# Anti-Apolipoprotein B antibody ab7616

**Overview**

**Product name**  
Anti-Apolipoprotein B antibody

**Description**  
Goat polyclonal to Apolipoprotein B

**Host species**  
Goat

**Specificity**  
Typically less than 1% cross reactivity against other types of apoLipoprotein was detected by ELISA. This antibody reacts with human apoLipoprotein B and has negligible cross-reactivity with Type A-I, A-II, C-I, C-II, C-III, E and J apoLipoproteins.

**Tested applications**  
Suitable for: Dot blot, ELISA, IHC-P, WB, ICC/IF

**Species reactivity**  
Reacts with: Rabbit, Cow, Human

**Immunogen**  
Full length native apoLipoprotein Type B (purified).

**Positive control**  
ICC/IF: HepG2 cells.

**General notes**  
This antibody has been used to determine that atherosclerotic lesions in the human aorta contain considerable amounts of lipoproteins. These lipoproteins were observed to be complexed with components of the extracellular matrix (especially LDL and proteoglycans). The role of these matrix-lipoprotein complexes is not entirely clear, however, animal models of atherosclerosis have shown that increased cellular proliferation and increased production of extracellular matrix components occur following injury to the intimal layer of the aorta.

At least 9 distinct polymorphic forms of apolipoproteins are known. The apolipoproteins act as stabilizers of the intact lipoprotein particles. Quantitative measurements of HDL, LDL and VLDL particles in human serum are often used to estimate an individuals' relative risk of coronary heart disease. In addition, quantitative immunological measurements of certain apolipoproteins (especially A-1 and B) have been suggested to be more accurate estimators of coronary heart disease than measurements of lipoprotein particles (especially HDL and LDL). Abcam’s apo-lipoproteins are derived from human plasma by density gradient ultracentrifugation and HPLC.

**Properties**

**Form**  
Liquid

**Storage instructions**  
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.

**Storage buffer**  

<table>
<thead>
<tr>
<th>pH</th>
<th>8.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preservative</td>
<td>0.01% Sodium azide</td>
</tr>
<tr>
<td>Constituents</td>
<td>4.7625% Sodium borate, 0.146% EDTA, 0.435% Sodium chloride</td>
</tr>
</tbody>
</table>
Purity
Immunogen affinity purified

Purification notes
This product has been prepared by immunoaffinity chromatography using immobilized antigens followed by extensive cross-adsorption against other apoLipoproteins and human serum proteins to remove any unwanted specificities.

Primary antibody notes
At least 9 distinct polymorphic forms of apolipoproteins are known. The apolipoproteins act as stabilizers of the intact lipoprotein particles. Quantitative measurements of HDL, LDL and VLDL particles in human serum are often used to estimate an individuals' relative risk of coronary heart disease. In addition, quantitative immunological measurements of certain apolipoproteins (especially A-1 and B) have been suggested to be more accurate estimators of coronary heart disease than measurements of lipoprotein particles (especially HDL and LDL). Abcam's apolipoproteins are derived from human plasma by density gradient ultracentrifugation and HPLC.

Clonality
Polyclonal

Isotype
IgG

Applications
Our Abpromise guarantee covers the use of ab7616 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>Dot blot</td>
<td>1/5000 - 1/10000.</td>
<td></td>
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<tr>
<td>ELISA</td>
<td>1/2000 - 1/10000.</td>
<td></td>
</tr>
<tr>
<td>IHC-P</td>
<td>1/50 - 1/200.</td>
<td></td>
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<tr>
<td>WB</td>
<td>1/200 - 1/1000.</td>
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<tr>
<td>ICC/IF</td>
<td>Use a concentration of 5 µg/ml.</td>
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Target

Function
Apolipoprotein B is a major protein constituent of chylomicrons (apo B-48), LDL (apo B-100) and VLDL (apo B-100). Apo B-100 functions as a recognition signal for the cellular binding and internalization of LDL particles by the apoB/E receptor.

Involvement in disease
Hypobetalipoproteinemia, familial, 1
Familial ligand-defective apolipoprotein B-100
Defects in APOB associated with defects in other genes (polygenic) can contribute to hypocholesterolemia.

Sequence similarities
Contains 1 vitellogenin domain.

Post-translational modifications
Palmitoylated; structural requirement for proper assembly of the hydrophobic core of the lipoprotein particle.

Cellular localization
Cytoplasm. Secreted.

Images
Western blot - Anti-Apolipoprotein B antibody (ab7616)

Immunocytochemistry/ Immunofluorescence - Anti-Apolipoprotein B antibody (ab7616)

ab7616 stained HepG2 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1% BSA / 10% normal donkey serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab7616 at 5µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 donkey anti-goat IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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