

Anti-ABCB5 (RABBIT) Antibody ABCB5 Antibody Catalog # ASR5429

# **Specification**

# Anti-ABCB5 (RABBIT) Antibody - Product Information

| Host<br>Conjugate<br>Target Species<br>Reactivity<br>Clonality<br>Application<br>Application Note | Rabbit<br>Unconjugated<br>Human<br>Human<br>Polyclonal<br>WB, IHC, E, I, LCI<br>This affinity purified ABCB5 antibody has<br>been tested for use in ELISA, IHC, and<br>western blotting. Specific conditions for<br>reactivity should be optimized by the end<br>user. |
|---|--|
| Physical State<br>Buffer  | Liquid (sterile filtered)<br>0.02 M Potassium Phosphate, 0.15 M<br>Sodium Chloride, pH 7.2   |
| Immunogen   | ABCB5 antibody was prepared from whole<br>rabbit serum produced by repeated<br>immunizations with a synthetic peptide<br>corresponding to residues corresponding<br>to an internal region of human ABCB5.  |
| Preservative  | 0.01% (w/v) Sodium Azide   |

### Anti-ABCB5 (RABBIT) Antibody - Additional Information

Gene ID 340273

Other Names 340273

#### Purity

This product was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody is specific for human ABCB5 protein. A BLAST analysis was used to suggest partial cross-reactivity with ABCB5 from monkey (85% homology), rat (68% homology) and mouse (62% homology) sources. Cross-reactivity with ABCB5 from other sources has not been determined.

#### Storage Condition

Store Anti-ABCB5 at -20° C prior to opening. Aliquot antibody and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

#### **Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.



# Anti-ABCB5 (RABBIT) Antibody - Protein Information

# Name ABCB5 (HGNC:46)

#### Function

Energy-dependent efflux transporter responsible for decreased drug accumulation in multidrug-resistant cells (PubMed:<a href="http://www.uniprot.org/citations/12960149" target="\_blank">12960149</a>, PubMed:<a href="http://www.uniprot.org/citations/15205344" target="\_blank">12960149</a>, PubMed:<a href="http://www.uniprot.org/citations/15205344" target="\_blank">15205344</a>, PubMed:<a href="http://www.uniprot.org/citations/15899824" target="\_blank">15899824</a>, PubMed:<a href="http://www.uniprot.org/citations/15899824" target="\_blank">15899824</a>, PubMed:<a href="http://www.uniprot.org/citations/22306008" target="\_blank">2306008</a>). Specifically present in limbal stem cells, where it plays a key role in corneal development and repair (By similarity).

#### **Cellular Location**

Cell membrane; Multi-pass membrane protein {ECO:0000255|PROSITE-ProRule:PRU00441, ECO:0000269|PubMed:12960149}

#### **Tissue Location**

Expressed by CD133-expressing progenitor cells among epidermal melanocytes (at protein level). Widely expressed with specific expression in pigment cells. Highly expressed in several malignant tissues: highly expressed in clinical melanomas, with low expression in normal skin. In melanoma, marks malignant melanoma- initiating cells (MMIC), in which clinical virulence resides as a consequence of unlimited self-renewal capacity, resulting in inexorable tumor progression and metastasis. Also highly expressed in a number of leukemia cells. Expressed in basal limbal epithelium

# Anti-ABCB5 (RABBIT) Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### Anti-ABCB5 (RABBIT) Antibody - Images





Immunohistochemistry of ABCB5 antibody. Tissue: human liver. Fixation: formalin fixed paraffin embedded. Antigen retrieval: user optimized. Primary antibody: ABCB5 at 1:200. Secondary antibody: Peroxidase goat anti-rabbit at 1:10,000 for 45 min at RT. Localization: Moderate to strong cytoplasmic and membranous staining was observed in hepatocytes. Occasional nuclear staining was observed in hepatocytes and sinusoidal cells. Staining: antibody as precipitated red signal with a hematoxylin purple nuclear counterstain.

# Anti-ABCB5 (RABBIT) Antibody - Background

This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and is suitable for Cancer, Immunology and Nuclear Signaling research. Anti-ABCB5 Antibody is a ATP-Binding Cassette protein. ABCB5 is a novel member of the human P-glycoprotein family. It functions as a determinant of membrane potential and regulator of cell fusion in physiologic skin progenitor cells. Cell fusion is thought to contribute to tissue differentiation. ABCB5 is predominantly expressed in melanoma cells and is a novel molecular marker for a distinct subset of chemoresistant stem cell phenotype-expressing tumor cells among human epidermal melanocytes. ABCB5 is a rhodamine efflux transporter. This antibody product is intended to be used to confirm cellular localization and expression level of ABCB5. ABCB5 antibody is ideal for Cancer and Signal Transduction research.