

Rabbit P Glycoprotein/ABCB1 Polyclonal Antibody | anti-ABCB1 antibody

Anti-P Glycoprotein/ABCB1 Antibody

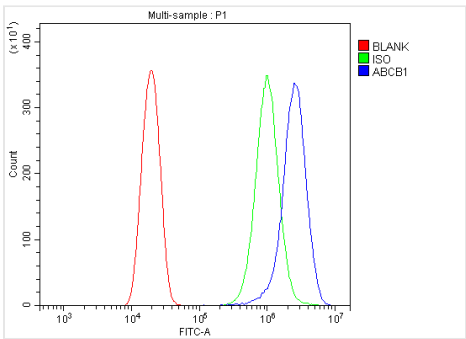
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125513	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

P Glycoprotein/ABCB1; Polyclonal Antibody; Anti-P Glycoprotein/ABCB1 Antibody; ABCB1; MDR1; PGY1; ATP-dependent translocase ABCB1; ATP-binding cassette sub-family B member 1; Multidrug resistance protein 1; P-glycoprotein 1; Phospholipid transporter ABCB1; CD antigen CD243; ATP-binding cassette; sub-family B (MDR/TAP); member 1; anti-ABCB1 antibody

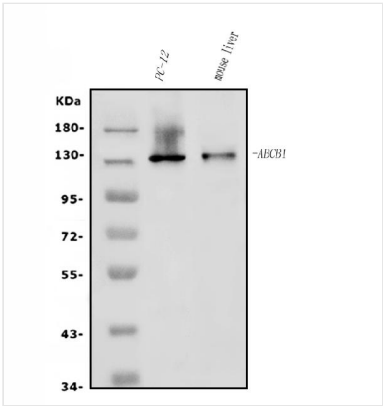
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for P Glycoprotein/ABCB1 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. (varies by lot)
Applicable Applications for anti-ABCB1 antibody	ELISA (ELISA), FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)
Application Notes	Western blot, 0.25-0.5ug/ml, Mouse, Rat; Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human; Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human; ELISA, 0.1-0.5ug/ml
Immunogen	E.coli-derived human P Glycoprotein/ABCB1 recombinant protein (Position: R669-Y710).
Cross Reactivity	No cross-reactivity with other proteins.
Preparation and Storage	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.



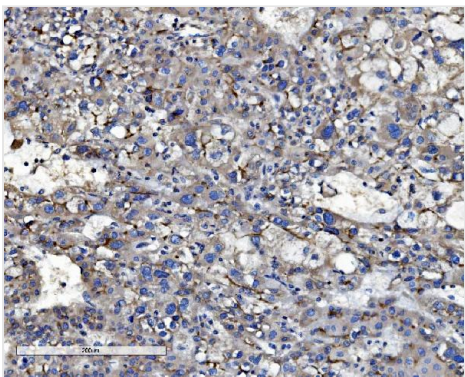
FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of U2OS cells using anti-P Glycoprotein/ABCB1 antibody (AAA125513).Overlay histogram showing U2OS cells stained with AAA125513 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-P Glycoprotein/ABCB1 Antibody (AAA125513, 1μg/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)

Figure 1. Western blot analysis of P Glycoprotein/ABCB1 using anti-P Glycoprotein/ABCB1 antibody (AAA125513).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30ug of sample under reducing conditions.Lane 1: rat PC-12 whole cell lysatesLane 2: mouse liver tissue lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with rabbit anti-P Glycoprotein/ABCB1 antigen affinity purified polyclonal antibody (Catalog # AAA125513) at 0. 5 μg/mL overnight at 4 degree C, then washed with TBS-0. 1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for P Glycoprotein/ABCB1 at approximately 140KD. The expected band size for P Glycoprotein/ABCB1 is at 140KD.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of P Glycoprotein/ABCB1 using anti-P Glycoprotein/ABCB1 antibody (AAA125513).P Glycoprotein/ABCB1 was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-P Glycoprotein/ABCB1 Antibody (AAA125513) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

ADDITIONAL INFORMATION

Related Product Information for anti-ABCB1 antibody

P-GP, also called ABCB1 or PGY1, is a glycoprotein that in humans is encoded by the ABCB1 gene. It is mapped to 7q21.12. P-GP is a wellcharacterized ABC-transporter (which transports a wide variety of substrates across extra- and intracellular membranes) of the MDR/TAP subfamily. It is an important protein of the cell membrane that pumps many foreign substances out of cells. More formally, it is an ATP-dependent drug efflux pump with broad substrate specificity. P-GP 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	1. Aller SG, Yu J, Ward A, Weng Y, Chittaboina S, Zhuo R, Harrell PM, Trinh YT, Zhang Q, Urbatsch IL, Chang G (March 2009). 2. Ueda K, Clark DP, Chen CJ, Roninson IB, Gottesman MM, Pastan I (January 1987). "The human multidrug resistance (mdr1) gene. cDNA cloning and transcription initiation". J. Biol. Chem. 262 (2): 505-8.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	42741659
NCBI GeneID	5243
NCBI Accession #	NP_000918.2
NCBI GenBank Nucleotide #	NM_000927.4
UniProt Accession #	P08183; Q12755; Q14812; A8K294
Molecular Weight	141kDa
NCBI Official Full Name	multidrug resistance protein 1
NCBI Official Synonym Full Names	ATP-binding cassette, sub-family B (MDR/TAP), member 1
NCBI Official Symbol	ABCB1
NCBI Official Synonym Symbols	CLCS; MDR1; P-GP; PGY1; ABC20; CD243; GP170
NCBI Protein Information	multidrug resistance protein 1; P-glycoprotein 1; colchicin sensitivity; doxorubicin resistance
UniProt Protein Name	Multidrug resistance protein 1
UniProt Gene Name	ABCB1
UniProt Synonym Gene Names	MDR1; PGY1
UniProt Entry Name	MDR1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/p-glycoprotein-abcb1-antibody-elisa-flow-cytometry-immunohistochemistry-western-blot-elisa/125513>