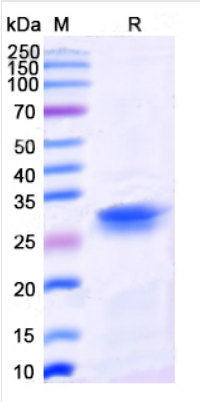
APOA1 Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	APOA1, Recombinant Protein
Full Product Name	Recombinant Human APOA1, N-His
Product Gene Name	APOA1 recombinant protein
Product Synonym Names	ApoA-I; ProapoA-I; Apolipoprotein A1; Apo-AI; Apolipoprotein A-I; APOA1; Apolipoprotein A-I(1-242)
Host	E coli
Form/Format	Lyophilized from a solution in PBS pH7.4, 0.02% NLS, 1mM EDTA, 4% Trehalose, 1% Mannitol.
Purity/Purification	>90% as determined by SDS-PAGE
Preparation and Storage	Use a manual defrost freezer and avoid repeated freeze thaw cycles. Store at 2 to 8 degree C for one week. Store at -20 to -80 degree C for twelve months from the date of receipt.
Molecular Weight	30,778 Da
Sequence Positions	Arg19-Gln267
Chromosome Location	Chromosome: 11; NC_000011.9 (116706469..116708338, complement). Location: 11q23-q24
OMIM	105200
3D Structure	ModBase 3D Structure for P02647
Species	Human
Reconstitution	Reconstitute in sterile water for a stock solution.
Product Categories/Family for APOA1 recombinant protein	Recombinant Proteins
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for APOA1 recombinant protein	SDS-PAGE (SDS), Western Blot (WB), ELISA (EIA), Immunogen
Related Product Information for APOA1 recombinant protein	MBS1572891 is a recombinant protein targeting APOA1. Also known as Recombinant Human APOA1, N-His. Host: E coli.
Other Notes	Small volumes of APOA1 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



SDS-Page of APOA1 recombinant protein
SDS PAGE for recombinant Human APOA1 protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for APOA1. It may not necessarily be applicable to this product.

NCBI GI #	553183
NCBI GeneID	335
NCBI Accession #	AAA51746.1
UniProt Primary Accession #	P02647
UniProt Secondary Accession #	Q6LDN9; Q6Q785; Q9UCS8; Q9UCT8; A8K866
UniProt Related Accession #	P02647
NCBI Official Full Name	APOA1, partial
NCBI Official Synonym Full Names	apolipoprotein A-I
NCBI Official Symbol	APOA1
UniProt Protein Name	Apolipoprotein A-I
UniProt Synonym Protein Names	Apolipoprotein A1Cleaved into the following chain:Truncated apolipoprotein A-I; Alternative name(s):; Apolipoprotein A-I(1-242)
Protein Family	Apolipoprotein
UniProt Gene Name	APOA1
UniProt Synonym Gene Names	Apo-AI; ApoA-I
UniProt Entry Name	APOA1_HUMAN
NCBI Protein Information	apolipoprotein A-I; apo-AI
NCBI Summary for APOA1	This gene encodes apolipoprotein A-I, which is the major protein component of high density lipoprotein (HDL) in plasma. The protein promotes cholesterol efflux from tissues to the liver for excretion, and it is a cofactor for lecithin cholesterolacyltransferase (LCAT) which is responsible for the formation of most plasma cholesteryl esters. This gene is closely linked with two other apolipoprotein genes on chromosome 11. Defects in this gene are associated with HDL deficiencies, including Tangier disease, and with systemic non-neuropathic amyloidosis. [provided by RefSeq, Jul 2008]

UniProt Comments for APOA1	APOA1: 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. Interacts with APOA1BP and CLU. Component of a sperm activating protein complex (SPAP), consisting of APOA1, an immunoglobulin heavy chain, an immunoglobulin light chain and albumin. Interacts with NDRG1. Major protein of plasma HDL, also found in chylomicrons. Synthesized in the liver and small intestine. The oxidized form at Met-110 and Met-136 is increased in individuals with increased risk for coronary artery disease, such as in carrier of the eNOSa/b genotype and exposure to cigarette smoking. It is also present in increased levels in aortic lesions relative to native ApoA-I and increased levels are seen with increasing severity of disease. Belongs to the apolipoprotein A1/A4/E family. Protein type: Motility/polarity/chemotaxis; Endoplasmic reticulum; Secreted, signal peptide; Secreted; Lipid-binding; Vesicle; Cell development/differentiation Chromosomal Location of Human Ortholog: 11q23-q24 Cellular Component: extracellular space; chylomicron; cell surface; endocytic vesicle; endoplasmic reticulum lumen; early endosome; plasma membrane; extracellular region; cytoplasmic vesicle; cytosol; nucleus; vesicle Molecular Function: identical protein binding; protein binding; enzyme binding; phospholipid transporter activity; lipase inhibitor activity; chemorepellent activity; beta-amyloid binding; cholesterol transporter activity; cholesterol binding; phospholipid binding; phosphatidylcholine binding; high-density lipoprotein binding; apolipoprotein A-I receptor binding; apolipoprotein receptor binding Biological Process: phototransduction, visible light; negative chemotaxis; negative regulation of lipase activity; axon regeneration in the peripheral nervous system; sequestering of lipid; negative regulation of interleukin-1 beta secretion; regulation of cholesterol absorption; transforming growth factor beta receptor signaling pathway; positive regulation of stress fiber formation; response to drug; cholesterol metabolic process; platelet activation; organ regeneration; regulation of Cdc42 protein signal transduction; adrenal gland development; positive regulation of hydrolase activity; positive regulation of Rho protein signal transduction; lipoprotein metabolic process; positive regulation of transferase activity; vitamin transport; cholesterol biosynthetic process; negative regulation of cytokine secretion during immune response; cholesterol homeostasis; lipoprotein biosynthetic process; response to estrogen stimulus; peptidyl-methionine modification; phosphatidylcholine biosynthetic process; positive regulation of lipoprotein lipase activity; blood vessel endothelial cell migration; cellular lipid metabolic process; platelet degranulation; phospholipid efflux; retinoid metabolic process; transmembrane transport; response to nutrient; phospholipid homeostasis; integrin-mediated signaling pathway; receptor-mediated endocytosis; positive regulation of fatty acid biosynthetic process; regulation of protein amino acid phosphorylation; cholesterol transport; protein amino acid oxidation; protein stabilization; negative regulation of heterotypic cell-cell adhesion; neurite regeneration; cholesterol efflux; glucocorticoid metabolic process; G-protein coupled receptor protein signaling pathway; reverse cholesterol transport; negative regulation of inflammatory response; endothelial cell proliferation; blood coagulation Disease: Hypoalphalipoproteinemia, Primary; Amyloidosis, Familial Visceral
Research Articles on APOA1	**1.** The uremia-induced downregulation of hepatic apolipoprotein A-I production is post-transcriptional.
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