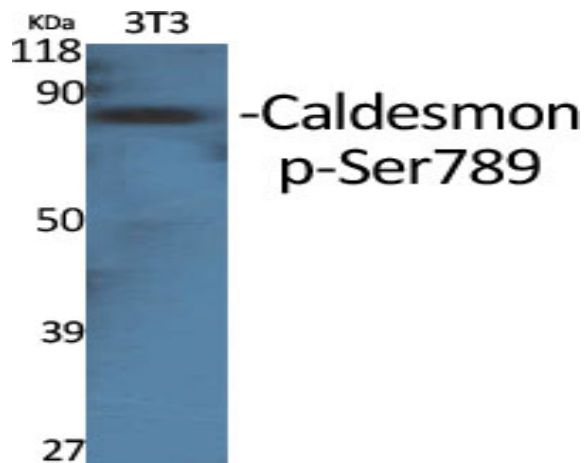# Immunoway
Best Tools for immunology Research
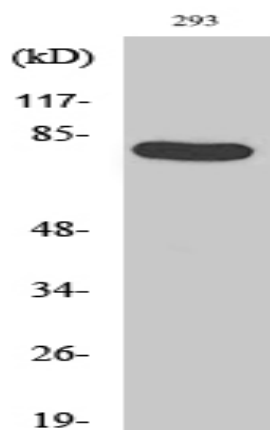
Caldesmon (phospho Ser789) Polyclonal Antibody

Catalog No : YP0874

Reactivity : Human;Mouse;Rat

Applications : WB;IHC;IF;ELISA

Target : Caldesmon

Fields : >>Vascular smooth muscle contraction

Gene Name : CALD1

Protein Name : Caldesmon

Human Gene Id : 800

Human Swiss Prot No : Q05682

Rat Gene Id : 25687

Rat Swiss Prot No : Q62736

Immunogen : The antiserum was produced against synthesized peptide derived from human Caldesmon around the phosphorylation site of Ser789. AA range:744-793

Specificity : Phospho-Caldesmon (S789) Polyclonal Antibody detects endogenous levels of Caldesmon protein only when phosphorylated at S789.

Formulation : Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source : Polyclonal, Rabbit,IgG

Dilution : WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:5000. Not yet tested in other applications.

Purification : The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

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Concentration :   1 mg/ml

Storage Stability :   -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band :   80kD

Cell Pathway :   Vascular smooth muscle contraction;

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],

Function :   domain:The N-terminal part seems to be a myosin/calmodulin-binding domain, and the C-terminal a tropomyosin/actin/calmodulin-binding domain. These two domains are separated by a central helical region in the smooth-muscle form.,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 play an essential role during cellular mitosis and receptor capping.,PTM:In non-muscle cells, phosphorylation by CDC2 during mit

Subcellular Location :   Cytoplasm, cytoskeleton . Cytoplasm, myofibril . Cytoplasm, cytoskeleton, stress fiber . On thin filaments in smooth muscle and on stress fibers in fibroblasts (nonmuscle). .

Expression :   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.

Tag :   orthogonal

Sort :   3052

No4 :   1

Host :   Rabbit

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Modifications :   Phospho
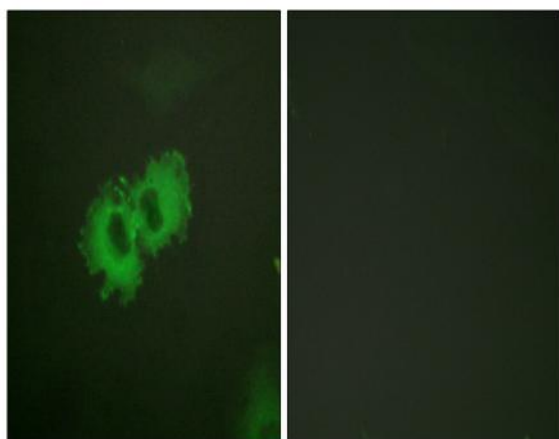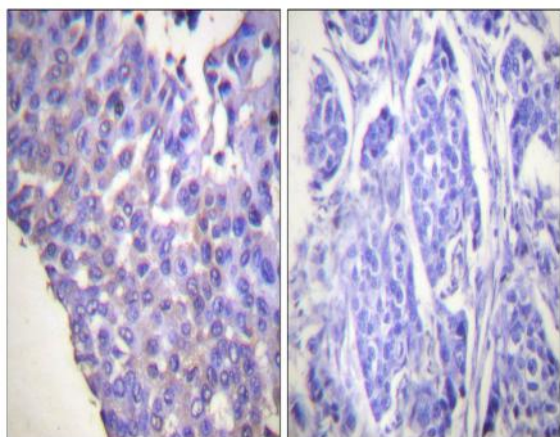
Western Blot analysis of various cells using Phospho-Caldesmon (S789) Polyclonal Antibody
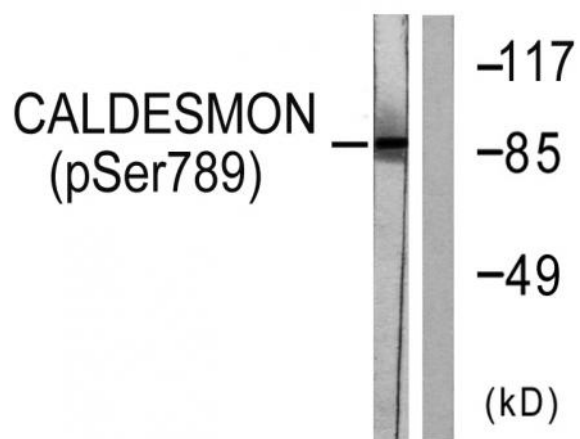

Western Blot analysis of 293 cells using Phospho-Caldesmon (S789) Polyclonal Antibody

Immunofluorescence analysis of HeLa cells, using Caldesmon (Phospho-Ser789) Antibody. The picture on the right is blocked with the phospho peptide.

Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using Caldesmon (Phospho-Ser789) Antibody. The picture on the right is blocked with the phospho peptide.

Western blot analysis of lysates from HeLa cells treated with EGF 200ng/ml 30', using Caldesmon (Phospho-Ser789) Antibody. The lane on the right is blocked with the phospho peptide.