

Catalog Number:	NB400-132SS
Background:	ATP-binding cassette (ABC) transporter genes are involved in the regulation of the amount of dietary cholesterol retained in the body. The ABC transporter ABCG1 (ABC8) is expressed on the cell surface and in intracellular compartments of cholesterol-laden macrophages and is induced in monocyte-derived macrophages during cholesterol influx mediated by acetylated low-density lipoprotein. In contrast, lipid efflux in cholesterol-laden macrophages, mediated by the cholesterol acceptor HDL(3), suppresses the expression of ABCG1.
Alternate Names:	anti-ABC8 antibody, anti-MGC34313 antibody, anti-WHITE1 antibody
Research Areas:	12,0
Immunogen:	A synthetic peptide made to an internal region of human ABCG1 (between residues 300-400).
Specificity:	The specificity of this antibody is for ABCG1.
Localization:	Cell Membrane and Cytoplasmic
Species Reactivity:	This antibody reacts with mouse and human protein. Other species have not been tested. There is 100%/100% identity/homology of the immunogen used for this production and the human protein sequence. There is 84%/89% for mouse and 78%/88% for rat.
Uses:	This antibody is useful for Western blot on mouse peritoneal macrophages treated with 22-R-hydroxycholesterol and T0901317 (stimulating ABCG1 expression). The theoretical molecular weight of ABCG1 is ~75.6 kDa, as seen by Western blot. Preliminary results suggest that this antibody may be also used for immunofluorescence on mouse ABCG1 overexpressed in HEK93 cells. It is not recommended for immunoprecipitation. * Other applications have not been tested.
Dilutions:	Suggested working dilutions * immunohistochemistry , Western Blot 1:2500 * Investigator should determine optimal working dilutions.
Packaging:	0.025 ml peptide affinity purified Rabbit antisera in tris-citrate/phosphate buffer, pH 7-8, containing 0.1% sodium azide.
Concentration:	1 mg/ml
Storage:	Store at 4C. Do not freeze.
Product Specific References:	1. Avallone, R., Demers, A., Rodrigue-Way, A., Bujold, K., Harb, D., Anghel, S., Wahli, W., Marleau, S., Ong, H., and Tremblay, A. (2006) A Growth Hormone-Releasing Peptide that Binds Scavenger Receptor CD36 and Ghrelin Receptor Up-Regulates Sterol Transporters and Cholesterol Efflux in Macrophages through a Peroxisome Proliferator-Activated Receptor {gamma}-Dependent Pathway, 20, 3165-3178. 2. Li, T., Chen, W., and Chiang, J. Y. L. (2007) PXR induces CYP27A1 and regulates cholesterol metabolism in the intestine, 48, 373-384.

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5. Wang, M.-D., Kiss, R. S., Franklin, V., McBride, H. M., Whitman, S. C., and Marcel, Y. L. (2007) Different cellular traffic of LDL-cholesterol and acetylated LDL-cholesterol leads to distinct reverse cholesterol transport pathways, 48, 633-645.

Novus Specific References:

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4. Out, R., et al. Coexistence of Foam Cells and Hypocholesterolemia in Mice Lacking the ABC Transporters A1 and G1. *Circ. Res.* Jan 2008; 102: 113-120
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apolipoprotein E metabolism in vivo. J. Lipid Res. 2008; 49: 1254-1267.
50. Delvecchio CJ, Bilan P, Nair P, et al. LXR-INDUCED REVERSE CHOLESTEROL TRANSPORT IN HUMAN AIRWAY SMOOTH MUSCLE IS MEDIATED EXCLUSIVELY BY ABCA1. Am J Physiol Lung Cell Mol Physiol 2008;90394.92008.
51. Nakanishi S, Vikstedt R, Soderlund S, et al. Serum, but not monocyte macrophage foam cells derived from low HDL-C subjects, displays reduced cholesterol efflux capacity. J Lipid Res 2008:M800196-JLR800200.

Gene Id: 9619
Reference Sequence: P45844
Related Diseases: Tangier Disease, Atherosclerosis

Image(s)