

## Product datasheet

# Anti-Desmoplakin I+II antibody ab71690

★★★★★ [2 Abreviews](#) [19 References](#) [2 Images](#)

### Overview

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<b>Product name</b>	Anti-Desmoplakin I+II antibody
<b>Description</b>	Rabbit polyclonal to Desmoplakin I+II
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide corresponding to Human Desmoplakin I+II aa 1-100. (Peptide available as <a href="#">ab71689</a> )
<b>Positive control</b>	This antibody gave a positive signal in Caco 2 whole cell lysate
<b>General notes</b>	<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&amp;As</p>

### Properties

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<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 or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS  Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab71690 in the following tested applications.

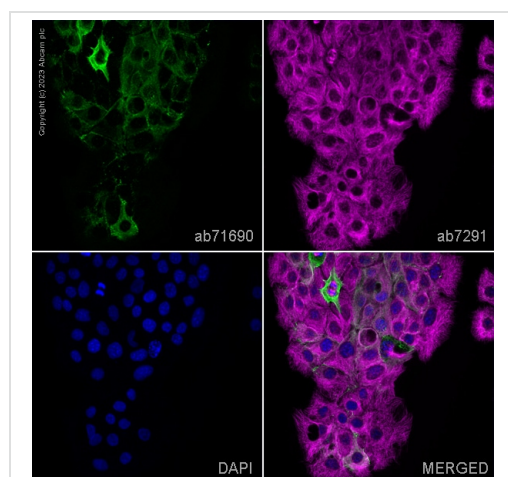
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 238, 270 kDa (predicted molecular weight: 260 , 332 kDa).
ICC/IF	★★★★★ (1)	Use a concentration of 5 µg/ml.

## Target

<b>Function</b>	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.
<b>Tissue specificity</b>	Isoform DPI is apparently an obligate constituent of all desmosomes. Isoform DPII resides predominantly in tissues and cells of stratified origin.
<b>Involvement in disease</b>	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
<b>Sequence similarities</b>	Belongs to the plakin or cytolinker family. Contains 17 plectin repeats. Contains 1 SH3 domain. Contains 6 spectrin repeats.
<b>Domain</b>	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.
<b>Post-translational modifications</b>	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).
<b>Cellular localization</b>	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).

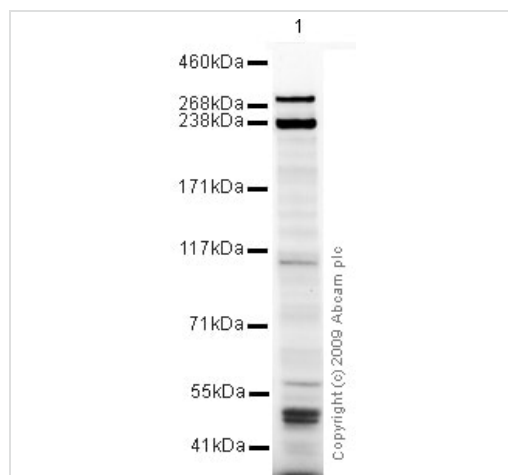
## Images



Immunocytochemistry/ Immunofluorescence - Anti-Desmoplakin I+II antibody (ab71690)

ab71690 staining Desmoplakin I+II in HaCat cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Tween 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 ab71690 at 1µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour magenta). Nuclear DNA was labelled with DAPI (shown in blue). Also suitable in cells fixed with 4% paraformaldehyde (10 min).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Western blot - Anti-Desmoplakin I+II antibody (ab71690)

Desmoplakin I+II antibody (ab71690) at 1 µg/ml + Caco 2 (Human colonic carcinoma cell line) Whole Cell Lysate at 10 µg

### Secondary

Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

**Predicted band size:** 260 , 332 kDa

**Observed band size:** 238,270 kDa

**Additional bands at:** 110 kDa, 45 kDa. We are unsure as to the identity of these extra bands.

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