

LRP1 (H-80): sc-25469

BACKGROUND

Members of the LDL receptor gene family, including LDLR (low density lipoprotein receptor), LRP (low density lipoprotein related protein), Megalin (also designated GP330), VLDLR (very low density lipoprotein receptor) and ApoER2, are characterized by a cluster of cysteine-rich class A repeats, epidermal growth factor (EGF)-like repeats, YWTD repeats and an O-linked sugar domain. LRP, also designated α -2-macroglobulin receptor, is an endocytic receptor that mediates the uptake of at least 15 ligands, including α -2-macroglobulin and apoE. LRP is cleaved into a membrane subunit and an extracellular subunit, which remain non-covalently associated. Proper folding and trafficking of LRP is facilitated by the receptor-associated protein (RAP), a molecular chaperone. The uptake of all known ligands through LRP can be blocked by RAP, which induces a conformational change in the receptor that renders it unable to bind ligands. LRP, which is expressed in brain, liver and lung, is also implicated in Alzheimer's disease (AD), as the human LRP gene localizes to a potential AD locus on chromosome 12.

REFERENCES

1. Vash, B., et al. 1998. Three complement-type repeats of the low-density lipoprotein receptor-related protein define a common binding site for RAP, PAI-1, and lactoferrin. *Blood* 92: 3277-3285.
2. 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.
3. 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.

CHROMOSOMAL LOCATION

Genetic locus: LRP1 (human) mapping to 12q13.3; Lrp1 (mouse) mapping to 10 D3.

SOURCE

LRP1 (H-80) is a rabbit polyclonal antibody raised against amino acids 206-285 mapping within an N-terminal extracellular domain of LRP1 of human origin.

PRODUCT

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

Available as agarose conjugate for immunoprecipitation, sc-25469 AC, 500 μ g/0.25 ml agarose in 1 ml.

STORAGE

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

RESEARCH USE

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

APPLICATIONS

LRP1 (H-80) is recommended for detection of LRP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

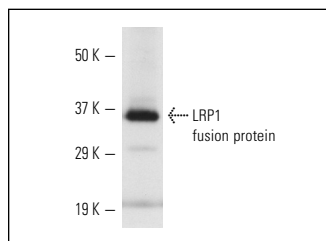
LRP1 (H-80) is also recommended for detection of LRP1 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for LRP1 siRNA (h): sc-40101, LRP1 siRNA (m): sc-40102, LRP1 shRNA Plasmid (h): sc-40101-SH, LRP1 shRNA Plasmid (m): sc-40102-SH, LRP1 shRNA (h) Lentiviral Particles: sc-40101-V and LRP1 shRNA (m) Lentiviral Particles: sc-40102-V.

Molecular Weight of LRP1: 85/515/600 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

DATA



LRP1 (H-80): sc-25469. Western blot analysis of human recombinant LRP1 fusion protein.

SELECT PRODUCT CITATIONS

1. Lee, K.W., et al. 2009. Behavioral stress accelerates plaque pathogenesis in the brain of Tg2576 mice via generation of metabolic oxidative stress. *J. Neurochem.* 108: 165-175.
2. Jaeger, L.B., et al. 2009. Lipopolysaccharide alters the blood-brain barrier transport of amyloid β protein: a mechanism for inflammation in the progression of Alzheimer's disease. *Brain Behav. Immun.* 23: 507-517.
3. Seo, J.S., et al. 2009. SK-PC-B70M confers anti-oxidant activity and reduces A β levels in the brain of Tg2576 mice. *Brain Res.* 1261: 100-108.
4. Woo, J.A., et al. 2012. Pivotal role of RanBP9 in integrin-dependent focal adhesion signaling and assembly. *FASEB J.* 26: 1672-1681.

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Try **LRP1 (8B8): sc-57352**, our highly recommended monoclonal alternative to LRP1 (H-80).