SANTA CRUZ BIOTECHNOLOGY, INC.

SCRG1 (D-15): sc-165436

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The Power to Question

BACKGROUND

SCRG1 (scrapie-responsive protein 1) is a 98 amino acid secreted protein that belongs to the SCRG1 family. The SCRG1 protein contains a 20-amino acid signal peptide, and is expressed abundantly in the central nervous system of human adult, but not at all in fetal brain. The protein is targeted to the Golgi apparatus and large dense-core vesicles/secretory granules in neurons. High levels of SCRG1 transcripts are also observed in testis and aorta. SCRG1 is associated with neurodegenerative changes observed in transmissible spongiform encephalopathies. It may play a role in host response to prion-associated infections. The SCRG1 protein may be partly included in the membrane or secreted by the cells due to its hydrophobic N-terminus. The human and mouse SCRG1 proteins share 83% sequence identity. The SCRG1 gene is conserved in chimpanzee, cow, mouse, rat and chicken, and maps to human chromosome 4q34.1.

REFERENCES

1. Dandoy-Dron, F., et al. 1998. Gene expression in scrapie. Cloning of a new scrapie-responsive gene and the identification of increased levels of seven other mRNA transcripts. J. Biol. Chem. 273: 7691-7697.
2. Dron, M., et al. 1998. Characterization of the human analogue of a Scrapie-responsive gene. J. Biol. Chem. 273: 18015-18018.
3. Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 603163. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Clark, H.F., et al. 2003. The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment. Genome Res. 13: 2265-2270.
5. Zhang, Z., et al. 2004. Signal peptide prediction based on analysis of experimentally verified cleavage sites. Protein Sci. 13: 2819-2824.
6. Hu, Y., et al. 2005. Comparative proteomic analysis of intra- and interindividual variation in human cerebrospinal fluid. Mol. Cell. Proteomics 4: 2000-2009.
7. Dron, M., et al. 2006. SCRG1, a potential marker of autophagy in transmissible spongiform encephalopathies. Autophagy 2: 58-60.
8. Ochi, K., et al. 2006. A predominantly articular cartilage-associated gene, SCRG1, is induced by glucocorticoid and stimulates chondrogenesis *in vitro*. Osteoarthr. Cartil. 14: 30-38.

CHROMOSOMAL LOCATION

Genetic locus: SCRG1 (human) mapping to 4q34.1; Scrg1 (mouse) mapping to 8 B2.

SOURCE

SCRG1 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SCRG1 of mouse 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-165436 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SCRG1 (D-15) is recommended for detection of SCRG1 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).

SCRG1 (D-15) is also recommended for detection of SCRG1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SCRG1 siRNA (h): sc-89029, SCRG1 siRNA (m): sc-153271, SCRG1 shRNA Plasmid (h): sc-89029-SH, SCRG1 shRNA Plasmid (m): sc-153271-SH, SCRG1 shRNA (h) Lentiviral Particles: sc-89029-V and SCRG1 shRNA (m) Lentiviral Particles: sc-153271-V.

Molecular Weight of SCRG1: 11 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.