10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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
Host	Rabbit
Clonality	Monoclonal
Calculated MW	171591

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℃

Protein Information

Name	ABCC1 (HGNC:51)
Function	ATP-dependent transporter of the ATP-binding cassette (ABC) family that hydrolyzes ATP to enable the active transport of organic anions conjugated with glutathione, glucuronate or sulfate. Operates at the plasma membrane where it mediates the efflux of substrates from the cytoplasm into the extracellular space. The rate of transport is in some way coupled to the reduced glutathione (GSH) intracellular levels (PubMed:10064732, PubMed:11114332, PubMed:16230346, PubMed:8640791, PubMed:7961706, PubMed:9281595). Mediates the systemic release of glutathione-conjugated leukotriene C4 (LTC4) from myeloid cells such as mast cells, as part of the inflammatory response (PubMed:10064732, PubMed:11114332, PubMed:7961706, PubMed:8640791). 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:9426231). Can export both GSH and its oxidized form GSSG in a protective mechanism that limits cellular damage especially during oxidative stress. Regulates GSH and GSSG release from astrocytes to maintain glutathione redox equilibrium in the brain (PubMed:16230346, PubMed:8640791). Transports signaling molecules. Appears to selectively recognize cyclic 2'3'-GMP-AMP (cGAMP) produced by mammals but not 3'3'-cGAMP produced by bacteria. Mediates 2'3'-cGAMP export and limits intracellular cGAMP- mediated cGAS-STING signaling and type I interferon synthesis (PubMed:36070769, PubMed:39765229). Exports sphingosine 1-phosphate from mast cells independently of their degranulation (PubMed:17050692). Confers resistance to anticancer drugs by mediating ATP- and GSH- dependent drug export (PubMed:9281595). Similarly to MRP2, transports various steroids, bile acids and bilirubin conjugates (PubMed:8640791, PubMed:9355767).
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]

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.