10320 Camino Santa Fe, Suite A
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Sox2 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52658

Specification

Sox2 Antibody - Product Information

Application	**WB, IHC-P, IF, FC, ICC**
Primary Accession	P48431
Reactivity	**Human, Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Conjugate	**Unconjugated**
Immunogen	**Purified recombinant mouse Sox2 protein**
Purification	**Affinity Purified**
Calculated MW	**Calculated MW: 34 kDa KDa**

Sox2 Antibody - Additional Information

Gene ID 6657

Other Names
ANOP3;cb236;Delta EF2a;lcc;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
IHC-P~~N/A
IF~~1:50~200
FC~~1:100
ICC~~1:150

Format
Liquid in PBS with 0.09% (W/V) sodium azide

Storage
Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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:18035408). 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). May function as a switch in neuronal development (By similarity).

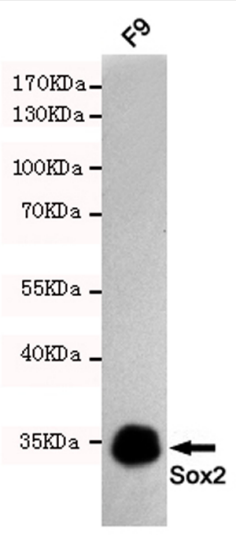
Cellular Location
Nucleus speckle {ECO:0000250|UniProtKB:Q05066}. Cytoplasm {ECO:0000250|UniProtKB:Q05738}. Nucleus {ECO:0000250|UniProtKB:Q05738}. Note=Acetylation contributes to its nuclear localization and deacetylation by HDAC3 induces a cytoplasmic delocalization (By similarity). Colocalizes in 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 Cytomety
- 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.

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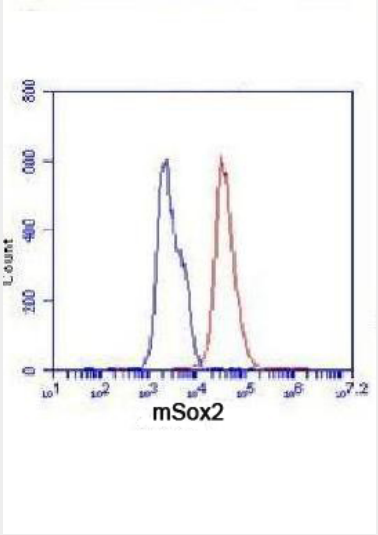
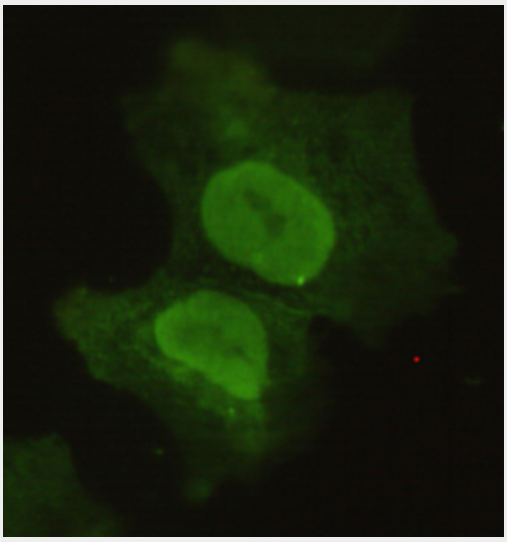


Flow Cytometry analysis of F9 cells stained with Sox2 (red, 1/100 dilution), followed by FITC-conjugated goat anti-mouse IgG. Blue line histogram represents the isotype control, normal mouse IgG.



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

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Sadler L.A.,et al.Submitted (DEC-1992) to the EMBL/GenBank/DDBJ databases.
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Takahashi K.,et al.Cell 131:861-872(2007).
Rigbolt K.T.,et al.Sci. Signal. 4:RS3-RS3(2011).

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