

AM09134SU-N**Monoclonal Antibody to Plakophilin-2 (527-872) - Supernatant****Alternate names:**

PKP2

Quantity:

5 ml

Background:

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, and desmosomepossessing 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 karyoplasm.

Uniprot ID:[Q99959](#)**NCBI:**[9606](#)**GeneID:**[5318](#)**Host / Isotype:**

Mouse / IgG1

Clone:

Pkp2-518

Immunogen:

Synthetic Carboxy-terminal peptide (aa 527-872) of Human Plakophilin 2.

Format:**State:** Liquid Hybridoma Culture Supernatant**Preservatives:** 0.09% Sodium Azide**Applications:****Western Blot.****Immunoprecipitation.****Immunoelectron Microscopy.****Immunohistochemistry on Frozen and Paraffin-Embedded Sections** (after microwave treatment).

For better accessibility of the 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.

Working Dilution: Ready-to-use for Immunohistochemistry***Tested Reactivities on Cultured Cell Lines:***

Human: HaCaT, PLC, MCF-7

Human, Bovine, Ovine cardiac myocytes.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This monoclonal antibody reacts with Plakophilin 2 in both locations: in the desmosomal plaque and in the karyoplasm.

Tumors Specifically Detected: 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).**Species Reactivity:****Tested:** Human, Bovine, Ovine, Rat and Mouse. Negative with Amphibia and Fish.

- Add. Information:** Mr ~100 kD (SDS-PAGE)
MW calculated from aa sequence: 92,750 (pI 9.33) and 97,410 (pI 9.38).
- Storage:** Store the antibody undiluted at 2-8°C.
Shelf life: one year from despatch.
- General Readings:**
1. Rickelt S, Rizzo S, Doerflinger Y, Zentgraf H, Basso C, Gerosa G, et al. A novel kind of tumor type-characteristic junction: plakophilin-2 as a major protein of adherens junctions in cardiac myxomata. *Mod Pathol.* 2010 Nov;23(11):1429-37. doi: 10.1038/modpathol.2010.138. Epub 2010 Aug 6. PubMed PMID: 20693980.
 2. Rickelt S, Moll I, Franke WW. Intercellular adhering junctions with an asymmetric molecular composition: desmosomes connecting Merkel cells and keratinocytes. *Cell Tissue Res.* 2011 Oct;346(1):65-77. doi: 10.1007/s00441-011-1260-0. Epub 2011 Oct 19. PubMed PMID: 22006253.
 3. 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.* 2012 May;348(2):281-94. doi: 10.1007/s00441-011-1314-3. Epub 2012 Jan 28. PubMed PMID: 22281687.