

Product datasheet

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

Short overview

Cat. No.	61002
Quantity	50 µg
Concentration	50 µg/ml after reconstitution with 1 ml dist. water

Product description

Host	Mouse
Antibody Type	Monoclonal
Isotype	IgG1
Clone	DG 3.10
Immunogen	"Band 3" polypeptide of isolated desmosomes from bovine muzzle epidermis
Formulation	Lyophilized; reconstitute in 1 ml dist. water (final solution contains 0.09% sodium azide, 0.5% BSA in PBS buffer, pH 7.4)
UniprotID	Q02413 (Human), D3ZM39 (Rat), Q03763 (Bovine)
Synonym	Desmoglein-1, Cadherin family member 4, Desmosomal glycoprotein 1, DG1, DGI, Pemphigus foliaceus antigen, DSG1, CDHF4
Conjugate	Unconjugated
Purification	Affinity chromatography
Storage before reconstitution	2-8°C until indicated expiry date
Storage after reconstitution	Up to 3 months at 2-8°C; long term storage in aliquots at -20°C; avoid freeze/thaw cycles
Intended use	Research use only
Application	ICC/IF, IHC, WB
Reactivity	Bovine, Human, Rat

Applications

Immunocytochemistry (ICC)	Assay dependent
Immunohistochemistry (IHC) - frozen	1:10-1:100
Immunohistochemistry (IHC) - paraffin	1:10-1:100 (microwave treatment recommended)
Western Blot (WB)	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

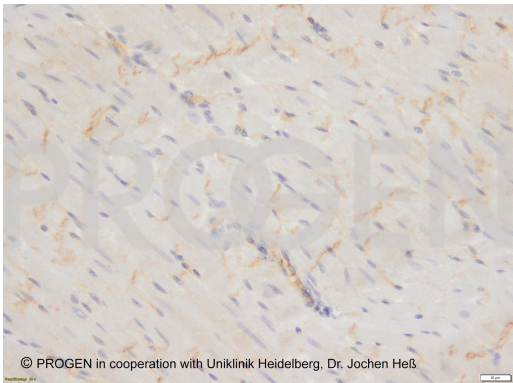
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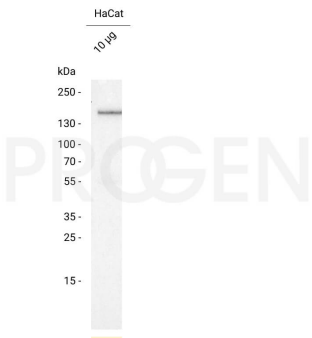
localized at the repeating unit domain ("RUD") of the cytoplasmic C-terminal part of the polypeptide.

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

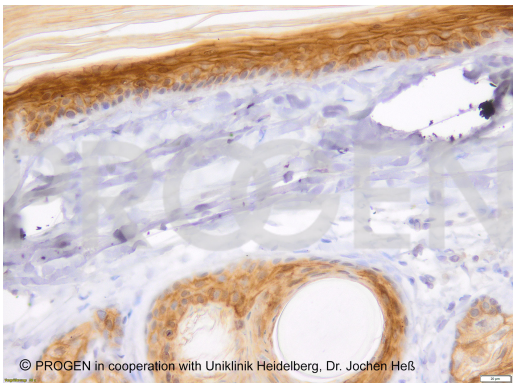
Product images



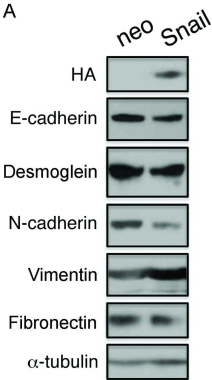
IHC of rat heart with anti-Desmoglein 1/2 (1:50, © PROGEN in cooperation with Uniklinik Heidelberg, Dr. Jochen Heß)



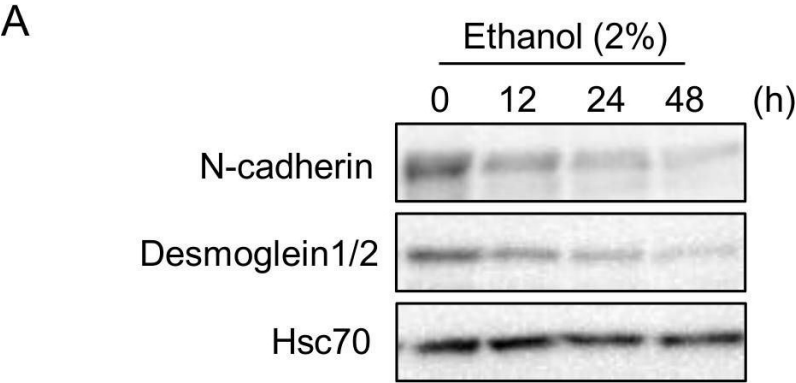
Western blot analysis of HaCat cell lysate with anti-Desmoglein 1/2 antibody. Western blot analysis was performed on 10 µg of HaCat lysate. Cells were lysed with RIPA buffer. The PVDF membrane was blocked with 5% dry milk in PBST for 1 h at RT. The primary antibody anti-Desmoglein 1/2 mouse monoclonal, 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.



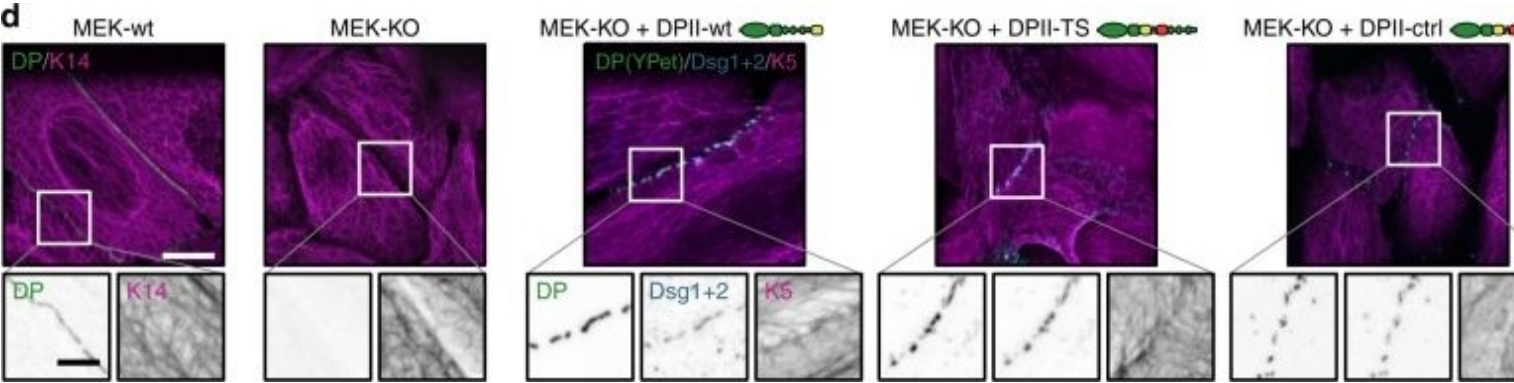
IHC of rat tail with anti-Desmoglein 1/2 (1:50, © PROGEN in cooperation with Uniklinik Heidelberg, Dr. Jochen Heß)



[Izawa, G., Kobayashi, W., et al. The ectopic expression of Snail in MDBK cells does not induce epithelial-mesenchymal transition. Int J Mol Med. 2015-07-01.](#) Species/Reactant: Bos taurus (Bovine)Applications: Western BlottingImage collected and cropped by CiteAb from the following publication, provided under a CC-BY licence.



[Noritake, K., Aki, T., et al. Direct Exposure to Ethanol Disrupts Junctional Cell-Cell Contact and Hippo-YAP Signaling in HL-1 Murine Atrial Cardiomyocytes. PLoS One. 2015-09-01.](#) Species/Reactant: Mus musculus (House mouse)Applications: Western BlottingImage collected and cropped by CiteAb from the following publication, provided under a CC-BY licence.



[Price, A. J., Schweizer, A. L., et al. Mechanical loading of desmosomes depends on the magnitude and orientation of external stress. Nat Commun. 2018-12-11.](#) Species/Reactant: Mus musculus (House mouse)Applications: Immunocytochemistry-immunofluorescenceImage collected and cropped by CiteAb from the following publication, provided under a CC-BY licence.

References

Publication	Species	Application
Wanuske, M. T. et al. Clustering of desmosomal cadherins by desmoplakin is essential for cell-cell adhesion., Acta Physiol (Oxf) 231, e13609, (2021).	human	IP
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).	human	IHC/IF, WB, FACS
Schinner, C. et al. Stabilization of desmoglein-2 binding rescues arrhythmia in arrhythmogenic cardiomyopathy. JCI.Insight. 5, (2020)	mouse	WB,IHC (frozen)
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).	mouse	WB
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).	mouse	IHC/IF, WB