

Recombinant Human Apolipoprotein E3 (ApoE3)

Recombinant Protein

Product Information

Product No.: A218

Storage: -20°C

Product Description

Background:

Apolipoprotein E (ApoE) is a 299 amino acid protein, produced by the liver and circulating macrophages, that is a constituent of every plasma lipoprotein except the smallest low density lipoproteins (LDL). It is a key player in the recycling and redistribution of lipids and cholesterol. ApoE is a ligand with a high affinity for low density lipoprotein receptors (LDLR). It regulates the activity of enzymes that metabolize lipids and also makes lipids soluble. Mice and humans that lack ApoE cannot remove excess lipoproteins from the plasma and have an increased risk of atherosclerosis. Defective binding of ApoE to its receptors will lead to accumulation of cholesterol-rich lipoprotein particles in the plasma; this is the cause of type III hyperlipoproteinemia. There are three main isoforms of ApoE all products of alleles at a single gene locus: E2 (Cys112, Cys158), E3 (C112, Arg158), and E4 (Arg112, Arg158). ApoE3 is the most common isoform and is present in 40-90% of the population.

Known Reactivity Species:

Human

Expression Host:

E. coli Cells

Formulation

This lyophilized protein is 0.2 µm sterile filtered and lyophilized from 20 mM Sodium Phosphate, Ph 7.8 + 0.5 mM DTT.

Purity

>90% by SDS Page and HPLC

Endotoxin

<1.0 EU/µg as determined by the LAL method

Storage and Stability

The lyophilized protein should be stored desiccated at -20°C. The reconstituted protein can be stored for at least one week at 4°C. For long-term storage of the reconstituted protein, aliquot into working volumes and store at -20°C in a manual defrost freezer.

Avoid Repeated Freeze Thaw Cycles.

Country of Origin

USA

References

- 1) Sennlaub, F. *et al.* (2015) *J Neurosci.* 35(40):13568–76. [PubMed](#)
- 2) Yang, H. *et al.* (2012) *PLoS One.* 7(9):e44430. [PubMed](#)