



Apolipoprotein-D, human recombinant, HEK (rhuApoD)

Catalog No: 99931
Lot No: XXXXX
Source: HEK293
Synonyms: Apolipoprotein D, Apo-D, ApoD

Background

Apolipoprotein-D is mainly associated with high density lipoproteins in human plasma. Apolipoprotein-D is an atypical apolipoprotein and, based on its primary structure, it is a member of the lipocalin family. Lipocalins adopt a beta-barrel tertiary structure and transport small hydrophobic ligands. Apolipoprotein-D binds cholesterol, progesterone, pregnenolone, bilirubin and arachidonic acid. Apolipoprotein-D is expressed in numerous tissues with high levels of expression in spleen, testes and brain. It is present at high concentrations in the cyst fluid of women with gross cystic disease of the breast, a condition associated with increased risk of breast cancer. Apolipoprotein-D accumulates in regenerating peripheral nerves and in the cerebrospinal fluid of patients with neurodegenerative conditions, such as Alzheimer's disease. Besides, it participates in maintenance and repair within the central and peripheral nervous systems. Apolipoprotein-D is a multi-ligand, multi-functional transporter: it transports ligands from one cell to another within an organ, scavenges ligands within an organ for transport to the blood or transports ligands from the circulatory system to specific cells within a tissue.

Description

Apolipoprotein-D Human Recombinant, produced in HEK cells, is a single, glycosylated, polypeptide chain (21-189 aa) containing a total of 175 amino acids. It has a molecular mass of 20.1 kDa (calculated) and is fused to a 6 aa His tag at C-Terminus. The Human APOD is purified by proprietary chromatographic techniques.

Physical Appearance

Filtered, white lyophilized (freeze-dried) powder.

Formulation

Filtered (0.4 µm) and lyophilized from 0.5 mg/ml in 0.05 M phosphate buffer (pH 7.4) and 0.075 M NaCl.

Solubility

It is recommended to add 200 µl deionized water to a working concentration of 0.5 mg/ml and let the lyophilized pellet dissolve completely. The product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.

Stability

Store lyophilized protein at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time.

Amino Acid Sequence

QAFHLGKCPN PPVQENFDVN KYLGRWYEIE KIPTTFENGR CIQANYSLME NGKIKVLNQE LRADGTVNQI EGEATPVNLT
EPAKLEVKFS WFMPSPYWI LATDYENYAL VYSCTCIIQL FHVDFAWILA RPNLPPETV DSLKNILTSN NIDVKKMTVT
DQVNCPLSH HHHHH

Usage

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