

Mouse Sox2 Monoclonal Antibody | anti-Sox2 antibody

Sox2 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA71707	Mouse	Human, Rat, Mouse, Chicken, Fish	Immunocytochemistry, ELISA, Western Blot

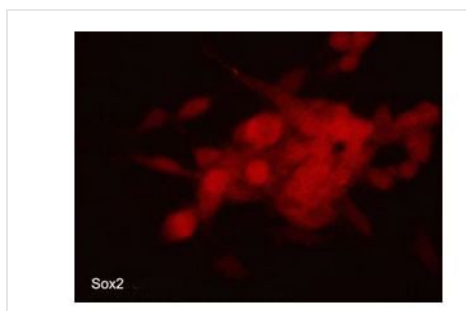
PRODUCT SYNONYMS

Sox2; Monoclonal Antibody; Sox2 Antibody; anti-Sox2 antibody

PRODUCT SPECIFICATIONS

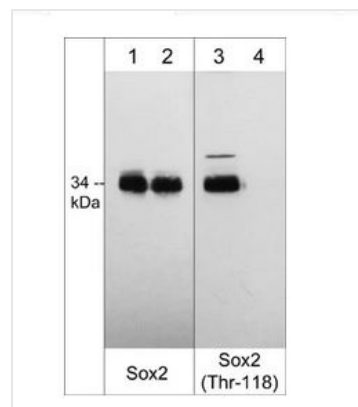
Host	Mouse
Reactivity	Human, Rat, Mouse, Chicken, Fish
Clonality	Monoclonal
Isotype	IgG2b
Clone Number	M551
Specificity	The antibody was purified by Protein G chromatography. This antibody detects a 34kDa* protein on SDS-PAGE immunoblots of mouse F9 stem cells, and detects a full length recombinant human Sox2 protein.
Purity/Purification	Protein G chromatography
Form/Format	Mouse monoclonal purified with protein G chromatography is supplied in 100ul phosphate-buffered saline, 50% glycerol, 1mg/ml BSA, and 0.05% sodium azide.
Applicable Applications for anti-Sox2 antibody	ICC (Immunocytochemistry), ELISA, WB (Western Blot)
Immunogen	Clone M551 was generated from a recombinant protein corresponding to the full length sequence from human Sox2. This sequence is highly conserved in rat and mouse Sox2.
Preparation and Storage	Store at -20 degree C. Stable for 1 year.

IMAGES



ICC (Immunocytochemistry)

Immunocytochemical labeling of Sox2 in aldehyde fixed and NP-40 permeabilized human NCI-H446 lung carcinoma cells. The cells were labeled with mouse monoclonal anti-Sox2 (SM5511). The antibody was detected using goat anti-mouse DyLight 594.



WB (Western Blot)

Western blot image of mouse F9 stem cells treated with with calyculin A (100nM, 30 min.) (lanes 1-4) then Sox2 was dephosphorylated with lambda phosphatase (lanes 2 & 4). The blot was probed with mouse monoclonal Sox2 (lanes 1 & 2) and rabbit polyclonal anti-Sox2 (Thr-118) phospho-specific antibody (lanes 3 & 4).

ADDITIONAL INFORMATION

Related Product Information for anti-Sox2 antibody	Embryonic stem cells can maintain a pluripotent state that is controlled by a set of transcription factors that include Oct-4, Sox2, and Nanog. Chromatin immunoprecipitation experiments show that Sox2 and Oct-4 bind to thousands of gene regulatory sites, many of which regulate cell pluripotency and early embryonic development. siRNA knockdown of either Sox2 or Oct-4 results in loss of pluripotency, while overexpression of Oct-4 and Sox2, along with additional transcription factors Klf4 and c-Myc, can reprogram somatic cells to a pluripotent state. Sox2 also regulates adult multipotent progenitors in various epithelial tissues, and may be important for survival and regeneration of these tissues. The activity of Sox2 may be regulated by phosphorylation and methylation. Akt1 phosphorylates Thr-118 and enhances Sox2 transcriptional activity, while Set7 can monomethylate Lys-119 leading to inhibition of Sox2 transcriptional activity, as well as Sox2 ubiquitination and degradation. In addition, Sox2 Thr-128 is constitutively phosphorylated in the F9 mouse stem cell line.
References	Fang, L.. et al. (2014) Mol Cell. 55(4):537. Jeong, C.H. et al. (2010) Stem Cells. 28(12):2141. Loh, Y.H. et al. (2006) Nat Genet. 38:431. Boyer, L.A. et al. (2005) Cell. 122:947.

NCBI AND UNIPROT INFORMATION

NCBI GI #	28195386
NCBI GeneID	6657
NCBI Accession #	NP_003097.1
NCBI GenBank Nucleotide #	NM_003106.3
UniProt Accession #	P48431 ; Q14537
Molecular Weight	34kDa
NCBI Official Full Name	transcription factor SOX-2
NCBI Official Synonym Full Names	SRY (sex determining region Y)-box 2
NCBI Official Symbol	SOX2
NCBI Official Synonym Symbols	ANOP3; MCOPS3
NCBI Protein Information	transcription factor SOX-2; transcription factor SOX2; SRY-related HMG-box gene 2
UniProt Protein Name	Transcription factor SOX-2
UniProt Gene Name	SOX2
UniProt Entry Name	SOX2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/sox2-antibody-clone-m551-immunocytochemistry-western-blot-elisa/71707>