

Product datasheet

anti-Plakophilin 2 mouse monoclonal, Pkp2-518, supernatant

Short overview

Cat. No.	651167
Quantity	5 ml

Product description

Host	Mouse
Antibody Type	Monoclonal
Isotype	IgG1
Clone	Pkp2-518
Immunogen	Synthetic carboxyterminal peptide (aa 527 - 872) of human plakophilin 2
Formulation	Contains 0.09% sodium azide
UniprotID	A0A3Q1M2G3 (Bovine), Q99959 (Human), Q9CQ73 (Mouse), 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	IEM, IHC, IP, WB
Reactivity	Human, Mouse, Rat
No reactivity	Amphibia, Fish

Applications

Cell-based Assay	Assay dependent
Immunohistochemistry (IHC) - frozen	Ready-to-use
Immunohistochemistry (IHC) - paraffin	Ready-to-use (microwave treatment recommended)
Immunoprecipitation (IP)	Assay dependent
Western Blot (WB)	1:5-1:10

Background

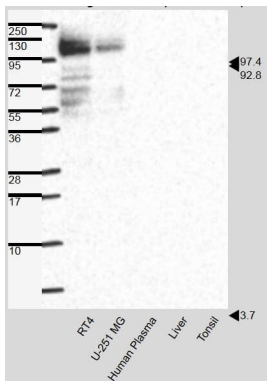
The mab recognizes plakophilin 2 in both locations: in the desmosomal plaque and in the karyoplasm. Plakophilin 2 is a member of the arm-repeat family of proteins which can occur in at least 2 splice forms (2a and 2b). Plakophilin 2 assembles with other proteins to form the desmosomal plaque in simple and glandular epithelia, the basal layer of certain stratified epithelia, all layers of some stratified epithelia, in Merkel cells, and desmosome-possessing nonepithelial cells 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 nuclei (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) Positive staining was obtained with several carcinomas derived from simple-type epithelia (e.g. hepatomas, colon carcinomas) and some adenocarcinomas derived from stratified epithelia (oesophagus carcinoma). Recommendation for immunohistochemistry on frozen sections: For better accessibility of the

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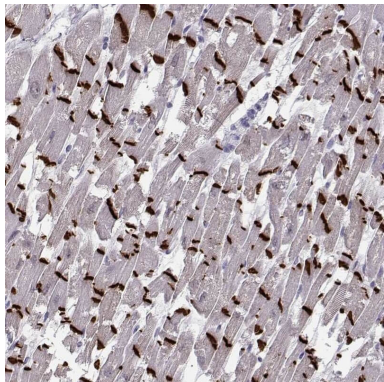
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desmosome-associated antigen frozen sections might be pre-incubated for 5 min in PBS plus 0.2% Triton X-100 prior to antibody application. Longer incubation could result in a loss of Pkp2-nuclear staining. To prevent wash-out of soluble forms of the antigen, fixation with 2% formaldehyde is recommended.

Product images



Western blot with anti-Plakophilin 2 on various tissues (courtesy of The Human Protein Atlas, www.proteinatlas.org, Thul PJ et al, 2017. A subcellular map of the human proteome. Science)



Plakophilin 2 staining on human heart muscle (courtesy of The Human Protein Atlas, www.proteinatlas.org, Thul PJ et al, 2017. A subcellular map of the human proteome. Science)

References

Publication	Species	Application
Ragni, C. V. et al. Amotl1 mediates sequestration of the Hippo effector Yap1 downstream of Fat4 to restrict heart growth. Nat. Commun. 8, 1â€“11 (2017)	mouse	ICC-IF
Rickelt, S. Plakophilin-2: a cell-cell adhesion plaque molecule of selective and fundamental importance in cardiac functions and tumor cell growth. Cell Tissue Res. 348, 281â€“94 (2012).	human,mouse	WB,IHC (paraffin),ICC-IF
Rickelt, S. et al. A novel kind of tumor type-characteristic junction: plakophilin-2 as a major protein of adherens junctions in cardiac myxomata. Mod. Pathol. 23, 1429â€“1437 (2010).	human	WB,IHC (paraffin),ICC-IF