

# MRP2 (G-1): sc-518048

## 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.

## REFERENCES

1. Versantvoort, C.H., et al. 1995. Regulation by glutathione of drug transport in multidrug-resistant human lung tumour cell lines overexpressing multidrug resistance-associated protein. *Br. J. Cancer* 72: 82-89.
2. Kool, M., et al. 1997. Analysis of expression of cMOAT (MRP2), MRP3, MRP4, and MRP5, homologues of the multidrug resistance-associated protein gene (MRP1), in human cancer cell lines. *Cancer Res.* 57: 3537-3547.

## CHROMOSOMAL LOCATION

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

## SOURCE

MRP2 (G-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 212-236 within an internal region of MRP2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MRP2 (G-1) is available conjugated to agarose (sc-518048 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518048 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518048 PE), fluorescein (sc-518048 FITC), Alexa Fluor® 488 (sc-518048 AF488), Alexa Fluor® 546 (sc-518048 AF546), Alexa Fluor® 594 (sc-518048 AF594) or Alexa Fluor® 647 (sc-518048 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518048 AF680) or Alexa Fluor® 790 (sc-518048 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## RESEARCH USE

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

## APPLICATIONS

MRP2 (G-1) is recommended for detection of MRP2 of human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

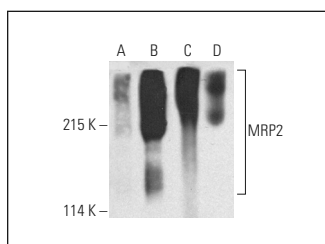
Molecular Weight of MRP2: 190-200 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or A549 cell lysate: sc-2413.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



MRP2 (G-1): sc-518048. Western blot analysis of MRP2 expression in human liver tissue extract (A) and A549 (B), Hep G2 (C) and HeLa (D) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

## SELECT PRODUCT CITATIONS

1. Wang, X., et al. 2020. SOD2 promotes the expression of ABCC2 through lncRNA CLCA3p and improves the detoxification capability of liver cells. *Toxicol. Lett.* 327: 9-18.
2. Bruhn, O., et al. 2020. Alternative polyadenylation of ABC transporters of the C-family (ABCC1, ABCC2, ABCC3) and implications on posttranscriptional micro-RNA regulation. *Mol. Pharmacol.* 97: 112-122.

## STORAGE

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