

**Mouse Anti-Caldesmon, HMW (H-Caldesmon) [h-CALD]: MC0634, MC0634RTU7**

**Intended Use:** For Research Use Only

**Description:** Caldesmon was identified as a Ca<sup>2+</sup>/Calmodulin-binding protein with molecular weight of 120-150kDa high molecular weight Caldesmon (H-Caldesmon) and 70-80kDa low molecular weight (L-Caldesmon). H-Caldesmon (isoform 1) which is an actin, myosin, tropomyosin, and calmodulin-binding protein, is expressed in differentiated contractile smooth muscle cells (SMC) while L-Caldesmon (isoforms 2, 3, 4 and 5) is most abundant in non-muscle tissue and cells. Neither of the two variants has been detected in skeletal muscle or heart. As such, H-Caldesmon is a specific marker for SMC and could aid in the differential diagnosis of tumors with a SMC component (e.g. leiomyosarcoma) from other tumors with smooth muscle-like differentiation e.g. myofibroblastic tumors. L-Caldesmon may play an important function in motile processes such as secretion and organelle movement. This antibody recognizes only the 150kDa variant H-Caldesmon, labels smooth muscle and tumors of smooth muscle.

**Specifications:**

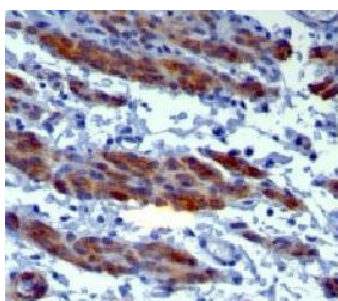
Clone: h-CALD  
 Source: Mouse  
 Isotype: IgG1k  
 Reactivity: Human  
 Immunogen: Crude human uterus extract  
 Localization: Cytoplasm  
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, Flow Cyt., ICC/IF, WB  
 Package:

Description	Catalog No.	Size
Caldesmon, HMW (h-Caldesmon) Concentrated	MC0634	1 ml
Caldesmon, HMW (h-Caldesmon) Prediluted	MC0634RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: Smooth muscle, uterus, leiomyoma  
 Concentrated Dilution: 50-200  
 Pretreatment: Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human uterus stained with anti-Caldesmon HMW using DAB

**References:**

1. Phenotypic changes of human smooth muscle cells during development: Late expression of heavy caldesmon and calponin. Frid MG, et al. Dev Biol 153:185, 1992.
2. Value of PAX8, PAX2, claudin-4, and h-caldesmon immunostaining in distinguishing peritoneal epithelioid mesotheliomas from serous carcinomas. Ordóñez NG. Mod Pathol. 2013 Apr;26(4):553-62.
3. Immunohistochemical characteristics of atypical polypoid adenomyoma with special reference to h-caldesmon. Horita A, et al. Int J Gynecol Pathol. Jan;30(1):64-70, 2011.