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SOX2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20961b

Product Information

Application	WB, IF, E
Primary Accession	P48431
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB51413
Calculated MW	34310

Additional Information

Gene ID	6657
Other Names	Transcription factor SOX-2, SOX2
Target/Specificity	This SOX2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 30-63 amino acids from the N-terminal region of human SOX2.
Dilution	WB~~1:1000 IF~~1:25 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SOX2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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}

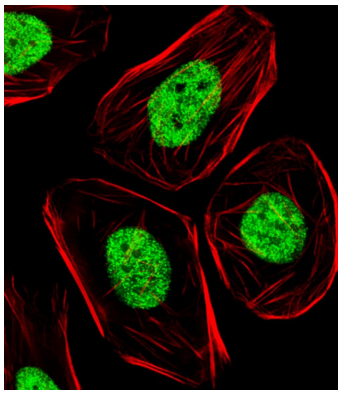
Background

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).

References

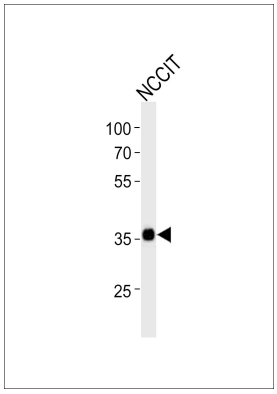
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Fantes J.,et al.Nat. Genet. 33:461-463(2003).
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Images



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0. 1% Triton X-100 permeabilized U-2 OS (Human osteosarcoma cell line) cells labeling SOX2 with AP20961b at 1/25 dilution, followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (1583138) secondary antibody at 1/400 dilution (green). Confocal image showing nuclear staining on U-2 OS cell line. Cytoplasmic actin is detected with Alexa Fluor® 555 conjugated with Phalloidin (OB16636430) at 1/100 dilution (red).

Western blot analysis of lysate from NCCIT cell line, using SOX2 Antibody (N-term)(Cat. #AP20961b). AP20961b was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.