Caldesmon
1:100
CE
+ K prot.

DakoCytomation

Monoclonal
Mouse Anti-Human
Caldesmon
Clone: h-CD[1]
Immunogen: Crude human uterus extract[1]
Isotype: IgG_1, kappa

Code M3557
Mouse IgG concentration mg/L: See label on vial.

Intended use

For In Vitro Diagnostic Use.

Refer to the "General Instructions for Immunohistochemical Staining" or the Detection System "Instructions" of IHC procedures for: (1) Principle of Procedure, (2) Materials Required, Not Supplied, (3) Storage, (4) Specimen Preparation, (5) Staining Procedure, (6) Quality Control, (7) Troubleshooting, (8) Interpretation of Staining, (9) General Limitations.

Summary and explanation

Introduction
Caldesmon is a developmentally regulated protein involved in smooth muscle and non-muscle contraction.[2,3]

Specificity
Two closely related variants of human caldesmon have been identified which differ in their electrophoretic mobility and cellular distribution. The *h*-caldesmon variant (120–150 kD) is predominantly expressed in smooth muscle whereas *l*-caldesmon (70–80 kD) is found in non-muscle tissue and cells. Neither of the two variants have been detected in skeletal muscle.[2] Monoclonal anti-caldesmon, h-CD, recognizes only the 150 kD variant (*h*-caldesmon) in Western blots of human aortic media extracts and is unreactive with fibroblast extracts from cultivated human foreskin.[1]

Reagent provided

Anti-human caldesmon, h-CD is a mouse monoclonal antibody supplied in liquid form as tissue culture supernatant (containing fetal bovine serum) dialyzed against 0.05 mol/L Tris-HCl, pH 7.2 and 0.015 mol/L sodium azide.

Anti-caldesmon, h-CD may be used at a dilution of 1:50 to 1:100 in the LSAB method determined on formalin-fixed, paraffin-embedded tissue. These are guidelines only; optimal dilutions should be determined by the individual laboratory.

Materials required, but not supplied

Refer to the "General Instructions for Immunohistochemical Staining" and/or the Detection System "Instructions."

Precautions

1. For professional users.
2. This product contains sodium azide (NaN_3), a chemical highly toxic in pure form. At product concentrations, though not classified as hazardous, build-ups of NaN_3 may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing.[6]
3. Minimize microbial contamination of reagents or increase in nonspecific staining may occur.
4. As with any product derived from biological sources, proper handling procedures should be used.
5. Safety data sheet available for professional users on request.

Storage

Store at 2–8°C.

Specimen preparation

Paraffin Sections
Anti-caldesmon, h-CD can be used on formalin-fixed, paraffin-embedded tissue sections.

Prior to the IHC staining procedure, the deparaffinized tissue sections must be treated with a proteolytic enzyme followed by target retrieval. For greater adherence of tissue sections to glass slides, the use of Silanized Slides (code S3003) is recommended. Deparaffinized tissue sections must first be treated for 5 to 10 minutes with a mild enzyme solution. A recommended proteolytic enzyme is Proteinase K (code S3004) which must be further diluted 1:500 in 0.05 mol/L Tris-HCl, pH 7.6 to give a final concentration of 0.04 mg/mL.

Following proteolytic digestion, tissue sections must be treated with heat. When using the water bath method, preheat a Coplin jar containing 0.01 mol/L citrate buffer, pH 6.0 as well as a water bath to 95–99°C. When the temperature has stabilized, place tissue sections into the Coplin jar containing the preheated buffer. Heat the