

# MRP2 (M2I-4): sc-59609

## BACKGROUND

The two members of the large family of ABC transporters known to confer multidrug resistance in human cancer cells are the MDR1 P-glycoprotein and the multidrug-resistance protein MRP1. MRP1 is an integral membrane protein that contains an MDR-like core, an N-terminal membrane-bound region and a cytoplasmic linker, and it is expressed in various cerebral cells, as well as in lung, testis and peripheral blood. The MRP gene family also includes MRP2, which is alternatively designated cMOAT (for canalicular multispecific organic anion transporter) and MRP3, which are both conjugate export pumps expressed predominantly in hepatocytes. MRP2 localizes exclusively to the apical membrane and is constitutively expressed at a high level in normal liver cells. Conversely, MRP3 localizes to the basolateral membrane where it also mediates the transport of the organic anion S-(2,4-dinitrophenyl-) glutathione toward the basolateral side of the membrane. MRP3 is normally expressed at comparatively lower levels than MRP2 and increases only when secretion across the apical membrane by MRP2 is impaired. MRP6 is highly expressed in liver and kidney, whereas MRP4 and MRP5 are detected in various tissues, yet at much lower levels of expression.

## CHROMOSOMAL LOCATION

Genetic locus: ABCC2 (human) mapping to 10q24.2.

## SOURCE

MRP2 (M2I-4) is a mouse monoclonal antibody raised against amino acids 215-310 of MRP2 of human origin.

## PRODUCT

Each vial contains 500  $\mu$ l culture supernatant containing IgG<sub>1</sub> with < 0.1% sodium azide and 0.7% stabilizer protein.

## APPLICATIONS

MRP2 (M2I-4) is recommended for detection of MRP2 of human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:10-1:200), immunoprecipitation [10-20  $\mu$ l per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution to be determined by researcher, dilution range 1:10-1:200); non cross-reactive with MDR1, MRP1, MRP3 or MRP5.

Suitable for use as control antibody for MRP2 siRNA (h): sc-35963, MRP2 shRNA Plasmid (h): sc-35963-SH and MRP2 shRNA (h) Lentiviral Particles: sc-35963-V.

Molecular Weight of MRP2: 190-200 kDa.

Positive Controls: A549 cell lysate: sc-2413, JAR cell lysate: sc-2276 or A-431 whole cell lysate: sc-2201.

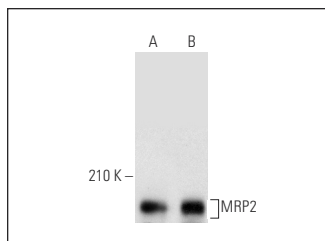
## STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## DATA



MRP2 (M2I-4): sc-59609. Western blot analysis of MRP2 expression in JAR (A) and A-431 (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Mirian, E.C., et al. 2013. Molecular mechanisms involved in the protective effect of the chloroform extract of *Selaginella lepidophylla* (Hook. et Grev.) spring in a lithiasic rat model. *Urolithiasis* 41: 205-215.
- Tonigold, M., et al. 2014. A cisplatin-resistant head and neck cancer cell line with cytoplasmic p53<sup>mut</sup> exhibits ATP-binding cassette transporter upregulation and high glutathione levels. *J. Cancer Res. Clin. Oncol.* 140: 1689-1704.
- Chen, S.F., et al. 2015. Meloxicam increases intracellular accumulation of doxorubicin via downregulation of multidrug resistance-associated protein 1 (MRP1) in A549 cells. *Genet. Mol. Res.* 14: 14548-14560.
- Gleich, A., et al. 2019. Evaluation of the hepatocyte-derived cell line BFH12 as an *in vitro* model for bovine biotransformation. *Cytotechnology* 71: 231-244.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.