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Anti-SOX2 (Transcription Factor) Antibody
Mouse Monoclonal Antibody
Catalog # AH13512

Specification

Anti-SOX2 (Transcription Factor) Antibody - Product Information

Application	**WB, IHC-P, IF, FC, E**
Primary Accession	P48431
Other Accession	518438
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse / IgG2b, kappa**
Calculated MW	**34310**

Anti-SOX2 (Transcription Factor) Antibody - Additional Information

Gene ID 6657

Other Names
ANOP3; Delta EF2a; MCOPS3 (Microphthalmia Syndromic type 3); SOX-2; SRY (sex determining region Y) box 2; SRY related HMG box 2; Transcription factor SOX-2; ysb

Application Note
WB~~1:1000<br \>IHC-P~~N/A<br \>IF~~1:50~200<br \>FC~~1:10~50<br \>E~~N/A

Format
200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage
Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions
Anti-SOX2 (Transcription Factor) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-SOX2 (Transcription Factor) 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).

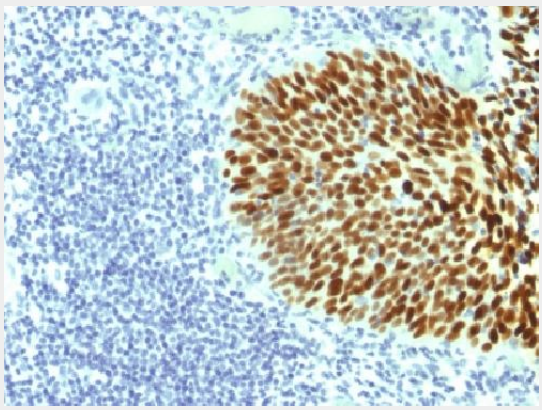
Cellular Location
Nucleus speckle {ECO:0000250|UniProtKB:Q05066}. Cytoplasm {ECO:0000250|UniProtKB:Q05738}. Nucleus {ECO:0000250|UniProtKB:Q05738}. Note=Acetylation contributes to its nuclear localization and deacetylation by HDAC3 induces a cytoplasmic delocalization (By similarity). Colocalizes in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

Anti-SOX2 (Transcription Factor) 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

Anti-SOX2 (Transcription Factor) Antibody - Images



Formalin-fixed, paraffin-embedded Human Cervical Carcinoma stained with SOX2 Monoclonal Antibody (SOX2/1791).

Anti-SOX2 (Transcription Factor) Antibody - Background

SOX2 is a member of the SRY-related HMG-box (SOX) family of transcription factors involved in the regulation of embryonic development and in the determination of cell fate. At present, 30 Sox genes have been identified. SOX2 is required for stem cell maintenance in the central nervous system, and it also regulates gene expression in the stomach. SOX2 is necessary for regulating multiple transcription factors that affect Oct 3/4 expression. An essential function of SOX2 is to

stabilize embryonic stem cells in a pluripotent state by maintaining the requisite level of Oct 3/4 expression.