

## ABCB7 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP6114a

### Product Information

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<b>Application</b>	WB, IHC-P, E
<b>Primary Accession</b>	<a href="#">Q75027</a>
<b>Other Accession</b>	<a href="#">Q704E8</a> , <a href="#">Q61102</a> , <a href="#">NP_004290</a>
<b>Reactivity</b>	Human
<b>Predicted</b>	Mouse, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB1811
<b>Calculated MW</b>	82641
<b>Antigen Region</b>	718-746

### Additional Information

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<b>Gene ID</b>	22
<b>Other Names</b>	ATP-binding cassette sub-family B member 7, mitochondrial, ATP-binding cassette transporter 7, ABC transporter 7 protein, ABCB7, ABC7
<b>Target/Specificity</b>	This ABCB7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 718-746 amino acids from the C-terminal region of human ABCB7.
<b>Dilution</b>	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	ABCB7 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### Protein Information

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<b>Name</b>	ABCB7 ( <a href="#">HGNC:48</a> )
<b>Synonyms</b>	ABC7

**Function** Exports glutathione-coordinated iron-sulfur clusters such as [2Fe-2S]-(GS)<sub>4</sub> cluster from the mitochondria to the cytosol in an ATP- dependent manner allowing the assembly of the cytosolic iron-sulfur (Fe/S) cluster-containing proteins and participates in iron homeostasis (PubMed:[10196363](#), PubMed:[17192393](#), PubMed:[33157103](#)). Moreover, through a functional complex formed of ABCB7, FECH and ABCB10, also plays a role in the cellular iron homeostasis, mitochondrial function and heme biosynthesis (PubMed:[30765471](#)). In cardiomyocytes, regulates cellular iron homeostasis and cellular reactive oxygen species (ROS) levels through its interaction with COX4I1 (By similarity). May also play a role in hematopoiesis (By similarity).

**Cellular Location** Mitochondrion inner membrane {ECO:0000250 | UniProtKB:P40416}; Multi-pass membrane protein {ECO:0000250 | UniProtKB:P40416}

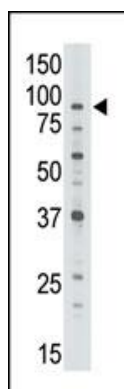
## Background

The membrane-associated protein ABCB7 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 as well as antigen presentation. This gene encodes a half-transporter involved in the transport of heme from the mitochondria to the cytosol. With iron/sulfur cluster precursors as its substrates, this protein may play a role in metal homeostasis. Mutations in this gene have been implicated in X-linked sideroblastic anemia with ataxia.

## References

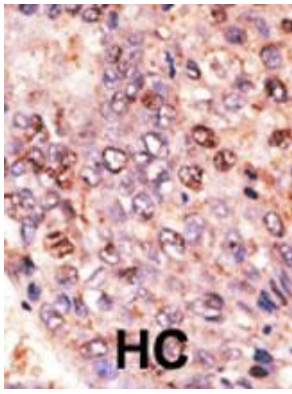
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Csere, P., et al., FEBS Lett. 441(2):266-270 (1998).  
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## Images



The anti-ABCB7 C-term Pab (Cat. #AP6114a) is used in Western blot to detect ABCB7 in Jurkat cell lysate.

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



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