

# Polyclonal Anti-ABCC1 Antibody

Catalog Number: PA1634

## Description

<b>Gene Name</b>	ATP-binding cassette, sub-family C (CFTR/MRP), member 1
<b>Recommended Protein Name</b>	Multidrug resistance-associated protein 1
<b>Lot No.</b>	0161212c013431
<b>Size</b>	100µg/vial
<b>Form</b>	lyophilized
<b>Ig type</b>	Rabbit IgG
<b>Specificity</b>	No cross reactivity with other proteins.
<b>Purification</b>	Immunogen affinity purified.
<b>Species</b>	<b>Reacts with:</b> human, rat <b>Predicted to work with:</b> mouse
<b>Immunogen</b>	A synthetic peptide corresponding to a sequence at the C-terminus of human ABCC1(1514-1531aa, LLQQRGLFYMAKDAGLV), different from the related rat and mouse sequences by one amino acid.
<b>Contents</b>	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> .

## Application

	Concentration	Tested Species	Predicted Species	Antigen Retrieval
Western blot	0.1-0.5µg/ml	Hu, Rat	Ms	-
Immunohistochemistry (Paraffin-embedded Section)	0.5-1µg/ml	Hu	Ms, Rat	By Heat

**Tested Species:** In-house tested species with positive results.

**Predicted Species:** Species predicted to be fit for the product based on sequence similarities.

**By Heat:** Boiling the paraffin sections in 10mM citrate buffer, pH6.0, for 20mins is required for the staining of formalin/paraffin sections.

*Other applications have not been tested.*

*Optimal dilutions should be determined by end users.*

## Preparation and storage

**Reconstitution:** 0.2ml of distilled water will yield a concentration of 500µg/ml.

**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.

## Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB, supported by SA1022 in IHC(P).

## Background

ABCC1(ATP-BINDING CASSETTE, SUBFAMILY C, MEMBER 1),also called MRP1 or MRP, is a protein that in humans is encoded by the ABCC1 gene. The ABCC1 is a member of the superfamily of ATP-binding cassette (ABC) transporters. The ABCC1 is a plasma membrane drug-efflux pump.The ABCC1 gene is mapped to chromosome 16p13.1 by isotopic in situ hybridization. ABCC1 functions as a multispecific organic anion transporter, with oxidized glutathione, cysteinyl leukotrienes, and activated aflatoxin B1 as substrates and it also transports glucuronides and sulfate conjugates of steroid hormones and bile salts. Blocking ABCC1 efflux pumps increases the susceptibility of the cells to the toxic effects of unconjugated bilirubin, suggesting that ABCC1 is an important protector in this scenario. ABCC1 clears beta-amyloid from brains of mice and can be activated by thiethylperazine.And Chemotaxis assays show that ABCC1-mediated transport of S1P influenced mast-cell migration, but not mast-cell degranulation.

## Reference

1. Cole, S. P. C., Bhardwaj, G., Gerlach, J. H., Mackie, J. E., Grant, C. E., Almquist, K. C., Stewart, A. J., Kurz, E. U., Duncan, A. M. V., Deeley, R. G. Overexpression of a transporter gene in a multidrug-resistant human lung cancer cell line. *Science* 258: 1650-1654, 1992.
2. Conrad, S., Kauffmann, H.-M., Ito, K., Deeley, R. G., Cole, S. P. C., Schrenk, D. Identification of human multidrug resistance protein 1 (MRP1) mutations and characterization of a G671V substitution. *J. Hum. Genet.* 46: 656-663, 2001.
3. Grant, C. E., Kurz, E. U., Cole, S. P. C., Deeley, R. G. Analysis of the intron-exon organization of the human multidrug-resistance protein gene (MRP) and alternative splicing of its mRNA. *Genomics* 45: 368-378, 1997.