Revision 1

#12559 Store at -20C

MRP2/ABCC2 (D9F9E) Rabbit mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H	Endogenous	>200	Rabbit IgG	#Q92887	1244

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

MRP2/ABCC2 (D9F9E) Rabbit mAb recognizes endogenous levels of total MRP2 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg864 of human MRP2 protein.

Background

Multi-drug resistance protein 2 (MRP2), also known as cMRP, cMOAT, and ABCC2, is an ATP binding cassette (ABC) transporter and part of the multi-drug resistance (MRP) family (1,2). The MRP proteins are membrane proteins that function as organic anion pumps involved in the cellular removal of cancer drugs (2). MRP2 is associated with resistance to a number of cancer drugs, such as cisplatin, etoposide, doxorubicin, and methotrexate (3-5). MRP2 is predominately expressed on the apical membranes in the liver (6-9) and kidney proximal tubules (10). It is responsible for the ATP-dependent secretion of bilirubin glucuronides and other organic anions from hepatocytes into the bile, a process important for the excretion of endogenous and xenobiotic substances. Loss of MRP2 activity is the cause of Dubin-Johnson syndrome, an autosomal recessive disorder characterized by defects in the secretion of anionic conjugates and the presence of melanin like pigments in hepatocytes (11-13).

Background References

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3. Taniguchi, K. et al. (1996) *Cancer Res* 56, 4124-9.
4. Hooijberg, J.H. et al. (1999) *Cancer Res* 59, 2532-5.
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6. Büchler, M. et al. (1996) *J Biol Chem* 271, 15091-8.
7. Paulusma, C.C. et al. (1996) *Science* 271, 1126-8.
8. Mayer, R. et al. (1995) *J Cell Biol* 131, 137-50.
9. Ito, K. et al. (1998) *J Biol Chem* 273, 1684-8.
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11. Dubin, I.N. and Johnson, F.B. (1954) *Medicine (Baltimore)* 33, 155-97.
12. Kartenbeck, J. et al. (1996) *Hepatology* 23, 1061-6.
13. Paulusma, C.C. et al. (1997) *Hepatology* 25, 1539-42.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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