Rat Apolipoprotein H / APOH Protein (His Tag)

Catalog Number: **80701-R08H**

General Information

Gene Name Synonym:

APOH

Protein Construction:

A DNA sequence encoding the rat Apoh (NP_001009626.1) (Met1-Cys345) was expressed with a polyhistidine tag at the C-terminus.

Source: Rat

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE.

Endotoxin:

< 1.0 EU per μg 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: Gly 20

Molecular Mass:

The recombinant rat Apoh consists 337 amino acids and predicts a molecular mass of 37.9 kDa.

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:

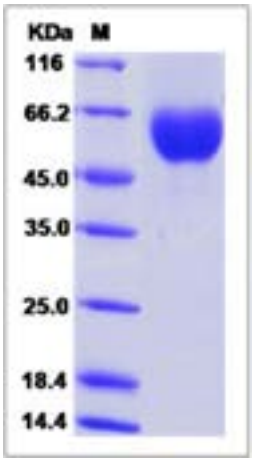
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Apolipoprotein H (APOH), also known as Beta-2-glycoprotein 1, Activated protein C-binding protein, B2GPI, and B2G1, is a glycoprotein synthesized by liver cells and it is present in the blood associated with plasma lipoproteins. It is an essential cofactor for the binding of certain antiphospholipid antibodies (APA) to anionic phospholipid. APOH binds to various kinds of negatively charged substances such as heparin, phospholipids, and dextran sulfate. APOH may prevent activation of the intrinsic blood coagulation cascade by binding to phospholipids on the surface of damaged cells. APOH appears to completely inhibit serotonin release by the platelets and prevents subsequent waves of the ADP-induced aggregation. The activity of APOH appears to involve the binding of agglutenating, negatively charged compounds, and inhibits agglutenation by the contact activation of the intrinsic blood coagulation pathway. APOH causes a reduction of the prothrombinase binding sites on platelets and reduces the activation caused by collagen when thrombin is present at physiological serum concentrations of APOH suggesting a regulatory role of APOH in coagulation. APOH plasma concentrations are strongly associated to metabolic syndrome alterations and vascular disease in type 2 diabetic and could be considered as a clinical marker of cardiovascular risk. APOH is found on several classes of lipoproteins, and is involved in the activation of lipoprotein lipase in lipid metabolism. This single-chain glycoprotein also has been implicated in several physiologic pathways including coagulation and the production of hypertension, which are related to the pathogenesis of primary cerebral hemorrhage (PICH).

References

1.Kamboh MI, *et al.* (1998) Genetics of apolipoprotein H (beta2-glycoprotein I) and anionic phospholipid binding. Lupus. 7 Suppl 2: S10-3. 2.Singh P, *et al.* (2002) Genetics of apolipoprotein H (beta2-glycoprotein I) polymorphism in India. Ann Hum Biol. 29(3): 247-55. 3.Xia J, *et al.* (2004) Apolipoprotein H gene polymorphisms and risk of primary cerebral hemorrhage in a Chinese population. Cerebrovasc Dis. 17(2-3): 197-203.