

Datasheet for ABIN6972778
anti-SOX2 antibody (C-Term)



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3 Images

1 Publication

Overview

Quantity:	100 µL
Target:	SOX2
Binding Specificity:	C-Term
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunocytochemistry (ICC), Cleavage Under Targets and Release Using Nuclease (CUT&RUN), ChIP DNA-Sequencing (ChIP-seq), Chromatin Immunoprecipitation (ChIP)

Product Details

Immunogen:	This Sox2 antibody was raised against a peptide within the C-terminal region of human Sox2.
Isotype:	IgG
Characteristics:	Sox2 (SRY related HMG BOX gene 2) is a DNA binding transcription factor and a member of the SOX family of proteins. SOX proteins have an HMG box that binds DNA. Sox2 forms a complex with Oct-4 and controls the expression of a number of genes involved in embryonic. Sox2 is critical for early embryogenesis and for embryonic stem cell pluripotency and thus can serve as a stem cell marker. Overexpression of Sox2 (along with Oct-4, KLF4 and c-Myc) can transform mouse fibroblasts into a state resembling embryonic stem cells (ES cells), referred to as Induced Pluripotency. Defects in Sox2 are the cause of microphthalmia syndromic type 3. Sox2 antibody (pAb) was raised in a Rabbit host. It has been validated for use in Chromatin Immunoprecipitation, ChIP-Seq, Immunocytochemistry, Immunofluorescence and Western blot,

Product Details

it has been shown to react with Human and Mouse samples.

Purification: Affinity Purified

Target Details

Target: SOX2

Alternative Name: Sox2 ([SOX2 Products](#))

Molecular Weight: 42 kDa

NCBI Accession: [NP_003097](#)

Pathways: [Dopaminergic Neurogenesis](#), [Sensory Perception of Sound](#), [Stem Cell Maintenance](#), [Cell RedoxHomeostasis](#)

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Restrictions: For Research Use only

Handling

Buffer: Purified IgG in 70 mM Tris (pH 8), 105 mM NaCl, 31 mM glycine, 0.07 mM EDTA, 30 % glycerol and 0.035 % sodium azide.

Preservative: Sodium azide

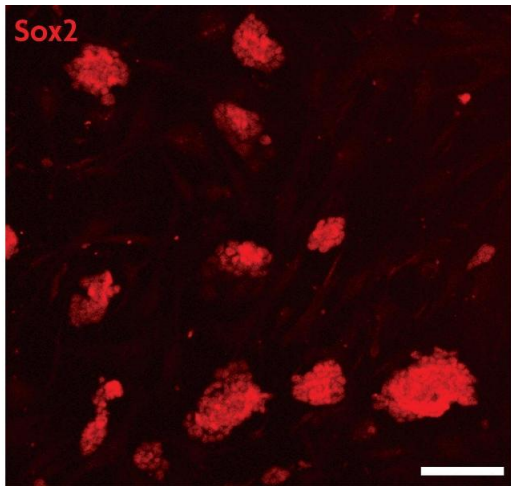
Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: -20 °C

Storage Comment: Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage.

Publications

Product cited in: Janssens, Wu, Sarthy, Meers, Myers, Olson, Ahmad, Henikoff: "Automated in situ chromatin profiling efficiently resolves cell types and gene regulatory programs." in: **Epigenetics & chromatin**, Vol. 11, Issue 1, pp. 74, (2019) ([PubMed](#)).

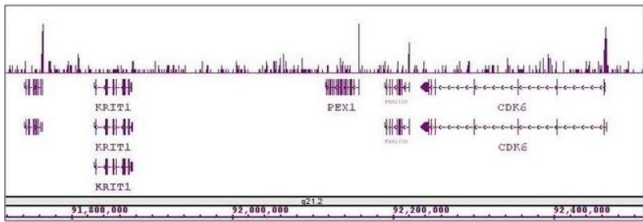


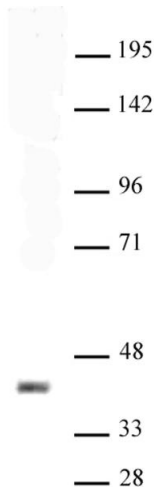
Immunofluorescence

Image 1. Sox2 antibody (pAb) tested by Immunofluorescence. Mouse embryonic stem cells (mESCs) grown on mouse embryonic fibroblast feeder cells (MEFs) were fixed with 4 % paraformaldehyde for 10 minutes at room temperature. Cells were then permeabilized and blocked by incubating with Blocking Solution containing 5 % serum/0.1 % Triton X-100 in D-PBS for 2 hours at room temperature. Cells were then incubated with Sox2 antibody (red) at 1:200 dilution overnight at 4 °C, washed with D-PBS, and incubated for 2 hours at room temperature with goat anti-mouse Cy3 secondary antibody at 1:250 dilution. Cells were visualized using a Zeiss fluorescent microscope at 20X magnification. Images show that Sox2 antibody specifically stains mESC colonies and does not stain MEFs. Absence of Sox2 staining in a subset of cells within the colonies suggests differentiation. Scale bars, 100 μ m.

ChIP DNA-Sequencing

Image 2. Sox2 antibody (pAb) tested by ChIP-Seq. ChIP was performed using the ChIP-IT High Sensitivity Kit with 30 μ g of chromatin from undifferentiated hESC cells and 7 μ L of antibody. ChIP DNA was sequenced on the Illumina HiSeq and 10 million sequence tags were mapped to identify Sox2 binding sites. The image shows binding across a region of chromosome 7. You can view the complete data set in the UCSC Genome Browser, starting at this specific location, [here](#).





Western Blotting

Image 3. Sox2 antibody (pAb) tested by Western blot. Nuclear extract of P19 cells (20 µg per lane) probed with Sox2 antibody (pAb) (1:500 dilution).