10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

ABCG1 Antibody (NT)

Rabbit Polyclonal Antibody

Catalog # ABV11254

Specification

ABCG1 Antibody (NT) - Product Information

Application	**WB, IHC, IF**
Primary Accession	P45844
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.

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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:17408620, PubMed:24576892). The lipid efflux is ALB-dependent (PubMed:16702602). 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:17408620).

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 Cytomety
- Cell Culture

ABCG1 Antibody (NT) - Images

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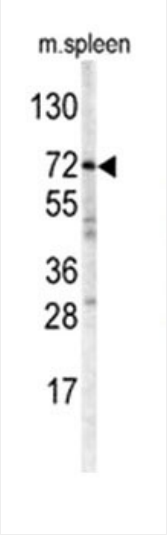
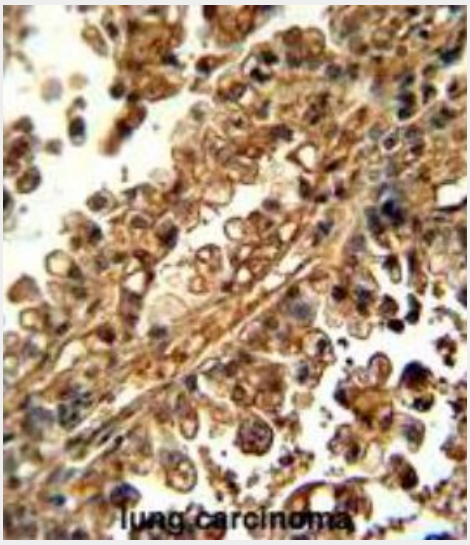


Western blot analysis of ABCG1 antibody (N-term) in mouse spleen tissue lysates (35 µg/lane). ABCG1 (arrow) was detected using the purified Pab.



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.

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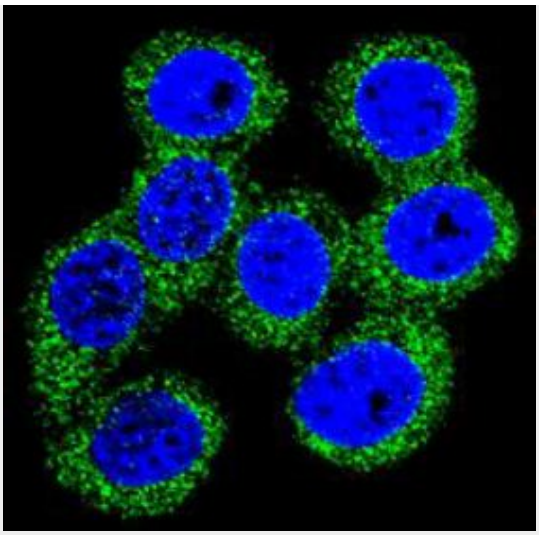

Confocal immunofluorescent analysis of ABCG1 Antibody (N-term) with 293 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).

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.