SANTA CRUZ BIOTECHNOLOGY, INC.

Sox-3 (16-C2): sc-101155

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., et al. 1993. Ancestry and diversity of the HMG box superfamily. Nucleic Acids Res. 21: 2493-2501.
2. Kuhlbrodt, K., et al. 1998. Sox10, a novel transcriptional modulator in glial cells. J. Neurosci. 18: 237-250.
3. Arsic, N., et al. 1998. Characterisation and mapping of the human Sox14 gene. Cytogenet. Cell Genet. 83: 139-146.

CHROMOSOMAL LOCATION

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

SOURCE

Sox-3 (16-C2) is a mouse monoclonal antibody raised against recombinant Sox-3 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Sox-3 (16-C2) 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 (starting dilution 1:30, dilution range 1:30-1:3000).

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.

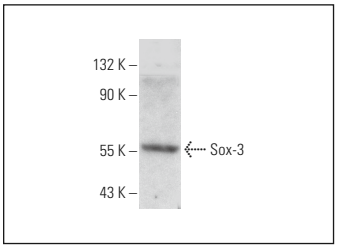
Molecular Weight of Sox-3: 45 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, MDA-MB-435S whole cell lysate: sc-364184 or MCF7 whole cell lysate: sc-2206.

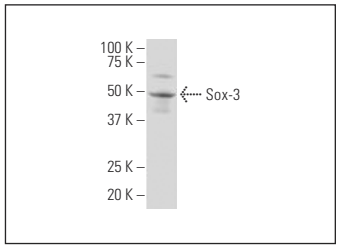
RECOMMENDED SUPPORT REAGENTS

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).

DATA



Sox-3 (16-C2): sc-101155. Western blot analysis of Sox-3 expression in MDA-MB-435S whole cell lysate.



Sox-3 (16-C2): sc-101155. Western blot analysis of Sox-3 expression in A-431 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Scuderi, S.A., et al.. 2021. TBK1 inhibitor exerts anti-proliferative effect on glioblastoma multiforme cells. Oncol. Res. 28: 779-790.
2. Turchi, L., et al. 2023. CELF2 sustains a proliferating/OLIG2+ glioblastoma cell phenotype via the epigenetic repression of SOX3. Cancers 15: 5038.

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.