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AM32057SU-N OriGene EU

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Monoclonal Antibody to CD243 / MDR1 - Supernatant

Alternate names:	ABCB1, ATP-binding cassette sub-family B member 1, Multidrug resistance protein 1, P- glycoprotein 1, PGY1
Catalog No.:	AM32057SU-N
Quantity:	1 ml
Concentration:	approx. 0.25 mg/ml
Background:	P Glycoprotein, the product of the MDR1 gene, is expressed in distinct non-malignant cells, typically cells with secretory and excretory functions. It is assumed to function as an ATP-dependent drug efflux pump with broad substrate specificity. The highest expression of P Glycoprotein has been observed in kidney (proximal tubules), liver (bile canaliculi), adrenal gland and intestine, suggesting that the primary role of P Glycoprotein is in the normal secretion of physiological metabolites and ingested chemicals into bile, urine and the lumen of the intestinal tract. Elevated levels of P Glycoprotein have also been reported in multidrug-resistant cell lines and in colon, endometrial, ovarian, and breast tumors, as well as in sarcomas and leukemias / lymphomas.
Uniprot ID:	<u>P08183</u>
NCBI:	<u>NP_000918.2</u>
GenelD:	<u>5243</u>
Host / Isotype:	Mouse / IgG1
Clone:	JSB-1
Format:	State: Liquid Tissue Cell Culture Supernatant Preservatives: 0.09% Sodium Azide Stabilizers: 1% BSA
Applications:	 Western blot: Use an anti-Mouse-HRP. Immunocytochemistry on Aceton Fixed Cell Preparation: at least 1/20. Flow Cytometry: 1/10. Cell permeabilization in 10% (v/v) Lysing solution followed by primairy antibody and anti-Mouse-FITC required. Immunohistochemistry on Acetone-Fixed Frozen Sections: 1/20 Immunohistochemistry on Formalin-Fixed Paraffin Embedded Sections: 1/20. Optimal staining results are obtained with routine 2-step ABC or APAAP methods using acetone fixed cytocentrifuge preparations or cryostat sections. In case the B-5 fixative is used (See Protocols) also paraffin embedded tissue can be stained with the antibody. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	The antibody <i>JSB-1</i> recognizes a strongly a conserved cytoplasmic epitope of the plasma membrane-associated 170-180 kD glycoprotein, the expression of which is strongly

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correlated with the degree of multi-drug-resistance (MDR) derived MDR cell lines and human MDR cell lines, including cell lines derived from lung, ovaries and B cell lymphomas. Species Reactivity: Tested: Human, Chinese Hamster. Neagative with Mouse and Rat Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Storage: Avoid repeated freezing and thawing. Shelf life: One year from despatch. General Readings: 1. Scheper, R.J., et al., 1986, Int. J. Cancer 42, 389. 2. Dalton WS, Grogan TM, Meltzer PS, Scheper RJ, Durie BG, Taylor CW, et al. Drugresistance in multiple myeloma and non-Hodgkin's lymphoma: detection of P-glycoprotein and potential circumvention by addition of verapamil to chemotherapy. J Clin Oncol. 1989 Apr;7(4):415-24. PubMed PMID: 2564428. 3. Tiirikainen MI, Syrjälä MT, Jansson SE, Krusius T. Flow cytometric analysis of Pglycoprotein in normal and leukemic cells. Ann Hematol. 1992 Sep;65(3):124-30. PubMed PMID: 1356449. 4. Grogan TM, Spier CM, Salmon SE, Matzner M, Rybski J, Weinstein RS, et al. Pglycoprotein expression in human plasma cell myeloma: correlation with prior chemotherapy. Blood. 1993 Jan 15;81(2):490-5. PubMed PMID: 8093668. 5. Itsubo M, Ishikawa T, Toda G, Tanaka M. Immunohistochemical study of expression and cellular localization of the multidrug resistance gene product P-glycoprotein in primary liver carcinoma. Cancer. 1994 Jan 15;73(2):298-303. PubMed PMID: 7904895. 6. Toth, K., et al., 1994, Am. J. Pathol. 144 227. 7. Gala, et al., 1994, J. Clin. Pathol. 47 619. **Protocols: B-5 Fixative:** Fix tissue in freshly prepared B-5 fixative: add 2 ml of 40% formalin to 20 ml of B-5 Stock Solution. Sections must be dezenkerized to remove mercuric pigment before immunostaining. Dezenkerize by placing slides with sections in Gram's lodine solution for 5 min. at room temperature. Wash well in distilled water. Place slides in Sodium Thiosulphate solution for 5 min. at room temperature. Wash in running tap water for 3 min. Place in PBS for further immunochemical procedures. **B-5 Stock Solution** 12 g Mercuric Chloride 2.5 g Sodium Acetate dissolve in 200 ml distilled water.

Gram's lodine

1 g l₂ 2 g KI dissolve in 300 ml distilled water.

Sodium Thiosulphate solution

15 g $Na_2S_2O_3$ *5 H_2O dissolve in 300 ml distilled water.



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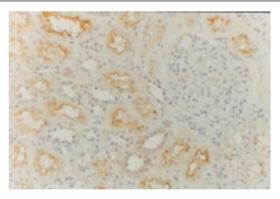
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Pictures:

Formalin-Fixed, Paraffin-Embedded Human kidney stained with anti-MDR1 antibody using peroxidase-conjugate and DAB chromogen. Note the cytoplasmic staining of renal tubular epithelial cells



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