

# SorLA (48): sc-136073

## 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. It 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  $\alpha$ 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 (48) is a mouse monoclonal antibody raised against amino acids 1220-1337 of SorLA of human origin.

## PRODUCT

Each vial contains 50  $\mu$ g IgG<sub>2a</sub> in 0.5 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.

## APPLICATIONS

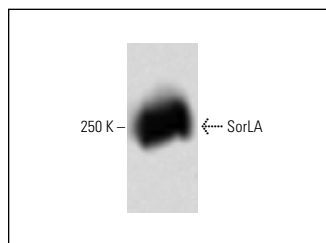
SorLA (48) is recommended for detection of SorLA of mouse, rat, human and *Drosophila melanogaster* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)]; not recommended for immunofluorescence.

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.

## DATA



SorLA (48): sc-136073. Western blot analysis of SorLA expression in rat cerebellum tissue extract.

## SELECT PRODUCT CITATIONS

- Nakazawa, T., Hashimoto, R., Sakoori, K., Sugaya, Y., Tanimura, A., Hashimoto, Y., Ohi, K., Yamamori, H., Yasuda, Y., Umeda-Yano, S., Kiyama, Y., Konno, K., Inoue, T., Yokoyama, K., Inoue, T., et al. 2016. Emerging roles of ARHGAP33 in intracellular trafficking of TrkB and pathophysiology of neuropsychiatric disorders. *Nat. Commun.* 7: 10594.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.