

ApoER2 (D-18): sc-10112

BACKGROUND

ApoER2 (apolipoprotein E receptor 2), also designated LRP8, is a member of the LDL receptor gene family, which includes LDL receptor, LRP, Megalin, VLDLR and ApoER2. The LDL receptor family is characterized by a cluster of cysteine-rich class A repeats, epidermal growth factor (EGF)-like repeats, YWTD repeats and an O-linked sugar domain. ApoER2 is expressed in brain and placenta and has several splice variants. ApoER2 is thought to mediate the interaction of extracellular Reelin and cytosolic mDab1 (mammalian disabled protein), which activates a tyrosine kinase. This pathway regulates the migration of neurons along the radial glial fiber network during brain development.

REFERENCES

1. Trommsdorff, M., et al. 1999. Reeler/Disabled-like disruption of neuronal migration in knockout mice lacking the VLDL receptor and ApoER2 receptor 2. *Cell* 97: 689-701.
2. Mikhailenko, I., et al. 1999. Functional domains of the very low density lipoprotein receptor: molecular analysis of ligand binding and acid-dependent ligand dissociation mechanisms. *J. Cell Sci.* 112: 3269-3281.
3. Riddell, D.R., et al. 1999. Identification and characterization of LRP8 (ApoER2) in human blood platelets. *J. Lipid Res.* 40: 1925-1930.
4. Clatworthy, A.E., et al. 1999. Expression and alternate splicing of apolipoprotein E receptor 2 in brain. *Neuroscience* 90: 903-911.
5. D'Arcangelo, G., Homayouni, R., Keshvara, L., Rice, D.S., Sheldon, M. and Curran, T. 1999. Reelin is a ligand for lipoprotein receptors. *Neuron* 24: 471-479.
6. Hiesberger, T., et al. 1999. Direct binding of Reelin to VLDL receptor and ApoER2 receptor 2 induces tyrosine phosphorylation of disabled-1 and modulates tau phosphorylation. *Neuron* 24: 481-489.

CHROMOSOMAL LOCATION

Genetic locus: LRP8 (human) mapping to 1p32.3; Lrp8 (mouse) mapping to 4 C7.

SOURCE

ApoER2 (D-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ApoER2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-10112 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

ApoER2 (D-18) is recommended for detection of ApoER2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ApoER2 (D-18) is also recommended for detection of ApoER2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ApoER2 siRNA (h): sc-40097, ApoER2 siRNA (m): sc-40098, ApoER2 shRNA Plasmid (h): sc-40097-SH, ApoER2 shRNA Plasmid (m): sc-40098-SH, ApoER2 shRNA (h) Lentiviral Particles: sc-40097-V and ApoER2 shRNA (m) Lentiviral Particles: sc-40098-V.

Molecular Weight of ApoER2 major band: 126 kDa.

Molecular Weight of ApoER2 lesser-reactive bands: 167/212 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Lutters, B.C., et al. 2003. Dimers of β 2-glycoprotein 1 increase platelet deposition to collagen via interaction with phospholipids and the apolipoprotein E receptor 2'. *J. Biol. Chem.* 278: 33831-33838.
2. van Lummel, M., et al. 2005. The binding site in β 2-glycoprotein 1 for ApoER2R2' on platelets is located in domain V. *J. Biol. Chem.* 280: 36729-36736.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **ApoER2 (1A1): sc-293472**, our highly recommended monoclonal alternative to ApoER2 (D-18).