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# Anti-MRP1 / ABCC1 Antibody

Mouse Monoclonal Antibody
Catalog # AH13401

## Product Information

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| **Application** | WB, IHC-P, IF, FC |
| **Primary Accession** | P33527 |
| **Other Accession** | 391464 |
| **Reactivity** | Human |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | Mouse / IgG1 |
| **Clone Names** | MRP1/1343 |
| **Calculated MW** | 171591 |

## Additional Information

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| **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); ,Immunohistology (Formalin-fixed) (1-2ug/ml for 30 minutes at RT),(Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10mM Tris with 1mM EDTA, pH 9.0 for 10-20 min followed by cooling at RT for 20 minutes),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

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| **Name** | ABCC1 ( HGNC:51) |
| **Synonyms** | MRP, MRP1 |

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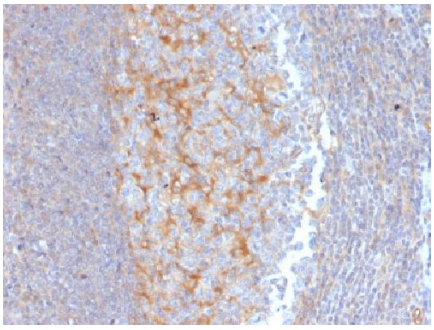
| **Function** | Mediates export of organic anions and drugs from the cytoplasm (PubMed:10064732, PubMed:11114332, PubMed:16230346, PubMed:7961706, PubMed:9281595). Mediates ATP-dependent transport of glutathione and glutathione conjugates, leukotriene C4, estradiol-17-beta-o-glucuronide, methotrexate, 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

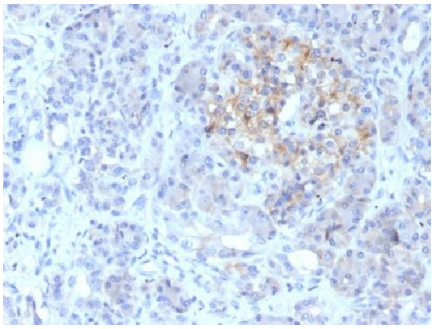
The two members of the large family of ABC transporters known to confer multidrug resistance in human cancer cells are the MDR1 P-glycoprotein and the multidrug-resistance protein MRP1. MRP1 is an integral membrane protein that contains an MDR-like core, an N-terminal membrane-bound region and a cytoplasmic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

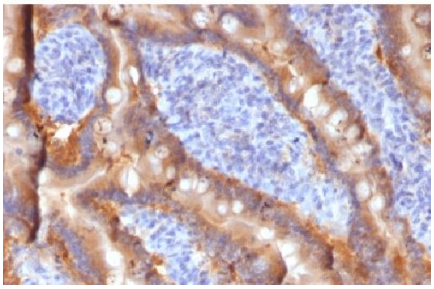
## Images



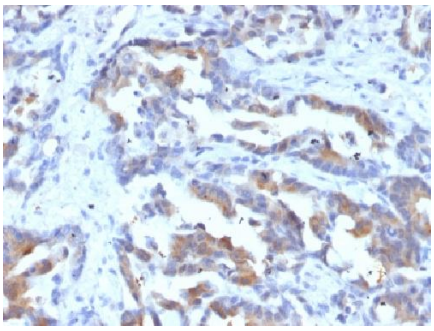
Formalin-fixed, paraffin-embedded Human Tonsil stained with MRP1/ABCC1 Monoclonal Antibody (MRP1/1343).

Formalin-fixed, paraffin-embedded Human Pancreas stained with MRP1/ABCC1 Monoclonal Antibody (MRP1/1343).

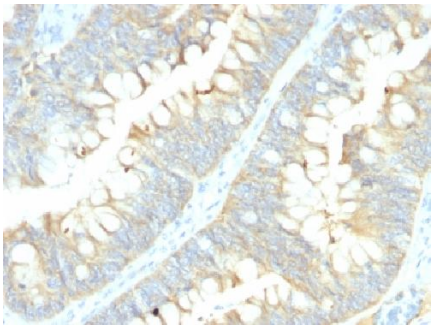




Formalin-fixed, paraffin-embedded Human Duodenum stained with MRP1/ABCC1 Monoclonal Antibody (MRP1/1343).



Formalin-fixed, paraffin-embedded Human Rectal Carcinoma stained with MRP1/ABCC1 Monoclonal Antibody (MRP1/1343).



Formalin-fixed, paraffin-embedded Human Colon Carcinoma stained with MRP1/ABCC1 Monoclonal Antibody (MRP1/1343).