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

P-Glycoprotein (ABCB1) Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6111a

Product Information

Application	WB, E
Primary Accession	P08183
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB2208
Calculated MW	141479
Antigen Region	647-677

Additional Information

Gene ID	5243
Other Names	Multidrug resistance protein 1, ATP-binding cassette sub-family B member 1, P-glycoprotein 1, CD243, ABCB1, MDR1, PGY1
Target/Specificity	This P-Glycoprotein (ABCB1) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 647-677 amino acids from the Central region of human P-Glycoprotein (ABCB1).
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	P-Glycoprotein (ABCB1) Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ABCB1 (HGNC:40)
Synonyms	MDR1, PGY1
Function	Translocates drugs and phospholipids 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).
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.

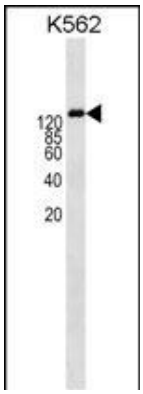
Background

The membrane-associated ABCB1 protein 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 protein is a member of the MDR/TAP subfamily. Members of the MDR/TAP subfamily are involved in multidrug resistance. ABCB1 is an ATP-dependent drug efflux pump for xenobiotic compounds with broad substrate specificity. It is responsible for decreased drug accumulation in multidrug-resistant cells and often mediates the development of resistance to anticancer drugs. This protein also functions as a transporter in the blood-brain barrier.

References

Saito, S., et al., J. Hum. Genet. 47(1):38-50 (2002). Kerb, R., et al., Pharmacogenomics 2(1):51-64 (2001). Cascorbi, I., et al., Clin. Pharmacol. Ther. 69(3):169-174 (2001). Hoffmeyer, S., et al., Proc. Natl. Acad. Sci. U.S.A. 97(7):3473-3478 (2000). Mickley, L.A., et al., Blood 91(5):1749-1756 (1998).

Images



ABCB1 Antibody (L661) (Cat. #AP6111a) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the ABCB1 antibody detected the ABCB1 protein (arrow).

Citations

- A P-glycoprotein gene serves as a component of the protective mechanisms against 2-tridecanone and abamectin in Helicoverpa armigera.
- Positive Feedback Loop of OCT4 and c-JUN Expedites Cancer Stemness in Liver Cancer.

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