APOM Recombinant Protein

PRODUCT OVERVIEW

Product Name	ApoM, Recombinant Protein
Full Product Name	ApoM Protein, Human, Recombinant (His Tag)
Product Gene Name	APOM recombinant protein
Product Synonym Names	Human APOM Protein (His Tag); apo-M Protein, Human; DADB-127H9.5 Protein, Human; G3a Protein, Human; HSPC336 Protein, Human; NG20 Protein, Human; apolipoprotein M
Sequence	Cys23-Asn1 88
Host	Yeast
Form/Format	Lyophilized from sterile PBS, 40% Glycerol. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Purity/Purification	>90% as determined by SDS-PAGE
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.
Molecular Weight	13,051 Da
OMIM	606907
3D Structure	ModBase 3D Structure for O95445
Species	Human
Predicted N Terminal	Cys 23
Tag	C-His
Protein Construction	A DNA sequence encoding the human APOM (NP_061974.2)(Cys23-Asn188) was expressed with a polyhistidine tag at the C-terminus.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Related Product Information for APOM recombinant protein	Background: ApoM (apolipoprotein M) is an apolipoprotein and member of the lipocalin protein family. The lipocalins share limited regions of sequence homology and a common tertiary structure architecture. They have an eight-stranded, antiparallel, symmetrical _-barrel fold, which is in essence a beta sheet which has been rolled into a cylindrical shape. Inside this barrel is located a ligand binding site. They transport small hydrophobic molecules such as steroids, bilins, retinoids, and lipids. Lipocalins have been associated with many biological processes, among them immune response, pheromone transport, biological prostaglandin synthesis, retinoid binding, and cancer cell interactions. Lipocalins are comparatively small in size, and are thus less complicated to study as opposed to large, bulky proteins. They can also bind to various ligands for different biological purposes. ApoM is associated with high density lipoproteins and to a lesser extent with low density lipoproteins and triglyceride-rich lipoproteins. ApoM is involved in lipid transport and can bind sphingosine-1-phosphate, myristic acid, palmitic acid and stearic acid, retinol, all-trans-retinoic acid and 9-cis-retinoic acid.
Product References and Citations for APOM recombinant protein	Xu N, et al. (1999) A novel human apolipoprotein (apoM). J Biol Chem. 274(44):31286-90.Duan J, et al. (2001) Proposed lipocalin fold for apolipoprotein M based on bioinformatics and site-directed mutagenesis. FEBS Lett. 49 (1-2):127-32.Albertella MR, et al. (1997) Localization of eight additional genes in the human major histocompatibility complex, including the gene encoding the casein kinase II beta subunit (CSNK2B). Genomics. 36(2):240-51.

Other Notes	Small volumes of APOM 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.
Searchable Terms for APOM purchase	MBS8121431 is a recombinant protein targeting APOM. Also known as ApoM Protein, Human, Recombinant (His Tag). Host: Yeast.



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ADDITIONAL DETAILS

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

NCBI GI #	22091452
NCBI GeneID	55937
NCBI Accession #	NP_061974.2
UniProt Primary Accession #	O95445
UniProt Secondary Accession #	Q5SRP4; Q9P046; Q9UMP6; B0UX98
UniProt Related Accession #	O95445
GenBank Nucleotide #	NM_019101.2
NCBI Official Full Name	apolipoprotein M isoform 1
NCBI Official Synonym Full Names	apolipoprotein M
NCBI Official Symbol	APOM
NCBI Official Synonym Symbols	G3a; NG20; apo-M; HSPC336
UniProt Protein Name	Apolipoprotein M
UniProt Synonym Protein Names	Protein G3a
Protein Family	Apolipoprotein
UniProt Gene Name	APOM
UniProt Synonym Gene Names	G3A; NG20; Apo-M; ApoM
UniProt Entry Name	APOM_HUMAN
NCBI Protein Information	apolipoprotein M; protein G3a; NG20-like protein; alternative name: G3a, NG20
NCBI Summary for APOM	The protein encoded by this gene is an apolipoprotein and member of the lipocalin protein family. It is found associated with high density lipoproteins and to a lesser extent with low density lipoproteins and triglyceride-rich lipoproteins. The encoded protein is secreted through the plasma membrane but remains membrane-bound, where it is involved in lipid transport. Alternate splicing results in both coding and non-coding variants of this gene. [provided by RefSeq, Jan 2012]

UniProt Comments for APOM	APOM: Probably involved in lipid transport. Can bind sphingosine-1-phosphate, myristic acid, palmitic acid and stearic acid, retinol, all-trans-retinoic acid and 9-cis-retinoic acid. Plasma protein. Expressed in liver and kidney. Belongs to the calycin superfamily. Lipocalin family. Highly divergent. Protein type: Secreted; Secreted, signal peptide Chromosomal Location of Human Ortholog: 6p21.33 Cellular Component: integral to plasma membrane Molecular Function: lipid transporter activity; antioxidant activity; phospholipid binding Biological Process: cholesterol homeostasis; reverse cholesterol transport; response to glucose stimulus; cholesterol efflux; lipoprotein metabolic process
Research Articles on APOM	**1.** Decreased activities of apolipoprotein m promoter are associated with the susceptibility to coronary artery diseases.
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