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KD-Validated Anti-Caldesmon 1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1852

Specification

KD-Validated Anti-Caldesmon 1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC**
Primary Accession	Q05682
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 93 kDa, observed, 70-80 kDa KDa**
Gene Name	**CALD1**
Aliases	**CALD1; Caldesmon 1; CDM; H-CAD; LCAD; H-CD; Caldesmon; Testis Secretory SpermBinding Protein Li 227n; NAG22; HCAD; LCAD; CAD**
Immunogen	**A synthesized peptide derived from human Caldesmon**

KD-Validated Anti-Caldesmon 1 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**800**

Other Names
Caldesmon, CDM, CALD1, CAD, CDM

KD-Validated Anti-Caldesmon 1 Rabbit Monoclonal 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}

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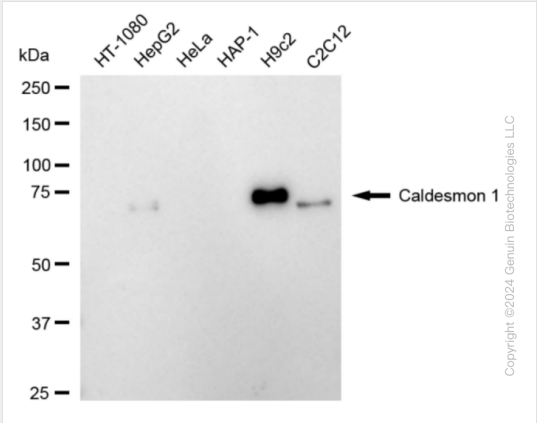
Tissue Location
High-molecular-weight caldesmon (isoform 1) is predominantly expressed in smooth muscles, whereas low-molecular-weight caldesmon (isoforms 2, 3, 4 and 5) are widely distributed in non-muscle tissues and cells. Not expressed in skeletal muscle or heart

KD-Validated Anti-Caldesmon 1 Rabbit Monoclonal Antibody - Protocols

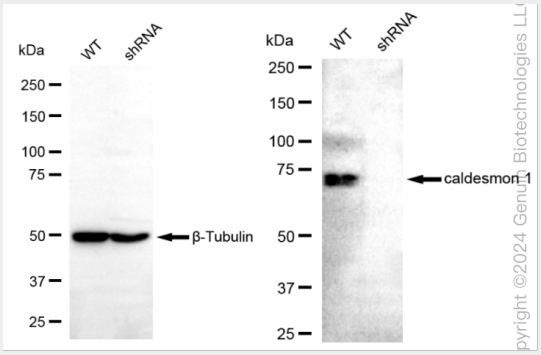
Provided below are standard protocols that you may find useful for product applications.

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

KD-Validated Anti-Caldesmon 1 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-caldesmon 1 antibody (Cat#AGI1852). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-caldesmon 1 antibody (Cat#AGI1852, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-caldesmon 1 antibody (Cat#AGI1852). Caldesmon 1 expression in wild type (WT) and caldesmon 1 (CALD1) shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-caldesmon 1 antibody (Cat#AGI1852, 1:5,000) and HRP-conjugated goat anti-rabbit

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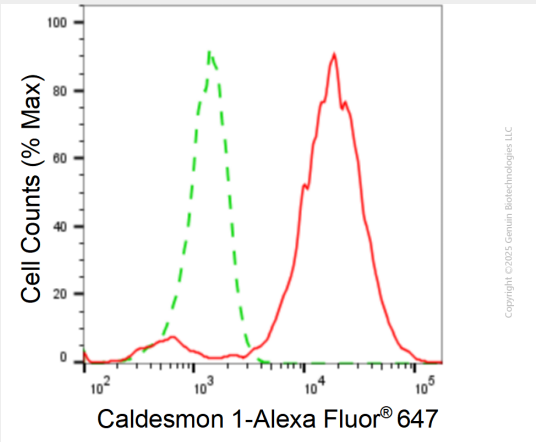
secondary antibody respectively.



Flow cytometric analysis of caldesmon 1 expression in H9c2 cells using anti-caldesmon 1 antibody (Cat#AGI1852, 1:2,000). Green, isotype control; red, caldesmon 1.