

**Human Apolipoprotein C-III (Apo C-III) protein and antibodies**

Cat. # APOC33-A	Rabbit Anti-Human Apo C-III protein IgG, aff pure	<b>SIZE:</b> 100 ug
Cat. # APOC32-C	Purified Human Apo C-III protein control for WB	<b>SIZE:</b> 100 ul

Apolipoproteins are proteins that bind to fats (lipids). They form lipoproteins, which transport dietary fats through the bloodstream. Dietary fats are digested in the intestine and carried to the liver. Fats are also synthesized in the liver itself. Fats are stored in fat cells (adipocytes). Fats are metabolized as needed for energy in the skeletal muscle, heart, and other organs and are secreted in breast milk. Apolipoproteins also serve as enzyme co-factors, receptor ligands, and lipid transfer carriers that regulate the metabolism of lipoproteins and their uptake in tissues.

Apolipoprotein C-III is a very low density lipoprotein (VLDL) protein. APOC3 inhibits lipoprotein lipase and hepatic lipase; it is thought to inhibit hepatic uptake of triglyceride-rich particles. Thus, Apo CIII is a potential target for treatment of obesity and insulin resistance. The normal plasma concentration of Apo CIII is 8-15 mg per 100 ml. The APOA1, APOC3 and APOA4 genes are closely linked in both rat and human genomes. The A-I and A-IV genes are transcribed from the same strand, while the A-1 and C-III genes are convergently transcribed. An increase in apoC-III levels induces the development of hypertriglyceridemia.

**Source of Antigen, Antibodies, and positive controls**

<b>Antigen</b>	Purified human Apo C-III protein
<b>Ab Host/type</b>	Rabbit, Poly IgG # <b>APOC33-A</b>
<b>2-Ab</b>	<b>Goat Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)</b>
<b>-ve control IgG</b>	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

**Cat# APOC32-C**

For Western blot +ve control, purified human Apo C-III protein (Cat # **APOC32-C**) is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of **APOC32-C** for good visibility with antibody Cat # **APOC32-A**. Store at -20oC in suitable size aliquots. SDS may crystallize in cold conditions. It should redissolve by warming before taking it from the stock. It should be heated once prior to loading on gels. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the **APOC32-C** solution prior to

heating and loading on gels. This preparation is not biologically active. It is not suitable for ELISA or other applications where native protein is required. Do not freeze, thaw, or heat repeatedly.

**Form & Storage of Antibodies/Peptide Control**

**IgG purified**  
100 ul/vial solution lyophilized powder  
contains 0.05% sodium azide  
**Reconstitute powder** 100 ul PBS

**Recommended Usage**

**Western Blotting** 1-3 ug/ml using Chemiluminescence technique). Human ApoC-III s approx. ~8.75 KDa (1).

**ELISA** (1:10K-1:100K; using 50-100 ng of control peptide/well).

**Histochemistry & Immunofluorescence: not tested.** We recommend a antibody testing at 5-20 ug/ml.

**Specificity & Cross-reactivity**

The antibody reacts with human Apo C-III in ELISA and Western. Antibody crossreactivity in various species is not established. APOC32-C protein control should be used a positive control for western.

**General References:** Singh PP (2007) Intl. J. Cardiol. 130, e93-5; Karathansis SK (1986) PNAS 83, 8457-8461; Karathansis Sk (1983) Nature 304, 371-373; Protte AA (1985) DNA 3, 449-456;

\*This product is for In vitro research use only.

**Related material available from ADI**

Ant-ApoA, ApoB, ApoC, ApoE -Beta amyloid 1-40, 1-42, APP, Parkin, Synucleins ( $\alpha$ ,  $\beta$ ,  $\gamma$ ), Presenilins 1, 2, ERAB

APOC33-A-C

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