Anti-Sox-2 Antibody

Antibodies

Rabbit polyclonal antibody against human Sox-2, unconjugated

Catalog #60055	200 µL	0.43 mg/mL
#60055.1	50 µL	0.43 mg/mL

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Product Description

The Poly6519 polyclonal antibody reacts with human Sox-2 (SRY-box 2), an ~34 kDa nuclear transcription factor containing a high motility group DNA-binding domain which functions to bind and open the DNA helix, thus facilitating the actions of other transcription factors. Sox-2 is known to associate with Oct-4. Expression of Sox-2 occurs throughout the brain, including the developing hypothalamus and anterior pituitary, and the eye. The protein regulates several genes that control embryogenesis and differentiation. Its expression has been observed as early as the preimplantation stage but becomes restricted to the neuroepithelium and, later, to neural stem and progenitor cells. Sox-2 is required for maintaining the self-renewal and pluripotency capabilities of embryonic stem (ES) cells. In concert with other factors, Sox-2 has been used to reprogram differentiated cells into induced pluripotent stem (iPS) cells. Certain mutations in the Sox-2 gene are associated with optic nerve hypoplasia and anophthalmia, a severe developmental defect of the eyes.

Target Antigen Name:	Sox-2
Alternative Names:	ANOP3, SOX-2, SRY (sex determining region Y)-box 2
Gene ID:	6657
Species Reactivity:	Human, Mouse
Host Species:	Rabbit
Clonality:	Polyclonal
Clone:	Not applicable (Poly6519)
Isotype:	Not applicable
Immunogen:	Full length recombinant Sox-2 protein
Conjugate:	Unconjugated

Applications

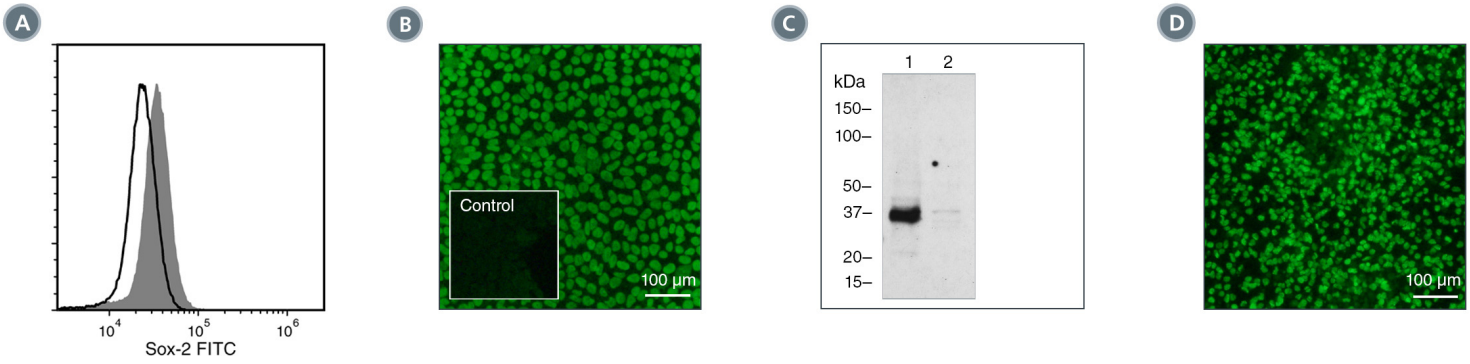
Verified:	FC, ICC, IF, WB
Reported:	WB
Special Applications:	This antibody clone has been verified for labeling human ES and iPS cells grown in TeSR™-E8™ (Catalog #05940), mTeSR™1 (Catalog #05850) and TeSR™2 (Catalog #05860) and embryonic mouse cortical cells cultured with NeuroCult™ Proliferation Kit (Mouse; Catalog #05702).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 50% glycerol
Purification:	This antibody was purified by affinity chromatography using a column conjugated with recombinant Sox-2 protein.
Stability and Storage:	Product stable at -20°C when stored undiluted. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	The suggested use of this antibody is: FC (fixed cells), 1 µL per 1 x 10^6 cells in 100 µL volume; ICC/IF, 100X dilution; WB, 500X dilution. It is recommended that the antibody be titrated for optimal perfomance for each application.

Data



(A) Flow cytometry analysis of human ES cells labeled with Anti-Sox-2 Antibody, followed by goat anti-rabbit IgG, FITC (filled histogram), or a polyclonal rabbit Ig isotype control antibody, followed by goat anti-rabbit IgG, FITC (solid line histogram).
(B) Human ES cells were cultured in mTeSR™1 on Corning® Matrigel®-coated glass slides, then fixed and labeled with Anti-Sox-2 Antibody, followed by goat anti-rabbit IgG, FITC. Inset shows cells labeled with a polyclonal rabbit Ig isotype control antibody, followed by goat anti-rabbit IgG, FITC.
(C) Western blot analysis of cell lysates from human ES cells (lane 1) or HT1080 fibrosarcoma cells (negative control, lane 2) with Anti-Sox-2 Antibody.
(D) Embryonic mouse cortical tissue was cultured using the NeuroCult™ Proliferation Kit (Mouse), then fixed and labeled with Anti-Sox-2 Antibody, followed by goat anti-rabbit IgG, FITC.

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

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8. Stevanovic M et al. (1994) The cDNA sequence and chromosomal location of the human SOX2 gene. Mamm Genome 5(10): 640–2.

Please refer to the Safety Data Sheet (SDS) for hazard information.