

## Product datasheet

anti-Desmoglein 1/2 mouse monoclonal, DG 3.10, liquid, purified

### Short overview

<b>Cat. No.</b>	690002
<b>Quantity</b>	1 ml
<b>Concentration</b>	50 µg/ml (50 µg)

### Product description

<b>Host</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Isotype</b>	IgG1
<b>Clone</b>	DG 3.10
<b>Immunogen</b>	"Band 3" polypeptide of isolated desmosomes from bovine muzzle epidermis
<b>Formulation</b>	PBS pH 7.4 with 0.09% sodium azide and 0.5% BSA
<b>UniprotID</b>	Q02413 (Human), D3ZM39 (Rat), Q03763 (Bovine)
<b>Synonym</b>	Desmoglein-1, Cadherin family member 4, Desmosomal glycoprotein 1, DG1, DGI, Pemphigus foliaceus antigen, DSG1, CDHF4
<b>Conjugate</b>	Unconjugated
<b>Purification</b>	Affinity chromatography
<b>Storage</b>	Short term at 2-8°C; long term storage in aliquots at -20°C; avoid freeze/thaw cycles
<b>Intended use</b>	Research use only
<b>Application</b>	ICC/IF, IHC, WB
<b>Reactivity</b>	Bovine, Human, Rat

### Applications

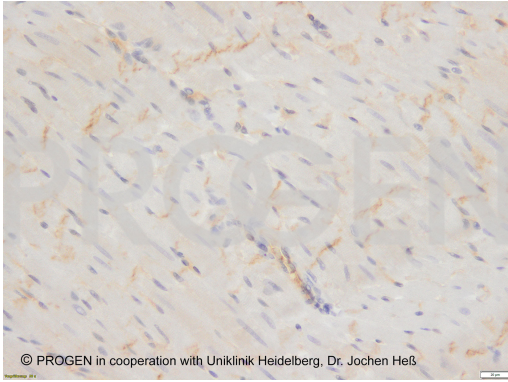
<b>Immunocytochemistry (ICC)</b>	Assay dependent
<b>Immunohistochemistry (IHC) - frozen</b>	1:10-1:100 (0.5-5 µg/ml)
<b>Immunohistochemistry (IHC) - paraffin</b>	1:10-1:100 (0.5-5 µg/ml, microwave treatment recommended)
<b>Western Blot (WB)</b>	1:2000 - 1:4000 (12.5 ng/ml - 25 ng/ml)

### Background

DG 3.10 recognizes desmoglein 1 + 2 (desmosome-specific cadherins) in desmosome-bearing cells; does not react with cells containing plaque-bearing junctions of non-desmosomal type. Tumors specifically detected: all epithelium-derived tumors, notably carcinomas, and meningiomas. Polypeptide reacting: Mr 165 000 Desmoglein, "band 3" polypeptide of the desmosomal complex. Epitope recognized has been localized at the repeating unit domain ("RUD") of the cytoplasmic C-terminal part of the polypeptide.

Reactivity on cultured cell lines: A-431, MDBK.

### Product images

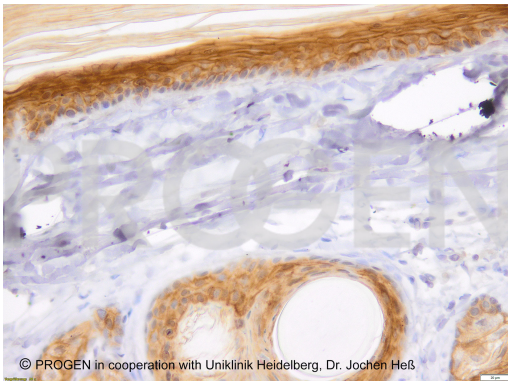


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IHC of rat heart with anti-Desmoglein 1/2 (1:50, © PROGEN in cooperation with Uniklinik Heidelberg, Dr. Jochen Heß)



Western blot analysis of HaCat cell lysate with anti-Desmoglein 1/2 antibody. Western blot analysis was performed on 10 µg of HaCat lysate. Cells were lysed with RIPA buffer. The PVDF membrane was blocked with 5% dry milk in PBST for 1 h at RT. The primary antibody anti-Desmoglein 1/2 mouse monoclonal, DP1 + 2-2.15 (Cat. No. 61002) was diluted in blocking buffer (antibody concentration 0.0125 µg/ml) and incubated for 1 h at RT. The secondary antibody goat anti-mouse IgG polyclonal, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.



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IHC of rat tail with anti-Desmoglein 1/2 (1:50, © PROGEN in cooperation with Uniklinik Heidelberg, Dr. Jochen Heß)

## References

Publication	Species	Application
<a href="#">Wanuske, M. T. et al. Clustering of desmosomal cadherins by desmoplakin is essential for cell-cell adhesion., Acta Physiol (Oxf) 231, e13609, (2021).</a>	human	IP
<a href="#">Janz A. et al. CRISPR/Cas9-edited PKP2 knock-out (JMU001-A-2) and DSG2 knock-out (JMU001-A-3) iPSC lines as an isogenic human model system for arrhythmogenic cardiomyopathy (ACM)„ Stem Cell Res, 53, 102256, (2021).</a>	human	IHC/IF, WB, FACS
<a href="#">Schinner, C. et al. Stabilization of desmoglein-2 binding rescues arrhythmia in arrhythmogenic cardiomyopathy. JCI.Insight. 5, (2020)</a>	mouse	WB,IHC (frozen)
<a href="#">Ding, Y. et al. Knockout of sorbs2 protein disrupts the structural integrity of intercalated disc and manifests features of arrhythmogenic cardiomyopathy. J. Am. Heart Assoc. 9, (2020).</a>	mouse	WB
<a href="#">Hamada, Y. et al. G790del mutation in DSC2 alone is insufficient to develop the pathogenesis of ARVC in a mouse model. Biochem Biophys Rep. 21, 100711(2020).</a>	mouse	IHC/IF, WB