

# Human ApoA1 Protein (Fc Tag)

Catalog Number: 10686-H02H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

Apolipoprotein A-I

### Protein Construction:

A DNA sequence encoding the pro-form of human APOA1 (CAA26097.1) (Met 1-Gln 267) was fused with Fc region of human IgG1 at the C-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** ≥ 95 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC.

### Bio Activity:

**1. Measured by its binding ability in a functional ELISA. 2. Immobilized Human ApoA1 at 10 µg/mL (100 µl/well) can bind? biotinylated human SCARB1, The EC<sub>50</sub> of biotinylated human SCARB1 is 0.37 µg/mL.**

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Asp 25

### Molecular Mass:

The recombinant human APOA1/Fc is a disulfide-linked homodimeric protein. The reduced monomer consists of 481 amino acids migrates as approximately 55 kDa band in SDS-PAGE under reducing conditions as predicted.

### Formulation:

Lyophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

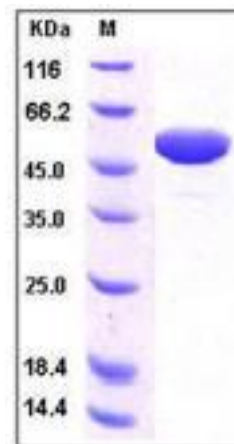
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Apolipoprotein A1 (APOA1) is a member of the apolipoprotein family whose members are proteins bind with lipids and form lipoproteins to transport these oil-soluble lipids such as fat and cholesterol through lymphatic and circulatory system. APOA1 is the main component of high density lipoprotein (HDL) in plasma and is involved in the esterification of cholesterol as a cofactor of lecithin-cholesterol acyltransferase (LCAT) which is responsible for the formation of most plasma cholesteryl esters, and thus play a major role in cholesterol efflux from peripheral cells. As a major component of the HDL complex, APOA1 helps to clear cholesterol from arteries. APOA1 is also characterized as a prostacyclin stabilizing factor, and thus may have an antithrombotic effect. Defects in encoding gene may result in HDL deficiencies, including Tangier disease, and with systemic non-neuropathic amyloidosis. Men carrying a mutation may develop premature coronary artery disease.

## References

1. Toptas B, *et al.* (2011) Comparison of lipid profiles with APOA1 MspI polymorphism in obese children with hyperlipidemia. *In Vivo.* 25(3): 425-30.
2. Haase CL, *et al.* (2011) Mutation in APOA1 predicts increased risk of ischaemic heart disease and total mortality without low HDL cholesterol levels. *J Intern Med.* 270(2): 136-46.
3. Wu Z, *et al.* (2011) The low resolution structure of ApoA1 in spherical high density lipoprotein revealed small angle neutron scattering. *J Biol Chem.* 286(14): 12495-508.

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