

ApoE2 Human E. coli

Product Data Sheet

Type: Recombinant	Cat. No.:	
Source: E. coli	RBG100610100	(100 µg)
Species: Human	RBG100610500	(500 µg)
Other names: Apolipoprotein E2	RBG100611000	(1mg)

Introduction to the Molecule

ApoE belongs to a group of proteins that bind reversibly with lipoprotein and play an important role in lipid metabolism. In addition to facilitating solubilization of lipids, these proteins help to maintain the structural integrity of lipoproteins, serve as ligands for lipoprotein receptors and regulate the activity of enzymes involved in lipid metabolism. Significant quantities of ApoE are produced in liver and brain and to some extent in almost every organ. ApoE is an important constituent of all plasma lipoproteins. It's in-teraction with specific ApoE receptor enables uptake of chylomicron remnants by liver cells, which is an essential step during normal lipid metabolism. It also binds with the LDL receptor (apo B/E). Defects in ApoE are a cause of hyperlipoproteinemia type III. ApoE exists in three major isoforms; E2, E3 and E4, which differ from one another by a single amino-acid substitution. Compared with E3 and E4, E2 exhibits the lowest receptor binding affinity. E2 allele carriers had significantly lower levels of total cholesterol, low-density lipoprotein cholesterol and non-high-density lipoprotein cholesterol, as well as increased ApoE levels. Recombinant human ApoE2 is a 34.3 kDa protein containing 300 amino acid residues.

Research topic

Cardiovascular disease

Amino Acid Sequence

MKVEQAVETE PEPELRQOTE WQSGQRWELA LGRFWDYLRW VQTLSEQVQE ELLSSQVTQE LRALMDETMK ELKAYKSELE
 EQLTPVAEET RARLSKELQA AQARLGADME DVCGRVQYR GEVQAMLGQS TEELRVRLAS HLRKLRKRLR RDADDLQKCL
 AVYQAGAREG AERGLSAIRE RLGPLVEQGR VRAATVGS LA GQPLQERAQA WGERLRARME EMGSRTDRDL DEVKEQVAEV
 RAKLEEQAQQ IRLQAEAFQA RLKSWFEPLV EDMQRQWAGL VEKVQAAVGT SAAPVPSDNH

Source

E. coli

Purity

90%

Biological Activity

Data not available.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in 20 mM Sodium Phosphate, pH 7.8 + 0.5 mM DTT to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C

Storage, Stability/Shelf Life

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