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Caldesmon, HMW (h-Caldesmon) (Smooth Muscle Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone h-CALD]
Catalog # AH12557

Specification

Caldesmon, HMW (h-Caldesmon) (Smooth Muscle Marker) Antibody - With BSA and Azide - Product Information

Application	**,2,3,4,**
Primary Accession	Q05682
Other Accession	800, 490203
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse / IgG1, kappa**
Calculated MW	**150kDa KDa**

Caldesmon, HMW (h-Caldesmon) (Smooth Muscle Marker) Antibody - With BSA and Azide - Additional Information

Gene ID 800

Other Names
Caldesmon, CDM, CALD1, CAD, CDM

Storage
Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions
Caldesmon, HMW (h-Caldesmon) (Smooth Muscle Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Caldesmon, HMW (h-Caldesmon) (Smooth Muscle Marker) Antibody - With BSA and Azide - Protein Information

Name CALD1

Synonyms CAD, CDM

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 (By similarity).

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}

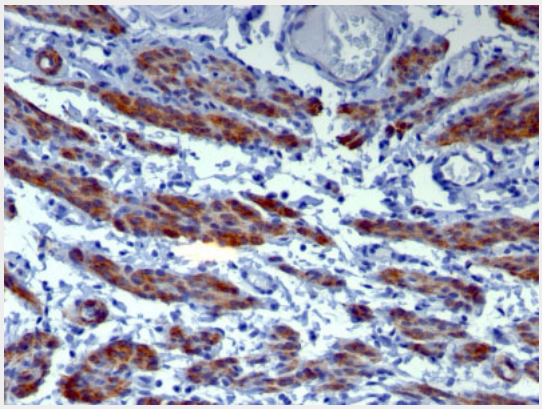
Tissue Location
High-molecular-weight caldesmon (isoform 1) is predominantly expressed in smooth muscles, whereas low-molecular-weight caldesmon (isoforms 2, 3, 4 and 5) are widely distributed in non-muscle tissues and cells. Not expressed in skeletal muscle or heart

Caldesmon, HMW (h-Caldesmon) (Smooth Muscle Marker) Antibody - With BSA and Azide - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Caldesmon, HMW (h-Caldesmon) (Smooth Muscle Marker) Antibody - With BSA and Azide - Images



Formalin-fixed, paraffin-embedded human Uterus stained with Caldesmon Monoclonal Antibody (h-CALD).

Caldesmon, HMW (h-Caldesmon) (Smooth Muscle Marker) Antibody - With BSA and Azide - Background

Recognizes a protein of 150kDa, which is identified as the high molecular weight variant of Caldesmon. Two closely related variants of human caldesmon have been identified which are different in their electrophoretic mobility and cellular distribution. The h-caldesmon variant (120-150kDa) is predominantly expressed in smooth muscle whereas l-caldesmon (70-80kDa) is found in non- muscle tissue and cells. Neither of the two variants has been detected in skeletal muscle. This MAb recognizes only the 150kDa variant (h-caldesmon) in Western blots of human aortic media extracts and is unreactive with fibroblast extracts from cultivated human foreskin.

Caldesmon is a developmentally regulated protein involved in smooth muscle and non-muscle contraction.

Caldesmon, HMW (h-Caldesmon) (Smooth Muscle Marker) Antibody - With BSA and Azide - References

Frid MG, et al. Phenotypic changes of human smooth muscle cells during development: Late expression of heavy caldesmon and calponin. Dev Biol 1992; 153:185 |