Mouse ApoA1 Protein (His Tag)

Catalog Number: **50918-M08H**

General Information

Gene Name Synonym:

1-Sep; 2-Sep; 42248; 42249; Alp-1; apo-AI; Apoa-1; apoA-I; Brp-14; Ltw-1; Lvtw-1

Protein Construction:

A DNA sequence encoding the mouse ApoA1 (Q00623) (Met1-Gln264) was expressed with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: ≥ 94 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC.

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 ℃

Predicted N terminal: Trp 19

Molecular Mass:

The recombinant mouse ApoA1 comprises 257 amino acids and has a predicted molecular mass of 30.2 kDa. The apparent molecular mass of the protein is approximately 27-31 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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℃ to -80℃ 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 translate 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 anticlotting 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.