**Proteins** 



# **Product** Data Sheet

# Apolipoprotein E/APOE Protein, Mouse (HEK293, Fc)

Cat. No.: HY-P78239

Synonyms: Apolipoprotein E; Apo-E; APOE; apolipo E

Species: **HEK293** Source:

P08226 (E19-Q311) Accession:

Gene ID: 11816 62-66 kDa Molecular Weight:

### **PROPERTIES**

AA	Seq	uence	
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EGEPEVTDQL EWQSNQPWEQ ALNRFWDYLR WVQTLSDQVQ EELQSSQVTQ  $\mathsf{E}\;\mathsf{L}\;\mathsf{T}\;\mathsf{A}\;\mathsf{L}\;\mathsf{M}\;\mathsf{E}\;\mathsf{D}\;\mathsf{T}\;\mathsf{M}$ TEVKAYKKEL EEQLGPVAEE  $\mathsf{A} \; \mathsf{A} \; \mathsf{Q} \; \mathsf{A} \; \mathsf{R} \; \mathsf{L} \; \mathsf{G} \; \mathsf{A} \; \mathsf{D} \; \mathsf{M}$ TRARLGKEVQ EDLRNRLGQY RNEVHTMLGQ STEEIRARLS LAVYKAGARE THLRKMRKRL  $\mathsf{M}\;\mathsf{R}\;\mathsf{D}\;\mathsf{A}\;\mathsf{E}\;\mathsf{D}\;\mathsf{L}\;\mathsf{Q}\;\mathsf{K}\;\mathsf{R}$ GAERGVSAIR ERLGPLVEQG RQRTANLGAG AAQPLRDRAQ AFGDRIRGRL EEVGNQARDR LEEVREHMEE VRSKMEEQTQ QIRLQAEIFQ ARLKGWFEPI VEDMHRQWAN LMEKIQASVA

TNPIITPVAQ ENQ

## **Appearance**

Lyophilized powder.

### **Formulation**

Lyophilized from a 0.22 μm filtered solution in 20 mM PB, 150 mM NaCl, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.

#### **Endotoxin Level**

<1 EU/µg, determined by LAL method.

# Reconsititution

It is not recommended to reconstitute to a concentration less than 100  $\mu g/mL$  in ddH<sub>2</sub>O.

# Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

# Shipping

Room temperature in continental US; may vary elsewhere.

# **DESCRIPTION**

#### Background

APOE is an apolipoprotein that plays a crucial role in lipid transport between organs through plasma and interstitial fluids. It is a key component of plasma lipoproteins and is involved in their production, conversion, and clearance. APOE interacts with various lipoprotein particles, including chylomicrons, chylomicron remnants, VLDL, and IDL, with a preference for HDL. Additionally, it binds to a range of cellular receptors, such as LDL receptor/LDLR and VLDL receptor/VLDLR, facilitating the

cellular uptake of APOE-containing lipoproteins. APOE also possesses heparin-binding activity and binds to heparan-sulfate proteoglycans on cell surfaces, supporting the capture and receptor-mediated uptake of APOE-containing lipoproteins. Notably, APOE forms a homotetramer and interacts functionally with ABCA1 in the biogenesis of HDLs. It may also interact with APP/A4 amyloid-beta peptide, MAPT, MAP2, and secreted SORL1 in the cerebrospinal fluid, as well as PMEL to induce fibril nucleation on intraluminal vesicles.

Caution: Product has not been fully validated for medical applications. For research use only.

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Page 2 of 2 www.MedChemExpress.com