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Product Information

Anti-MRP2
produced in rabbit, affinity isolated antibody

Product Number **M8316**

Product Description

Anti-MRP2 is produced in rabbit using a synthetic C-terminal peptide corresponding to amino acid residues 1528-1545 of human MRP2 conjugated to KLH as immunogen. The corresponding sequence in dog, rat, and mouse differs by two, three, and four residues, respectively. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-MRP2 recognizes human and rat MRP2 by immunoblotting (approximately 190 kDa) and immunofluorescence. Additional lower bands including an approximately 175 kDa band representing an immature unglycosylated form may be detected by immunoblotting in various extract preparations. Detection of MRP2 by immunoblotting is specifically inhibited with the immunizing peptide.

Multidrug Resistance-associated Protein 2 (MRP2), also designated canalicular Multispecific Organic Anion Transporter (cMOAT), cMRP, and ABCC2, is a member of the CFTR/MRP (ABCC) subfamily of the large ATP-Binding Cassette (ABC) transporter family of transmembrane proteins. Currently seven MRPs are known. These integral glycoproteins function as export 'pumps' and extrude a broad range of compounds from the cell. Together with MDR1 (Pgp1) and the Lung Resistance-related Protein (LRP, MVP), MRP1-3 are involved in the simultaneous expression of cellular resistance to a variety of structurally and functionally unrelated drugs (Multidrug Resistance).[1, 2] This phenomenon is considered a major obstacle to successful chemotherapy.

MRP2 is normally expressed in the liver, gallbladder, kidney proximal tubules, placenta, duodenum and small intestine. Localization pattern appears to vary in different species. MRP2 is predominantly localized to the apical membrane of polarized cells. In such cells retargeting to the basolateral membrane or to cytoplasmic vesicles may occur in response to various stimuli. MRP2 transports endogenous and exogenous anionic conjugates from hepatocytes to the bile. Thus it contributes to bile flow and plays a role in detoxification and defense against oxidative stress.[3, 4] Patients with the rare autosomal recessive Dubin-Johnson Syndrome develop a mild liver disease caused by MRP2 deficiency.[6, 7] Up regulation of MRP2 expression may be found in hepatocellular carcinomas.[8]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 1% bovine serum albumin and 15 mM sodium azide.

Antibody Concentration: 0.8-1.2 mg/ml

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For prolonged storage, freeze in working aliquots at −20 °C. Repeated freezing and thawing,or storage in frost-free freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a minimum working antibody dilution of 1:1,000 is recommended using a whole extract of HepG2 human hepatoblastoma cells and a chemiluminescent detection reagent.

Indirect immunofluorescence: a minimum working antibody dilution of 1:100 is recommended using paraformaldehyde-fixed HepG2 cells.

Indirect immunofluorescence: a minimum working antibody dilution of 1:100 is recommended using rat liver frozen sections.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

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