

Phospho-SOX2(S83) Antibody Blocking peptide
Synthetic peptide
Catalog # BP3651a**Specification**

Phospho-SOX2(S83) Antibody Blocking peptide - Product InformationPrimary Accession [P48431](#)**Phospho-SOX2(S83) Antibody Blocking peptide - Additional Information****Gene ID** 6657**Other Names**

Transcription factor SOX-2, SOX2

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP3651a](/products/AP3651a) was selected from the region of human Phospho-SOX2-S83. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Phospho-SOX2(S83) Antibody Blocking peptide - 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](http://www.uniprot.org/citations/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}

Phospho-SOX2(S83) Antibody Blocking peptide - Protocols

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

- [Blocking Peptides](#)

Phospho-SOX2(S83) Antibody Blocking peptide - Images

Phospho-SOX2(S83) Antibody Blocking peptide - 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.

Phospho-SOX2(S83) Antibody Blocking peptide - References

Remenyi, A., et al., Genes Dev. 17(16):2048-2059 (2003).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).