# Anti-ApoER2 antibody

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| **Description** | Rabbit polyclonal to ApoER2. |

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| **Model** | STJ91640 |
| **Host** | Rabbit |
| **Reactivity** | Human |
| **Applications** | ELISA, WB |
| **Immunogen** | Synthesized peptide derived from human ApoER2 |
| **Immunogen Region** | 420-500 aa, Internal |
| **Gene ID** | 7804 |
| **Gene Symbol** | LRP8 |
| **Dilution range** | WB 1:500-1:2000ELISA 1:40000 |
| **Specificity** | ApoER2 Polyclonal Antibody detects endogenous levels of ApoER2 protein. |
| **Tissue Specificity** | Expressed mainly in brain and placenta. Also expressed in platelets and megakaryocytic cells. Not expressed in the liver. |
| **Purification** | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. |
| **Note** | For Research Use Only (RUO). |
| **Protein Name** | Low-density lipoprotein receptor-related protein 8 LRP-8 Apolipoprotein E receptor 2 |
| **Molecular Weight** | 100 kDa |
| **Clonality** | Polyclonal |

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| **Conjugation** | Unconjugated |
| **Isotype** | IgG |
| **Formulation** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide. |
| **Concentration** | 1 mg/ml |
| **Storage Instruction** | Store at -20°C, and avoid repeat freeze-thaw cycles. |
| **Database Links** | HGNC:6700OMIM:602600 |
| **Alternative Names** | Low-density lipoprotein receptor-related protein 8 LRP-8 Apolipoprotein E receptor 2 |
| **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. |
| **Sequence and Domain Family** | The cytoplasmic domain is involved in the binding of DAB1 and in the recruitment of JNK-interacting proteins. Isoforms, which lack part of the cytoplasmic domain, are unable to recruit members of the family of JNK interacting proteins (JIP) to the cytoplasmic tail . |
| **Cellular Localization** | Cell membrane Secreted. Isoforms that contain the exon coding for a furin-type cleavage site are proteolytically processed, leading to a secreted receptor fragment. |
| **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. |