abcam

Product datasheet

Recombinant Human Apolipoprotein E4 ab123766

製品の詳細

製品名	Recombinant Human Apolipoprotein E4
精製度	> 90 % SDS-PAGE. Purity is greater than 90% as determined by HPLC and SDS-PAGE. Endotoxin level is <0.1 ng per µg of Apolipoprotein E4.
エンドトキシン・レベル	< 1.000 Eu/µg
発現系	Escherichia coli
アクセッション番号	**P02649**
タンパク質長	Full length protein
Animal free	No
由来	Recombinant
生物種	Human
配列	MKVEQAVETEPEPELRQQTEWQSGQRWELALGRFWDYLRWVQ TLSEQVQE ELLSSQVTQELRALMDETMKELKAYKSELEEQLTPVAEETRA RLSKELQA AQARLGADMEDVRGRLVQYRGEVQAMLGQSTEELRVRLASHL RKLRKRLL RDADDLQKRLAVYQAGAREGAERGLSAIRERLGPLVEQGRVR AATVGSLA GQPLQERAQAWGERLRARMEEMGSRTRDRLDEVKEQVAEVRA KLEEQAQQ IRLQAEAFQARLKSWFEPLVEDMQRQWAGLVEKVQAAVGTSA APVPSDNH
予測される分子量	34 kDa
領域	19 to 317

特性

Our **Abpromise guarantee** covers the use of **ab123766** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション	SDS-PAGE
	HPLC

製品の状態	Lyophilized
備考	This product is manufactured by BioVision, an Abcam company and was previously called 4699 ApoE4, human recombinant. 4699-100 is the same size as the 100 µg size of ab123766.

前処理および保存

保存方法および安定性	Shipped at 4°C. Store at -20°C. Store under desiccating conditions. pH: 7.40 Constituents: 10.269% Trehalose, 0.727% Dibasic monohydrogen potassium phosphate, 0.248% Monobasic dihydrogen potassium phosphate

関連情報

機能	Mediates the binding, internalization, and catabolism of lipoprotein particles. It can serve as a ligand for the LDL (apo B/E) receptor and for the specific apo-E receptor (chylomicron remnant) of hepatic tissues.
組織特異性	Occurs in all lipoprotein fractions in plasma. It constitutes 10-20% of very low density lipoproteins (VLDL) and 1-2% of high density lipoproteins (HDL). APOE is produced in most organs. Significant quantities are produced in liver, brain, spleen, lung, adrenal, ovary, kidney and muscle.
関連疾患	Defects in APOE are a cause of hyperlipoproteinemia type 3 (HLPP3) [MIM:107741]; also known as familial dysbetalipoproteinemia. Individuals with HLPP3 are clinically characterized by xanthomas, yellowish lipid deposits in the palmar crease, or less specific on tendons and on elbows. The disorder rarely manifests before the third decade in men. In women, it is usually expressed only after the menopause. The vast majority of the patients are homozygous for APOE*2 alleles. More severe cases of HLPP3 have also been observed in individuals heterozygous for rare APOE variants. The influence of APOE on lipid levels is often suggested to have major implications for the risk of coronary artery disease (CAD). Individuals carrying the common APOE*4 variant are at higher risk of CAD. Genetic variations in APOE are associated with Alzheimer disease type 2 (AD2) [MIM:104310]. It is a late-onset neurodegenerative disorder characterized by progressive dementia, loss of cognitive abilities, and deposition of fibrillar amyloid proteins as intraneuronal neurofibrillary tangles, extracellular amyloid plaques and vascular amyloid deposits. The major constituent of these plaques is the neurotoxic amyloid-beta-APP 40-42 peptide (s), derived proteolytically from the transmembrane precursor protein APP by sequential secretase processing. The cytotoxic C-terminal fragments (CTFs) and the caspase-cleaved products such as C31 derived from APP, are also implicated in neuronal death. Note=The APOE*4 allele is genetically associated with the common late onset familial and sporadic forms of Alzheimer disease. Risk for AD increased from 20% to 90% and mean age at onset decreased from 84 to 68 years with increasing number of APOE*4 alleles in 42 families with late onset AD. Thus APOE*4 gene dose is a major risk factor for late onset AD and, in these families, homozygosity for APOE*4 was virtually sufficient to cause AD by age 80. The mechanism by which APOE*4 participates in pathogenesis is not known. Defects in APOE are a cause of sea-blue histiocyte disease (SBHD) [MIM:269600]; also known as sea-blue histiocytosis. This disorder is characterized by splenomegaly, mild thrombocytopenia and, in the bone marrow, numerous histiocytes containing cytoplasmic granules which stain bright blue with the usual hematologic stains. The syndrome is the consequence of an inherited metabolic defect analogous to Gaucher disease and other sphingolipidoses. Defects in APOE are a cause of lipoprotein glomerulopathy (LPG) [MIM:611771]. LPG is an uncommon kidney disease characterized by proteinuria, progressive kidney failure, and

	distinctive lipoprotein thrombi in glomerular capillaries. It mainly affects people of Japanese and Chinese origin. The disorder has rarely been described in Caucasians.
配列類似性	Belongs to the apolipoprotein A1/A4/E family.
翻訳後修飾	Synthesized with the sialic acid attached by O-glycosidic linkage and is subsequently desialylated in plasma. O-glycosylated with core 1 or possibly core 8 glycans. Thr-307 is a minor glycosylation site compared to Ser-308. Glycated in plasma VLDL of normal subjects, and of hyperglycemic diabetic patients at a higher level (2-3 fold). Phosphorylation sites are present in the extracelllular medium.
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