

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ABCA1 in direct ELISAs.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human ABCA1 Phe1248-Gln1350 Accession # O95477
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

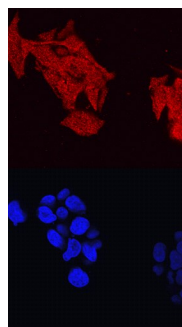
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Immunocytochemistry	5-15 µg/mL	See Below
Intracellular Staining by Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
CytoF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

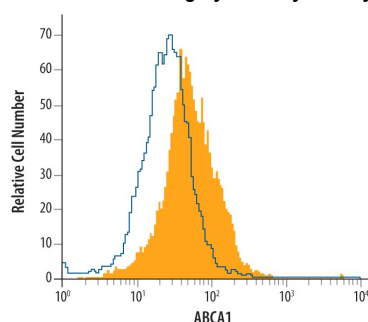
DATA

Immunocytochemistry



ABCA1 in HepG2 Human Cell Line. ABCA1 was detected in immersion fixed HepG2 human hepatocellular carcinoma cell line using Sheep Anti-Human ABCA1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7207) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red, upper panel; Catalog # NL010) and counterstained with DAPI (blue, lower panel). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Intracellular Staining by Flow Cytometry



Detection of ABCA1 in HepG2 Human Cell Line by Flow Cytometry. HepG2 human hepatocellular carcinoma cell line was stained with Sheep Anti-Human ABCA1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7207, filled histogram) or control antibody (Catalog # 5-001-A, open histogram), followed by Allophycocyanin-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # F0127). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with saponin.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

ABCA1 (ATP-binding cassette, subfamily A member 1; also cholesterol efflux regulatory protein) is a 240-280 kDa member of the ABCA family, ABC transporter superfamily of molecules. It is widely expressed, particularly by macrophages, where it participates in the transport of lipid across cell membranes. Once transported, it is passed on to tethered apoA-I to form HDL. Human ABCA1 is 2261 amino acids (aa) in length. It has up to 15 transmembrane segments with beginning and ending cytoplasmic domains and a large cytoplasmic central region. ABC transporters are found between aa 899-1311 and 1912-2144. Amino acids 2216-2221 are essential for lipid transport, and two intramolecular disulfide bonds are required for activity (Cys75-Cys309 and Cys1463/1465-Cys1477). There are three potential isoform variants. One possesses an alternative start site at Met61, while two others contain 12 aa and 123 aa substitutions for aa 241-2261, respectively. Over aa 1248-1350, human ABCA1 shares 97% aa identity with mouse ABCA1.