

Product datasheet for **TA336644**

ABCG1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	FC, IHC, Immunoblotting, IP, WB
Recommended Dilution:	Immunoprecipitation, In vivo assay, Flow (Intracellular), Immunohistochemistry: 1:100-1:400, Immunohistochemistry-Paraffin: 1:100-1:400, Immunoblotting, In vitro assay, Western Blot: 1:500
Reactivity:	Human, Mouse, Rat, Hamster
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	A synthetic peptide made to an internal region of human ABCG1 (between residues 300-400). [UniProt# P45844]
Formulation:	Tris-citrate/phosphate, pH 7, 0.1% Sodium azide. Store at 4C. Do not freeze.
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	ATP binding cassette subfamily G member 1
Database Link:	NP_004906 Entrez Gene 11307 Mouse Entrez Gene 85264 Rat Entrez Gene 9619 Human P45844



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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 involves 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.

Synonyms:

ABC8; WHITE1

Note:

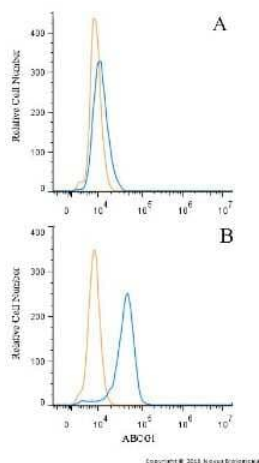
This ABCG1 antibody is useful for Immunocytochemistry/Immunofluorescence, Immunohistochemistry paraffin embedded sections and Western Blot. In Western blot mouse peritoneal macrophages treated with 22-R-hydroxycholesterol and T0901317 (stimulating ABCG1 expression) were tested, where a band was observed at ~90 kDa. Preliminary results suggest that this antibody does not appear to work in Immunoprecipitation. In vivo assay was reported in scientific literature.

Protein Families:

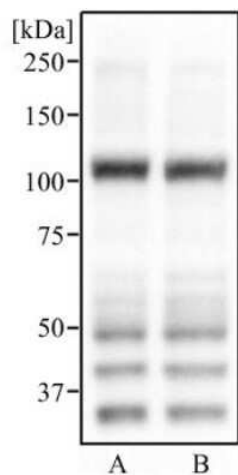
Druggable Genome, Transmembrane

Protein Pathways:

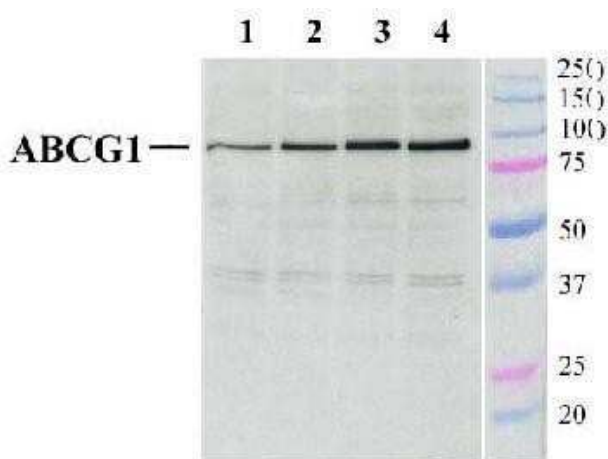
ABC transporters

Product images:

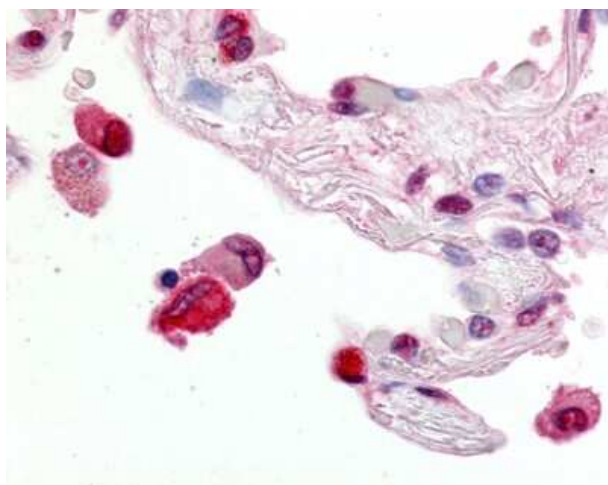
Flow (Intracellular): ABCG1 Antibody - BSA Free TA336644 - RAW 246.7 cells were either untreated (A) or serum starved for 24 hours, and then treated with 1uM TO9 for 24 hours (B). An intracellular stain was performed with TA336644 (blue) and a matched isotype control NB810-56910 (orange). Cells were fixed with 4% paraformaldehyde, following fixation, cells were permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature, followed by Goat Anti-Rabbit Dylight 550-conjugated antibody.



Western Blot: ABCG1 Antibody - BSA Free TA336644 - Raw 264.7 (A), and Raw 264.7 + 10uM T09 18 hr (B) cell lysate using ABCG1 antibody at 2 ug/mL.



Western Blot: ABCG1 Antibody - BSA Free TA336644 - Detection of ABCG1 in mouse peritoneal macrophages. Lane 1: untreated mouse peritoneal macrophages, Lane 2: 22-(R)-hydrocholesterol treated macrophages, Lane 3: T0901713 treated macrophages, Lane 4: T091713 treated macrophages.



Immunohistochemistry-Paraffin: ABCG1 Antibody - BSA Free TA336644 - Staining of human lung, alveolar macrophages.