

SorLA (P-18): sc-34152

BACKGROUND

Sortilin-related receptor, also known as sorting protein-related receptor containing LDLR class A (SorLA), is a type I membrane protein that may be involved in cell-cell interaction. SorLA, a single transmembrane receptor, binds LDL (the main cholesterol-carrying lipoprotein of plasma) and transports it into cells by endocytosis. SorLA is synthesized as a proreceptor which is processed to the mature form by a furin-like propeptidase. It can also bind to RAP (receptor-associated protein). SorLA is a multifunctional endocytosis receptor important in lipoprotein and protease uptake. The N-terminal propeptide, which is removed, can be cleaved by furin or homologous proteases. Endogenous SorLA binds the neuropeptide head activator (HA) and is important for HA signaling and function. SorLA is expressed mainly in brain (cerebral cortex, cerebellum and the occipital pole), but can also be found in liver, spinal cord, kidney, testis and pancreas.

REFERENCES

- Jacobsen, L., Madsen, P., Moestrup, S.K., Lund, A.H., Tommerup, N., Nykjaer, A., Sottrup-Jensen, L., Gliemann, J. and Petersen, C.M. 1996. Molecular characterization of a novel human hybrid-type receptor that binds the α 2-macroglobulin receptor-associated protein. *J. Biol. Chem.* 271: 31379-31383.
- Morwald, S., Yamazaki, H., Bujo, H., Kusunoki, J., Kanaki, T., Seimiya, K., Morisaki, N., Nimpf, J., Schneider, W.J. and Saito, Y. 1997. A novel mosaic protein containing LDL receptor elements is highly conserved in humans and chickens. *Arterioscler. Thromb. Vasc. Biol.* 17: 996-1002.
- Nielsen, M.S., Jacobsen, C., Olivecrona, G., Gliemann, J. and Petersen, C.M. 1999. Sortilin/neurotensin receptor-3 binds and mediates degradation of lipoprotein lipase. *J. Biol. Chem.* 274: 8832-8836.
- Lintzel, J., Franke, I., Riedel, I.B., Schaller, H.C. and Hampe, W. 2002. Characterization of the VPS10 domain of SorLA/LR11 as binding site for the neuropeptide HA. *Biol. Chem.* 383: 1727-1733.
- SWISS-PROT/TrEMBL (Q92673). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: SORL1 (human) mapping to 11q24.1; Sorl1 (mouse) mapping to 9 A5.1.

SOURCE

SorLA (P-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of SorLA 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.

Blocking peptide available for competition studies, sc-34152 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SorLA (P-18) is recommended for detection of SorLA 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).

SorLA (P-18) is also recommended for detection of SorLA in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for SorLA siRNA (h): sc-44375, SorLA siRNA (m): sc-44376, SorLA shRNA Plasmid (h): sc-44375-SH, SorLA shRNA Plasmid (m): sc-44376-SH, SorLA shRNA (h) Lentiviral Particles: sc-44375-V and SorLA shRNA (m) Lentiviral Particles: sc-44376-V.

Molecular Weight of SorLA: 250 kDa.

Positive Controls: Rat cerebellum extract: sc-2398, mouse cerebellum extract: sc-2403 or rat brain extract: sc-2392.

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.

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.