

**Sox2 Antibody**  
**Purified Mouse Monoclonal Antibody (Mab)**  
**Catalog # AP52658****Specification**

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**Sox2 Antibody - Product Information**

Application	<b>WB, FC, ICC</b>
Primary Accession	<a href="#">P48431</a>
Reactivity	<b>Mouse</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>
Calculated MW	<b>35 KDa</b>

**Sox2 Antibody - Additional Information****Gene ID** 6657**Other Names**

ANOP3;cb236;Delta EF2a;icc;MCOPS3;MGC148683;MGC2413;RGD1565646;Sex determining region Y box 2;SOX 2;Sox2;SOX2\_HUMAN;SRY (sex determining region Y) box 2;SRY box containing gene 2;SRY related HMG box 2;SRY related HMG box gene 2;SRY-box 2;Transcription factor SOX 2;Transcription factor SOX-2;ysb.

**Dilution**

WB~~1:1000  
FC~~1:100  
ICC~~1:150

**Format**

Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.09% (W/V) sodium azide, 50%,glycerol

**Storage**

Store at -20 °C.Stable for 12 months from date of receipt

**Sox2 Antibody - Protein Information****Name** SOX2**Function**

Transcription factor that forms a trimeric complex with OCT4 on DNA and controls the expression of a number of genes involved in embryonic development such as YES1, FGF4, UTF1 and ZFP206 (By similarity). Binds to the proximal enhancer region of NANOG (By similarity). Critical for early embryogenesis and for embryonic stem cell pluripotency (PubMed:<a href="http://www.uniprot.org/citations/18035408" target="\_blank">18035408</a>). Downstream SRR1 target that mediates the promotion of neural stem cell self-renewal (By similarity). Keeps neural cells undifferentiated by counteracting the activity of proneural proteins and suppresses

neuronal differentiation (By similarity). May function as a switch in neuronal development (By similarity).

#### Cellular Location

Nucleus speckle {ECO:0000250|UniProtKB:Q05066}. Cytoplasm

{ECO:0000250|UniProtKB:Q05738}. Nucleus {ECO:0000250|UniProtKB:Q05738}.

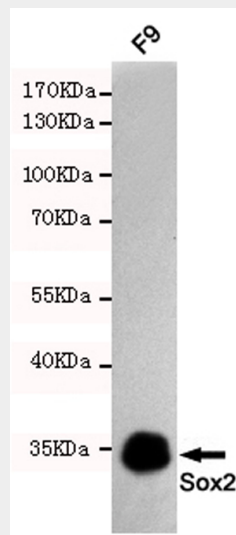
Note=Acetylation contributes to its nuclear localization and deacetylation by HDAC3 induces a cytoplasmic delocalization (By similarity). Colocalizes in the nucleus with ZNF208 isoform KRAB-O and tyrosine hydroxylase (TH) (By similarity) Colocalizes with SOX6 in speckles. Colocalizes with CAML in the nucleus (By similarity). Nuclear import is facilitated by XPO4, a protein that usually acts as a nuclear export signal receptor (By similarity) {ECO:0000250|UniProtKB:Q05066, ECO:0000250|UniProtKB:Q05738}

#### Sox2 Antibody - Protocols

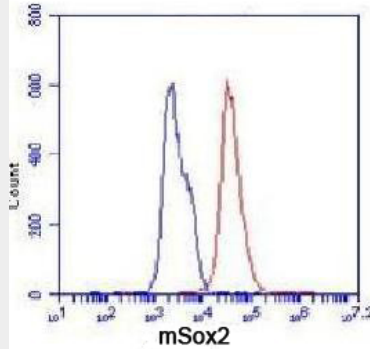
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

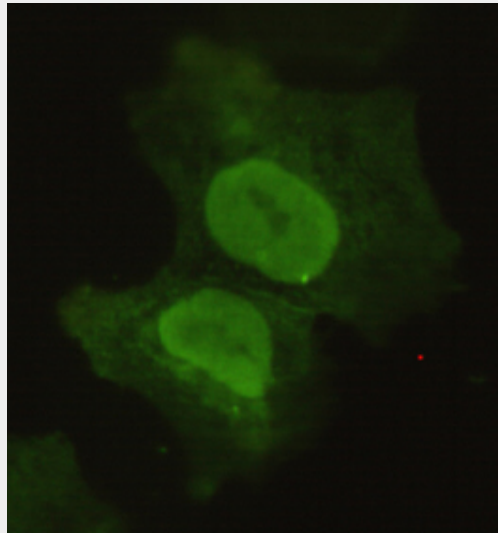
#### Sox2 Antibody - Images



Western blot detection of Sox2 in F9 cell lysates using Sox2 mouse mAb (1:1000 diluted). Predicted band size: 35KDa. Observed band size: 35KDa.



Flow Cytometry analysis of F9 cells stained with Sox2 (red, 1/100 dilution), followed by FITC-conjugated goat anti-mouse IgG. Blue line histogram represents the isotype control, normal mouse IgG.



Immunocytochemistry of COS7 cells using anti-Sox2 mouse mAb diluted 1:150.

### Sox2 Antibody - Background

Transcription factor that forms a trimeric complex with OCT4 on DNA and controls the expression of a number of genes involved in embryonic development such as YES1, FGF4, UTF1 and ZFP206 (By similarity). Critical for early embryogenesis and for embryonic stem cell pluripotency. May function as a switch in neuronal development. Downstream SRRT target that mediates the promotion of neural stem cell self-renewal (By similarity). Keeps neural cells undifferentiated by counteracting the activity of proneural proteins and suppresses neuronal differentiation (By similarity).

### Sox2 Antibody - References

- Stevanovic M.,et al.Mamm. Genome 5:640-642(1994).
- Sadler L.A.,et al.Submitted (DEC-1992) to the EMBL/GenBank/DDBJ databases.
- Fantes J.,et al.Nat. Genet. 33:461-463(2003).
- Takahashi K.,et al.Cell 131:861-872(2007).
- Rigbolt K.T.,et al.Sci. Signal. 4:RS3-RS3(2011).

