DATASHEET

Recombinant Human ApoE3

CAT. NO. ARP6743

KEY FEATURES

Target	ApoE3	Source/Expression System	E.coli
Reactivity	Human	Aapplication	SDS-PAGE
Abbreviation	rHuApoE3	Synonyms	Apoprotein E3

BACKGROUND

ApoE is a major protein component of serum LDL, VLDL, HDL, and chylomicrons. It is produced predominantly by hepatocytes, macrophages, and nonneuronal cells in the CNS. ApoEcontaining particles transport triglycerides and cholesterol to peripheral tissues for cellular uptake and catabolism. Mature human ApoE is a 34kDa glycoprotein that consists of an Nterminal domain composed of four bundled αhelices, plus a hinge region and an extended αhelical C-terminal domain. Its amphipathic nature and flexible structure enable it to adopt dramatically different conformations upon lipid association. ApoE is monomeric in lipid particle, although it forms Homotetramer when lipid free. Mature human ApoE shares 71% aa sequence identity with mouse and rat ApoE. ApoE is an important constituent of all plasma lipoproteins. Its interaction 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. E3 is the most common isoform and is present in 40-90% of the population. Recombinant Human ApoE3 is a 34.2kDa protein containing 299 amino acid residues.

PRODUCT OVERVIEW

Molecular Weight	Approximately 34.2 kDa, a single non-glycosylated polypeptide chain containing 299 amino acids.
Accession	P02649 Lys19-His317
A.A. Sequence	KVEQAVETEPEPELRQQTEWQSGQRWELALGRFWDYLRWVQTLSEQVQEELLSSQVTQELRALMDETMKELKAYK SELEEQLTPVAEETRARLSKELQAAQARLGADMEDVCGRLVQYRGEVQAMLGQSTEELRVRLASHLRKLRKRLLRDA DDLQKRLAVYQAGAREGAERGLSAIRERLGPLVEQGRVRAATVGSLAGQPLQERAQAWGERLRARMEEMGSRTRD RLDEVKEQVAEVRAKLEEQAQQIRLQAEAFQARLKSWFEPLVEDMQRQWAGLVEKVQAAVGTSAAPVPSDNH
Purity	＞96% by SDS-PAGE or HPLC.
Biological Activity	Fully biologically active when compared to standard. Determined by its ability to stimulate the proliferation of human SH-SY5Y cells, The ED50 for this effect is ≤ 8.75 ng/ml. corresponding to a specific activity is ≥1.15×10^5 units/mg
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM PB, with 150 mM NaCl, pH 7.4.
Appearance	Sterile filtered White lyophilized (freeze-dried) powder.
Endotoxin	< 0.1 EU/μg of rHuApoE3 protein as determined by LAL method.
Reconstitution	Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.

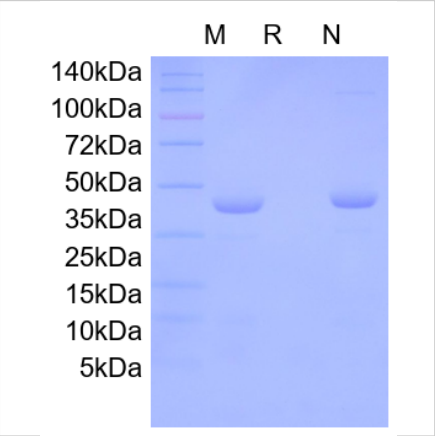
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STORAGE

For long term storage, the product should be stored ≤ -20°C. Please avoid repeated freeze-thaw cycles after reconstitution. 36 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.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.