SANTA CRUZ BIOTECHNOLOGY, INC.

SorCS1 (E-8): sc-365605

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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, the homologous SorCS1 and SorCS2 genes and the SorCS3 gene 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. SorCS1 is a type 1 receptor containing a VPS10P domain and a leucine-rich domain. Alternative splicing of human SorCS1 results in four isoforms with different cytoplasmic tails and differential expression in tissues. Human SorCS1 is detected in fetal and infant brain and in fetal retina. Alternative splicing of murine SorCS1 also results in four isoforms. Murine isoform 1 is highly expressed in brain and at lower levels in heart, liver and kidney. It is detected in newborn mouse brain and in adult olfactory bulb and cerebral cortex. Murine isoform 2 is highly expressed in liver and at lower levels in heart, brain, kidney and testis.

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., et al. 2001. SorCS1, a member of the novel sorting receptor family, is localized in somata and dendrites of neurons throughout the murine brain. Neurosci. Lett. 313: 83-87.
3. Hampe, W., et al. 2001. The genes for the human VPS10 domain-containing receptors are large and contain many small exons. Hum. Genet. 108: 529-536.
4. Hermey, G., et al. 2001. Transient expression of SorCS in developing telencephalic and mesencephalic structures of the mouse. Neuroreport 12: 29-32.

CHROMOSOMAL LOCATION

Genetic locus: SORCS1 (human) mapping to 10q25.1; Sorcs1 (mouse) mapping to 19 D1.

SOURCE

SorCS1 (E-8) is a mouse monoclonal antibody raised against amino acids 34-153 mapping near the N-terminus of SorCS1 of human origin.

PRODUCT

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

SorCS1 (E-8) is available conjugated to agarose (sc-365605 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-365605 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365605 PE), fluorescein (sc-365605 FITC), Alexa Fluor® 488 (sc-365605 AF488), Alexa Fluor® 546 (sc-365605 AF546), Alexa Fluor® 594 (sc-365605 AF594) or Alexa Fluor® 647 (sc-365605 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365605 AF680) or Alexa Fluor® 790 (sc-365605 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

SorCS1 (E-8) is recommended for detection of isoforms 1-4 of precursor and mature SorCS1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

Suitable for use as control antibody for SorCS1 siRNA (h): sc-44745, SorCS1 siRNA (m): sc-44746, SorCS1 shRNA Plasmid (h): sc-44745-SH, SorCS1 shRNA Plasmid (m): sc-44746-SH, SorCS1 shRNA (h) Lentiviral Particles: sc-44745-V and SorCS1 shRNA (m) Lentiviral Particles: sc-44746-V.

Molecular Weight (predicted) of SorCS1: 133 kDa.

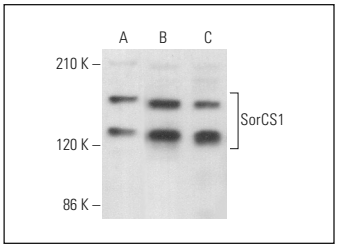
Molecular Weight (observed) of SorCS1: 160 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Neuro-2A whole cell lysate: sc-364185 or C6 whole cell lysate: sc-364373.

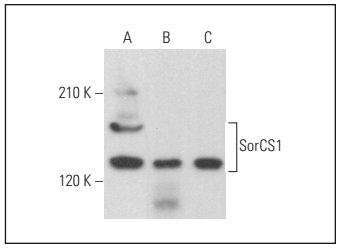
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



SorCS1 (E-8): sc-365605. Western blot analysis of SorCS1 expression in K-562 (**A**), Neuro-2A (**B**) and C6 (**C**) whole cell lysates.



SorCS1 (E-8): sc-365605. Western blot analysis of SorCS1 expression in IMR-32 whole cell lysate (**A**) and mouse brain (**B**) and rat brain (**C**) tissue extracts.

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.