

**ABCG1 Antibody (NT)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV11254****Specification**

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**ABCG1 Antibody (NT) - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">P45844</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

**ABCG1 Antibody (NT) - Additional Information****Gene ID** 9619

Positive Control	Western blot: mouse spleen tissue lysate, IHC: human lung carcinoma, IF: 293 cells, FACS: HepG2 cells
Application & Usage	Western blot: ~1:1000, FACS: ~1:10-1:50, IHC: ~1:50-1:100, IF: ~1:10-1:50

**Other Names**

ABCG1; ABC8; WHT1; ATP-binding cassette sub-family G member 1; ATP-binding cassette transporter 8; White protein homolog

**Target/Specificity**

ABCG1

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µl of antibody in PBS with 0.09% (W/V) sodium azide

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

ABCG1 Antibody (NT) is for research use only and not for use in diagnostic or therapeutic procedures.

## ABCG1 Antibody (NT) - Protein Information

**Name** ABCG1 ([HGNC:73](#))

**Synonyms** ABC8, WHT1

### Function

Catalyzes the efflux of phospholipids such as sphingomyelin, cholesterol and its oxygenated derivatives like 7beta- hydroxycholesterol and this transport is coupled to hydrolysis of ATP (PubMed:<a href="http://www.uniprot.org/citations/17408620" target="\_blank">17408620</a>, PubMed:<a href="http://www.uniprot.org/citations/24576892" target="\_blank">24576892</a>). The lipid efflux is ALB-dependent (PubMed:<a href="http://www.uniprot.org/citations/16702602" target="\_blank">16702602</a>). Is an active component of the macrophage lipid export complex. Could also be involved in intracellular lipid transport processes. The role in cellular lipid homeostasis may not be limited to macrophages. Prevents cell death by transporting cytotoxic 7beta- hydroxycholesterol (PubMed:<a href="http://www.uniprot.org/citations/17408620" target="\_blank">17408620</a>).

### Cellular Location

Endoplasmic reticulum membrane; Multi-pass membrane protein. Golgi apparatus membrane; Multi-pass membrane protein. Cell membrane Note=Predominantly localized in the intracellular compartments mainly associated with the endoplasmic reticulum (ER) and Golgi membranes

### Tissue Location

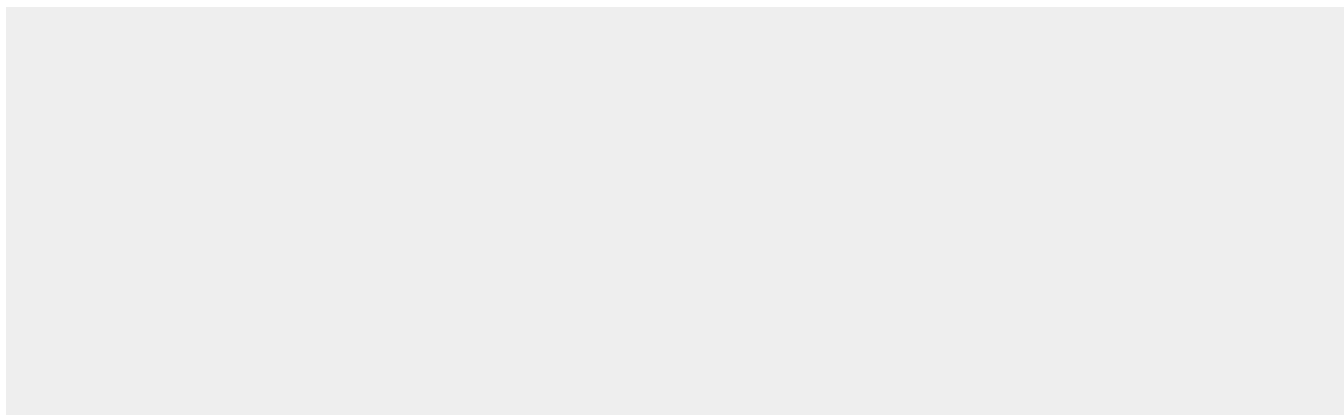
Expressed in several tissues. Expressed in macrophages; expression is increased in macrophages from patients with Tangier disease.

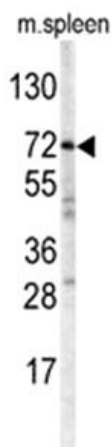
## ABCG1 Antibody (NT) - Protocols

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

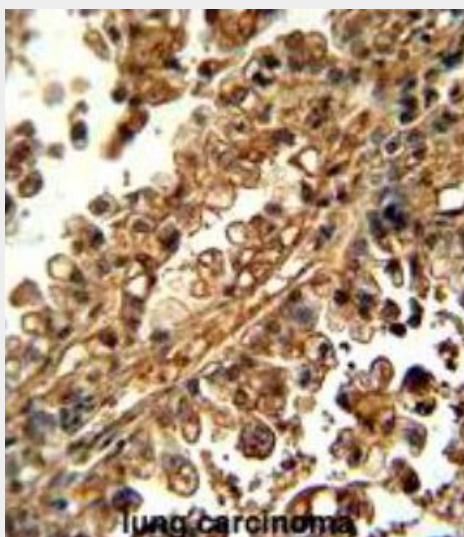
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## ABCG1 Antibody (NT) - Images

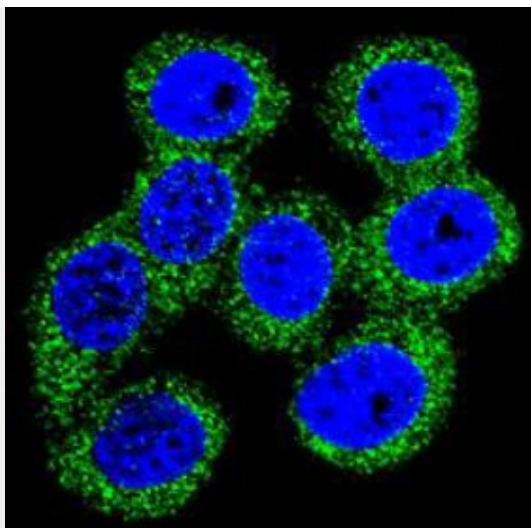




Western blot analysis of ABCG1 antibody (N-term) in mouse spleen tissue lysates (35 µg/lane). ABCG1 (arrow) was detected using the purified Pab.



ABCG1 Antibody (N-term) immunohistochemistry analysis in formalin fixed and paraffin embedded human lung carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ABCG1 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



Confocal immunofluorescent analysis of ABCG1 Antibody (N-term) with 293 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).

#### **ABCG1 Antibody (NT) - Background**

ABCG1 (ATP-binding cassette sub-family G member 1), a transporter protein primarily involved in macrophage lipid homeostasis, localizes to intracellular compartments associated with ER /Golgi membranes, and its expression is highest in macrophage-rich tissue such as spleen, lung, and thymus as well as in brain. ABCG1 form heterodimers with heterologous ABCG partners and functional heterodimerization with ABCG4 has been of great interest because brain cells, mainly neurons and astrocytes, depict high expression of both transporters. ABCG1 is involved in the export of a variety of lipids (in conjunction with ABCA1) including cholesterol and phospholipids from macrophages to HDL. Macrophage lipid export is the first step in the reverse cholesterol transport pathway that exports cholesterol from peripheral cells to circulating lipoproteins for eventual excretion via liver. Cholesterol export to lipoprotein acceptors is compromised in macrophage foam cells, one of the early hallmarks of atherosclerosis. Moreover, ABCG1 plays role in T cells/inflammation, brain lipid homeostasis and its expression increases in macrophages of Tangier disease patients.