

## Product datasheet

# Anti-ABCA1 antibody [AB.H10] ab18180

**KO** VALIDATED

★★★★☆ 17 Abreviews 165 References 4 Images

### Overview

<b>Product name</b>	Anti-ABCA1 antibody [AB.H10]
<b>Description</b>	Mouse monoclonal [AB.H10] to ABCA1
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, Flow Cyt, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	Recombinant fragment corresponding to Human ABCA1 aa 1800-2260. Database link: <a href="#">O95477</a>
<b>Positive control</b>	testis, liver, and brain tissue (negative control: muscle tissue)
<b>General notes</b>	<p>This product was changed from ascites to tissue culture supernatant on 5<sup>th</sup> February 2018. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.05% Sodium azide Constituent: PBS
<b>Purity</b>	Protein A purified
<b>Purification notes</b>	Protein A purified from TCS

<b>Clonality</b>	Monoclonal
<b>Clone number</b>	AB.H10
<b>Isotype</b>	IgG1

## Applications

**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab18180 in the following tested applications.

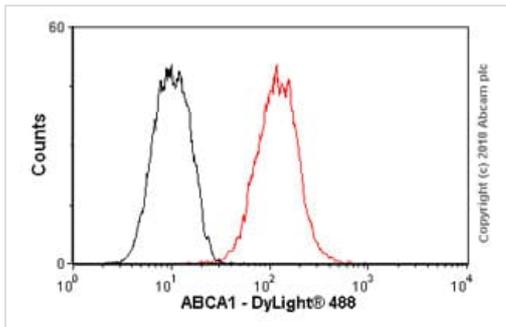
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/200. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
Flow Cyt	★★★★★ (3)	Use 1-2µg for 10 <sup>6</sup> cells. <a href="#">ab170190</a> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB	★★★★★ (12)	1/200 - 1/500. Predicted molecular weight: 254 kDa. Abcam recommends using BSA as the blocking agent and 80-100 ug of lysate.

## Target

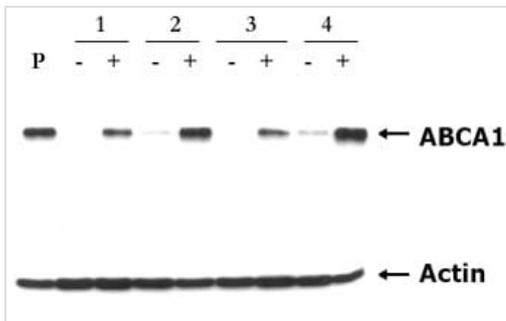
<b>Function</b>	cAMP-dependent and sulfonylurea-sensitive anion transporter. Key gatekeeper influencing intracellular cholesterol transport.
<b>Tissue specificity</b>	Widely expressed, but most abundant in macrophages.
<b>Involvement in disease</b>	Defects in ABCA1 are a cause of high density lipoprotein deficiency type 1 (HDL1) [MIM:205400]; also known as analphalipoproteinemia or Tangier disease (TGD). HDL1 is a recessive disorder characterized by absence of high density lipoprotein (HDL) cholesterol from plasma, accumulation of cholesteryl esters, premature coronary artery disease (CAD), hepatosplenomegaly, recurrent peripheral neuropathy and progressive muscle wasting and weakness. Defects in ABCA1 are a cause of high density lipoprotein deficiency type 2 (HDL2) [MIM:604091]; also known as familial hypoalphalipoproteinemia (FHA). HDL2 is inherited as autosomal dominant trait. It is characterized by moderately low HDL cholesterol, predilection toward premature coronary artery disease (CAD) and a reduction in cellular cholesterol efflux.
<b>Sequence similarities</b>	Belongs to the ABC transporter superfamily. ABCA family. Contains 2 ABC transporter domains.
<b>Domain</b>	Multifunctional polypeptide with two homologous halves, each containing an hydrophobic membrane-anchoring domain and an ATP binding cassette (ABC) domain.
<b>Post-translational modifications</b>	Phosphorylation on Ser-2054 regulates phospholipid efflux. Palmitoylation by DHHC8 is essential for membrane localization.
<b>Cellular localization</b>	Membrane.

## Images



Flow Cytometry - Anti-ABCA1 antibody [AB.H10]  
(ab18180)

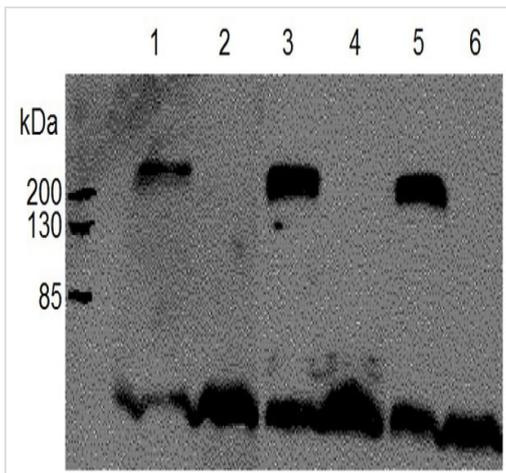
Overlay histogram showing HepG2 cells stained with ab18180 (red line). The cells were fixed with methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab18180, 2µg/1x10<sup>6</sup> cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HepG2 cells fixed with 4% paraformaldehyde/permeabilized in 0.1% PBS-Tween used under the same conditions.



Western blot - Anti-ABCA1 antibody [AB.H10]  
(ab18180)

Western blot analysis of ABCA1 induction by cholesterol (+) in human fibroblast cells from different patients (1,2,3,4).

Simultaneous blotting with anti-actin antibody was used for protein loading control. Western blot analysis of ABCA1 induction by cholesterol (+) in human fibroblast cells from different patients (1,2,3,4). Simultaneous blotting with anti-actin antibody was used for protein loading control.



Western blot - Anti-ABCA1 antibody [AB.H10]  
(ab18180)

**All lanes :** Anti-ABCA1 antibody [AB.H10] (ab18180) at 1/1000 dilution

**Lanes 1 & 3 & 5 :** Wild type mouse liver tissue lysate

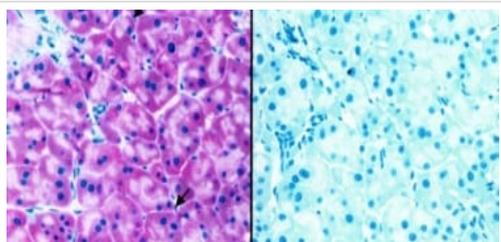
**Lanes 2 & 4 & 6 :** Knockout mouse liver tissue lysate

Lysates/proteins at 100 µg per lane.

**Predicted band size:** 254 kDa

**Observed band size:** 254 kDa

The lower bands are from the secondary anti-mouse antibody reacting to the endogenous mouse antibodies from the tissue.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ABCA1 antibody [AB.H10] (ab18180)

Immunoreactivity of pancreas tissue for ABCA1 protein. Left panel: strong immunopositivity of exocrine glandular cells of the pancreas, especially in the basal region (arrows). Interstitial microvascular cells are apparently negative. Cells within the islet were weakly positive (data not shown). Right panel: the negative control. Hematoxylin counterstain.

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