

LRPAP1 active protein

LRPAP1 Protein, Human, Recombinant (His Tag)

CATALOG #
AAA257964

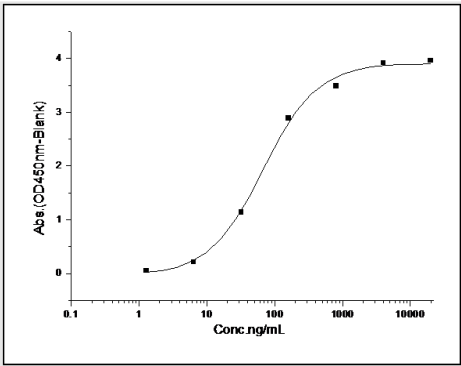
HOST
HEK293 Cells

PRODUCT SYNONYMS

LRPAP1; LRPAP1 Protein; Human; Recombinant (His Tag); Human LRPAP1/A2MRAP Protein (His Tag); A2MRAP Protein; A2RAP Protein; alpha-2-MRAP Protein; HBP44 Protein; MRAP Protein; MYP23 Protein; RAP Protein; low density lipoprotein receptor-related protein associated protein 1; LRPAP1 active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>92% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. 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.
Sequence	Tyr35-Leu3 57
Species	Human
Activity	Measured by its binding ability in a functional ELISA. Immobilized human LRPAP1 at 0.5ug/ml can bind human VLDLR with a range of 3.2-400ng/mL.
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Tyr 35
Tag	C-His
Protein Construction	A DNA sequence encoding the human LRPAP1 (NP_002328.1)(Tyr 35-Leu 357) was expressed, fused with a signal peptide at the N-terminus and 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.
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.



SDS-PAGE

Application Data
Measured by its binding ability in a functional ELISA. Immobilized human LRPAP1 at 0.5 ug/ml can bind human VLDLR with a range of 3.2-400 ng/ml.

ADDITIONAL INFORMATION

Related Product Information for LRPAP1 active protein	Background: Receptor-associated protein (RAP) is a molecular chaperone for low-density lipoprotein receptor-related protein (LRP), which plays a key role in cholesterol metabolism. The lipoprotein receptor-related protein (LRP) is an endocytic receptor for several ligands, such as alpha2-macroglobulin (alpha2 M) and apolipoprotein E. LRP is involved in the clearance of lipids from the bloodstream and is expressed in the atherosclerotic plaque. The LRP-associated protein (LRPAP in humans, RAP in mice) acts as a chaperone protein, stabilizing the nascent LRP peptide in the endoplasmic reticulum and Golgi complex. Alpha-2-macroglobulin receptor-associated protein, also known as low-density lipoprotein receptor-related protein-associated protein 1, RAP, and LRPAP1, is a 39kDa protein and a member of the alpha-2-MRAP family. It is a receptor antagonist that interacts with several members of the low-density lipoprotein (LDL) receptor gene family. Upon binding to these receptors, LRPAP1 inhibits all ligand interactions with the receptors. LRPAP1 is present on the cell surface forming a complex with the alpha-2-macroglobulin receptor heavy and light chains. It binds with LRP1B and the binding is followed by internalization and degradation. LRPAP1 interacts with LRP1/alpha-2-macroglobulin receptor and LRP2 (previously called glycoprotein 330) and may be involved in the pathogenesis of membrane glomerular nephritis. LRPAP1 together with LRP2 forms the Heymann nephritis antigenic complex. LRP2 is expressed in epithelial cells of the thyroid, where it can serve as a receptor for the protein thyroglobulin. Intron 5 insertion/deletion polymorphism of RAP gene (LRPAP1) has been implicated in other diseases sharing etiology with gallstone disease (GSD). The LRPAP1 insertion/deletion polymorphism influences cholesterol homeostasis and may confer risk for gallstone disease and gallbladder carcinoma (GBC) incidence usually parallels with the prevalence of cholelithiasis. The genetic variations at the LRPAP1 locus may modulate Alzheimer's disease (AD) phenotype beyond risk for disease. Also, the variation in the LRPAP1 gene could contribute to the risk of developing an early episode of myocardial infarction (MI).
References	Gonzalez P, et al. (2002) Variation in the lipoprotein receptor-related protein, alpha2-macroglobulin and lipoprotein receptor-associated protein genes in relation to plasma lipid levels and risk of early myocardial infarction. Coron Artery Dis. 13(5): 251-4.Schutte DL, et al. (2003) A LRPAP1 intronic insertion/deletion polymorphism and phenotypic variability in Alzheimer disease. Res Theory Nurs Pract. 17(4): 301-19Pandey SN, et al. (2006) Lipoprotein receptor associated protein (LRPAP1) insertion/deletion polymorphism: association with gallbladder cancer susceptibility. Int J Gastrointest Cancer. 37(4): 124-8.Dixit M, et al. (2006) Association of low density lipoprotein receptor related protein-associated protein (LRPAP1) gene insertion/deletion polymorphism with gallstone disease.J Gastroenterol Hepatol. 21(5): 847-9.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4505021
NCBI GeneID	4043
NCBI Accession #	NP_002328.1
NCBI GenBank Nucleotide #	NM_002337.3
UniProt Accession #	P30533; Q2M310; Q53HQ3; Q53HS6; D3DVR9
Molecular Weight	160,000

NCBI Official Full Name	alpha-2-macroglobulin receptor-associated protein
NCBI Official Synonym Full Names	low density lipoprotein receptor-related protein associated protein 1
NCBI Official Symbol	LRPAP1
NCBI Official Synonym Symbols	RAP; MRAP; A2RAP; HBP44; A2MRAP
NCBI Protein Information	alpha-2-macroglobulin receptor-associated protein; alpha-2-MRAP; lipoprotein receptor associated protein; alpha-2-macroglobulin receptor-associated protein 1; low density lipoprotein receptor-related protein-associated protein 1; low density lipoprotein-r
UniProt Protein Name	Alpha-2-macroglobulin receptor-associated protein
UniProt Gene Name	LRPAP1
UniProt Synonym Gene Names	A2MRAP; Alpha-2-MRAP; RAP
UniProt Entry Name	AMRP_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/hek293-cells-active-protein/lrap1/257964>