

Store at
-20°C
#14685

MRP1/ABCC1 (D708N) Rabbit mAb

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Entrez-Gene ID #4363
UniProt ID #P33527

New 12/14

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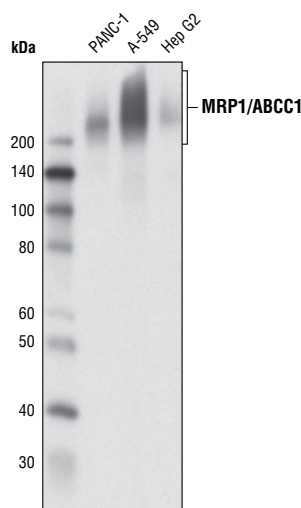
Applications W, IP, IF-IC Endogenous	Species Cross-Reactivity* H	Molecular Wt. 170-220 kDa	Isotype Rabbit IgG**
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Background: Multidrug resistance-associated protein 1 (MRP1/ABCC1) is a member of the MRP subfamily of ATP-binding cassette (ABC) transporters (1). MRP1/ABCC1 protein functions as an organic anion transporter. It has a broad range of substrates, including antineoplastic or therapeutic agents and the glutathione (GSH) conjugates of these compounds. MRP1/ABCC1 also transports physiological substrates such as folates, GSH and GSH disulfide (GSSG) conjugates of steroids, leukotrienes, and prostaglandins (2,3).

Although MRP1/ABCC1 is generally expressed in normal tissue, upregulation of MRP1/ABCC1 has been found in a variety of solid tumors, including small cell lung cancer, breast cancer, and prostate cancer (1,4,5). Research studies show that overexpression of MRP1/ABCC1 facilitates the elimination of therapeutic agents from cancer cells and confers drug resistance in those patients. Research studies also show that elevated expression of MRP1/ABCC1 is a negative prognostic marker for breast cancer and small cell lung cancer, as the level of MRP1/ABCC1 is predictive of the response and toxicity of chemotherapeutic agents in those patients (6-10).

Specificity/Sensitivity: MRP1/ABCC1 (D708N) Rabbit mAb recognizes endogenous levels of total MRP1 protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val273 of human ABCC1 protein.



Western blot analysis of extracts from A-549, PANC-1 and Hep G2 cells using MRP1/ABCC1 (D708N) Rabbit mAb.

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.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

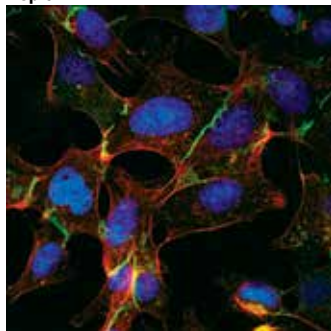
Western blotting	1:1000
Immunoprecipitation	1:100
Immunofluorescence (IF-IC)	1:200

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

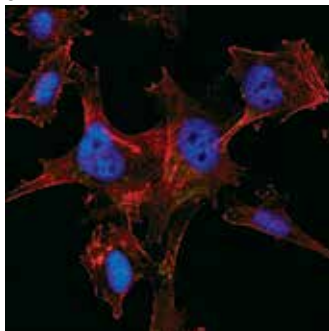
Background References:

- (1) Cole, S.P. et al. (1992) *Science* 258, 1650-4.
- (2) Pajic, M. et al. (2005) *Cancer Lett* 228, 241-6.
- (3) Deeley, R.G. and Cole, S.P. (2006) *FEBS Lett* 580, 1103-11.
- (4) Atalay, C. et al. (2006) *Tumour Biol* 27, 309-18.
- (5) Sánchez, C. et al. (2011) *Prostate* 71, 1810-7.
- (6) Nooter, K. et al. (1997) *Br J Cancer* 76, 486-93.
- (7) Hsia, T.C. et al. (2002) *Lung* 180, 173-9.
- (8) Kuo, T.H. et al. (2003) *Nucl Med Biol* 30, 627-32.
- (9) Sánchez, C. et al. (2009) *Prostate* 69, 1448-59.
- (10) Vulsteke, C. et al. (2013) *Ann Oncol* 24, 1513-25.

Hep G2



SK-MEL-2

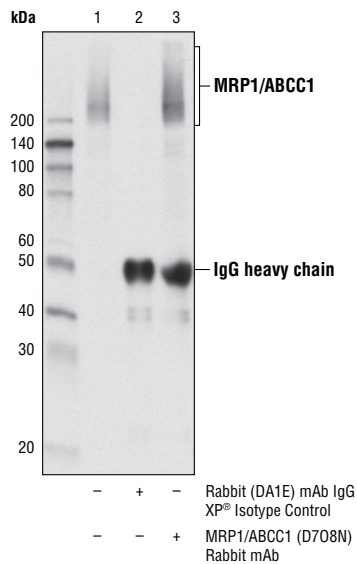


Confocal immunofluorescent analysis of Hep G2 (left) and SK-MEL-2 (right) cells using MRP1/ABCC1 (D708N) Rabbit mAb (green). Actin filaments were labeled with DyLight™ 554 Phalloidin #13504 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

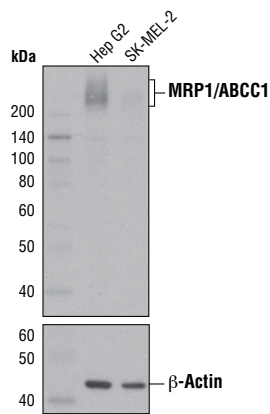
IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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Immunoprecipitation of MRP1/ABCC1 from Hep G2 cell extracts using Rabbit (DA1E) mAb IgG XP® Isotype Control #3900 (lane 2) or MRP1/ABCC1 (D708N) Rabbit mAb (lane 3). Lane 1 is 10% input. Western blot analysis was performed using MRP1/ABCC1 (D708N) Rabbit mAb.



Western blot analysis of extracts from Hep G2 and SK-MEL-2 cells using MRP1/ABCC1 (D708N) Rabbit mAb (upper) and β-Actin (13E5) Rabbit mAb #4970 (lower).