**Product datasheet**

**Recombinant Human Apolipoprotein A I ab50239**

### Description

**Product name**: Recombinant Human Apolipoprotein A I

**Purity**: >95% SDS-PAGE.

Ab50239 purity is greater than 97% by SDS-PAGE gel and HPLC analyses.

**Endotoxin level**: <0.1 mg/µg

**Expression system**: Escherichia coli

**Protein length**: Full length protein

**Animal free**: No

**Nature**: Recombinant

**Species**: Human

**Sequence**: MDEPPQSPWD RVKDLATVVY DVLKDSGRDY VSQFEGSALG KQLNLKLDN WDSVTSTFSK LREQLGPTQ EFWDNEKET EGLQEMSKD LEVVKAKVQPY LDDFQKKWQE EEMELYQKV EPLRAELQEG ARQKLHELQE KLSPLGEEMR DRARAHVDAL RTHLAPYSLE LQRRLAARLE ALKENGGRL AEYHAKATEH LSTLSEKAKP ALEDLQGQL PVLESFKVSE LSALEEYTKK LNTQ

### Specifications

Our **Abpromise guarantee** covers the use of **ab50239** in the following tested applications.

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

**Applications**

- SDS-PAGE
- Sandwich ELISA

**Form**: Lyophilized

### Preparation and Storage

**Stability and Storage**: Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

**Preservative**: None

Endotoxin level is less than 0.1 ng per µg (1 EU/µg).
Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 1.0 mg/ml. This solution can then be diluted into other aqueous buffers and stored at 4oC for 1 week or -20oC for future use.

General Info

Function

Participates in the reverse transport of cholesterol from tissues to the liver for excretion by promoting cholesterol efflux from tissues and by acting as a cofactor for the lecithin cholesterol acyltransferase (LCAT). As part of the SPAP complex, activates spermatozoa motility.

Tissue specificity

Major protein of plasma HDL, also found in chylomicrons. Synthesized in the liver and small intestine.

Involvement in disease

Defects in APOA1 are a cause of high density lipoprotein deficiency type 2 (HDLD2) [MIM:604091]; also known as familial hypoalphalipoproteinemia (FHA). Inheritance is autosomal dominant.

Defects in APOA1 are a cause of the low HDL levels observed in high density lipoprotein deficiency type 1 (HDLD1) [MIM:205400]; also known as analphalipoproteinemia or Tangier disease (TGD). HDLD1 is a recessive disorder characterized by the absence of plasma HDL, accumulation of cholesteryl esters, premature coronary artery disease, hepatosplenomegaly, recurrent peripheral neuropathy and progressive muscle wasting and weakness. In HDLD1 patients, ApoA-I fails to associate with HDL probably because of the faulty conversion of pro-ApoA-I molecules into mature chains, either due to a defect in the converting enzyme activity or a specific structural defect in Tangier ApoA-I.

Defects in APOA1 are the cause of amyloid polyneuropathy-nephropathy Iowa type (AMYLIOWA) [MIM:107680]; also known as amyloidosis van Allen type or familial amyloid polyneuropathy type III. AMYLIOWA is a hereditary generalized amyloidosis due to deposition of amyloid mainly constituted by apolipoprotein A1. The clinical picture is dominated by neuropathy in the early stages of the disease and nephropathy late in the course. Death is due in most cases to renal amyloidosis. Severe peptic ulcer disease can occur in some and hearing loss is frequent. Cataracts is present in several, but vitreous opacities are not observed.

Defects in APOA1 are a cause of amyloidosis type 8 (AMYL8) [MIM:105200]; also known as systemic non-neuropathic amyloidosis or Ostertag-type amyloidosis. AMYL8 is a hereditary generalized amyloidosis due to deposition of apolipoprotein A1, fibrinogen and lysozyme amyloids. Viscera are particularly affected. There is no involvement of the nervous system. Clinical features include renal amyloidosis resulting in nephrotic syndrome, arterial hypertension, hepatosplenomegaly, cholestasis, petechial skin rash.

Sequence similarities

Belongs to the apolipoprotein A1/A4/E family.

Post-translational modifications

Palmitoylated.

Phosphorylation sites are present in the extracellular medium.

Cellular localization

Secreted.

Images
Standard curve for Apolipoprotein A I (Analyte: ab50239); dilution range 1pg/ml to 1µg/ml using Capture Antibody ab20918 at 1µg/ml and Detector Antibody ab64308 at 0.5µg/ml.

Please note: All products are “FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES”

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