

Datasheet for 600-401-967S**ABCB1 Antibody****Overview**

Description:	Anti-ABCB1 (RABBIT) Antibody - 600-401-967S
Item No.:	600-401-967S
Size:	25 µL
Applications:	ELISA, IHC, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI). ATP-Binding Cassette Sub-Family B Member 1 (ABCB1, also named P-glycoprotein) is a plasma membrane-associated multidrug transporter that utilizes the energy of ATP hydrolysis to pump toxic xenobiotics out of cells. Unique features of ABCB1 are its very broad substrate specificity and its basal ATPase activity in the absence of transport substrates. Human ABCB1 plays an important role in absorption, distribution, metabolism, excretion and toxicity of pharmacologically relevant drugs. It is responsible for decreased drug accumulation in multidrug-resistant cells and often mediates the development of resistance to anti-cancer drugs. This protein also functions as a transporter across the blood-brain barrier.
Synonyms:	rabbit anti-ABCB1 Antibody, ABCB 1, ABCB-1, ATP binding cassette sub family B MDR/TAP member 1 antibody, CD243 antibody, CD243 antigen antibody, CLCS antibody, GP170 antibody, MDR 1 antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	ABCB1
Reactivity:	Human
Immunogen Type:	Conjugated Peptide

Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near amino acids 255-280 of human ABCB1 protein.
Purity/Specificity:	This affinity-purified antibody is directed against human ABCB1 protein. The product was affinity purified from monospecific antiserum by immunoaffinity chromatography. A BLAST analysis was used to suggest cross reactivity with ABCB1 protein from human, monkey, dog, mouse, and rat based on 100% homology with the immunizing sequence. Reactivity against homologues from other sources is not known.
Relevant Links:	• UniProtKB - P08183 • NCBI - 42741659 • GenelD - 5243

Application Details

Tested Applications:	ELISA, IHC, WB
Application Note:	This affinity purified antibody has been tested for use in ELISA, immunohistochemistry, and western blot.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:50,000
IHC:	User Optimized
WB:	1:200 - 1:2,000

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

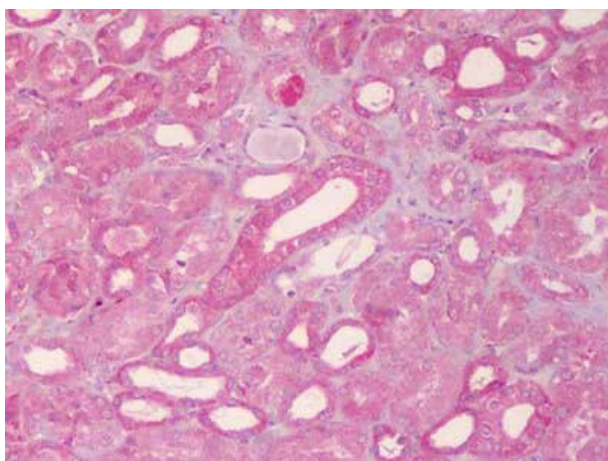
Shipping & Handling

Shipping Condition:	Dry Ice
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Storage Condition: Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.

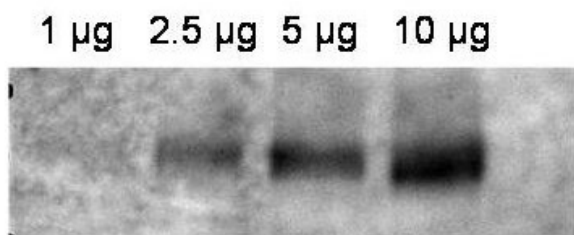
Expiration: Expiration date is one (1) year from date of receipt.

Images



Immunohistochemistry

IHC using Rockland ABCB1 Antibody at 20 ug/ml against FFPE human kidney. Moderate to strong cytoplasmic and membranous staining seen in this example. Similar staining also observed in other tissues including liver, kidney, and small intestine. The antibody showed minimal background staining and worked well in formalin-fixed tissues. Image provided courtesy of Lifespan Biosciences.



Western Blot

Western blot using Rockland's affinity purified anti-ABCB1 antibody shows detection of ABCB1 in crude membrane extracts from HF insect cells over-expressing human ABCB1. The extract was loaded onto a gel in the amounts indicated followed by electrophoresis and transfer to nitrocellulose. The membrane was probed with the primary antibody diluted to 1:600, followed by Peroxidase Conjugated Affinity Purified Anti-RABBIT IgG at 1:10,000. Personal Communication, Anna Calcagno, CCR-NCI, Bethesda, MD.

References

- Qosa H et al. Enhanced brain amyloid-β clearance by rifampicin and caffeine as a possible protective mechanism against Alzheimer's disease. *Journal of Alzheimer's Disease : Jad* (2012)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.