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Anti-MRP1 / ABCC1 Antibody

Mouse Monoclonal Antibody
Catalog # AH13403

Product Information

Application	WB, IF, FC
Primary Accession	P33527
Other Accession	391464
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2a
Clone Names	MRP1/1344
Calculated MW	171591

Additional Information

Gene ID	4363
Other Names	ABC29; ABCC1; ATP binding cassette sub family C (CFTR/MRP) member 1; ATP-binding cassette sub-family C member 1; GSX; Leukotriene C(4) transporter; LTC4 transporter; Multidrug resistance-associated protein 1 (MRP1)
Application Note	Flow Cytometry (0.5-1ug/million cells); ,Immunofluorescence (0.5-1ug/ml); ,Western Blotting (0.5-1ug/ml) ,Optimal dilution for a specific application should be determined.
Format	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Anti-MRP1 / ABCC1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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:7961706, PubMed:9281595). 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:36070769). 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).
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 two members of the large family of ABC transporters known to confer multidrug resistance in human cancer cells are the MDR1 P-glycoprotein and the multidrug-resistance protein MRP1. MRP1 is an integral membrane protein that contains an MDR-like core, an N-terminal membrane-bound region and a cytoplasmic linker, and it is expressed in various cerebral cells, as well as in lung, testis and peripheral blood.