

#4195 Store at -20°C

# Sox2 (L73B4) Mouse mAb



100 µl  
(10 western blots)

**Orders** ■ 877-616-CELL (2355)  
orders@cellsignal.com  
**Support** ■ 877-678-TECH (8324)  
info@cellsignal.com  
**Web** ■ www.cellsignal.com

rev. 09/22/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #6657  
Swiss-Prot Acc. #P48431

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W Endogenous	H, M, (Mk, B, Dg, Hr)	35 kDa	Mouse IgG1 **

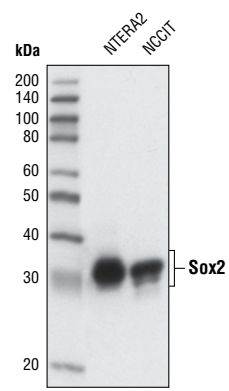
**Background:** Embryonic stem cells are derived from the inner cell mass of the blastocyst and are unique in their pluripotent capacity and potential for self-renewal. Sox2 is one of a set of transcription factors that are crucial for the maintenance of pluripotency (1). Sox2, Oct-4 and Nanog cooperate in this network (1-3) and siRNA knockdown of either Sox2 or Oct-4 results in loss of pluripotency (4,5). Chromatin immunoprecipitation experiments have shown that Sox2 and Oct-4 bind to thousands of gene regulatory sites, highlighting the importance of these transcription factors in early embryonic development (6,7). It has recently been shown that Sox2 is amplified in lung and esophageal squamous cell tumors (8).

**Specificity/Sensitivity:** Sox2 (L73B4) Mouse mAb detects endogenous levels of total Sox2 protein.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to amino acids surrounding Gly179 of human Sox2.

**Background References:**

- (1) Nichols, J. et al. (1998) *Cell* 95, 379-391.
- (2) Avillion, A.A. et al. (2003) *Genes Dev.* 17, 126-140.
- (3) Rodda, D.J. et al. (2005) *J. Biol. Chem.* 280, 24731-24737.
- (4) Matin, M.M. et al. (2004) *Stem Cells* 22, 659-668.
- (5) Niwa, H. et al. (2000) *Nat. Genet.* 24, 372-376.
- (6) Boyer, L.A. et al. (2005) *Cell* 122, 947-956.
- (7) Loh, Y.H. et al. (2006) *Nat. Genet.* 38, 431-440.
- (8) Bass, A.J. et al. (2009) *Nat Genet* 41, 1238-42.



Western blot analysis of extracts of NTERA2 and NCCIT cells using Sox2 (L73B4) Mouse mAb.

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**\*Species cross-reactivity is determined by western blot.**

**\*\*Anti-mouse secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

Western blotting 1:1000

**For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).**

**Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.**

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide

**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine

Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.