

## Sox-3 (J-23): sc-134023

### BACKGROUND

Sox genes comprise a family of genes that are related to the mammalian sex determining gene SRY. These genes similarly contain sequences that encode for the HMG-box domain, which is responsible for the sequence-specific DNA-binding activity. Sox genes encode putative transcriptional regulators implicated in the decision of cell fates during development and the control of diverse developmental processes. The highly complex group of Sox genes cluster at least 40 different loci that rapidly diverged in various animal lineages. At present, 30 Sox genes have been identified. Members of this family have been shown to be conserved during evolution and to play key roles during animal development. Some are involved in human diseases, including sex reversal. Sox-3, also known as MRGH or SOXB, is implicated in mental retardation X-linked with isolated growth hormone deficiency (MRXGH) and infundibular hypoplasia and hypopituitarism.

### REFERENCES

1. Laudet, V., Stehelin, D. and Clevers, H. 1993. Ancestry and diversity of the HMG box superfamily. *Nucleic Acids Res.* 21: 2493-2501.
2. Kuhlbrodt, K., Herbarth, B., Sock, E., Hermans-Borgmeyer, I. and Wegner, M. 1998. Sox-10, a novel transcriptional modulator in glial cells. *J. Neurosci.* 18: 237-250.
3. Arsic, N., Rajic, T., Stanojic, S., Goodfellow, P.N. and Stevanovic, M. 1998. Characterisation and mapping of the human SOX14 gene. *Cytogenet. Cell Genet.* 83: 139-146.
4. Osaki, E., Nishina, Y., Inazawa, J., Copeland, N.G., Gilbert, D.J., Jenkins, N.A., Ohsugi, M., Tezuka, T., Yoshida, M. and Semba, K. 1999. Identification of a novel SRY-related gene and its germ cell-specific expression. *Nucleic Acids Res.* 27: 2503-2510.
5. Sasai, Y. 2001. Roles of Sox factors in neural determination: conserved signaling in evolution? *Int. J. Dev. Biol.* 45: 321-326.

### CHROMOSOMAL LOCATION

Genetic locus: SOX3 (human) mapping to Xq27.1; Sox3 (mouse) mapping to X A6.

### SOURCE

Sox-3 (J-23) is a Protein A purified rabbit polyclonal antibody raised against synthetic Sox-3 peptide of human origin.

### PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

### 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.

### APPLICATIONS

Sox-3 (J-23) is recommended for detection of Sox-3 of mouse, rat and human 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)] and solid phase ELISA

Suitable for use as control antibody for Sox-3 siRNA (h): sc-38410, Sox-3 siRNA (m): sc-38411, Sox-3 shRNA Plasmid (h): sc-38410-SH, Sox-3 shRNA Plasmid (m): sc-38411-SH, Sox-3 shRNA (h) Lentiviral Particles: sc-38410-V and Sox-3 shRNA (m) Lentiviral Particles: sc-38411-V.

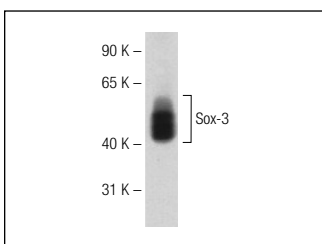
Molecular Weight of Sox-3: 45 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, IMR-32 nuclear extract: sc-2148 or MCF7 whole cell lysate: sc-2206.

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

### DATA



Sox-3 (J-23): sc-134023. Western blot analysis of Sox-3 expression in MCF7 whole cell lysate.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **Sox-3 (16-C2): sc-101155**, our highly recommended monoclonal alternative to Sox-3 (J-23).