

Anti-Caldesmon, HMW (h-Caldesmon) Antibody
Recombinant Rabbit Monoclonal Antibody
Catalog # AH13586**Specification**

Anti-Caldesmon, HMW (h-Caldesmon) Antibody - Product Information

Application	IHC-P, IF, FC
Primary Accession	Q05682
Other Accession	490203
Reactivity	Human, Rat
Host	Rabbit
Clonality	Monoclonal
Isotype	Rabbit / IgG, kappa
Calculated MW	93231

Anti-Caldesmon, HMW (h-Caldesmon) Antibody - Additional Information**Gene ID** 800**Other Names**

CAD; CALD1; Caldesmon 1 Isoform 1; Caldesmon 1 Isoform 2; Caldesmon 1 Isoform 3; Caldesmon 1 Isoform 4; Caldesmon 1 Isoform 5; CDM; HCAD; LCAD; NAG22

Application Note

IHC-P~N/A
IF~1:50~200
FC~1:10~50

Format

200ug/ml of Ab purified by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage

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

Precautions

Anti-Caldesmon, HMW (h-Caldesmon) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-Caldesmon, HMW (h-Caldesmon) Antibody - 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

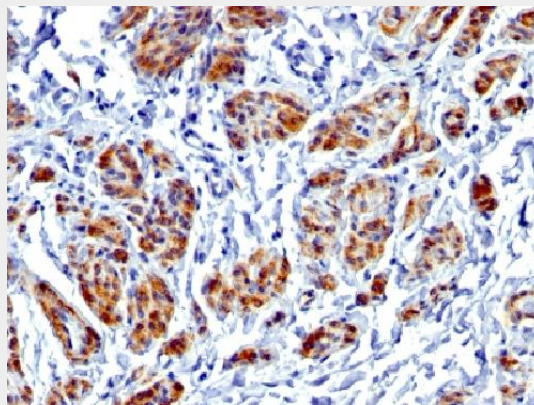
High-molecular-weight caldesmon (isoform 1) is predominantly expressed in smooth muscles, whereas low-molecular-weight caldesmon (isoforms 2, 3, 4 and 5) are widely distributed in non-muscle tissues and cells. Not expressed in skeletal muscle or heart

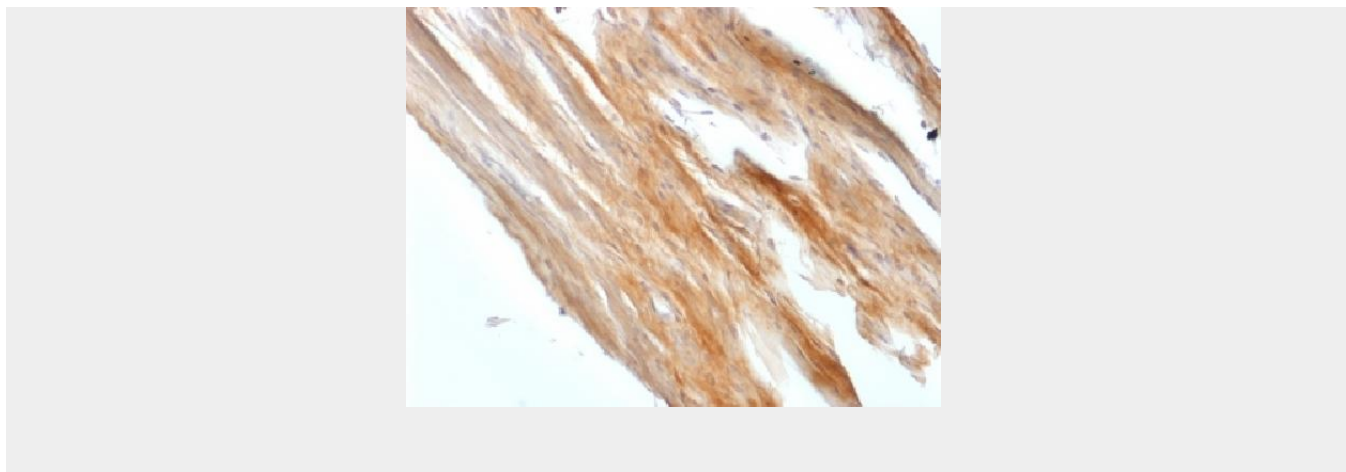
Anti-Caldesmon, HMW (h-Caldesmon) Antibody - Protocols

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, HMW (h-Caldesmon) Antibody - Images



**Anti-Caldesmon, HMW (h-Caldesmon) Antibody - 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.