

ABCC5 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP8578c**Specification**

ABCC5 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [O15440](#)**ABCC5 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 10057**Other Names**Multidrug resistance-associated protein 5, ATP-binding cassette sub-family C member 5,
Multi-specific organic anion transporter C, MOAT-C, SMRP, pABC11, ABCC5, MRP5**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP8578c](/products/AP8578c) was selected from the Center region of human ABCC5. 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.

ABCC5 Antibody (Center) Blocking Peptide - Protein Information**Name** ABCC5**Synonyms** MRP5**Function**

ATP-dependent transporter of the ATP-binding cassette (ABC) family that actively extrudes physiological compounds, and xenobiotics from cells. Mediates ATP-dependent transport of endogenous metabolites such as cAMP and cGMP, folic acid and N-lactoyl-amino acids (in vitro) (PubMed: [10893247](http://www.uniprot.org/citations/10893247), PubMed: [15899835](http://www.uniprot.org/citations/15899835), PubMed: [25964343](http://www.uniprot.org/citations/25964343), PubMed: [17229149](http://www.uniprot.org/citations/17229149), PubMed: [12695538](http://www.uniprot.org/citations/12695538), PubMed: [12637526](http://www.uniprot.org/citations/12637526)).

Acts also as a general glutamate conjugate and analog transporter that can limit the brain levels of endogenous metabolites, drugs, and toxins (PubMed:26515061). Confers resistance to the antiviral agent PMEA (PubMed:12695538). Able to transport several anticancer drugs including methotrexate, and nucleotide analogs in vitro, however it does with low affinity, thus the exact role of ABCC5 in mediating resistance still needs to be elucidated (PubMed:10840050, PubMed:15899835, PubMed:12435799, PubMed:12695538). Acts as a heme transporter required for the translocation of cytosolic heme to the secretory pathway (PubMed:24836561). May play a role in energy metabolism by regulating the glucagon-like peptide 1 (GLP-1) secretion from enteroendocrine cells (By similarity).

Cellular Location

Basolateral cell membrane; Multi-pass membrane protein. Golgi apparatus lumen Endosome membrane. Cytoplasmic granule {ECO:0000250|UniProtKB:Q9R1X5}. Apical cell membrane; Multi-pass membrane protein. Note=In most cells, routes to the basolateral plasma membrane, but in the brain capillary endothelial cells that form the blood-brain barrier, resides in the apical membrane

Tissue Location

[Isoform 3]: Predominant isoform in retinal pigment epithelium, bladder, and stomach.

ABCC5 Antibody (Center) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

ABCC5 Antibody (Center) Blocking Peptide - Images

ABCC5 Antibody (Center) Blocking Peptide - Background

ABCC5 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 MRP subfamily which is involved in multi-drug resistance. This protein functions in the cellular export of its substrate, cyclic nucleotides. This export contributes to the degradation of phosphodiesterases and possibly an elimination pathway for cyclic nucleotides. Studies show that this protein provides resistance to thiopurine anticancer drugs, 6-mercaptopurine and thioguanine, and the anti-HIV drug 9-(2-phosphonylmethoxyethyl)adenine. This protein may be involved in resistance to thiopurines in acute lymphoblastic leukemia and antiretroviral nucleoside analogs in HIV-infected patients.

ABCC5 Antibody (Center) Blocking Peptide - References

Olsen, J.V., et.al., Cell 127 (3), 635-648 (2006)