Product name:	LRP2 Rabbit Polyclonal Antibody
Cat number:	ABN13431
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	Synthesized peptide derived from human protein . at AA range: 2890-2970
Reactivity:	Human,Rat,Mouse
Applications:	IHC 1:50-1:300,ICC/IF 1:50-1:200
Molecular Weight:	512kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

The protein encoded by this gene, low density lipoprotein-related protein 2 (LRP2) or megalin, is a multi-ligand endocytic receptor that is expressed in many different tissues but primarily in absorptive epithilial tissues such as the kidney. This glycoprotein has a large amino-terminal extracellular domain, a single transmembrane domain, and a short carboxy-terminal cytoplasmic tail. The extracellular ligand-binding-domains bind diverse macromolecules including albumin, apolipoproteins B and E, and lipoprotein lipase. The LRP2 protein is critical for the reuptake of numerous ligands, including lipoproteins, sterols, vitamin-binding proteins, and hormones. This protein also has a role in cell-signaling; extracellular ligands include parathyroid horomones and the morphogen sonic hedgehog while cytosolic ligands include MAP kinase scaffold proteins and JNK interacting proteins. Recycling of thdisease:Defects in LRP2 are the cause of Donnai-Barrow syndrome (DBS) [MIM:222448]; also called facioоculoacousticorenal (FOAR) syndrome. DBS is a rare autosomal recessive disorder characterized by major malformations including agenesis of the corpus callosum, congenital diaphragmatic hernia, facial dysmorphology, ocular anomalies, sensorineural hearing loss and developmental delay. The FOAR syndrome was first described as comprising facial anomalies, ocular anomalies, sensorineural hearing loss, and proteinuria. DBS and FOAR were first described as distinct disorders but the classic distinguishing features between the 2 disorders were presence of proteinuria and absence of diaphragmatic hernia and corpus callosum anomalies in FOAR. Early reports noted that the 2 disorders shared many phenotypic features and may be identical. Although there is variability in the expression of some features (e.g., agenesis of the corpus callosum and proteinuria), DBS and FOAR are now considered to represent the same entity.,function:Acts together with cubilin to mediate HDL endocytosis (By similarity). May participate in regulation of parathyroid-hormone and para-thyroid-hormone-related protein release.,similarity:Belongs to the LDLR family.,similarity:Contains 17 EGF-like domains.,similarity:Contains 36 LDL-receptor class A domains.,similarity:Contains 37 LDL-receptor class B repeats.,subunit:Binds plasminogen, extracellular matrix components, plasminogen activator-plasminogen activator inhibitor type I complex, apolipoprotein E-enriched beta-VLDL, lipoprotein lipase, lactoferrin, CLU/clusterin and calcium. Forms a multimeric complex together with a receptor-associated protein (RAP). Binds to ankyrin-repeat family A protein 2 (ANKRA2). Interacts with LRP2BP.,tissue specificity:Absorptive epithelia, including renal proximal tubules.,