Recombinant Mouse Apolipoprotein H/ApoH
Catalog Number: 6575-AH

**DESCRIPTION**

Source  
Mouse myeloma cell line, NS0-derived
Gly20-Cys345, with a C-terminal 6-His tag
Accession # Q01339

N-terminal Sequence  
Gly20

Structure / Form  
Monomer

Predicted Molecular Mass  
37.5 kDa

**SPECIFICATIONS**

SDS-PAGE  
60-65 kDa, reducing conditions

Activity  
Measured by its binding ability in a functional ELISA.
When Recombinant Mouse Apolipoprotein H/ApoH is immobilized at 2 μg/mL, 100 μL/well, the concentration of Recombinant Mouse LDL R (Catalog # 2255-LD) that produces 50% of the optimal binding response is found to be approximately 0.05-0.25 μg/mL.

Endotoxin Level  
<0.10 EU per 1 μg of the protein by the LAL method.

Purity  
>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation  
Lyophilized from a 0.2 μm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

Reconstitution  
Reconstitute at 500 μg/mL in PBS.

Shipping  
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage  
Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

**BACKGROUND**

Apolipoprotein H (ApoH), also known as β2-Glycoprotein I/β2-GPI, is a 50 kDa variably glycosylated member of the complement control superfamily of proteins (1, 2). Mature mouse ApoH consists of four tandem Sushi/SCR repeats followed by one Sushi-like repeat (3, 4). Mature mouse ApoH shares 76% and 42% aa sequence identity with human and rat ApoH, respectively. Hepatocyte-derived ApoH binds directly to negatively charged phospholipids (5). It circulates as a component of lipoprotein particles and as a lipid-free serum protein (6). ApoH also associates with liposomes and apoptotic cell debris, thereby enabling their renal clearance via Megalin uptake (7, 8). Circulating levels of ApoH are positively correlated with triglyceride-rich lipoprotein (VLDL) components in type II diabetes (9).

ApoH inhibits thrombosis by blocking the activation of Coagulation Factor XI but also shows procoagulant activity by inhibiting the activation of Protein C (10, 11). ApoH can be cleaved by Plasmin at Lys317-Thr318, an action that is enhanced by heparin (12, 13). ApoH cleavage reduces its ability to bind phospholipids and inhibit Factor XI activation but confers the ability to bind Plasminogen (10, 12, 14). Cleaved ApoH also demonstrates antiangiogenic activity, whereas intact ApoH does not (14). The production of antibodies against ApoH is a hallmark of Antiphospholipid Syndrome (APS), an autoimmune disorder that leads to hypercoagulability and recurrent miscarriages (15). ApoH binds to the surface antigen of Hepatitis B Virus and is associated with the development of HBV-induced hepatocellular carcinoma (6, 16).

References: