

Sox-2 (D-17): sc-17319

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 a minimum of 40 different loci that rapidly diverged in various animal lineages. At present 30 Sox genes have been identified, and 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.

CHROMOSOMAL LOCATION

Genetic locus: SOX2 (human) mapping to 3q26.33; Sox2 (mouse) mapping to 3 A3.

SOURCE

Sox-2 (D-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Sox-2 of human origin.

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-17319 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-17319 X, 200 µg/0.1 ml.

APPLICATIONS

Sox-2 (D-17) is recommended for detection of Sox-2 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)], 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).

Sox-2 (D-17) is also recommended for detection of Sox-2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Sox-2 siRNA (h): sc-38408, Sox-2 siRNA (m): sc-38409, Sox-2 shRNA Plasmid (h): sc-38408-SH, Sox-2 shRNA Plasmid (m): sc-38409-SH, Sox-2 shRNA (h) Lentiviral Particles: sc-38408-V and Sox-2 shRNA (m) Lentiviral Particles: sc-38409-V.

Sox-2 (D-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

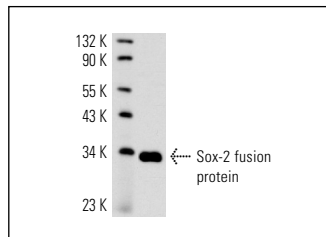
Molecular Weight of Sox-2: 34 kDa.

Positive Controls: rat small intestine extract: sc-364811.

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



Sox-2 (D-17): sc-17319. Western blot analysis of human recombinant Sox-2 fusion protein.

SELECT PRODUCT CITATIONS

- Torres-Padilla, M.E., et al. 2007. Histone arginine methylation regulates pluripotency in the early mouse embryo. *Nature* 445: 214-218.
- Bhatia, B., et al. 2010. SOX2 is required for adult human Muller stem cell survival and maintenance of progenicity *in vitro*. *Invest. Ophthalmol. Vis. Sci.* 52: 136-145.
- Ura, H., et al. 2011. Eed/Sox2 regulatory loop controls ES cell self-renewal through histone methylation and acetylation. *EMBO J.* 30: 2190-2204.

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 or our catalog for detailed protocols and support products.



Try **Sox-2 (E-4): sc-365823** or **Sox-2 (D-9): sc-398254**, our highly recommended monoclonal alternatives to Sox-2 (D-17). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Sox-2 (E-4): sc-365823**.