ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Human Apolipoprotein A-I (Apo A-I) protein and antibodies

□ Cat. # APOA11-S	Rabbit Anti-Human Apo A-I protein antiserum	**SIZE**: 100 ul
□ Cat. # APOA11-C	Purified Human Apo A-I protein control for WB	**SIZE**: 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 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 cholesterolacyltransferase (LCAT) which is responsible for the formation of most plasma cholesteryl esters. ApoA-I was also isolated as a prostacyclin (PGI2) 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 tranferase). In normal plasma, Apo AI levels range from 90-130 mg per 100 ml.

Source of Antigen, Antibodies, and positive controls

Antigen	Purified human Apo A-I protein
Ab Host/type	Rabbit, Poly antiserum # **APOA11-S**
2-Ab	**Goat Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)**
-ve control IgG	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Cat# **APOA11-C**

For Western blot +ve control, purified human Apo A-I protein (Cat # **APOA11-C**) is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of **APOA11-C** for good visibility with antibody Cat # **APOA11**-S or #APOA12-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 **APOA11**-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

Antiserum un 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 ApoA-I s approx. ~28KDa (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 A-I in ELISA and Western. Antibody crossreactivity in various species is not established. #APOA11-C protein control should be used a positive control for western.

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

Ant-ApoA, ApoB, ApoC, ApoE -Beta amyloid 1-40, 1-42, APP, Parkin, Synucleins (α, β, γ), Presenilins 1, 2, ERAB

APOA11-A-C 100317A

Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, San Antonio, TX 78244, USA; **Email**: service@4adi.com
☎ (800) 786-5777; (210) 561-9515; **Fax**: (210) 561-9544; **Web Site**: www.4adi.com