SOXN (G-20): sc-139427



The Power to Question

BACKGROUND

SOXN (sulfhydryl oxidase 2), also known as QSOX2 or QSCN6L1 (quiescin Q6-like protein 1), is a 698 amino acid secreted protein that is also found in the cell and nuclear membranes. Belonging to the quiescin-sulfhydryl oxidase (QSOX) family, SOXN contains one ERV/ALR sulfhydryl oxidase domain and one thioredoxin domain. While expressed at high levels in pancreas, brain, placenta, kidney, heart and fetal tissues, SOXN is weakly expressed in lung, liver and skeletal muscle. SOXN binds one FAD per subunit and catalyzes the oxidation of sulfhydryl groups in peptide and protein thiols to disulfides with the reduction of oxygen to hydrogen peroxide. In addition, SOXN may play a role in regulating the sensitization of neuroblastoma cells for interferon γ -induced apoptosis. The gene that encodes SOXN consists of nearly 40,000 bases and maps to human chromosome 9q34.3.

REFERENCES

- Thorpe, C., Hoober, K.L., Raje, S., Glynn, N.M., Burnside, J., Turi, G.K. and Coppock, D.L. 2002. Sulfhydryl oxidases: emerging catalysts of protein disulfide bond formation in eukaryotes. Arch. Biochem. Biophys. 405: 1-12.
- Wittke, I., Wiedemeyer, R., Pillmann, A., Savelyeva, L., Westermann, F. and Schwab, M. 2003. Neuroblastoma-derived sulfhydryl oxidase, a new member of the sulfhydryl oxidase/Quiescin6 family, regulates sensitization to interferon γ-induced cell death in human neuroblastoma cells. Cancer Res. 63: 7742-7752.
- Heckler, E.J., Alon, A., Fass, D. and Thorpe, C. 2008. Human quiescinsulfhydryl oxidase, QSOX1: probing internal redox steps by mutagenesis. Biochemistry 47: 4955-4963.
- Heckler, E.J., Rancy, P.C., Kodali, V.K. and Thorpe, C. 2008. Generating disulfides with the Quiescin-sulfhydryl oxidases. Biochim. Biophys. Acta 1783: 567-577.
- Online Mendelian Inheritance in Man, OMIM™. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 612860. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 6. Kodali, V.K. and Thorpe, C. 2010. Oxidative protein folding and the Quiescin-sulfhydryl oxidase family of flavoproteins. Antioxid. Redox Signal. 13: 1217-1230.
- 7. Zito, E., Melo, E.P., Yang, Y., Wahlander, A., Neubert, T.A. and Ron, D. 2010. Oxidative protein folding by an endoplasmic reticulum-localized peroxiredoxin. Mol. Cell 40: 787-797.

CHROMOSOMAL LOCATION

Genetic locus: QSOX2 (human) mapping to 9q34.3; Qsox2 (mouse) mapping to 2 A3.

SOURCE

SOXN (G-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of SOXN of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 μg lgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-139427 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SOXN (G-20) is recommended for detection of SOXN of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with quiescin Q6.

SOXN (G-20) is also recommended for detection of SOXN in additional species, including canine, bovine and avian.

Suitable for use as control antibody for SOXN siRNA (h): sc-92548, SOXN siRNA (m): sc-153687, SOXN shRNA Plasmid (h): sc-92548-SH, SOXN shRNA Plasmid (m): sc-153687-SH, SOXN shRNA (h) Lentiviral Particles: sc-92548-V and SOXN shRNA (m) Lentiviral Particles: sc-153687-V.

Molecular Weight of SOXN: 76 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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