OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850
UNITED STATES
Phone: +1-888-267-4436
Fax: +1-301-340-8606
techsupport@origene.com

OriGene Technologies GmbH
Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info-de@origene.com

BP2056HRP Polyclonal Antibody to Apolipoprotein B-48/100 (APO B-48/100) -HRP

Alternate names: Apo-B, ApoB, ApoB-100, ApoB100

Quantity: 1 ml

Concentration: 1.0 mg/ml (prior to lyophilization)

Background: Apolipoprotein B consists of a single polypeptide chain with a molecular weight of 549 kDa and is mostly synthesised in the liver. It is a major apolipoprotein of very low density, intermediate density and low density lipoproteins (LDL) as well as being a major component of lipoprotein (a). Apolipoprotein B is a ligand for the LDL receptor and elevated levels are associated with premature atherosclerosis. Normal plasma apolipoprotein B levels are around 800 mg/l.

Uniprot ID: P04114

NCBI: NP_000375.2

GeneID: 338

Host: Goat

Immunogen: Human LDL.

Format:
State: Lyophilized purified Ig fraction.
Purification: Human Apolipoprotein B-100 Sepharose Affinity Chromatography.
Buffer System: 50 mM PBS, 0.1M Sodium Chloride, pH 7.4 containing 10 mg/ml BSA as stabilizer and 0.01% Thimerosal as preservative.
Label: HRP – Horseradish Peroxidase
Reconstitution: Restore with 1.0 ml distilled water.
Centrifuge product if not completely clear after standing for 1-2 hours at room temperature.

Applications: Can be used to detect the existence of Apo B-48/100 in plasma and lipoproteins for Immunoassay and Immunoblot.
Dilution range for Immunoblot and ELISA: 1/2,500-1/10,000.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: Binds to Human Apo B-48/100.
No cross- reaction with human Apo AI, Apo AII, Apo CI, Apo CII, Apo CIII and Apo E.

Storage:

Store the lyophilized antibody at 2-8°C.
Store the antibody after reconstitution for several weeks at 2-8°C.
Prepare working dilution only prior to immediate use.
For extended storage after reconstitution, we suggest the addition of an equal volume of glycerol to make a final glycerol concentration of 50% followed by storage at -20°C. The concentration of protein and buffer salts will decrease to one-half of the original after the addition of glycerol.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

Caution:

Use of Sodium Azide as a preservative will substantially inhibit the enzyme activity of horseradish peroxidase.

General Readings:

1. Ng CJ, Bourquard N, Grijalva V, Hama S, Shih DM, Navab M, et al. Paraoxonase-2 deficiency aggravates atherosclerosis in mice despite lower apolipoprotein-B-containing lipoproteins: anti-atherogenic role for paraoxonase-2. J Biol Chem. 2006 Oct 6;281(40):29491-500. Epub 2006 Aug 4. PubMed PMID: 16891303.
2. Herscovitz H, Derksen A, Walsh MT, McKnight CJ, Gantz DL, Hadzopoulou-Cladaras M, et al. The N-terminal 17% of apoB binds tightly and irreversibly to emulsions modeling nascent very low density lipoproteins. J Lipid Res. 2001 Jan;42(1):51-9. PubMed PMID: 11160365.
3. Kitchens RL, Thompson PA, Munford RS, O'Keefe GE. Acute inflammation and infection maintain circulating phospholipid levels and enhance lipopolysaccharide binding to plasma lipoproteins. J Lipid Res. 2003 Dec;44(12):2339-48. Epub 2003 Aug 16. PubMed PMID: 12923224.
4. Lin MC, Gordon D, Wetterau JR. Microsomal triglyceride transfer protein (MTP) regulation in HepG2 cells: insulin negatively regulates MTP gene expression. J Lipid Res. 1995 May;36(5):1073-81. PubMed PMID: 7658155.
5. Reardon CA, Miller ER, Blachowicz L, Lukens J, Binder CJ, Witztum JL, et al. Autoantibodies to OxLDL fail to alter the clearance of injected OxLDL in apolipoprotein E-deficient mice. J Lipid Res. 2004 Jul;45(7):1347-54. Epub 2004 Apr 21. PubMed PMID: 15102879.
6. Schneider M, Witztum JL, Young SG, Ludwig EH, Miller ER, Tsimikas S, et al. High-level lipoprotein [a] expression in transgenic mice: evidence for oxidized phospholipids in lipoprotein [a] but not in low density lipoproteins. J Lipid Res. 2005 Apr;46(4):769-78. Epub 2005 Jan 16. PubMed PMID: 15654123.