

Apolipoprotein D Human HEK293

Product Data Sheet

Type: Recombinant
Source: HEK293
Species: Human
Other names: Apo D

Cat. No.:
RD172118100-HEK (0.1 mg)

Description

Total 175 AA. MW: 20.1 kDa (calculated). UniProtKB acc. No. P05090 (Gln21-Ser189). C-terminal His-tag (6 extra AA). Protein identity confirmed by LC-MS/MS.

Introduction to the Molecule

Human ApoD is a glycoprotein of 169 amino acids, which was discovered in plasma as an atypical lipoprotein. There, ApoD is peripherally associated with HDL via disulfide bond with ApoA-II, which itself forms an amphipathic α -helical belt that wraps around the lipid disc.

ApoD was also isolated as a progesterone-binding protein abundant in mammary gross cystic disease fluid and it was found as a monomeric protein in apocrine secretion, where it seems to bind odorants. ApoD mRNA is expressed in a variety of organs as well as in certain human cancers. Indeed, ApoD has received attention as prognostic marker for various, often steroid-responsive tumors, including prostate cancer, breast carcinoma, and cutaneous malignant melanoma. In addition, ApoD is synthesized by astrocytes in the central nervous system and there it seems to be involved in arachidonic acid transport, metabolism, and signaling. Notably, ApoD plays a well documented pathophysiological role in several psychiatric disorders, especially in schizophrenia.

Research topic

Energy metabolism and body weight regulation, Lipoprotein metabolism

Amino Acid Sequence

QAFHLGKCPN PPVQENFDVN KYLGRWYEIE KIPTTFENGR CIQANYSLME NGKIKVLNQE LRADGTVNQI EGEATPVNLT
EPAKLEVKFS WFMPSPYWI LATDYENYAL VYSCTCIIQL FHVDFAWILA RNPNLPPETV DSLKNILTSN NIDVKKMTVT
DQVNCPKLSH **HHHHH**

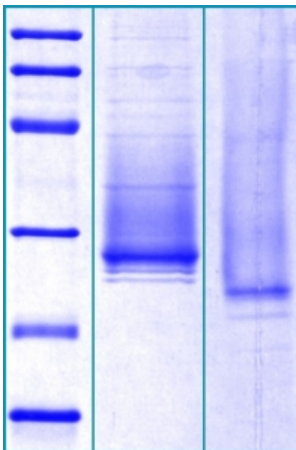
Source

HEK293

Purity

Purity as determined by densitometric image analysis: > 80 %

SDS-PAGE gel



12% SDS-PAGE separation of Human Apo D (HEK)

1. M.W. marker - 14, 21, 31, 45, 66, 97 kDa

2. reduced and boiled sample, 2.5 μ g/lane

3. non-reduced and non-boiled sample, 2.5 μ g/lane

Endotoxin

< 0.1 EU/ug

Formulation

Filtered (0.4 µm) and lyophilized in 0.05 M phosphate buffer, 0.075 M NaCl, pH 7.4

Reconstitution

Add 200 µl of deionized water to prepare a working stock solution of approximately 0.5 mg/ml and let the lyophilized pellet dissolve completely. Filter sterilize your culture media/working solutions containing this non-sterile product before using in cell culture.

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage, Stability/Shelf Life

Store the lyophilized protein at -80 °C. Lyophilized protein remains stable until the expiry date when stored at -80 °C. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80 °C for long term storage. Reconstituted protein can be stored at 4 °C for a week.

Quality Control Test

BCA to determine quantity of the protein.

SDS-PAGE to determine purity of the protein.

LAL TEST to determine endotoxin level.

Applications

Cell culture and/or animal studies, ELISA, Western blotting

Note

This product is intended for research use only.

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