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Lrpap1
Recombinant Mouse Alpha-2-MRAP / LRPAP1 (His Tag)

Catalog No.	CRM580A-His CRM580B-His	**Quantity:**	50 µg 100 µg

Alternate Names: Alpha-2-macroglobulin receptor-associated protein, Alpha-2-MRAP, Heparin-binding protein 44, HBP-44, Low density lipoprotein receptor-related protein-associated protein 1, RAP

Description: Alpha-2-macroglobulin receptor-associated protein (LRPAP1) is a 39 kDa 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 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 33), 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 cholelithiosis. The genetic variations at the LRPAP1 locus may modulate Alzheimer disease (AD) phenotype beyond risk for disease. In addition, the variation at the LRPAP1 gene could contribute to the risk of developing an early episode of myocardial infarction (MI).

UniProt ID: P55302

Accession Number: NP_038615.2

Protein Construction: A DNA sequence encoding the mature form of mouse LRPAP1 extracellular domain (Gln 29-Leu 360) was fused with a signal peptide at the N-terminus and a polyhistidine tag at the C-terminus.

Source: HEK293 Cells

Formulation: Lyophilized from sterile PBS, pH 7.4
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

Molecular Weight: The rmLRPAP1 consists of 343 aa with a predicted MW of 40.4 kDa and migrates at ~46 kDa in SDS-PAGE under reducing conditions, due to glycosylation.

Purity: > 95 % as determined by SDS-PAGE.

Endotoxin Level: < 1.0 EU per µg of the protein as determined by the LAL method

Biological Activity: Measured by its binding ability in a functional ELISA . Immobilized mouse LRPAP1 at 0.5 µg/ml can bind human VLDLR with a linear range of 1.28-32 ng/ml.

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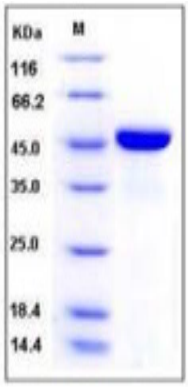
Predicted N-terminal: Gln 29

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial.
DO NOT VORTEX. Allow several minutes for complete reconstitution.

Storage & Stability: Stable for up to 1 year from date of receipt at -20°C to -80°C
After reconstitution, store working aliquots at -20°C to -80°C.
Avoid repeated freeze-thaw cycles.

SDS-PAGE



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