



Rabbit Anti-ApoER2 antibody

SL6651R

Product Name:	ApoER2
Chinese Name:	载LipoproteinE2受体抗体
Alias:	APOER2; Apolipoprotein E receptor 2; low density lipoprotein receptor-related protein 8; Low-density lipoprotein receptor-related protein 8; LRP-8; LRP8; LRP8_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	102kDa
Cellular localization:	The cell membraneSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human ApoER2:851-963/963
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Cell surface receptor for Reelin (RELN) and apolipoprotein E (apoE)-containing ligands. LRP8 participates in transmitting the extracellular Reelin signal to intracellular signaling processes, by binding to DAB1 on its cytoplasmic tail. Reelin acts via both the VLDL receptor (VLDLR) and LRP8 to regulate DAB1 tyrosine phosphorylation and microtubule function in neurons. LRP8 has higher affinity for Reelin than VLDLR. LRP8 is thus a key component of the Reelin pathway which governs neuronal layering

of the forebrain during embryonic brain development. Binds the endoplasmic reticulum resident receptor-associated protein (RAP). Binds dimers of beta 2-glycoprotein I and may be involved in the suppression of platelet aggregation in the vasculature. Highly expressed in the initial segment of the epididymis, where it affects the functional expression of clusterin and phospholipid hydroperoxide glutathione peroxidase (PHGPx), two proteins required for sperm maturation. May also function as an endocytic receptor.

Function:

Cell surface receptor for Reelin (RELN) and apolipoprotein E (apoE)-containing ligands. LRP8 participates in transmitting the extracellular Reelin signal to intracellular signaling processes, by binding to DAB1 on its cytoplasmic tail. Reelin acts via both the VLDL receptor (VLDLR) and LRP8 to regulate DAB1 tyrosine phosphorylation and microtubule function in neurons. LRP8 has higher affinity for Reelin than VLDLR. LRP8 is thus a key component of the Reelin pathway which governs neuronal layering of the forebrain during embryonic brain development. Binds the endoplasmic reticulum resident receptor-associated protein (RAP). Binds dimers of beta 2-glycoprotein I and may be involved in the suppression of platelet aggregation in the vasculature. Highly expressed in the initial segment of the epididymis, where it affects the functional expression of clusterin and phospholipid hydroperoxide glutathione peroxidase (PHGPx), two proteins required for sperm maturation. May also function as an endocytic receptor.

Subunit:

Reelin associates with two or more receptor molecules. Interacts with DAB1 and JNK-interacting proteins. Interacts with SNX17 (By similarity).

Subcellular Location:

Cell membrane. Secreted. Isoforms that contain the exon coding for a furin-type cleavage site are proteolytically processed, leading to a secreted receptor fragment.

Tissue Specificity:

Expressed mainly in brain and placenta. Also expressed in platelets and megakaryocytic cells. Not expressed in the liver.

Post-translational modifications:

O-glycosylated. Some alternatively spliced isoforms lack the O-linked sugar domain. Undergoes sequential, furin and gamma-secretase dependent, proteolytic processing, resulting in the extracellular release of the entire ligand-binding domain as a soluble polypeptide and in the intracellular domain (ICD) release into the cytoplasm. The gamma-secretase-dependent proteolytical processing occurs after the bulk of the extracellular domain has been shed, in a furin-dependent manner, in alternatively spliced isoforms carrying the furin cleavage site. Hypoglycosylation (mainly hypo-O-glycosylation) leads to increased extracellular cleavage, which in turn results in accelerating release of the intracellular domain (ICD) by the gamma-secretase. The resulting receptor fragment is able to inhibit Reelin signaling and in particular the

Reelin-induced DAB1 phosphorylation.
Tyrosine phosphorylated upon apoE binding.
Ubiquitinated by MYLIP leading to degradation.

DISEASE:

Defects in LRP8 are a cause of myocardial infarction type 1 (MCI1) [MIM:608446]. A condition defined by the irreversible necrosis of heart muscle secondary to prolonged ischemia.

Similarity:

Belongs to the LDLR family.
Contains 2 EGF-like domains.
Contains 7 LDL-receptor class A domains.
Contains 5 LDL-receptor class B repeats.

SWISS:

Q14114

Gene ID:

7804

Database links:

[Entrez Gene: 7804](#)Human

[Entrez Gene: 16975](#)Mouse

[Entrez Gene: 362558](#)Rat

[Omim: 602600](#)Human

[SwissProt: Q14114](#)Human

[SwissProt: Q924X6](#)Mouse

[Unigene: 726256](#)Human

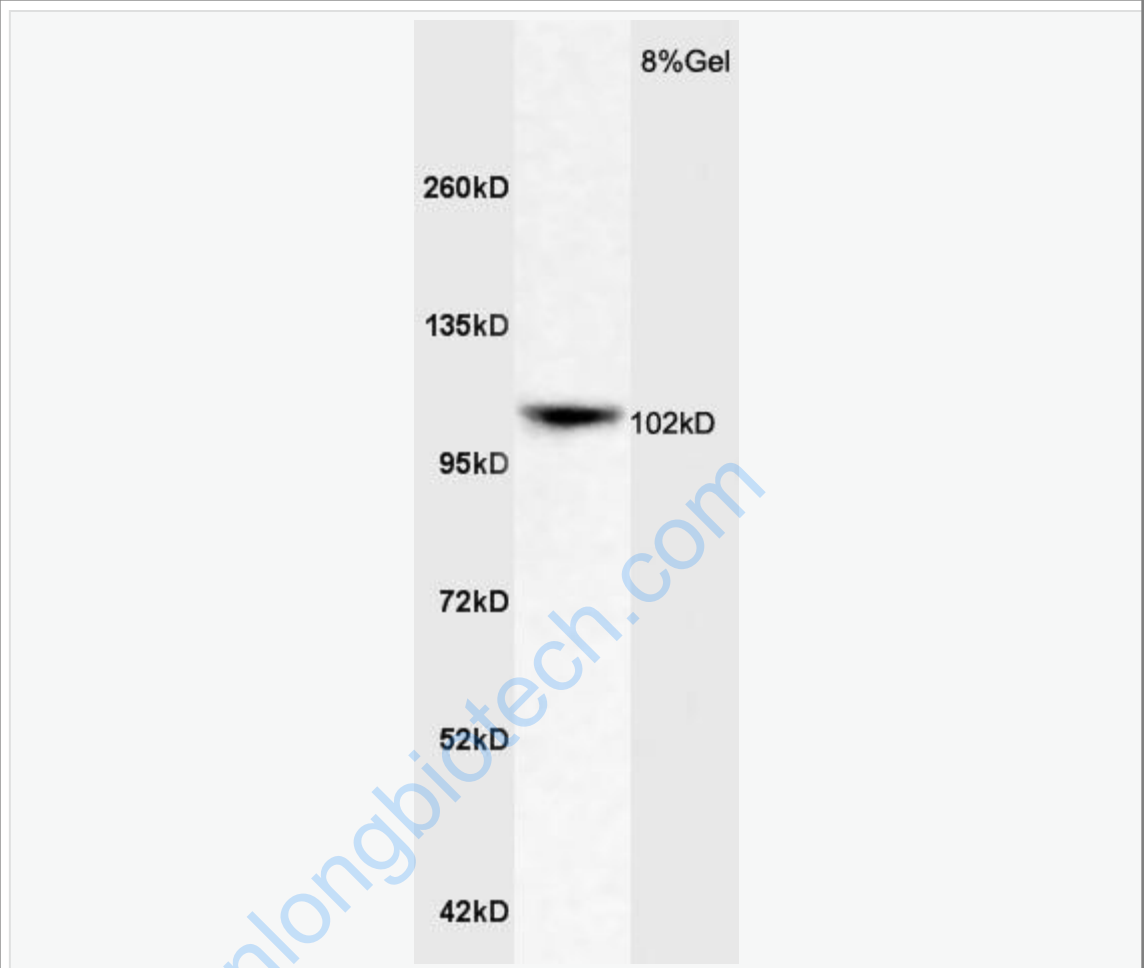
[Unigene: 442134](#)Mouse

[Unigene: 198283](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



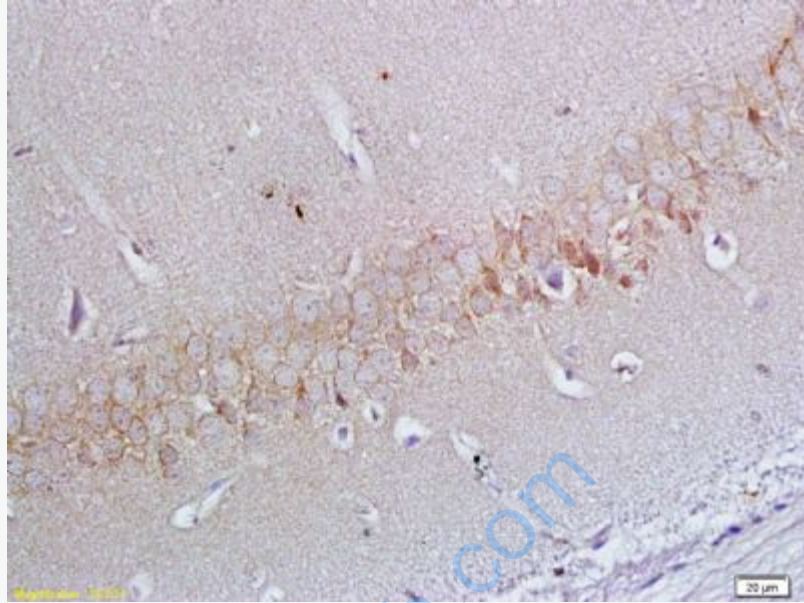
Sample: Brain (Rat) Lysate at 40 ug

Primary: Anti- ApoER2 (SL6651R) at 1/300 dilution

Secondary: HRP conjugated Goat-Anti-rabbit IgG (SL6651R) at 1/5000 dilution

Predicted band size: 102 kD

Observed band size: 102 kD



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-ApoER2 Polyclonal Antibody, Unconjugated(SL6651R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining