重组人APOE蛋白

Recombinant APOE protein (His tag)

目录号 Catalog Number	537412
同用名 Synonyms	Apo-E
种属 Species	Human
表达系统 Expression System	E. coli
蛋白编号 Accession	P02649
分子量 Molecular Weight	Predictes a molecular mass of 33.22 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band.

产品信息

序列区间 Sequence Region	42-317
性状 Form	冻干粉末 Lyophilized powder
组分 Formulation	Lyophilized from sterile PBS, pH 7.4
纯度 Purity	>86%, by SDS-PAGE with Coomassie Brilliant Blue staining.
内毒素 Endotoxin	Not tested.
活性 Activity	Not tested.
稳定性 Stability	Samples are stable for up to twelve months from date of receipt at -70℃
蛋白构建 Protein Construction	DNA encoding 42-317 aa (P02649) were fused with 6His tag.

保存与运输

复溶 Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
储存 Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
运输 Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

功能描述

研究背景 Background	Recombinant Human Apolipoprotein E (Apo-E) Fragment (residues 42-317) is a high-purity, stable protein designed for structural and biochemical research. This 276-amino acid fragment retains key functional characteristics of the full-length Apo-E, making it an ideal tool for studying lipid transport mechanisms, lipoprotein interactions, and receptor binding activities in vitro. Apolipoprotein E (Apo-E), encoded by the APOE gene in humans, is a critical apolipoprotein that mediates lipid transport through association with various lipoprotein particles including chylomicrons, VLDL, IDL, and HDL. It functions as a core component in lipoprotein production, conversion, and clearance, facilitating lipid distribution between organs via plasma and interstitial fluids. Apo-E interacts with multiple cellular receptors including LDLR, LRP1, LRP2, LRP8, and VLDLR, enabling cellular uptake of lipoprotein particles. The protein also exhibits heparin-binding activity, supporting capture by cell surface heparan-sulfate proteoglycans. Beyond its central role in systemic lipid homeostasis, Apo-E participates in reverse cholesterol transport through HDL biogenesis and clearance, contributes to lipid transport in the central nervous system, and is involved in immune responses. The protein is primarily secreted and associates with lipoprotein particles in plasma, with lipid-poor oligomeric forms binding to extracellular matrix components in a calcium- and heparan-sulfate-dependent manner.