

SPARC Protein, Human (HEK293, His)

Cat. No.:	HY-P71094
Synonyms:	SPARC; Basement-Membrane Protein 40; BM-40; Osteonectin; ON; Secreted Protein Acidic and Rich in Cysteine; SPARC; ON
Species:	Human
Source:	HEK293
Accession:	P09486 (A18-I303)
Gene ID:	6678
Molecular Weight:	Approximately 38.0-46 kDa due to the glycosylation

PROPERTIES

AA Sequence	<pre> A P Q Q E A L P D E T E V V E E T V A E V T E V S V G A N P V Q V E V G E F D D G A E E T E E E V V A E N P C Q N H H C K H G K V C E L D E N N T P M C V C Q D P T S C P A P I G E F E K V C S N D N K T F D S S C H F F A T K C T L E G T K K G H K L H L D Y I G P C K Y I P P C L D S E L T E F P L R M R D W L K N V L V T L Y E R D E D N N L L T E K Q K L R V K K I H E N E K R L E A G D H P V E L L A R D F E K N Y N M Y I F P V H W Q F G Q L D Q H P I D G Y L S H T E L A P L R A P L I P M E H C T T R F F E T C D L D N D K Y I A L D E W A G C F G I K Q K D I D K D L V I </pre>
Biological Activity	Measured by its ability to inhibit the cell growth of Mv-1-Lu mink lung epithelial cells. The ED ₅₀ for this effect is typically 2.503 µg/mL, corresponding to a specific activity is 400 U/mg.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.2 or PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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 a crucial protein involved in the transport of lipids between organs via plasma and interstitial fluids. It plays a vital
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role in the production, conversion, and clearance of plasma lipoproteins. APOE interacts with various lipoprotein particles, including chylomicrons, chylomicron remnants, VLDL, and IDL, with a particular preference for HDL. It also binds to numerous cellular receptors, such as LDLR and VLDLR, facilitating the uptake of APOE-containing lipoproteins by cells. Additionally, APOE possesses heparin-binding activity and binds to heparan-sulfate proteoglycans on cell surfaces, aiding in the capture and receptor-mediated uptake of APOE-containing lipoproteins. Furthermore, APOE forms a homotetramer and may interact with ABCA1 in HDL biogenesis. It can also interact with APP/A4 amyloid-beta peptide, MAPT, MAP2, secreted SORL1, and PMEL for various physiological processes.

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

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