

# Anti-Caldesmon Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

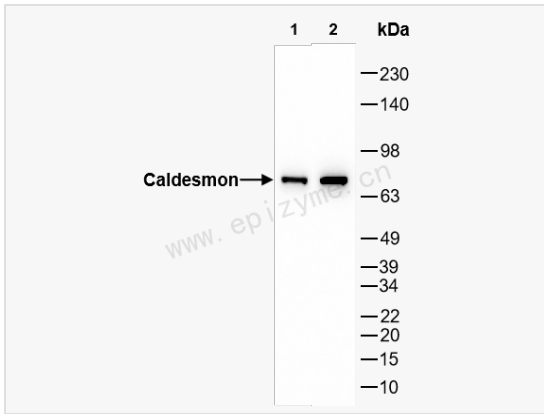
Catalog # R014756

## Product Information

|             |   |
|-------------|---|
| Application | WB, IHC-P/IF (Tissue-P), ELISA  |
| Reactivity  | Rat, Human, Mouse   |
| Dilution    | WB 1:2,000~1:10,000; IHC-P 1:200~1:1,000; IF 1:200~1:1,000  |
| Host        | Rabbit  |
| Clonality   | Monoclonal  |
| Clone No.   | 44I42E94  |
| Isotype     | IgG   |
| Label       | Unconjugated  |
| Immunogen   | A synthesized peptide derived from human Caldesmon  |
| Format      | Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.                     |
| Storage     | Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage. |
| Precautions | Anti-Caldesmon Rabbit mAb [44I42E94] is for research use only and not for use in diagnostic or therapeutic procedures.      |

## Protein Information

|                   |  |
|-------------------|--|
| Synonyms          | CAD, CALD 1, CALD1, CALD1_HUMAN, Caldesmon 1, Caldesmon 1 Isoform 1, Caldesmon 1 Isoform 2, Caldesmon 1 Isoform 3, Caldesmon 1 Isoform 4, Caldesmon 1 Isoform 5, Caldesmon, Caldesmon1, CDM, H CAD, HCAD, L CAD, LCAD, MGC21352, NAG22.  |
| Calculated MW     | Calculated MW: 93 kDa; Observed MW: 70 kDa   |
| Uniprot ID        | Q05682   |
| Gene ID           | 800  |
| Background        | This gene encodes a calmodulin- and actin-binding protein that plays an essential role in the regulation of smooth muscle and nonmuscle contraction. The conserved domain of this protein possesses the binding activities to Ca(2+)-calmodulin, actin, tropomyosin, myosin, and phospholipids. This protein is a potent inhibitor of the actin-tropomyosin activated myosin MgATPase, and serves as a mediating factor for Ca(2+)-dependent inhibition of smooth muscle contraction. Alternative splicing of this gene results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2008] |
| Cellular Location | Cytoplasm > cytoskeleton. Cytoplasm > myofibril. On thin filaments in smooth muscle and on stress fibers in fibroblasts (nonmuscle).   |
| 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.   |



Western Blot - Anti-Caldesmon Rabbit mAb [44142E94]

All lanes: R014756 at 1:5,000 dilution

Lane 1: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates

Lane 2: PC-12 (Rat adrenal pheochromocytoma epithelial cell) whole cell lysates

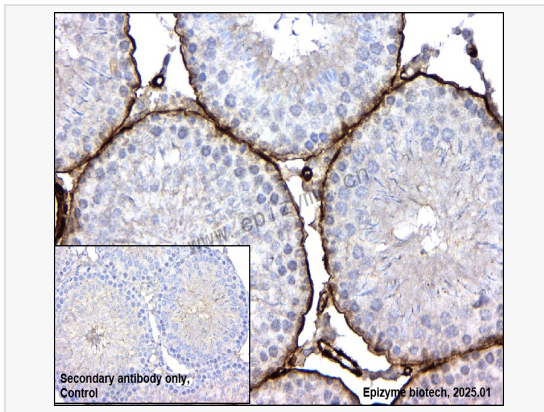
Lysates/proteins at 10 µg per lane.

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution

Predicted band size: 93 kDa

Observed band size: 70 kDa

Developed using the ECL technique (Cat. No. SQ201).



Immunohistochemistry - Anti-Caldesmon Rabbit mAb [44142E94]

Sample: Paraformaldehyde-fixed, paraffin embedded rat testis tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R014756 at 1:600 dilution

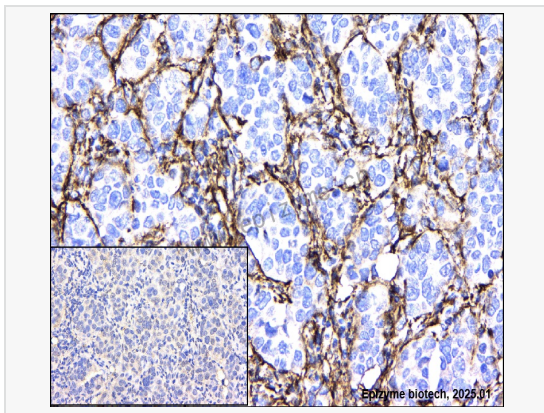
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-Caldesmon Rabbit mAb [44142E94]

Sample: Paraformaldehyde-fixed, paraffin embedded human ovarian cancer tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R014756 at 1:600 dilution

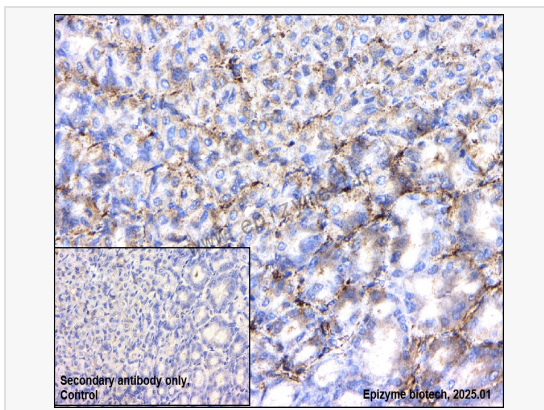
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-Caldesmon Rabbit mAb [44142E94]

Sample: Paraformaldehyde-fixed, paraffin embedded mouse stomach tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R014756 at 1:600 dilution

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.