

**Human Apolipoprotein A-I (Apo A-I) protein**

□ Cat. # APOA15-N-100

Apolipoprotein A-I, Human Plasma, HDL

**SIZE:** 100 ug

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 A-I is a protein that in humans is encoded by the APOA1 gene. It has a specific role in lipid metabolism. Apolipoprotein A-I is the major protein component of high density lipoprotein (HDL) in plasma. The protein promotes cholesterol efflux from tissues to the liver for excretion. It is a cofactor for lecithin cholesterol acyltransferase (LCAT) which is responsible for the formation of most plasma cholesteryl esters. ApoA-I was also isolated as a prostacyclin (PGI<sub>2</sub>) stabilizing factor, and thus may have an anticlotting effect.[3] Defects in the gene encoding it are associated with HDL deficiencies, including Tangier disease, and with systemic non-neuropathic amyloidosis. 75% of Apo A in HDL is Apo AI. Levels of Apo AI are inversely related to the risk of coronary heart disease. Apo AI is also thought to activate LCAT (lecithin cholesterol acyl transferase). In normal plasma, Apo AI levels range from 90-130 mg per 100 ml.

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

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Human Apo A-I was purified from plasma (>95%, ~28 Kda). It is supplied lyophilized in a buffer (10 mM NaHCO<sub>3</sub>, pH 7.4). All human derived material has been tested negative for HIV, HCV, and HbSAg. Nevertheless, all precautions should be taken and samples be treated as potentially hazardous. Store powder at -20oC. Reconstitute powder at 100 ug/ml or higher in PBS or other buffers. Store at -2oC in suitable aliquots. Stable for up to 6 months.

**Recommended Usage**

**Western Blotting use at 100-500 ng per lane and detect with appropriate antibodies (#APOA11-S).** Human ApoA-I s approx. ~28 KDa (1).

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

**General References:** Belsow GL (1982) PNAS 79, 8681-8685; Yui Y (1988) J. Clin. Invest. 82, 803-807; Solomon A (2006) Arthritis Rheum. 54, 3545-3550;

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

**Related material available from ADI**

Catalog#	ProdDescription
APOC11-A	Anti-Human Apolipoprotein C-I IgG, aff pure
APOC11-C	Human Apolipoprotein C-I protein control for WB
APOC15-N-100	correct cat# is APOC11-C; Human Apolipoprotein C-I protein control for WB
APOC15-N-100	Apolipoprotein C-I, Human Plasma, VLDL
APOC21-S	Anti-Human Plasma Apolipoprotein C-II antiserum
APOC22-A	Anti-Human Apolipoprotein C-II IgG, aff pure
APOC22-C	Human Apolipoprotein C-II protein control for WB
APOC25-N-50	Apolipoprotein C-II, Human Plasma, VLDL
APOC32-A	Anti-Human Apolipoprotein C-III IgG, aff pure
APOC32-C	Human Apolipoprotein C-III protein control for WB
APOC35-N-50	Apolipoprotein C-III, Human Plasma, VLDL
Anti-ApoA, ApoB, ApoC, ApoE	-Beta amyloid 1-40, 1-42, APP, Parkin, Synucleins (α, β, γ), Presenilins 1, 2, ERAB

APOA15-N-100

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