

Product datasheet

Anti-Caldesmon/CDM antibody [E89] (HRP) ab208234

Recombinant RabMAb

1 Image

Overview

<b>Product name</b>	Anti-Caldesmon/CDM antibody [E89] (HRP)
<b>Description</b>	Rabbit monoclonal [E89] to Caldesmon/CDM (HRP)
<b>Host species</b>	Rabbit
<b>Conjugation</b>	HRP
<b>Tested applications</b>	<b>Suitable for:</b> WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human <b>Predicted to work with:</b> Rat 
<b>Immunogen</b>	within Human Caldesmon/CDM aa 750 to the C-terminus. The exact sequence is proprietary. Synthetic phospho peptide corresponding to residues surrounding Ser789 of human Caldesmon. This antibody is NOT phospho-specific, however, and will recognize total endogenous protein. Database link: <a href="#">Q05682</a>
<b>Positive control</b>	WB: HeLa and NIH3T3 cell lysates
<b>General notes</b>	<p>This product was previously labelled as Caldesmon</p>

Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> patents](#).

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Stable for 12 months at -20°C. Store In the Dark.
<b>Storage buffer</b>	pH: 7.4 Preservative: 0.1% Proclin Constituents: 30% Glycerol, 1% BSA, PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal

<b>Clone number</b>	E89
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab208234** 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		1/15000. Detects a band of approximately 75 kDa (predicted molecular weight: 93 kDa).

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## Target

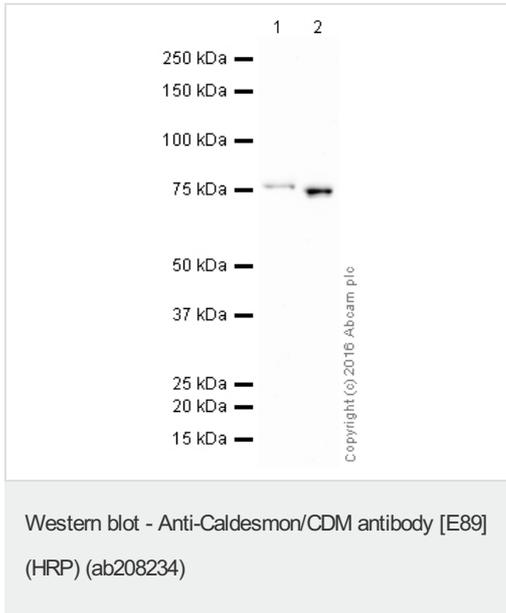
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<b>Function</b>	Actin- and myosin-binding protein implicated in the regulation of actomyosin interactions in smooth muscle and nonmuscle cells (could act as a bridge between myosin and actin filaments). Stimulates actin binding of tropomyosin which 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.
<b>Tissue specificity</b>	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.
<b>Sequence similarities</b>	Belongs to the caldesmon family.
<b>Domain</b>	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.
<b>Post-translational modifications</b>	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.
<b>Cellular localization</b>	Cytoplasm > cytoskeleton. Cytoplasm > myofibril. On thin filaments in smooth muscle and on stress fibers in fibroblasts (nonmuscle).

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## Images

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**All lanes :** Anti-Caldesmon/CDM antibody [E89] (HRP) (ab208234) at 1/5000 dilution

**Lane 1 :** HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

**Lane 2 :** NIH 3T3 (Mouse) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 93 kDa

**Observed band size:** 75 kDa

[why is the actual band size different from the predicted?](#)

**Exposure time:** 4 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% milk before being incubated with ab208234 overnight at 4°C. Antibody binding was visualised using ECL development solution [ab133406](#).

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

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