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P-Glycoprotein (ABCB1) Antibody (Center) Blocking peptide

Synthetic peptide
Catalog # BP6111a

Specification

P-Glycoprotein (ABCB1) Antibody (Center) Blocking peptide - Product Information

Primary Accession P08183

P-Glycoprotein (ABCB1) Antibody (Center) Blocking peptide - 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
The synthetic peptide sequence used to generate the antibody AP6111a was selected from the Center region of human ABCB1 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

P-Glycoprotein (ABCB1) Antibody (Center) Blocking peptide - Protein Information

Name ABCB1 (HGNC:40)

Synonyms MDR1, PGY1

Function
Translocates drugs and phospholipids across the membrane (PubMed:8898203, PubMed:2897240, PubMed:9038218, PubMed:35970996). 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:9038218, PubMed:35970996).

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.

P-Glycoprotein (ABCB1) Antibody (Center) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

P-Glycoprotein (ABCB1) Antibody (Center) Blocking peptide - Images

P-Glycoprotein (ABCB1) Antibody (Center) Blocking peptide - 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.

P-Glycoprotein (ABCB1) Antibody (Center) Blocking peptide - 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).