

LRP12 (S-16): sc-87983

BACKGROUND

Members of the LDL receptor gene family, including LDLR (low density lipoprotein receptor), LRP1 (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. LRP12, also designated ST7, is a member of the LDLR family that is thought to be involved in the internalization of lipophilic molecules and/or signal transduction. LRP12 has been shown to interact with RACK1, MADHIP and Integrin β -1-binding protein 3. It is widely expressed in heart, skeletal muscle, brain, lung, placenta and pancreas. Overexpression of LRP12 may be associated with oral tumors, therefore implicating LRP12 as a potential oncogene.

REFERENCES

1. Vash, B., Phung, N., Zein, S. and DeCamp, D. 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., Gotthardt, M., Hiesberger, T., Shelton, J., Stockinger, W., Nimpf, J., Hammer, R.E., Richardson, J.A. and Herz, J. 1999. Reeler/Disabled-like disruption of neuronal migration in knockout mice lacking the VLDL receptor and ApoE receptor 2. *Cell* 97: 689-701.
3. Neels, J.G., van Den Berg, B.M., Lookene, A., Olivecrona, G., Pannekoek, H. and van Zonneveld, A.J. 1999. The second and fourth cluster of class A cysteine-rich repeats of the low density lipoprotein receptor-related protein share ligand-binding properties. *J. Biol. Chem.* 274: 31305-31311.
4. Mikhailenko, I., Considine, W., Argraves, K.M., Loukinov, D., Hyman, B.T. and Strickland, D.K. 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.
5. Battle, M.A., Maher, V.M. and McCormick, J.J. 2003. ST7 is a novel low-density lipoprotein receptor-related protein (LRP) with a cytoplasmic tail that interacts with proteins related to signal transduction pathways. *Biochemistry* 42: 7270-7282.
6. Garnis, C., Coe, B.P., Zhang, L., Rosin, M.P. and Lam, W.L. 2004. Overexpression of LRP12, a gene contained within an 8q22 amplicon identified by high-resolution array CGH analysis of oral squamous cell carcinomas. *Oncogene* 23: 2582-2586.

CHROMOSOMAL LOCATION

Genetic locus: LRP12 (human) mapping to 8q22.3; Lrp12 (mouse) mapping to 15 B3.1.

SOURCE

LRP12 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of LRP12 of human origin.

RESEARCH USE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-87983 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LRP12 (S-16) is recommended for detection of LRP12 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); non cross-reactive with other LRP family members.

LRP12 (S-16) is also recommended for detection of LRP12 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LRP12 siRNA (h): sc-77838, LRP12 siRNA (m): sc-149045, LRP12 shRNA Plasmid (h): sc-77838-SH, LRP12 shRNA Plasmid (m): sc-149045-SH, LRP12 shRNA (h) Lentiviral Particles: sc-77838-V and LRP12 shRNA (m) Lentiviral Particles: sc-149045-V.

Molecular Weight of LRP12: 95 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.

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 or our catalog for detailed protocols and support products.