SANTA CRUZ BIOTECHNOLOGY, INC.

SREB1 (H-6): sc-393454

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

G protein-coupled receptors (GPRs) are a protein family of transmembrane receptors that transmit an extracellular signal (ligand binding) into an intracellular signal (G protein activation). GPR signaling is an evolutionarily ancient mechanism used by all eukaryotes to sense environmental stimuli and mediate cell-cell communication. GPRs all have seven membrane-spanning domains and extracellular loops that can be glycosylated. These extracellular loops also contain two highly conserved cysteine residues which create disulfide bonds to stabilize the receptor structure. SREB1 (super conserved receptor expressed in brain 1), also known as GPR27 (G protein-coupled receptor 27), belongs to the SREB subfamily of GPRs that are expressed in the central nervous system. SREB1 may function as an amine-like GPR.

REFERENCES

1. O'Dowd, B.F., et al. 1998. Discovery of three novel G protein-coupled receptor genes. Genomics 47: 310-313.
2. Matsumoto, M., et al. 2000. An evolutionarily conserved G protein-coupled receptor family, SREB, expressed in the central nervous system. Biochem. Biophys. Res. Commun. 272: 576-582.
3. Hellebrand, S., et al. 2001. GPR85, a novel member of the G protein-coupled receptor family, prominently expressed in the developing mouse cerebral cortex. Brain Res. Gene Expr. Patterns 1: 13-16.
4. Joost, P. and Methner, A. 2002. Phylogenetic analysis of 277 human G protein-coupled receptors as a tool for the prediction of orphan receptor ligands. Genome Biol. 3: RESEARCH0063.

CHROMOSOMAL LOCATION

Genetic locus: GPR27 (human) mapping to 3p13; Gpr27 (mouse) mapping to 6 D3.

SOURCE

SREB1 (H-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 341-356 within a C-terminal cytoplasmic domain of SREB1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SREB1 (H-6) is available conjugated to agarose (sc-393454 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393454 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393454 PE), fluorescein (sc-393454 FITC), Alexa Fluor® 488 (sc-393454 AF488), Alexa Fluor® 546 (sc-393454 AF546), Alexa Fluor® 594 (sc-393454 AF594) or Alexa Fluor® 647 (sc-393454 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393454 AF680) or Alexa Fluor® 790 (sc-393454 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393454 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

SREB1 (H-6) is recommended for detection of SREB1 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 SREB1 siRNA (h): sc-63064, SREB1 shRNA Plasmid (h): sc-63064-SH and SREB1 shRNA (h) Lentiviral Particles: sc-63064-V.

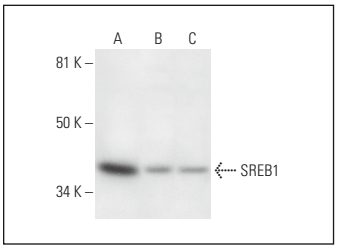
Molecular Weight of SREB1: 40 kDa.

Positive Controls: T24 cell lysate: sc-2292, T98G cell lysate: sc-2294 or SK-N-MC cell lysate: sc-2237.

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



SREB1 (H-6): sc-393454. Western blot analysis of SREB1 expression in T24 (**A**), T98G (**B**) and SK-N-MC (**C**) whole cell lysates.

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 for detailed protocols and support products.