

Product datasheet for **TA389210**

SOX2 Mouse Antibody [Clone ID: M551]

Product data:

Product Type:	Primary Antibodies
Clone Name:	M551
Applications:	ICC, WB
Recommended Dilution:	WB: 1:500 ICC: 1:50
Reactivity:	Human, Rat, Mouse, Chicken, Xenopus
Host:	Mouse
Isotype:	IgG2b
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.
Specificity:	This antibody detects a 34 kDa* protein on SDS-PAGE immunoblots of mouse F9 stem cells, and detects a full length recombinant human Sox2 protein.
Formulation:	PBS + 1 mg/ml BSA, 0.05% NaN ₃ and 50% glycerol
Concentration:	lot specific
Purification:	Protein G Purified
Conjugation:	Unconjugated
Storage:	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.
Stability:	After date of receipt, stable for at least 1 year at -20°C.
Predicted Protein Size:	34
Database Link:	P48431



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Background:

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.

Note:

Protein G purified tissue culture supernatant.