

Product datasheet

anti-Plakoglobin mouse monoclonal, PG 5.1, lyophilized, purified

Short overview

Cat. No.	61005
Quantity	50 µg
Concentration	50 µg/ml after reconstitution with 1 ml dist. water

Product description

Host	Mouse
Antibody Type	Monoclonal
Isotype	IgG2b
Clone	PG 5.1
Immunogen	Plakoglobin, "band 5" protein from bovine snout 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)
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, Dog, Human, Mouse, Rat, Zebrafish

Applications

Immunocytochemistry (ICC)	1:5 (10 µg/ml)
Immunohistochemistry (IHC) - frozen	1:25-1:100 (0.5-2 µg/ml)
Immunohistochemistry (IHC) - paraffin	1:25-1:100 (0.5-2 µg/ml, microwave treatment recommended)
Western Blot (WB)	1:500-1:2,000 (0.025-0.1 µg/ml)

Background

PG 5.1 represents an excellent marker for all forms of intercellular adhering junctions, such as: desmosomes of epithelial and myocardial cells (incl. cultured cells); zonulae and fasciae adherentes of epithelia, endothelia of blood vessels and myocardial cells; adherens-type junctions (e.g. lens tissue, pigmented retinal cells, Sertoli cells of testis). The PG 5.1 epitope maps within the C-terminus at the extreme end of repeat 13 (aa 632-687) of plakoglobin. Polypeptide reacting: Mr 83,000 Plakoglobin, 'band 5' polypeptide of intercellular adhering junctions (identical to gamma-catenin).

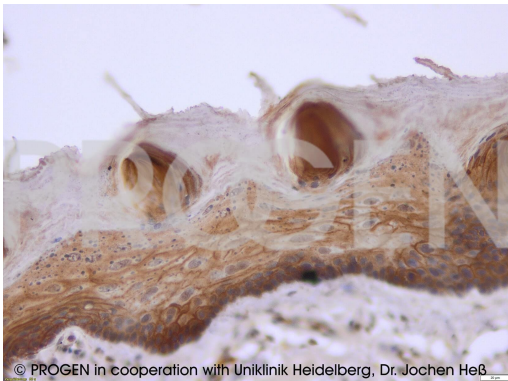
Reactivity on cultured cell lines: cell cultures forming monolayers.

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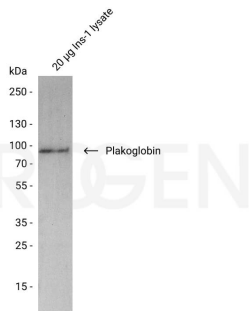
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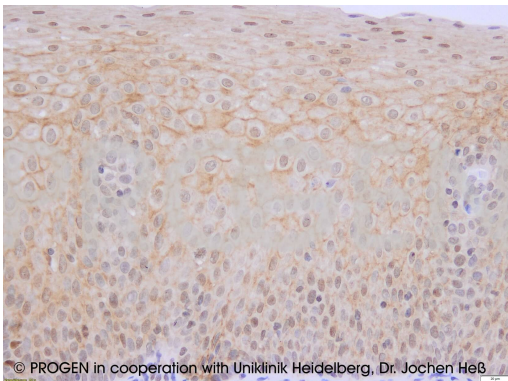
Product images



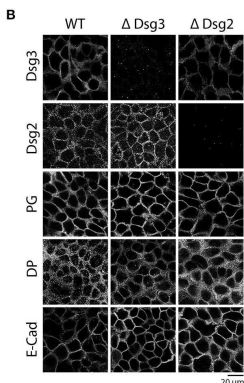
IHC of rat tongue (courtesy of J.Heß, University Hospital Heidelberg)



Western blot analysis of Ins-1 lysate and with anti-Plakoglobin antibody. Western blot analysis was performed on 20 µg rat Ins-1 lysate. The PVDF membrane was blocked with 5% milk in PBST (PBS + 0.1% Tween 20) for 1 h at RT. The primary antibody anti-Plakoglobin mouse monoclonal, PG 5.1 (Cat. No. 690005) was diluted in blocking buffer (antibody concentration 25 ng/ml) and incubated for 1 h at RT. The secondary antibody anti-mouse IgG, HRP conjugate was also diluted in blocking buffer (antibody concentration 200 ng/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.



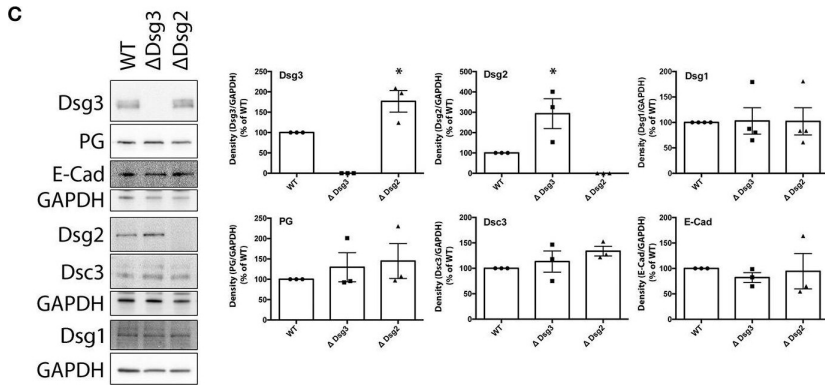
IHC of human oral mucosa (courtesy of J.Heß, University Hospital Heidelberg)



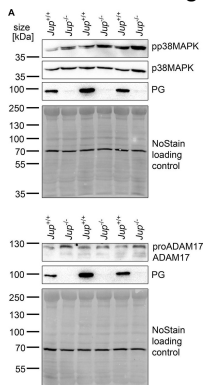
[Walter, E., Vielmuth, F., et al. Role of Dsg1- and Dsg3-Mediated Signaling in Pemphigus Autoantibody-Induced Loss of Keratinocyte Cohesion. Front Immunol. 2019-06-11.](#) Species/Reactant: Homo sapiens (Human) Applications: Immunohistochemistry Image collected and cropped by PROGEN Biotechnik GmbH | Maaßstraße 30 | D-69123 Heidelberg

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[Walter, E., Vielmuth, F., et al. Role of Dsg1- and Dsg3-Mediated Signaling in Pemphigus Autoantibody-Induced Loss of Keratinocyte Cohesion. Front Immunol. 2019-06-11.](#) Species/Reactant: Homo sapiens (Human) Applications: Western Blotting Image collected and cropped by CiteAb from the following publication, provided under a CC-BY licence.



[Shoykhet, M., Waschke, J., et al. Cardiomyocyte cohesion is increased after ADAM17 inhibition. Front Cell Dev Biol. 2023-02-04.](#)

Species/Reactant: Mus musculus (House mouse) Applications: Western Blotting Image collected and cropped by CiteAb from the following publication, provided under a CC-BY licence.

References

Publication	Species	Application
Hamad, I., Å epiÄ±, S., et al., Plakoglobin does not participate in endothelial barrier stabilization mediated by cAMP., Sci Rep 15, 9043, (2025)		
Dietrich, N. et al. Adhesion of pancreatic tumor cell clusters by desmosomal molecules enhances early liver metastases formation. Sci Rep 14, 18189 (2024).	human, mouse	WB
Liu, Y. et al. Comparative Characterization of Human Meibomian Glands, Free Sebaceous Glands, and Hair-Associated Sebaceous Glands Based on Biomarkers, Analysis of Secretion Composition, and Gland Morphology. Int J Mol Sci 25, (2024).	human	
Moztarzadeh, S. et al. Cortactin is in a complex with VE-cadherin and is required for endothelial adherens junction stability through Rap1/Rac1 activation. Sci Rep 14, 1218 (2024).	mouse	
Rathod, M., et al., DPM1 modulates desmosomal adhesion and epidermal differentiation through SERPINB5., J Cell Biol 223, (2024)		WB