

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

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**Anti-MRP1 Antibody - Product Information**

Application	WB, IHC-P
Primary Accession	<a href="#">P33527</a>
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 Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**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

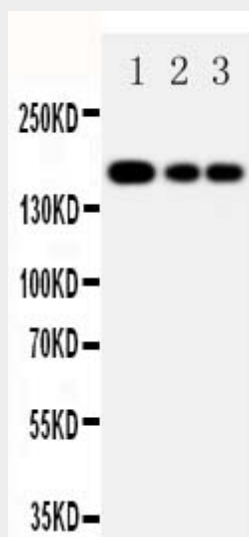
**Tissue Location**

Lung, testis and peripheral blood mononuclear cells

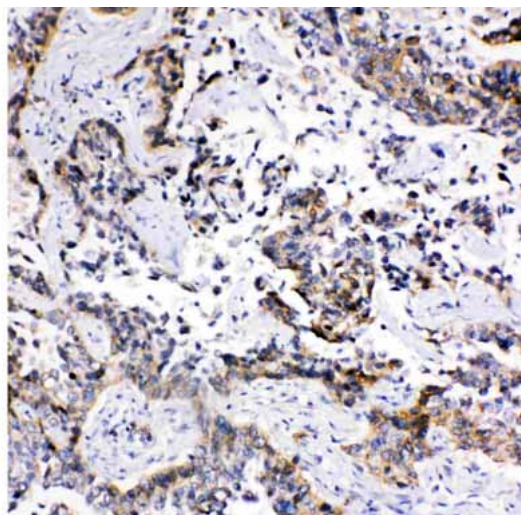
**Anti-MRP1 Antibody - Protocols**

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.