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## Product Data Sheet

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Product Name: APOA1 Human  
 Cat. No.: GP20045  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Apolipoprotein A-I; Apo-AI; ApoA-I; APOA1; MGC117399.		
Amino Acid Sequence	DEPPQSPWDR VKDLATVYVD VLKDSGRDYV SQFEGSALGK QLNKLLDNW DSVTSTFSKL REQLGPVTQE FWDNLEKETE GLRQEMSKDL EEVKAKVQPY LDDFQKKWQE EMELYRQKVE PLRAELQEGA RQKLHELQEK LSPLGEEMRD RARAHVDALR THLAPYSDEL RQRLAARLEA LKENG GARLA EYHAKATEHL STLSEKAKPA LEDLRQGLLP VLESFKVSFL SALEEYTKKL NTQ.		
Solubility	It is recommended to reconstitute the lyophilized APOA1 in sterile 18MΩ-cm H <sub>2</sub> O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	The APOA1 protein was lyophilized from a 0.2μm filtered concentrated solution in PBS, pH 7.4.		

### Introduction

APOA1 (Apolipoprotein A-1) is a human protein with a specific role in lipid metabolism being the main protein component of HDL in the 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.

### Stability

Lyophilized Apolipoprotein A-I although stable at room temperature for 3 weeks, should

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Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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be stored desiccated below  $-18^{\circ}\text{C}$ . Upon reconstitution APOA1 should be stored at  $4^{\circ}\text{C}$  between 2-7 days and for future use below  $-18^{\circ}\text{C}$ . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Background

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

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