

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ABCA1 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2A} Clone # 768510
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human ABCA1 Phe1248-Gln1350 Accession # O95477
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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
Intracellular Staining by Flow Cytometry	0.25-1 µg/10 ⁶ cells	HepG2 human hepatocellular carcinoma cell line fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005)

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

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.

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