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ABCC4 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1824a

Product Information

Application	WB, IHC, FC, E
Primary Accession	O15439
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	2D2A9
Isotype	IgG1
Calculated MW	149527
Description	The protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the MRP subfamily which is involved in multi-drug resistance. The specific function of this protein has not yet been determined; however, this protein may play a role in cellular detoxification as a pump for its substrate, organic anions. Alternative splicing results in multiple splice variants encoding different isoforms.
Immunogen	Purified recombinant fragment of human ABCC4 (AA: 631-692) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	10257
Other Names	Multidrug resistance-associated protein 4, ATP-binding cassette sub-family C member 4, MRP/cMOAT-related ABC transporter, Multi-specific organic anion transporter B, MOAT-B, ABCC4, MRP4
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ABCC4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ABCC4
Synonyms	MOATB, MRP4 {ECO:0000303|PubMed:29175180
Function	ATP-dependent transporter of the ATP-binding cassette (ABC) family that actively extrudes physiological compounds and xenobiotics from cells (PubMed:11856762, PubMed:12523936, PubMed:15364914, PubMed:38886124, PubMed:40138312). Transports a range of endogenous molecules that have a key role in cellular communication and signaling, including cyclic nucleotides such as cyclic AMP (cAMP) and cyclic GMP (cGMP), bile acids, steroid conjugates, urate, and prostaglandins (PubMed:11856762, PubMed:12523936, PubMed:12835412, PubMed:12883481, PubMed:15364914, PubMed:15454390, PubMed:16282361, PubMed:17959747, PubMed:18300232, PubMed:26721430, PubMed:38886124, PubMed:40138312). Mediates the ATP-dependent efflux of glutathione conjugates such as leukotriene C4 (LTC4) and leukotriene B4 (LTB4) too. The presence of GSH is necessary for the ATP-dependent transport of LTB4, whereas GSH is not required for the transport of LTC4 (PubMed:17959747). Mediates the cotransport of bile acids with reduced glutathione (GSH) (PubMed:12523936, PubMed:12883481, PubMed:16282361). May contribute to hepatic, intestinal and renal excretion of steroid conjugates. Selectively transports steroid glucuronates and sulfates. Mediates the efflux of estrogens glucuronated at C-16 and C-17 positions, but has no transporter activity toward estrogens glucuronated at C-3. Has high affinity for dehydroepiandrosterone-3-sulfate and can also transport testosterone-17-sulfate, but has no transporter activity toward androsterone and etiocholanolone sulfate conjugates. Does not transport estrone 3-sulfate (PubMed:29175180, PubMed:39993711). Displays low affinity and high transport velocity for folates (PubMed:12036927). Transports a wide range of drugs and their metabolites. including anticancer, antiviral and antibiotic molecules (PubMed:11856762, PubMed:12105214, PubMed:15454390, PubMed:17344354, PubMed:18300232). May confer resistance to anticancer agents. Can mediate the efflux of methotrexate but is inactive toward polyglutaminated methotrexate, which is the predominant intracellular form (PubMed:11106685, PubMed:12036927).
Cellular Location	Basolateral cell membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein. Note=Its localization to the basolateral or apical membranes is tissue-dependent.
Tissue Location	Widely expressed, with particularly high levels in prostate, but is barely detectable in liver. sinusoidal membrane of hepatocytes

Background

The protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the MRP subfamily which is involved in multi-drug resistance. The specific function of this protein has not yet been determined; however, this protein may play a role in cellular detoxification as a pump for its substrate, organic anions. Alternative splicing results in multiple splice variants encoding different isoforms. ; ;

References

1. Biochem Pharmacol. 2012 Aug 1;84(3):366-73. 2. Arch Dermatol Res. 2012 Jan;304(1):57-63.

Images

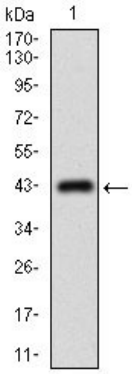


Figure 1: Western blot analysis using ABCC4 mAb against human ABCC4 recombinant protein. (Expected MW is 32.4 kDa)

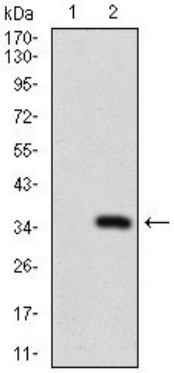


Figure 2: Western blot analysis using ABCC4 mAb against HEK293 (1) and ABCC4 (AA: 631-692)-hIgGFc transfected HEK293 (2) cell lysate.

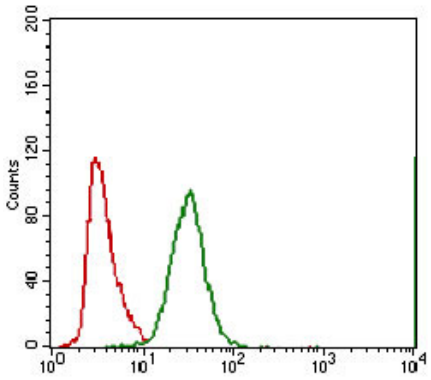


Figure 3: Flow cytometric analysis of A549 cells using ABCC4 mouse mAb (green) and negative control (red).

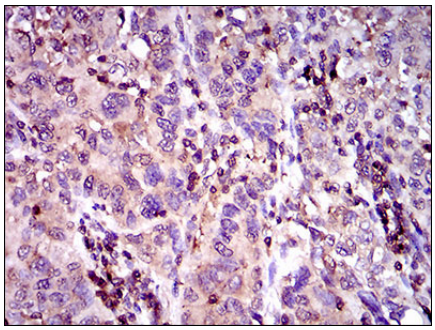


Figure 4: Immunohistochemical analysis of paraffin-embedded endometrial cancer tissues using ABCC4 mouse mAb with DAB staining.

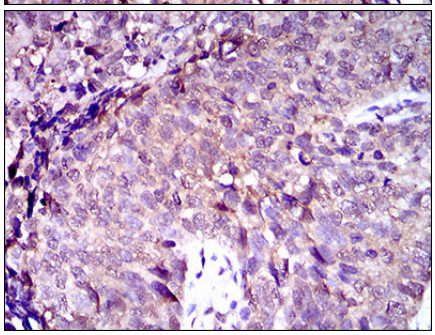


Figure 5: Immunohistochemical analysis of paraffin-embedded bladder cancer tissues using ABCC4 mouse mAb with DAB staining.

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