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JUP Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1620a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	P14923
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	4C12
Isotype	IgG1
Calculated MW	81745
Description	This gene encodes a major cytoplasmic protein which is the only known constituent common to submembranous plaques of both desmosomes and intermediate junctions. This protein forms distinct complexes with cadherins and desmosomal cadherins and is a member of the catenin family since it contains a distinct repeating amino acid motif called the armadillo repeat. Mutation in this gene has been associated with Naxos disease. Alternative splicing occurs in this gene; however, not all transcripts have been fully described.
Immunogen	Purified recombinant fragment of human JUP expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	3728
Other Names	Junction plakoglobin, Catenin gamma, Desmoplakin III, Desmoplakin-3, JUP, CTNNG, DP3
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 ICC~~N/A E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	JUP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	JUP (HGNC:6207)

Function	Common junctional plaque protein. The membrane-associated plaques are architectural elements in an important strategic position to influence the arrangement and function of both the cytoskeleton and the cells within the tissue. The presence of plakoglobin in both the desmosomes and in the intermediate junctions suggests that it plays a central role in the structure and function of submembranous plaques. Acts as a substrate for VE-PTP and is required by it to stimulate VE- cadherin function in endothelial cells. Can replace beta-catenin in E- cadherin/catenin adhesion complexes which are proposed to couple cadherins to the actin cytoskeleton (By similarity). May promote axon outgrowth and motor fiber repair via DSP-mediated recruitment to outgrowth tips (By similarity).
Cellular Location	Cell junction, adherens junction. Cell junction, desmosome. Cytoplasm, cytoskeleton. Cell membrane; Peripheral membrane protein. Cytoplasm {ECO:0000250|UniProtKB:Q9PVF7}. Cell junction {ECO:0000250|UniProtKB:Q9PVF7}. Nucleus {ECO:0000250|UniProtKB:Q9PVF7} Cell projection, axon {ECO:0000250|UniProtKB:Q02257}. Note=Cytoplasmic in a soluble and membrane-associated form. Colocalizes with DSG4 at desmosomes (PubMed:21495994).
Tissue Location	Expressed in cardiomyocytes in the heart (at protein level). Expressed by keratinocytes in the skin (at protein level) (PubMed:26604139).

References

1. Cell. 2009 Jul 23;138(2):389-403. 2. Cancer Res. 2009 Jul 15;69(14):5734-42.

Images

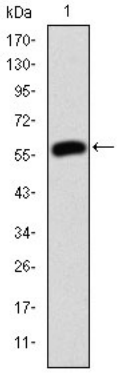


Figure 1: Western blot analysis using JUP mAb against human JUP (AA: 534-740) recombinant protein. (Expected MW is 48.5 kDa)

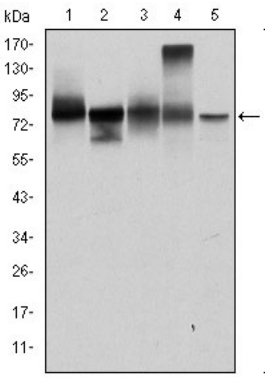


Figure 2: Western blot analysis using JUP mouse mAb against T47D (1), MCF-7 (2), SKBR-3 (3), A431 (4) and HEK293 (5) cell lysate.

Figure 3: Immunohistochemical analysis of paraffin-embedded rectum tissues using JUP mouse mAb with DAB staining.

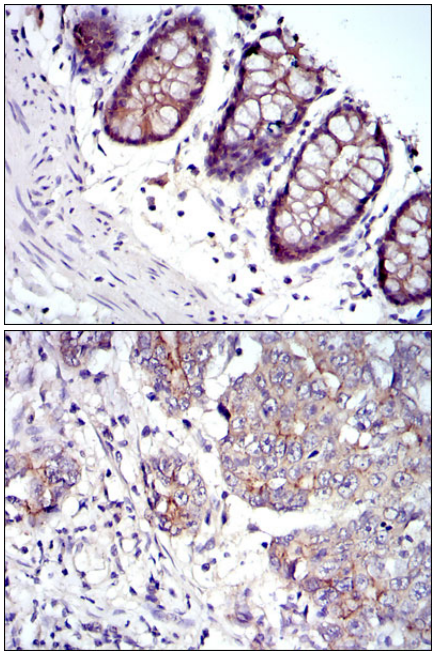


Figure 4: Immunohistochemical analysis of paraffin-embedded stomach cancer tissues using JUP mouse mAb with DAB staining.

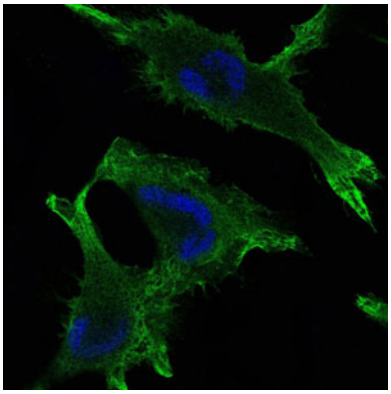


Figure 5: Immunofluorescence analysis of U251 cells using JUP mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.