10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

ABCB10 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP6109a

Specification

ABCB10 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession	Q9NRK6
Other Accession	NP_036221

ABCB10 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 23456

Other Names
ATP-binding cassette sub-family B member 10, mitochondrial, ATP-binding cassette transporter 10, ABC transporter 10 protein, Mitochondrial ATP-binding cassette 2, M-ABC2, ABCB10

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6109a was selected from the N-term region of human ABCB10 . 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.

ABCB10 Antibody (N-term) Blocking Peptide - Protein Information

ABCB10 Antibody (N-term) Blocking Peptide - Background

The membrane-associated protein ABCB10 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 function of this mitochondrial protein is unknown.

ABCB10 Antibody (N-term) Blocking Peptide - References

Zhang, F., et al., J. Biol. Chem. 275(30):23287-23294 (2000).Allikmets, R., et al., Mamm. Genome 6(2):114-117 (1995).Zhang, F., et al., FEBS Lett. 478 (1-2), 89-94 (2000).

Name ABCB10 (HGNC:41)

Function
Catalyzes the export of an unknown physiological substrate from the mitochondrial matrix to the cytosol in an ATP-dependent manner (PubMed:33253225). May also transport the heme analog Zn (II) mesoporphyrin (ZnMP) in an ATP dependent manner but can't export the heme precursor 5-aminolevulinic acid (ALA) from mitochondria (PubMed:33253225). Plays a role in the early step of the heme biosynthetic process during insertion of iron into protoporphyrin IX (PPIX). In turn participates in hemoglobin synthesis and also protects against oxidative stress (PubMed:28808058, PubMed:22085049). In addition may be involved in mitochondrial unfolded protein response (UPRmt) signaling pathway, although ABCB10 probably does not participate in peptide export from mitochondria (PubMed:28315685).

Cellular Location
Mitochondrion inner membrane {ECO:0000250|UniProtKB:Q9JI39}; Multi-pass membrane protein

Tissue Location
Ubiquitous. Highly expressed in bone marrow, expressed at intermediate to high levels in skeletal muscle, small intestine, thyroid, heart, brain, placenta, liver, pancreas, prostate, testis, ovary, leukocyte, stomach, spinal cord, lymph node, trachea and adrenal gland, and low levels are found in lung, kidney, spleen, thymus and colon

ABCB10 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides