

ABCC1 (3P14) Rabbit Monoclonal Antibody

Rabbit Monoclonal Antibody Catalog # AP93284

Product Information

Application WB, IHC, FC, IP

Primary Accession P33527
Other Accession O35379

Reactivity Human, Mouse

HostRabbitClonalityMonoclonalCalculated MW171591

Additional Information

Gene ID 4363

Other Names MRP; ABCC; GS-X; MRP1; ABC29

Dilution WB~~1:1000 IHC~~1:100~500 FC~~1:10~50 IP~~N/A

Format Supplied in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% New

type preservative N and 0.05% BSA.

Storage Conditions -20°C

Protein Information

Name ABCC1 (HGNC:51)

Synonyms MRP, MRP1

Function Mediates export of organic anions and drugs from the cytoplasm

(PubMed: 10064732, PubMed: 11114332, PubMed: 16230346,

PubMed:<u>7961706</u>, PubMed:<u>9281595</u>). Mediates ATP-dependent transport of glutathione and glutathione conjugates, leukotriene C4, estradiol-17-beta-o-glucuronide, methotrexate, antiviral drugs and other xenobiotics

(PubMed: 10064732, PubMed: 11114332, PubMed: 16230346,

PubMed:7961706, PubMed:9281595). Confers resistance to anticancer drugs by decreasing accumulation of drug in cells, and by mediating ATP- and GSH-dependent drug export (PubMed:9281595). Hydrolyzes ATP with low efficiency (PubMed:16230346). Catalyzes the export of sphingosine 1-phosphate from mast cells independently of their degranulation (PubMed:17050692). Participates in inflammatory response by allowing export of leukotriene C4 from leukotriene C4-synthesizing cells (By similarity). Mediates ATP-dependent, GSH-independent cyclic GMP-AMP (cGAMP) export (PubMed:36070769). Thus, by limiting intracellular cGAMP concentrations

negatively regulates the cGAS-STING pathway (PubMed:<u>36070769</u>). Exports S-geranylgeranyl-glutathione (GGG) in lymphoid cells and stromal compartments of lymphoid organs. ABCC1 (via extracellular transport) with GGT5 (via GGG catabolism) establish GGG gradients within lymphoid tissues to position P2RY8-positive lymphocytes at germinal centers in lymphoid follicles and restrict their chemotactic transmigration from blood vessels to the bone marrow parenchyma (By similarity). Mediates basolateral export of GSH-conjugated R- and S-prostaglandin A2 diastereomers in polarized epithelial cells (PubMed:<u>9426231</u>).

Cellular Location Cell membrane; Multi-pass membrane protein. Basolateral cell membrane;

Multi-pass membrane protein

Tissue Location Lung, testis and peripheral blood mononuclear cells

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 full transporter is a member of the MRP subfamily which is involved in multi-drug resistance. This protein functions as a multispecific organic anion transporter, with oxidized glutatione, cysteinyl leukotrienes, and activated aflatoxin B1 as substrates. This protein also transports glucuronides and sulfate conjugates of steroid hormones and bile salts. Alternatively spliced variants of this gene have been described but their full-length nature is unknown. [provided by RefSeq, Apr 2012]

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