abcam

Product datasheet

PE Anti-Caldesmon/CDM antibody [E89] ab211580

重组 RabMAb

3 图像

概述

产品名称	PE Anti-Caldesmon/CDM抗体[E89]
描述	PE兔单克隆抗体[E89] to Caldesmon/CDM
宿主	Rabbit
偶联物	PE. Ex: 488nm, Em: 575nm
经测试应用	**适用于:** ICC/IF, Flow Cyt (Intra)
种属反应性	**与反应:** Human **预测可用于:** Mouse, Rat
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	Flow Cyt (intra)ometry: HeLa cells ICC/IF: HeLa cells
常规说明	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at 4°C (stable for up to 12 months). Upon delivery aliquot. Store at +4°C. Do Not Freeze. Store In the Dark.
存储溶液	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: 1% BSA, PBS
纯度	Protein A purified
克隆	单克隆
克隆编号	E89

同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab211580于以下的经测试应用**

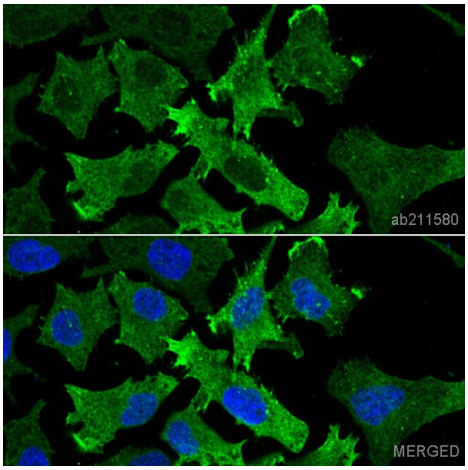
"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
ICC/IF		1/100. This product gave a positive signal in HeLa cells fixed with 4% formaldehyde (10 min).
Flow Cyt (Intra)		1/500.

靶标

功能	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.
组织特异性	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.
序列相似性	Belongs to the caldesmon family.
结构域	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.
翻译后修饰	In non-muscle cells, phosphorylation by CDK1 during mitosis causes caldesmon to dissociate from microfilaments. Phosphorylation reduces caldesmon binding to actin, myosin, and calmodulin as well as its inhibition of actomyosin ATPase activity. Phosphorylation also occurs in both quiescent and dividing smooth muscle cells with similar effects on the interaction with actin and calmodulin and on microfilaments reorganization.
细胞定位	Cytoplasm > cytoskeleton. Cytoplasm > myofibril. On thin filaments in smooth muscle and on stress fibers in fibroblasts (nonmuscle).

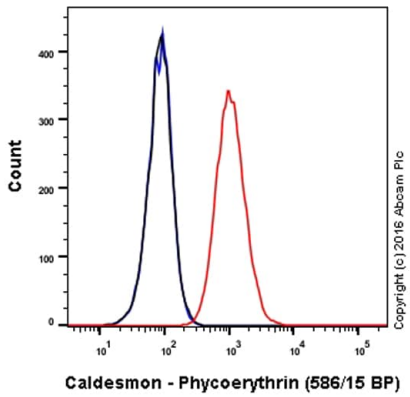
图片



Immunocytochemistry/ Immunofluorescence - PE Anti-Caldesmon/CDM antibody [E89] (ab211580)

Ab211580 staining Caldesmon/CDM in HeLa cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab211580 at 1/100 dilution (pseudocolored in green). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

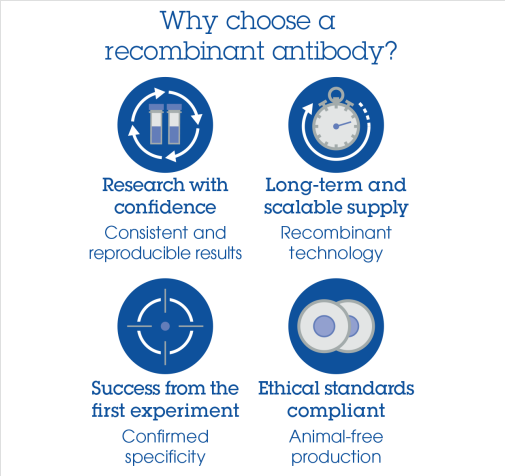


Flow Cytometry (Intracellular) - PE Anti-Caldesmon/CDM antibody [E89] (ab211580)

Overlay histogram showing HeLa cells stained with ab211580 (red line). The cells were fixed with 4% formaldehyde and then permeabilized with 90% methanol at -20°C for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab211580, 1/500 dilution) for 30 min at 22°C.

Isotype control antibody (black line) was rabbit IgG (monoclonal) Phycoerythrin (**ab209478**) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 50mW Yellow/Green laser (561nm) and 586/15 bandpass filter.



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