SANTA CRUZ BIOTECHNOLOGY, INC.

SorLA (7D7B11): sc-101426

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 endocytis 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

1. 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 α2-macroglobulin receptor-associated protein. J. Biol. Chem. 271: 31379-31383.
2. 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.
3. 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.
4. 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.
5. 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.

SOURCE

SorLA (7D7B11) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 2159-2214 of SorLA of human origin.

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.

PRODUCT

Each vial contains 200 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SorLA (7D7B11) is available conjugated to agarose (sc-101426 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-101426 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-101426 PE), fluorescein (sc-101426 FITC), Alexa Fluor® 488 (sc-101426 AF488), Alexa Fluor® 546 (sc-101426 AF546), Alexa Fluor® 594 (sc-101426 AF594) or Alexa Fluor® 647 (sc-101426 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-101426 AF680) or Alexa Fluor® 790 (sc-101426 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

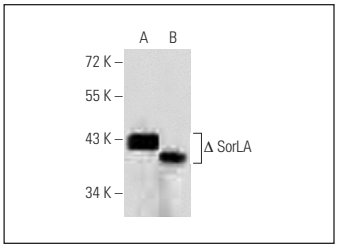
APPLICATIONS

SorLA (7D7B11) is recommended for detection of SorLA 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 SorLA siRNA (h): sc-44375, SorLA shRNA Plasmid (h): sc-44375-SH and SorLA shRNA (h) Lentiviral Particles: sc-44375-V.

Molecular Weight of SorLA: 250 kDa.

DATA



SorLA (7D7B11): sc-101426. Western blot analysis of truncated human recombinant SorLA protein (**A**) and truncated SorLA expression in SorLA transfected CHO-K1 cells (**B**).

RESEARCH USE

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