

Anti-MRP1 Antibody
Catalog # ABO10948**Specification**

Anti-MRP1 Antibody - Product Information

Application	WB, IHC
Primary Accession	P33527
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Multidrug resistance-associated protein 1 (ABCC1) detection. Tested with WB, IHC-P in Human; Mouse; Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-MRP1 Antibody - Additional Information

Gene ID 4363

Other Names

Multidrug resistance-associated protein 1, ATP-binding cassette sub-family C member 1, Leukotriene C(4) transporter, LTC4 transporter, ABCC1, MRP, MRP1

Calculated MW

171591 MW KDa

Application Details

Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization

Cell membrane ; Multi-pass membrane protein .

Tissue Specificity

Lung, testis and peripheral blood mononuclear cells.

Protein Name

Multidrug resistance-associated protein 1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human MRP1 (1514-1531aa, LLQQRGLFYMAKDAGLV), different from the related rat and mouse sequences by one amino acid.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the ABC transporter superfamily. ABCC family. Conjugate transporter (TC 3.A.1.208) subfamily.

Anti-MRP1 Antibody - Protein Information

Name ABCC1 ([HGNC:51](#))

Synonyms MRP, MRP1

Function

Mediates export of organic anions and drugs from the cytoplasm (PubMed: [10064732](http://www.uniprot.org/citations/10064732), PubMed: [11114332](http://www.uniprot.org/citations/11114332), PubMed: [16230346](http://www.uniprot.org/citations/16230346), PubMed: [7961706](http://www.uniprot.org/citations/7961706), PubMed: [9281595](http://www.uniprot.org/citations/9281595)). Mediates ATP-dependent transport of glutathione and glutathione conjugates, leukotriene C4, estradiol-17-beta-o-glucuronide, methotrexate, antiviral drugs and other xenobiotics (PubMed: [10064732](http://www.uniprot.org/citations/10064732), PubMed: [11114332](http://www.uniprot.org/citations/11114332), PubMed: [16230346](http://www.uniprot.org/citations/16230346), PubMed: [7961706](http://www.uniprot.org/citations/7961706), PubMed: [9281595](http://www.uniprot.org/citations/9281595)). Confers resistance to anticancer drugs by decreasing accumulation of drug in cells, and by mediating ATP- and GSH-dependent drug export (PubMed: [9281595](http://www.uniprot.org/citations/9281595)). Hydrolyzes ATP with low efficiency (PubMed: [16230346](http://www.uniprot.org/citations/16230346)). Catalyzes the export of sphingosine 1-phosphate from mast cells independently of their degranulation (PubMed: [17050692](http://www.uniprot.org/citations/17050692)). Participates in inflammatory response by allowing export of leukotriene C4 from leukotriene C4-synthesizing cells (By similarity). Mediates ATP-dependent, GSH-independent cyclic GMP-AMP (cGAMP) export (PubMed: [36070769](http://www.uniprot.org/citations/36070769)). Thus, by limiting intracellular cGAMP concentrations negatively regulates the cGAS-STING pathway (PubMed: [36070769](http://www.uniprot.org/citations/36070769)). Exports S-geranylgeranyl-glutathione (GGG) in lymphoid cells and stromal compartments of lymphoid organs. ABCC1 (via extracellular transport) with GGT5 (via GGG catabolism) establish GGG gradients within lymphoid tissues to position P2RY8-positive lymphocytes at germinal centers in lymphoid follicles and restrict their chemotactic transmigration from blood vessels to the bone marrow parenchyma (By similarity). Mediates basolateral export of GSH-conjugated R- and S-prostaglandin A2 diastereomers in polarized epithelial cells (PubMed: [9426231](http://www.uniprot.org/citations/9426231)).

Cellular Location

Cell membrane; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein

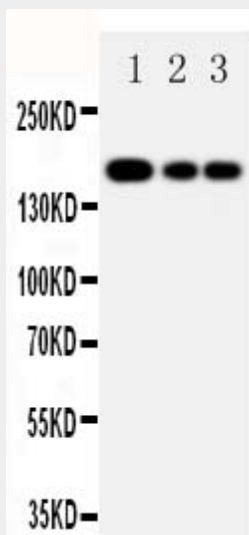
Tissue Location

Lung, testis and peripheral blood mononuclear cells

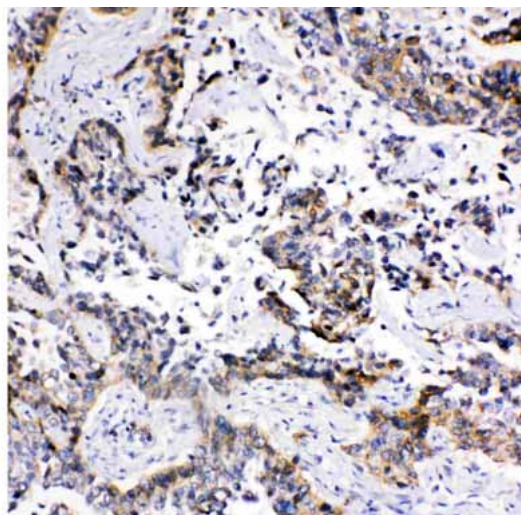
Anti-MRP1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-MRP1 Antibody - Images

Anti-MRP1 antibody, ABO10948, Western blotting Lane 1: JURKAT Cell Lysate Lane 2: CEM Cell Lysate Lane 3: A549 Cell Lysate



Anti-MRP1 antibody, ABO10948, IHC(P)IHC(P): Human Lung Cancer Tissue

Anti-MRP1 Antibody - Background

Multidrug resistance-associated protein 1 (MRP1) is a protein that in humans is encoded by the ABCC1 gene. The protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra-and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This full transporter is a member of the MRP subfamily which is involved in multi-drug resistance. This protein functions as a multispecific organic anion transporter, with oxidized glutathione, cysteinyl leukotrienes, and activated aflatoxin B1 as substrates. This protein also transports glucuronides and sulfate conjugates of steroid hormones and bile salts. Alternatively spliced variants of this gene have been described but their full-length nature is unknown.