

Monoclonal Antibody to CD243 / MDR1 - PE

Alternate names:	ABCB1, ATP-binding cassette sub-family B member 1, Multidrug resistance protein 1, P-glycoprotein 1, PGY1
Catalog No.:	AM05632RP-N
Quantity:	100 Tests
Background:	CD243 is also known as MDR1 (multi-drug resistance protein 1) and Pgp (P-glycoprotein), a transmembrane protein and member of the ABC transporter (ATP-binding cassette) family, which acts as an active efflux pump for a diverse range of lipophilic compounds. CD243 is expressed at low levels in the cell membrane of peripheral blood leucocytes, and constitutively expressed on the apical plasma membrane of excretory epithelial cells of the kidney, liver, brain and small intestine. CD243 mediates resistance to many chemotherapeutic agents used for tumour suppression and is therefore of special interest to oncologists. Clone UIC2 is a strong inhibitor of CD243-mediated efflux and of the resistance of MDR cells to CD243 transported cytotoxic drugs.
Uniprot ID:	P08183
NCBI:	NP_000918.2
GeneID:	5243
Host / Isotype:	Mouse / IgG2a
Clone:	UIC2
Immunogen:	Mouse Balb/c 3T3 fibroblasts transfected with Hhuman CD243 cDNA.
Format:	State: Lyophilized purified IgG fraction Purification: Affinity Chromatography on Protein G Buffer System: PBS containing 1% BSA, 5% Sucrose and 0.09% Sodium Azide Label: PE – R. Phycoerythrin (RPE) Reconstitution: Reconstitute with 1 ml distilled water
Applications:	Flow Cytometry: Use 10 µl of neat antibody to label 1x10 ⁶ cells in 100 µl. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody specifically recognises an extracellular conformational epitope of CD243. Clone UIC2 can be used in a shift assay to selectively demonstrate the expression and functional activity of CD243 in a target cell. Clone UIC2 does not cross-react with mitochondrial pyruvate carboxylase. We recommend the use of AM05632LE-N in Functional Studies. Does not react with Mouse and Rat. Species: Human, Primate. Other species not tested.

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
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Storage:

Prior to and following reconstitution store undiluted at 2-8°C.

DO NOT FREEZE!

This antibody should be protected from light as the PE-labelled product is photosensitive.
Shelf life: one year from despatch.

General Readings:

1. Mechetner EB, Roninson IB. Efficient inhibition of P-glycoprotein-mediated multidrug resistance with a monoclonal antibody. Proc Natl Acad Sci U S A. 1992 Jul 1;89(13):5824-8. PubMed PMID: 1352877.
2. Park SW, Lomri N, Simeoni LA, Fruehauf JP, Mechetner E. Analysis of P-glycoprotein-mediated membrane transport in human peripheral blood lymphocytes using the UIC2 shift assay. Cytometry A. 2003 Jun;53(2):67-78. PubMed PMID: 12766968.
3. Koziolok MJ, Riess R, Geiger H, Thévenod F, Hauser IA. Expression of multidrug resistance P-glycoprotein in kidney allografts from cyclosporine A-treated patients. Kidney Int. 2001 Jul;60(1):156-66. PubMed PMID: 11422747.
4. Beck WT, Grogan TM, Willman CL, Cordon-Cardo C, Parham DM, Kuttesch JF, et al. Methods to detect P-glycoprotein-associated multidrug resistance in patients' tumors: consensus recommendations. Cancer Res. 1996 Jul 1;56(13):3010-20. PubMed PMID: 8674056.

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