Data Sheet (Cat.No.TMAY-03210)

TargetMol

Anti-LRPAP1 Antibody (8S227)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Mouse
Conjugation:	Unconjugated
Clone:	8S227
Purification:	Protein A

Applications

Verified Activity:

1. Immunochemical staining of mouse LRPAP1 in mouse brain with rabbit monoclonal antibody at 1:1000 dilution, formalin-fixed paraffin embedded sections. The image showing staining of nerve cells.
2. Immunochemical staining of mouse LRPAP1 in mouse brain with rabbit monoclonal antibody at 1:1000 dilution, formalin-fixed paraffin embedded sections. The image showing staining of nephric tubule.
3. Mouse LRPAP1 was immunoprecipitated using:
-Lane A:0.5 mg A549 Whole Cell Lysate
-0.5 µL anti-Mouse LRPAP1 rabbit monoclonal antibody and 15 µl of 50 % Protein G agarose.
-Primary antibody:
-Anti-Mouse LRPAP1 rabbit monoclonal antibody, at 1:500 dilution.
-Secondary antibody:
-Dylight 800-labeled antibody to rabbit IgG (H+L), at 1:5000 dilution.
-Developed using the odyssey technique.
-Performed under reducing conditions.
-Predicted band size: 41 kDa.
-Observed band size: 41 kDa.
4. Anti-LRPAP1 rabbit monoclonal antibody at 1:500 dilution.
-Lane A: A549 Whole Cell lysate.
-Lysates/proteins at 30 µg per lane.
-Secondary
-Goat Anti-Rabbit IgG H&L (Dylight800) at 1/10000 dilution.
-Developed using the Odyssey technique.
-Performed under reducing conditions.
-Predicted band size:41 kDa.
-Observed band size:41 kDa.
5. Immunofluorescence staining of mouse LRPAP1 in NIH-3T3 cells. Cells were fixed with 4% PFA, permeabilzed with 0.1% Triton X-100 in PBS,blocked with 10% serum, and incubated with rabbit anti-mouse LRPAP1 monoclonal antibody (dilution ratio 1:60) at 4°C overnight. Then cells were stained with the Alexa Fluor®488-conjugated Goat Anti-rabbit IgG secondary antibody (green) and counterstained with DAPI (blue). Positive staining was localized to Endoplasmic reticulum.

Application:	ELISA,ICC/IF,IHC-P,IP,WB
Recommended	WB: 1:500-1:1000; ELISA: 1:25000-1:50000; IHC-P: 1:500-1:2000; ICC-IF: 1:20-1:100; IP: 0.2-1 μL/mg of lysate

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: Mouse LRPAP1 protein (TMPY-01732)
Antigen Species:	Mouse
Synonyms:	low density lipoprotein receptor-related protein associated protein 1;C77774;AI790446;AA617339;RAP;AU042172;HBP44

Research 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 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 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).

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481