

Product datasheet

Anti-Caldesmon/CDM (phospho S759) antibody [EPR2212] α b76106

Recombinant RabMAb

2 Images

Overview

Product name	Anti-Caldesmon/CDM (phospho S759) antibody [EPR2212]
Description	Rabbit monoclonal [EPR2212] to Caldesmon/CDM (phospho S759)
Host species	Rabbit
Tested applications	Suitable for: WB Unsuitable for: Flow Cyt, ICC/IF, IHC-P or IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	HeLa lysate untreated and treated with Calyculin A
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant</p>
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR2212
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab76106 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

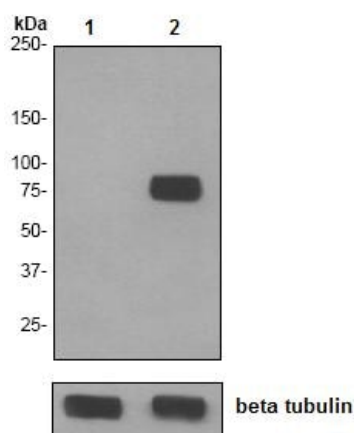
Application	Abreviews	Notes
WB		1/1500 - 1/3000. Predicted molecular weight: 93 kDa.

Application notes Is unsuitable for Flow Cyt, ICC/IF, IHC-P or IP.

Target

Function	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.
Tissue specificity	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.
Sequence similarities	Belongs to the caldesmon family.
Domain	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.
Post-translational modifications	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.
Cellular localization	Cytoplasm > cytoskeleton. Cytoplasm > myofibril. On thin filaments in smooth muscle and on stress fibers in fibroblasts (nonmuscle).

Images



Western blot - Anti-Caldesmon/CDM (phospho S759) antibody [EPR2212] (ab76106)

All lanes : Anti-Caldesmon/CDM (phospho S759) antibody [EPR2212] (ab76106) at 1/3000 dilution

Lane 1 : HeLa lysate, untreated

Lane 2 : HeLa lysate treated with Calyculin A

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP labelled goat anti rabbit at 1/2000 dilution

Predicted band size: 93 kDa

Observed band size: 93 kDa

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Caldesmon/CDM (phospho S759) antibody [EPR2212] (ab76106)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- Extensive multi-media technical resources to help you

- We investigate all quality concerns to ensure our products perform to the highest standards

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