

PCSK1N (P-13): sc-241601

BACKGROUND

PCSK1N (proprotein convertase subtilisin/kexin type 1 inhibitor), also known as SAAS or PROSAAS, is a 260 amino acid protein that is both secreted and localized to the *trans*-Golgi network. Expressed in pancreas and brain, PCSK1N is thought to play a role in the control of the neuroendocrine secretory pathway and may also be involved in PCSK1 inhibition. The gene encoding PCSK1N maps to human chromosome X, which contains nearly 153 million base pairs and houses over 1,000 genes. In conjunction with chromosome Y, chromosome X is responsible for sex determination, as an X and a Y chromosome lead to normal male development, while two copies of an X chromosome lead to normal female development. There are a number of conditions related to an abnormal number and combination of sex chromosomes, some of which include Turner's syndrome, color blindness, hemophilia and Duchenne muscular dystrophy.

REFERENCES

- Fricker, L.D., et al. 2000. Identification and characterization of PROSAAS, a granin-like neuroendocrine peptide precursor that inhibits prohormone processing. *J. Neurosci.* 20: 639-648.
- Basak, A., et al. 2001. Inhibitory specificity and potency of PROSAAS-derived peptides toward proprotein convertase 1. *J. Biol. Chem.* 276: 32720-32728.
- Fortenberry, Y., et al. 2002. Functional characterization of PROSAAS: similarities and differences with 7B2. *J. Biol. Chem.* 277: 5175-5186.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300399. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Kikuchi, K., et al. 2003. An N-terminal fragment of PROSAAS (a granin-like neuroendocrine peptide precursor) is associated with Tau inclusions in Pick's disease. *Biochem. Biophys. Res. Commun.* 308: 646-654.
- Wada, M., et al. 2004. A human granin-like neuroendocrine peptide precursor (PROSAAS) immunoreactivity in Tau inclusions of Alzheimer's disease and Parkinsonism-dementia complex on Guam. *Neurosci. Lett.* 356: 49-52.
- Chakraborty, T.R., et al. 2006. Quantification of VGF- and PROSAAS-derived peptides in endocrine tissues and the brain, and their regulation by diet and cold stress. *Brain Res.* 1089: 21-32.

CHROMOSOMAL LOCATION

Genetic locus: *Pcsk1n* (mouse) mapping to X A1.1.

SOURCE

PCSK1N (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PCSK1N 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-241601 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PCSK1N (P-13) is recommended for detection of PCSK1N of mouse and rat 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)], 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); non cross-reactive with PCSK1.

Suitable for use as control antibody for PCSK1N siRNA (m): sc-152119, PCSK1N shRNA Plasmid (m): sc-152119-SH and PCSK1N shRNA (m) Lentiviral Particles: sc-152119-V.

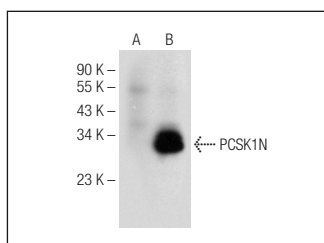
Molecular Weight of PCSK1N: 26 kDa.

Positive Controls: PCSK1N (m): 293T Lysate: sc-122441.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



PCSK1N (P-13): sc-241601. Western blot analysis of PCSK1N expression in non-transfected: sc-117752 (A) and mouse PCSK1N transfected: sc-122441 (B) 293T whole cell lysates.

RESEARCH USE

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