Human APOL1 / apolipoprotein L1 Protein (His Tag)

Catalog Number: 13910-H08B

General Information

Gene Name Synonym:

APO-L; APOL; APOL-I; APOL1; FSGS4

Protein Construction:

A DNA sequence encoding the human APOL1 (Q2KHQ6) (Met1-Leu398) was expressed with a C-terminal polyhistidine tag.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: ≥ 80 % as determined by SDS-PAGE.

Endotoxin:

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

Predicted N terminal: Glu 28

Molecular Mass:

The secreted recombinant human APOL1 consists of 382 amino acids and predicts a molecular mass of 42.53 KDa. The apparent molecular mass of the protein is approximately 44 KDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile 20mM Tris, 300mM NaCl, 10%Glycerol, 0.5mM TCEP, 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

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

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

APOL1, also known as apolipoprotein L1, is a minor apoprotein component of HDL (High-density lipoprotein) or 'good cholesterol' which is synthesized in the liver and also in many other tissues, including pancreas, kidney, and brain. APOL1 belongs to the apolipoprotein L family. It may play a role in lipid exchange and transport throughout the body. It may also participate in reverse cholesterol transport from peripheral cells to the liver. Defects in APOL1 are the cause of focal segmental glomerulosclerosis type 4 (FSGS4). It is a renal pathology defined by the presence of segmental sclerosis in glomeruli and resulting in proteinuria, reduced glomerular filtration rate and edema. Renal insufficiency often progresses to end-stage renal disease, a highly morbid state requiring either dialysis therapy or kidney transplantation.

References

1.Genovese G, *et al.* (2010) Association of Trypanolytic ApoL1 Variants with Kidney Disease in African-Americans. Science. 329 (5993): 841-5. 2.Tzur S, *et al.* (2010) Missense mutations in the APOL1 gene are highly associated with end stage kidney disease risk previously attributed to the MYH9 gene. Human Genetics 128 (3): 345-50. 3.Hu CA, *et al.* (2012) Human apolipoprotein L1 (ApoL1) in cancer and chronic kidney disease. FEBS Lett. 586 (7): 947-55.