

Anti-Caldesmon, HMW (h-Caldesmon) Antibody

Recombinant Rabbit Monoclonal Antibody

Catalog # AH13586

Product Information

| | |
|--------------------------|------------------------|
| Application | IHC-P, IF, FC |
| Primary Accession | Q05682 |
| Other Accession | 490203 |
| Reactivity | Human, Rat |
| Host | Rabbit |
| Clonality | Monoclonal |
| Isotype | Rabbit / IgG, kappa |
| Clone Names | CALD1/1424R |
| Calculated MW | 93231 |

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 | Flow Cytometry (0.5-1ug/million cells); Immunofluorescence (1-2ug/ml); ,Immunohistology (Formalin-fixed) (1-2ug/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires boiling tissue sections in 1mM EDTA, pH 7.5-8.5, for 10-20 min followed by cooling at RT for 20 minutes),Optimal dilution for a specific application should be determined. |
| 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. |

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}

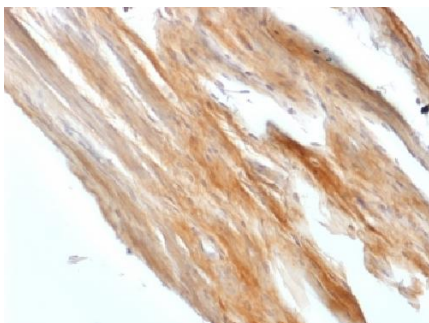
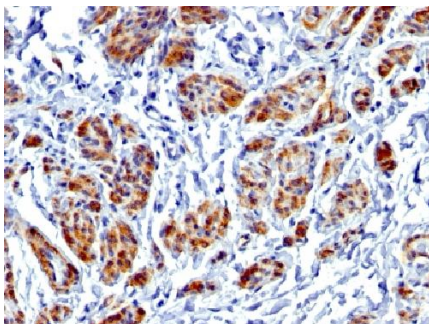
Tissue Location

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

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.

Images



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.