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MDR1 Rabbit pAb

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Catalog # AP52159

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P08183
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	141479
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MDR1
Epitope Specificity	21-100/1272
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane; Multi-pass membrane protein.
DISEASE	Genetic variations in ABCB1 are associated with susceptibility to inflammatory bowel disease type 13 (IBD13) [MIM:612244]. Inflammatory bowel disease is characterized by a chronic relapsing intestinal inflammation. It is subdivided into Crohn disease and ulcerative colitis phenotypes. Crohn disease may involve any part of the gastrointestinal tract, but most frequently the terminal ileum and colon. Bowel inflammation is transmural and discontinuous; it may contain granulomas or be associated with intestinal or perianal fistulas. In contrast, in ulcerative colitis, the inflammation is continuous and limited to rectal and colonic mucosal layers; fistulas and granulomas are not observed. Both diseases include extraintestinal inflammation of the skin, eyes, or joints. Crohn disease and ulcerative colitis are commonly classified as autoimmune diseases.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	bs-1468P is one synthetic peptide derived from human MDR1. P Glycoprotein, the product of the MDR1 gene, is expressed in distinct non-malignant cells, typically cells with secretory and excretory functions. It is assumed to function as an ATP-dependent drug efflux pump with broad substrate specificity. The highest expression of P Glycoprotein has been observed in kidney (proximal tubules), liver (bile canaliculi), adrenal gland and intestine, suggesting that the primary role of P Glycoprotein is in the normal secretion of physiological metabolites and ingested chemicals into bile, urine and the lumen of the intestinal tract. Elevated levels of P Glycoprotein have also been reported in multidrug-resistant cell lines and in colon, endometrial, ovarian, and breast tumors, as well as in sarcomas and leukemias / lymphomas.

Additional Information

Gene ID	5243
Other Names	ATP-dependent translocase ABCB1, ATP-binding cassette sub-family B member 1, Multidrug resistance protein 1, 7.6.2.2, P-glycoprotein 1, Phospholipid transporter ABCB1, 7.6.2.1, CD243, ABCB1 (HGNC:40), MDR1, PGY1
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ABCB1 (HGNC:40)
Synonyms	MDR1, PGY1
Function	Translocates phospholipids and drugs across the membrane (PubMed:2897240, PubMed:35970996, PubMed:8898203, PubMed:9038218, PubMed:35507548). Catalyzes the flop of phospholipids from the cytoplasmic to the exoplasmic leaflet of the apical membrane. Participates mainly to the flop of phosphatidylcholine, phosphatidylethanolamine, beta-D-glucosylceramides and sphingomyelins (PubMed:8898203). Energy-dependent efflux pump responsible for decreased drug accumulation in multidrug-resistant cells (PubMed:2897240, PubMed:35970996, PubMed:9038218). May contribute to hepatobiliary and renal excretion of etiocholanolone-3-glucuronate. Appears to have very low activity toward testosterone, androsterone and dihydrotestosterone glucuronates.
Cellular Location	Cell membrane; Multi-pass membrane protein {ECO:0000255|PROSITE-ProRule:PRU00441} Apical cell membrane. Cytoplasm Note=ABCB1 localization is influenced by C1orf115 expression levels (plasma membrane versus cytoplasm). Localized to the apical membrane of enterocytes (PubMed:28408210).
Tissue Location	Expressed in small intestine (PubMed:28408210). Expressed in liver, kidney and brain.

Background

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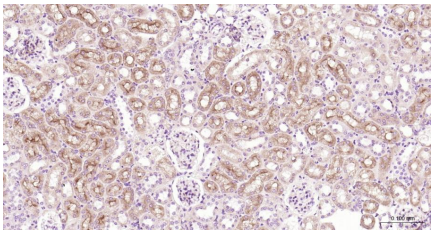
References

Devault A.,et al.Mol. Cell. Biol. 10:1652-1663(1990).
Hsu S.I.H.,et al.Mol. Cell. Biol. 10:3596-3606(1990).
Pimprale S.S.,et al.Submitted (DEC-2004) to the EMBL/GenBank/DDBJ databases.
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Hsu S.I.H.,et al.J. Biol. Chem. 264:12053-12062(1989).

Images



Paraformaldehyde-fixed, paraffin embedded Mouse Kidney; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with MDR1 Polyclonal Antibody, Unconjugated (AP52159) at 1:200 overnight at 4°C, followed by conjugation to the AP52159-HRP and DAB (C-0010) staining.

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