

ApoER2 (1A1): sc-293472

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 ApoE 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., et al. 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 ApoE 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.

SOURCE

ApoER2 (1A1) is a mouse monoclonal antibody raised against amino acids 83-170 representing partial length ApoER2 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

ApoER2 (1A1) is recommended for detection of ApoER2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

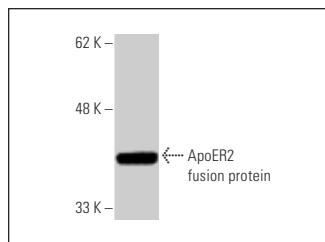
Molecular Weight of ApoER2 major band: 126 kDa.

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

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



ApoER2 (1A1): sc-293472. Western blot analysis of human recombinant ApoER2 fusion protein.

RESEARCH USE

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