



Apolipoprotein A-I, human recombinant (rhuAPOA1)

Catalog No: 99913
Lot No: XXXXX
Source: *E. coli*
Synonyms: Apolipoprotein A-I, Apo-AI, ApoA-I, APOA1, MGC117399

Background

APOA1 (Apolipoprotein A-1) is a human protein with a specific role in lipid metabolism. It is the main protein component of HDL in plasma. APOA1 promotes cholesterol efflux from tissues to the liver for excretion. Furthermore, APOA1 is a cofactor for LCAT, which is responsible for the formation of most plasma cholesteryl esters. In addition, APOA1 activates spermatozoa motility as part of the SPAP complex. The APOA1 gene is strongly linked with two other apolipoprotein genes on chromosome 11. Defects in the APOA1 gene are linked to HDL deficiency including Tangier disease, and with systemic non-neuropathic amyloidosis. High levels of APOA1 are linked to the manifestation of asthma and atopy.

Description

Apolipoprotein A-I Human Recombinant, produced in *E. coli*, is a single, non-glycosylated polypeptide chain containing 243 amino acids. It has a molecular mass of 28.1 kDa. The APOA1 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered, white lyophilized (freeze-dried) powder.

Formulation

The APOA1 protein was lyophilized from a 0.2 µm filtered concentrated solution in PBS (pH 7.4).

Solubility

It is recommended to reconstitute the lyophilized APOA1 in sterile 18 MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Apolipoprotein A-I, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution APOA1 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 98.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

DEPPQSPWDR VKDLATVYVD VLKDSGRDYV SQFEQSALGK QLNKLLLDNW DSVTSTFSKL REQLGPVTQE FWDNLEKETE
GLRQEMSKDL EEVKAKVQPY LDDFQKKWQE EMELYRQKVE PLRAELQEGA RQKLHELQEK LSPLGEMRD RARAHVDALR
THLAPYSDEL RQRLAARLEA LKENGGARLA EYHAKATEHL STLSEKAKPA LEDLRQGLLP VLESFKVSFL SALEEYTKKL
NTQ

Usage

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