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SOX2 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP2048b

Specification

SOX2 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession	P48431
Other Accession	NP_003097

SOX2 Antibody (C-term) 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 AP2048b was selected from the C-term region of human SOX2 . 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.

SOX2 Antibody (C-term) 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). 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 (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

SOX2 Antibody (C-term) Blocking Peptide - Images

SOX2 Antibody (C-term) Blocking Peptide - Background

This intronless gene for SOX2 encodes 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. The encoded protein may act as a transcriptional activator after forming a protein complex with other proteins. Mutations in this gene have been associated with bilateral anophthalmia, a severe form of structural eye malformation. This gene lies within an intron of another gene called SOX2 overlapping transcript (SOX2OT).

SOX2 Antibody (C-term) 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).