

Product datasheet

anti-Plakophilin 2 mouse monoclonal, PP2/62 + PP2/86 + PP2/150, supernatant

Short overview

Cat. No.	651101
Quantity	5 ml

Product description

Host	Mouse
Antibody Type	Monoclonal
Isotype	IgG1
Clone	PP2/62 + PP2/86 + PP2/150
Immunogen	Synthetic carboxyterminal peptide (24 aa) of human plakophilin 2
Formulation	Contains 0.09% sodium azide
UniprotID	A0A3Q1M2G3 (Bovine), Q99959 (Human), Q562C0 (Rat)
Synonym	Plakophilin-2, PKP2
Conjugate	Unconjugated
Purification	Hybridoma cell culture supernatant
Storage	Short term at 2-8°C; long term storage in aliquots at -20°C; avoid freeze/thaw cycles
Intended use	Research use only
Application	IHC, WB
Reactivity	Human, Rat

Applications

Immunohistochemistry (IHC) - frozen	1:2-1:50 (incubate for 5 min in PBS plus 0.2% Triton-X100 prior to antibody application; longer incubation could result in a loss of nuclear staining; fixation with 2% formaldehyde is recommended; exclusive nuclear staining without detergent)
Immunohistochemistry (IHC) - paraffin	1:2-1:50 (microwave treatment recommended)
Western Blot (WB)	1:50-1:100

Background

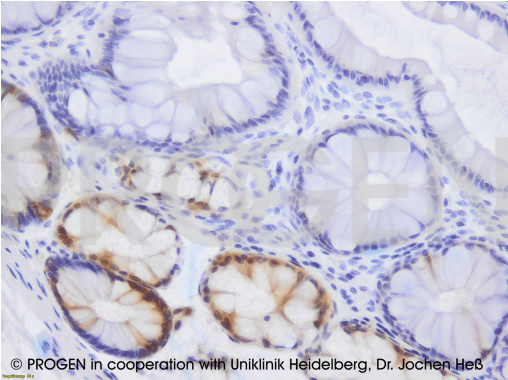
The mabs react with plakophilin 2, a member of the arm-repeat family of proteins which can occur in at least 2 splice forms (2a and 2b). Plakophilin 2 assembles with other proteins to form the desmosomal plaque in simple and glandular epithelia, the basal layer of certain stratified epithelia, all layers of some stratified epithelia, and in nonepithelial desmosome-possessing tissues such as myocardium, Purkinje fibers, and dendritic reticulum of lymph node follicles. In all these cells, including a variety of cell types devoid of desmosomes, plakophilin 2 is highly enriched in the karyoplasm. Polypeptide reacting: Plakophilin 2, Mr 100 kDa (SDS-PAGE); MW calculated from aa sequence: 92,750 (pI 9.33) and 97,410 (pI 9.38).

Tumors specifically detected: positive staining was obtained with several carcinomas derived from simple-type epithelia (e.g. hepatomas, colon
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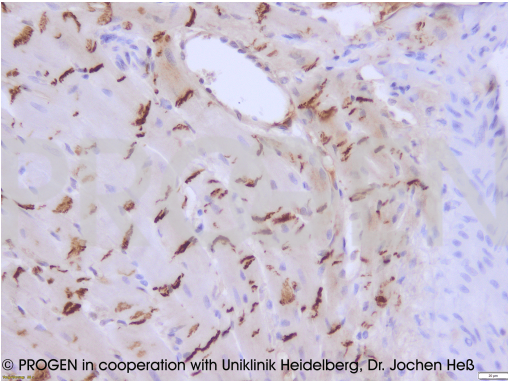
carcinomas) and some adenocarcinomas derived from stratified epithelia (oesophagus carcinoma). The antibody was negative with all leiomyosarcomas tested.

Product images



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



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

References

Publication	Species	Application
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
Rathod, M., et al., DPM1 modulates desmosomal adhesion and epidermal differentiation through SERPINB5., J Cell Biol 223, (2024)		WB
Verkerk, A. J. M. H., et al., Disruption of TUFT1, a Desmosome-Associated Protein, Causes Skin Fragility, Woolly Hair, and Palmoplantar Keratoderma., J Invest Dermatol 144, 284-295.e16, (2024)		
Sumida, T., Ogawa, S., et al., Four cardiomyopathy patients with a heterozygous DSG2 p.Arg119Ter variant., Hum Genome Var 11, 47, (2024)	human	
De Bortoli, M. et al. Modeling incomplete penetrance in arrhythmogenic cardiomyopathy by human induced pluripotent stem cell derived cardiomyocytes., Comput Struct Biotechnol J 21,1759-1773, (2023).	human	ICC-IF, WB