

# Phospho-SOX2(S83) Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP3651a

## Product Information

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<b>Application</b>	WB, DB, E
<b>Primary Accession</b>	<a href="#">P48431</a>
<b>Other Accession</b>	<a href="#">P48432</a>
<b>Reactivity</b>	Human
<b>Predicted</b>	Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB18923
<b>Calculated MW</b>	34310

## Additional Information

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<b>Gene ID</b>	6657
<b>Other Names</b>	Transcription factor SOX-2, SOX2
<b>Target/Specificity</b>	This SOX2 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S83 of human SOX2.
<b>Dilution</b>	WB~~1:1000 DB~~1:500 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
<b>Storage</b>	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.
<b>Precautions</b>	Phospho-SOX2(S83) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	SOX2
<b>Function</b>	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}

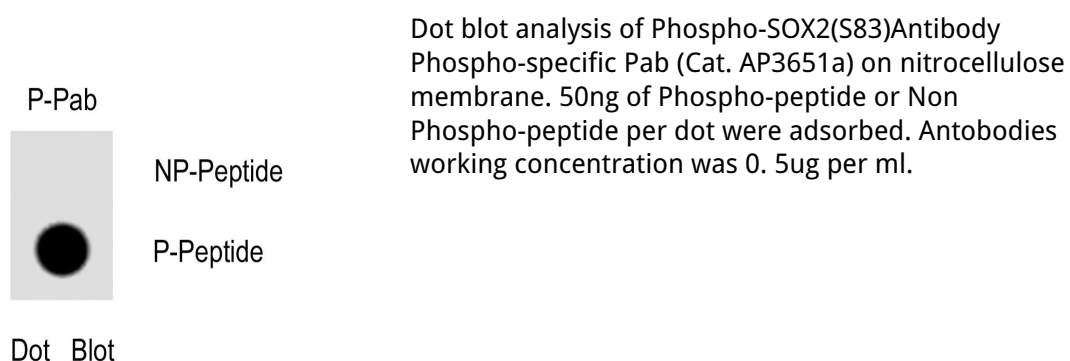
## Background

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. This protein may act as a transcriptional activator after forming a protein complex with other proteins. Mutations in the SOX2 gene have been associated with bilateral anophthalmia, a severe form of structural eye malformation.

## References

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Wiebe, M.S., et al., J. Biol. Chem. 278(20):17901-17911 (2003).  
Fantes, J., et al., Nat. Genet. 33(4):461-463 (2003).  
Schepers, G.E., et al., Dev. Cell 3(2):167-170 (2002).  
Kamachi, Y., et al., Trends Genet. 16(4):182-187 (2000).

## Images



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