

SorCS2 (D-12): sc-104658

BACKGROUND

There are three SorCS genes that have diverse, partially overlapping functions in the central nervous system. In the developing and mature central nervous system, SorCS1, SorCS2 and SorCS3 genes are expressed in a combinatorial, non-overlapping pattern. SorCS proteins show homology to the mosaic receptor SorLA and the neurotensin receptor sortilin, based on a common VPS10 domain, which is the hallmark of the SorCS receptor family. SorCS2 (sortilin-related VPS10 domain containing receptor 2) is a 1,150 amino acid single-pass type I membrane protein that is highly expressed in brain and kidney. Containing six BNR repeats and a single PKD domain, SorCS2 is encoded by a gene that maps to human chromosome 4, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes.

REFERENCES

1. Hermey, G., et al. 1999. Identification and characterization of SorCS, a third member of a novel receptor family. *Biochem. Biophys. Res. Commun.* 266: 347-351.
2. Hermey, G. and Schaller, H.C. 2000. Alternative splicing of murine SorCS leads to two forms of the receptor that differ completely in their cytoplasmic tails. *Biochim. Biophys. Acta* 1491: 350-354.
3. Rezgaoui, M., et al. 2001. Identification of SorCS2, a novel member of the VPS10 domain containing receptor family, prominently expressed in the developing mouse brain. *Mech. Dev.* 100: 335-338.
4. Hermey, G., et al. 2001. Transient expression of SorCS in developing telencephalic and mesencephalic structures of the mouse. *Neuroreport* 12: 29-32.
5. Online Mendelian Inheritance in Man, OMIM[™]. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 606284. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Hermey, G., et al. 2004. The three SorCS genes are differentially expressed and regulated by synaptic activity. *J. Neurochem.* 88: 1470-1476.
7. Willnow, T.E., et al. 2008. VPS10P-domain receptors-regulators of neuronal viability and function. *Nat. Rev. Neurosci.* 9: 899-909.
8. Hermey, G. 2009. The Vps10p-domain receptor family. *Cell. Mol. Life Sci.* 66: 2677-2689.

CHROMOSOMAL LOCATION

Genetic locus: SORCS2 (human) mapping to 4p16.1; Sorcs2 (mouse) mapping to 5 B3.

SOURCE

SorCS2 (D-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SorCS2 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.

PRODUCT

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

Blocking peptide available for competition studies, sc-104658 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SorCS2 (D-12) is recommended for detection of SorCS2 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).

SorCS2 (D-12) is also recommended for detection of SorCS2 in additional species, including equine and canine.

Suitable for use as control antibody for SorCS2 siRNA (h): sc-88953, SorCS2 siRNA (m): sc-106557, SorCS2 shRNA Plasmid (h): sc-88953-SH, SorCS2 shRNA Plasmid (m): sc-106557-SH, SorCS2 shRNA (h) Lentiviral Particles: sc-88953-V and SorCS2 shRNA (m) Lentiviral Particles: sc-106557-V.

Molecular Weight of SorCS2: 128 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.

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.



Try **SorCS2 (A-10): sc-398412**, our highly recommended monoclonal alternative to SorCS2 (D-12).