

MRP1 (H-70): sc-13960

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 protein 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: ABCC1 (human) mapping to 16p13.11; Abcc1 (mouse) mapping to 16 A1.

SOURCE

MRP1 (H-70) is a rabbit polyclonal antibody raised against amino acids 1-70 of MRP1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MRP1 (H-70) is recommended for detection of MRP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (start-ing dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MRP1 (H-70) is also recommended for detection of MRP1 in additional species, including equine and bovine.

Suitable for use as control antibody for MRP1 siRNA (h): sc-35962, MRP1 siRNA (m): sc-35961, MRP1 shRNA Plasmid (h): sc-35962-SH, MRP1 shRNA Plasmid (m): sc-35961-SH, MRP1 shRNA (h) Lentiviral Particles: sc-35962-V and MRP1 shRNA (m) Lentiviral Particles: sc-35961-V.

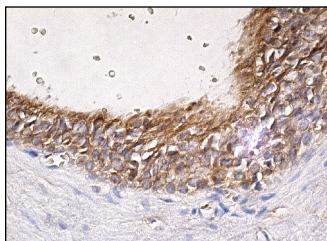
Molecular Weight of MRP1: 190 kDa.

Positive Controls: AML-193 whole cell lysate: sc-364182, A549 cell lysate: sc-2413 or AML-193 whole cell lysate: sc-364182.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



MRP1 (H-70): sc-13960. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing membrane and cytoplasmic staining of cells in seminiferous ducts.

SELECT PRODUCT CITATIONS

- Noe, V., et al. 2004. Epicatechin and a cocoa polyphenolic extract modulate gene expression in human Caco-2 cells. *J. Nutr.* 134: 2509-2516.
- Patel, L.N., et al. 2008. Molecular and functional expression of multidrug resistance-associated protein-1 in primary cultured rat alveolar epithelial cells. *J. Pharm. Sci.* 97: 2340-2349.
- Morais, C., et al. 2010. Inhibition of nuclear factor κ B transcription activity drives a synergistic effect of pyrrolidine dithiocarbamate and cisplatin for treatment of renal cell carcinoma. *Apoptosis* 15: 412-425.
- Genter, M.B., et al. 2010. Drug transporter expression and localization in rat nasal respiratory and olfactory mucosa and olfactory bulb. *Drug Metab. Dispos.* 38: 1644-1647.
- Biondi, C., et al. 2010. cAMP efflux from human trophoblast cell lines: a role for multidrug resistance protein (MRP)1 transporter. *Mol. Hum. Reprod.* 16: 481-491.
- Koraichi, F., et al. 2012. Zearalenone exposure modulates the expression of ABC transporters and nuclear receptors in pregnant rats and fetal liver. *Toxicol. Lett.* 211: 246-256.
- Su, L., et al. 2012. Regulation of drug transporters in the testis by environmental toxicant cadmium, steroids and cytokines. *Spermatogenesis* 2: 285-293.
- Cheng, J., et al. 2015. Inhibition of SALL4 suppresses carcinogenesis of colorectal cancer via regulating Gli1 expression. *Int. J. Clin. Exp. Pathol.* 8: 10092-10101.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.