Data Sheet (Cat.No.TMAY-03211)

TargetMol

Anti-LRPAP1 Antibody (3Q131)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Mouse
Conjugation:	Unconjugated
Clone:	3Q131
Purification:	Protein A

Applications

Verified Activity:	1. Immunochemical staining of mouse LRPAP1 in mouse kidney with rabbit monoclonal antibody (1:200, formalin-fixed paraffin embedded sections). The image showing staining of nephric tubule. 2. Immunochemical staining of mouse LRPAP1 in mouse brain with rabbit monoclonal antibody (1:200, formalin-fixed paraffin embedded sections). The image showing staining of nerve cells.
Application:	IHC-P
Recommended	IHC-P: 1:100-1:500

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:	RAP;AI790446;C77774;AA617339;low density lipoprotein receptor-related protein associated protein 1;HBP44;AU042172

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).

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