

Anti-Desmoplakin I+II antibody [DP2.15] ab16434

★★★★☆ [3 Abreviews](#) [31 References](#)

Overview

Product name	Anti-Desmoplakin I+II antibody [DP2.15]
Description	Mouse monoclonal [DP2.15] to Desmoplakin I+II
Host species	Mouse
Tested applications	Suitable for: WB, ICC, ICC/IF, IHC-Fr Unsuitable for: IHC-P
Species reactivity	Reacts with: Mouse, Rat, Chicken, Cow, Human
Immunogen	Full length protein (Cow).
Positive control	Positive cell lines: Human A432 and MCF-7; Rat MH1C1; Bovine MDBK and BMGE. Stratified epithelia, simple epithelia, including glands, urothelium, thymic reticular epithelium, hepatocytes, intercalated disks of myocardium and arachnoid cells of meninges.
General notes	<p>Suitable for use in the detection of primary and metastatic carcinomas.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Add glycerol to a final volume of 50% for extra stability and aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.1% Sodium azide Constituents: PBS, 0.5% BSA
Purity	Immunogen affinity purified
Clonality	Monoclonal
Clone number	DP2.15
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab16434 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)	Use at an assay dependent concentration.
ICC	★★★★★ (1)	Use at an assay dependent concentration.
ICC/IF	★★★★★ (1)	Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration.

Application notes Is unsuitable for IHC-P.

Target

Function	Major high molecular weight protein of desmosomes. Involved in the organization of the desmosomal cadherin-plakoglobin complexes into discrete plasma membrane domains and in the anchoring of intermediate filaments to the desmosomes.
Tissue specificity	Isoform DPI is apparently an obligate constituent of all desmosomes. Isoform DPII resides predominantly in tissues and cells of stratified origin.
Involvement in disease	Keratoderma, palmoplantar, striate 2 Cardiomyopathy, dilated, with woolly hair and keratoderma Arrhythmogenic right ventricular dysplasia, familial, 8 Skin fragility-woolly hair syndrome Epidermolysis bullosa, lethal acantholytic Cardiomyopathy, dilated, with woolly hair, keratoderma, and tooth agenesis
Sequence similarities	Belongs to the plakin or cytolinker family. Contains 17 plectin repeats. Contains 1 SH3 domain. Contains 6 spectrin repeats.
Domain	Its association with epidermal and simple keratins is dependent on the tertiary structure induced by heterodimerization of these intermediate filaments proteins and most likely involves recognition sites located in the rod domain of these keratins. The N-terminal region is required for localization to the desmosomal plaque and interacts with the N-terminal region of plakophilin 1. The three tandem plakin repeat regions in the C-terminus mediate binding to intermediate filaments.
Post-translational modifications	Ser-2849 is probably phosphorylated by a cAMP-dependent protein kinase. Phosphorylation on Ser-2849 probably affects its association with epidermal, simple cytokeratins and VIM intermediate filaments. Substrate of transglutaminase. Some glutamines and lysines are cross-linked to other desmoplakin molecules, to other proteins such as keratin, envoplakin, periplakin and involucrin, and to lipids like omega-hydroxyceramide (PubMed:9651377).

Cellular localization

Cell junction, desmosome. Cytoplasm, cytoskeleton. Cell membrane. Innermost portion of the desmosomal plaque. Colocalizes with epidermal KRT5-KRT14 and simple KRT8-KRT18 keratins and VIM intermediate filaments network (PubMed:12802069). Localizes at the intercalated disk in cardiomyocytes (By similarity).

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