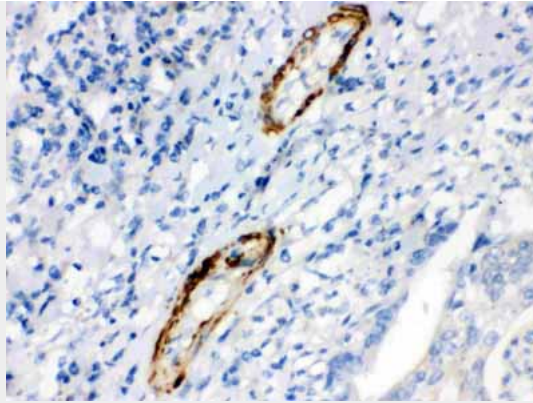
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Anti-Caldesmon (Smooth) Antibody (Monoclonal, hHCD) - Protocols

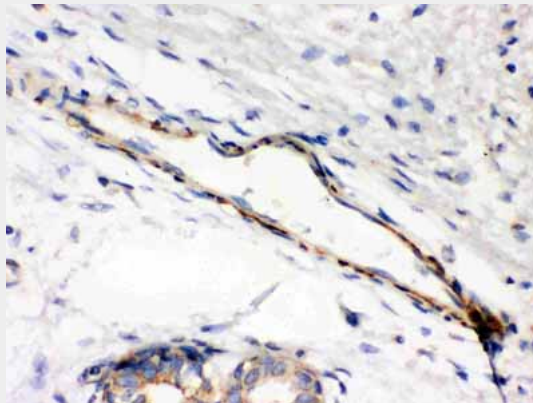
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Caldesmon (Smooth) Antibody (Monoclonal, hHCD) - Images



Anti-Caldesmon(smooth) antibody, ABO10404, IHC(P)IHC(P): Human Intestinal Cancer Tissue



Anti-Caldesmon(smooth) antibody, ABO10404, IHC(P)IHC(P): Human Mammary Cancer Tissue

Anti-Caldesmon (Smooth) Antibody (Monoclonal, hHCD) - Background

Caldesmon is a potential actomyosin regulatory protein found in smooth muscle and nonmuscle cells. The predicted smooth-muscle polypeptide is 793 amino acids long. The high molecular weight caldesmon(h-CaD) is predominantly expressed in smooth muscles, whereas the low molecular weight caldesmon(l-CaD) is widely distributed in nonmuscle tissues and cells. Hayashi et al.(1992) demonstrated that the human CDM gene is composed of 14 exons.