

PRODUCT DATA SHEET

Bioworld Technology,Inc.

Caldesmon monoclonal antibody

Catalog: MB65987 Host: Mouse Reactivity: Human

BackGround:

Caldesmon-1 is an actin filament stabilizing protein involved in the regulation of cell contraction. Binding of caldesmon-1 to actin is weakened by phosphorylation and by calmodulin in the presence of calcium. Caldesmon-1 is encoded by a single gene, which is spliced to generate a widely distributed low molecular weight form and a smooth muscle specific high molecular weight form. Caldesmon-1 is phosphorylated by the cyclin dependent kinase cdc2 and Erk1/2 MAP kinase, both of which prevent the activity of caldesmon-1. Phosphorylation of caldesmon-1 by cdc2 is required for passage of cells through mitosis. Phosphorylation by Erk1/2 is important in regulating smooth muscle contraction. Caldesmon-1 activity may play a role in the formation of podosomes, adhesion complexes associated with the secretion of matrix metalloproteases, invasion, and metastasis.

Product:

Mouse IgG2b. Liquid in PBS containing 50% glycerol, 0.2% BSA and 0.01% sodium azide.

Molecular Weight:

~ 70 kDa

Swiss-Prot:

Q05682

Purification&Purity:

The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

Applications:

WB (1/500 - 1/1000), IHC (1/100 - 1/300)

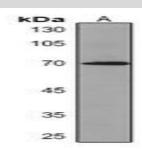
Storage&Stability:

Store at $4 \,\mathrm{C}$ short term. Aliquot and store at $-20 \,\mathrm{C}$ long term. Avoid freeze-thaw cycles.

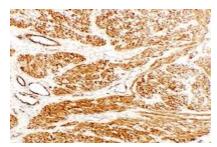
Specificity:

Recognizes endogenous levels of Caldesmon protein.

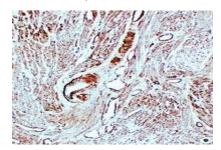
DATA:



Western blot analysis of Caldesmon expression in Hela (A) whole cell lysates.



Immunohistochemical analysis of Caldesmon staining in human fibroid formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunohistochemical analysis of Caldesmon staining in human liomyoma formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact pol-

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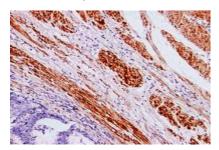
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Immunohistochemical analysis of Caldesmon staining in human colon formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Note:

For research use only, not for use in diagnostic procedure.

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