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Anti-MRP2 Antibody

Catalog # AP51740

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q92887
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	174207

Additional Information

Gene ID	1244
Other Names	CMOAT; CMOAT1; CMRP; MRP2; Canalicular multispecific organic anion transporter 1; ATP-binding cassette sub-family C member 2; Canalicular multidrug resistance protein; Multidrug resistance-associated protein 2
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human MRP2. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

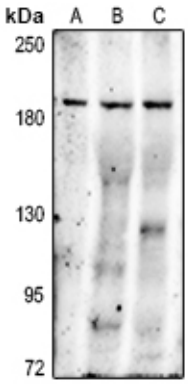
Name	ABCC2 {ECO:0000303|PubMed:31704245, ECO:0000312|HGNC:HGNC:53}
Function	ATP-dependent transporter of the ATP-binding cassette (ABC) family that hydrolyzes ATP to enable active transport of substrates conjugated with glucuronate, glutathione or sulfate. Operates at apical membranes of polarized cells such as hepatocytes, renal and intestinal epithelial cells where it mediates hepatobiliary and renal excretion of conjugated substrates (PubMed:10220572, PubMed:10421658, PubMed:11500505, PubMed:16332456, PubMed:29175180, PubMed:30959153, PubMed:31704245). Involved in canalicular bile production. Mediates hepatobiliary excretion of mono- and bis-glucuronidated bilirubin, enabling bilirubin detoxification (PubMed:9355767, PubMed:10421658). Mediates the efflux of steroid glucuronates from intestine and liver into the intestinal lumen. Shares substrate specificity with MRP3 but displays lower affinity and higher transport velocity toward androgen conjugates such as testosterone and dihydrotestosterone glucuronates as well as toward estrogen conjugates

	including estradiol, estrone and estriol glucuronates (PubMed:29175180, PubMed:30959153, PubMed:31704245). Transports glutathione conjugate leukotriene C4 (LTC4) and related cysteinyl leukotrienes (PubMed:11500505). Displays selective transporter activity toward sulfated conjugates, transports sulfated bile salts such as taurolithocholate sulfate but is inactive toward androgen sulfates (PubMed:16332456, PubMed:39993711). Transports various xenobiotics including anticancer drugs, such as anthracycline, vinca alkaloid and methotrexate and HIV-drugs such as protease inhibitors. Confers resistance to several anticancer drugs including cisplatin, doxorubicin, epirubicin, methotrexate, etoposide and vincristine, by decreasing accumulation of these drugs in cells (PubMed:10220572, PubMed:11500505, PubMed:12441801).
Cellular Location	Apical cell membrane; Multi-pass membrane protein. Note=Localized to the apical membrane of enterocytes
Tissue Location	Expressed by polarized cells in liver, kidney and intestine. The highest expression is found in liver. Expressed in small intestine (PubMed:28408210).

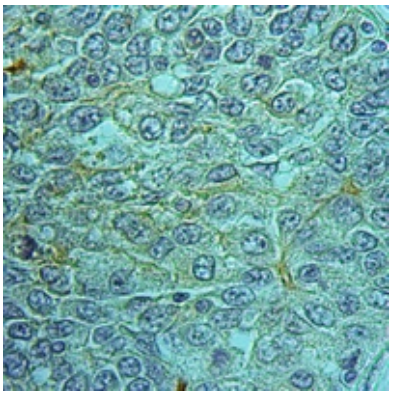
References

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Buechler M.,et al.J. Biol. Chem. 271:15091-15098(1996).
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Tsujii H.,et al.Gastroenterology 117:653-660(1999).

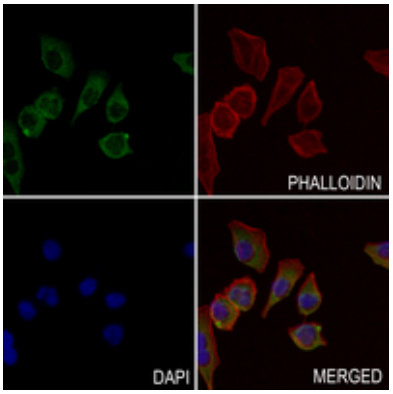
Images



Western blot analysis of MRP2 expression in mouse spleen (A), mouse liver (B), rat liver (C) whole cell lysates. (Predicted band size: 174 kD; Observed band size: 190 kD)



Immunohistochemical analysis of MRP2 staining in human liver cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of MRP2 staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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