

**ABCB1 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1892a****Specification****ABCB1 Antibody - Product Information**

Application	E, WB
Primary Accession	<a href="#">P08183</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	141.5kDa KDa

**Description**

The membrane-associated protein encoded by this gene 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. The protein encoded by this gene 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.

**Immunogen**

Purified recombinant fragment of human ABCB1 (AA: 632-693) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**ABCB1 Antibody - Additional Information**

**Gene ID** 5243

**Other Names**

Multidrug resistance protein 1, 3.6.3.44, ATP-binding cassette sub-family B member 1, P-glycoprotein 1, CD243, ABCB1, MDR1, PGY1

**Dilution**

E~~1/10000

WB~~1/500 - 1/2000

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

ABCB1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## ABCB1 Antibody - Protein Information

**Name** ABCB1 ([HGNC:40](#))

**Synonyms** MDR1, PGY1

### Function

Translocates drugs and phospholipids across the membrane (PubMed:<a href="http://www.uniprot.org/citations/2897240" target="\_blank">2897240</a>, PubMed:<a href="http://www.uniprot.org/citations/35970996" target="\_blank">35970996</a>, PubMed:<a href="http://www.uniprot.org/citations/8898203" target="\_blank">8898203</a>, PubMed:<a href="http://www.uniprot.org/citations/9038218" target="\_blank">9038218</a>, PubMed:<a href="http://www.uniprot.org/citations/35507548" target="\_blank">35507548</a>). 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:<a href="http://www.uniprot.org/citations/8898203" target="\_blank">8898203</a>). Energy-dependent efflux pump responsible for decreased drug accumulation in multidrug-resistant cells (PubMed:<a href="http://www.uniprot.org/citations/2897240" target="\_blank">2897240</a>, PubMed:<a href="http://www.uniprot.org/citations/35970996" target="\_blank">35970996</a>, PubMed:<a href="http://www.uniprot.org/citations/9038218" target="\_blank">9038218</a>).

### 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.

## ABCB1 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

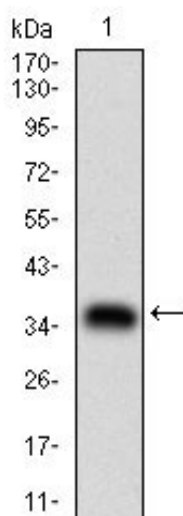
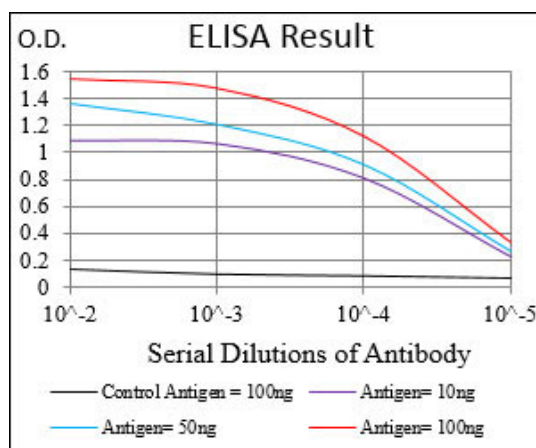


Figure 1: Western blot analysis using ABCB1 mAb against human ABCB1 (AA: 632-693) recombinant protein. (Expected MW is 32.4 kDa)

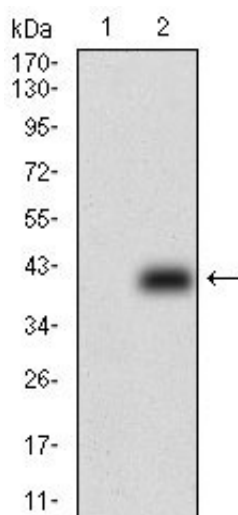


Figure 2: Western blot analysis using ABCB1 mAb against HEK293 (1) and ABCB1 (AA: 632-693)-hlgGfC transfected HEK293 (2) cell lysate.

### ABCB1 Antibody - Background

This gene encodes a bifunctional signal transduction molecule. Dopaminergic and glutamatergic

receptor stimulation regulates its phosphorylation and function as a kinase or phosphatase inhibitor. As a target for dopamine, this gene may serve as a therapeutic target for neurologic and psychiatric disorders. Multiple transcript variants encoding different isoforms have been found for this gene. ;

#### **ABCB1 Antibody - References**

1. Pharmacol Rep. 2012;64(6):1560-6. 2. J Cancer Res Ther. 2012 Apr-Jun;8(2):226-31.