

Anti-MRP4 Antibody

Catalog # ABO11174

Specification

Anti-MRP4 Antibody - Product Information

ApplicationWBPrimary AccessionO15439HostRabbitReactivityHuman, Mouse, RatClonalityPolyclonalFormatLyophilizedDescriptionRabbit lgG polyclonal antibody for Multidrug resistance-associated protein 4(ABC)

Rabbit IgG polyclonal antibody for Multidrug resistance-associated protein 4(ABCC4) detection. Tested with WB in Human; Mouse; Rat.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-MRP4 Antibody - 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

Calculated MW 149527 MW KDa

Application Details Western blot, 0.1-0.5 μg/ml, Human, Mouse, Rat

Subcellular Localization Membrane; Multi-pass membrane protein.

Tissue Specificity Widely expressed, with particularly high levels in prostate, but is barely detectable in liver.

Protein Name Multidrug resistance-associated protein 4

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human MRP4(26-43aa WLNPLFKIGHKRRLEEDD), different from the related rat and mouse sequences by one amino acid.



Purification Immunogen affinity purified.

Cross Reactivity No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the ABC transporter superfamily. ABCC family. Conjugate transporter (TC 3.A.1.208) subfamily.

Anti-MRP4 Antibody - Protein Information

Name ABCC4

Synonyms MOATB, MRP4

Function

ATP-dependent transporter of the ATP-binding cassette (ABC) family that actively extrudes physiological compounds and xenobiotics from cells. 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:12883481, PubMed: 12523936, PubMed: 12835412, PubMed:15364914, PubMed:15454390, PubMed: 16282361, PubMed:17959747, PubMed:18300232, PubMed:26721430). 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:12883481, PubMed:12523936, PubMed:16282361). Transports a wide range of drugs and their metabolites, including anticancer, antiviral and antibiotics molecules (PubMed:11856762, PubMed:12105214, PubMed:15454390, PubMed:18300232, PubMed:17344354). Confers resistance to anticancer agents such as methotrexate (PubMed:11106685).

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

Anti-MRP4 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Anti-MRP4 Antibody - Images



Anti-MRP4 antibody, ABO11174, Western blottingRecombinant Protein Detection Source: E.coli derived -recombinant human ABCC4, 41.3KD(162aa tag+M1-N200)Lane 1: Recombinant Human ABCC4 Protein 10ngLane 2: Recombinant Human ABCC4 Protein 5ngLane 3: Recombinant Human ABCC4 Protein 2.5ng

Anti-MRP4 Antibody - Background

ABCC4(Atp-binding cassette, subfamily c, member 4) also known as MRP4 or MOATB, is a protein that in humans is encoded by the ABCC4 gene. The ABCC4 belongs to a large family of transmembrane proteins involved in active transport of substrates out of cells. By radiation hybrid analysis, Kool et al.(1997) mapped the ABCC4 gene to chromosome 13. Using FISH, Lee et al.(1998) refined the localization to chromosome 13q32. ABCC4 acts as an independent regulator of intracellular cyclic nucleotide levels and as a mediator of cAMP-dependent signal transduction to the nucleus. The antiproliferative effect of MRP4 inhibition was related to cAMP-dependent PKA activation and CREB phosphorylation. Pharmacologic inhibition of MRP4 activity or knockdown of



MRP4 via RNA interference resulted in reduced migration of DCs from human skin explants and of in vitro-generated Langerhans cells. Van de Ven et al.(2008) concluded that MRP4 contributes to migration of DCs toward draining lymph nodes and therefore has a role in the initiation of an immune response.