

Rabbit Anti-Caldesmon, HMW (H-Caldesmon) [MD334R]: RM0014, RM0014RTU7

Intended Use: For Research Use Only

Description: Caldesmon was identified as a Ca²⁺/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:

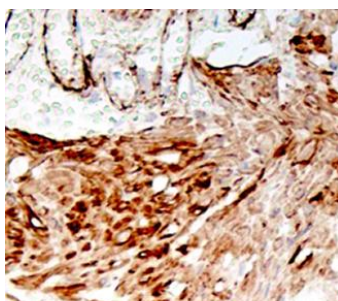
Clone: MD334R
 Source: Rabbit
 Isotype: IgG
 Reactivity: Human
 Immunogen: Recombinant human full-length CALD1 protein
 Localization: Cytoplasm
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC
 Package:

Description	Catalog No.	Size
Caldesmon Concentrated	RM0014	1 ml
Caldesmon Prediluted	RM0014RTU7	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 smooth muscle stained with anti-Caldesmon using DAB

References:

1. A novel in vitro model to study alveologenesis. Pieretti AC, et al. Am J Respir Cell Mol Biol 50:459-69, 2014.
2. TFAP2C governs the luminal epithelial phenotype in mammary development and carcinogenesis. Cyr AR, et al. Oncogene N/A:N/A, 2014.
3. Role of myocyte enhancing factor 2B in epithelial myofibroblast transition of human gingival keratinocytes. Sun Q, et al. Exp Biol Med (Maywood) 237:178-85, 2012.