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Apolipoprotein E Receptor 2 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51925

Product Information

Application	WB
Primary Accession	Q14114
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	105634

Additional Information

Gene ID	7804
Other Names	Low-density lipoprotein receptor-related protein 8, LRP-8, Apolipoprotein E receptor 2, LRP8, APOER2
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Apolipoprotein E Receptor 2. The exact sequence is proprietary.
Dilution	WB~~1:500
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	LRP8
Synonyms	APOER2
Function	Cell surface receptor for Reelin (RELN) and apolipoprotein E (apoE)-containing ligands (PubMed:12899622, PubMed:12950167, PubMed:20223215, PubMed:30873003). LRP8 participates in transmitting the extracellular Reelin signal to intracellular signaling processes, by binding to DAB1 on its cytoplasmic tail (By similarity). Reelin acts via both the VLDL receptor (VLDLR) and LRP8 to regulate DAB1 tyrosine phosphorylation and microtubule function in neurons (By similarity). LRP8 has higher affinity for Reelin than VLDLR (By similarity). LRP8 is thus a key component of the Reelin pathway which governs neuronal layering of the forebrain during embryonic brain development (By similarity). Binds the endoplasmic reticulum resident receptor- associated protein (RAP) (By similarity). Binds dimers of beta 2-glycoprotein I and may be involved in the suppression of platelet aggregation

	in the vasculature (PubMed:12807892). 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 (By similarity). May also function as an endocytic receptor (By similarity). Not required for endocytic uptake of SEPP1 in the kidney which is mediated by LRP2 (By similarity). Together with its ligand, apolipoprotein E (apoE), may indirectly play a role in the suppression of the innate immune response by controlling the survival of myeloid- derived suppressor cells (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Secreted {ECO:0000250|UniProtKB:Q924X6}. Note=Isoforms that contain the exon coding for a furin-type cleavage site are proteolytically processed, leading to a secreted receptor fragment {ECO:0000250|UniProtKB:Q924X6}
Tissue Location	Expressed mainly in brain and placenta. Also expressed in platelets and megakaryocytic cells. Not expressed in the liver.

Background

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.

References

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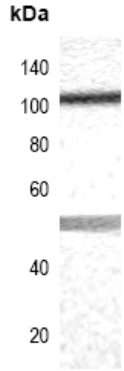
Clatworthy A.E.,et al.Neuroscience 90:903-911(1999).

Images



Jurkat

Citations

- SFRS11 Loss Leads to Aging-Associated Cognitive Decline by Modulating LRP8 and ApoE.