

phospho-Sox2(S250) Blocking Peptide
Synthetic peptide
Catalog # BP3737a**Specification**

phospho-Sox2(S250) Blocking Peptide - Product Information

Primary Accession [P48431](#)
Other Accession [P48432](#), [NP_003097.1](#), [P54231](#)

phospho-Sox2(S250) Blocking Peptide - Additional Information

Gene ID 6657

Other Names

Transcription factor SOX-2, SOX2

Target/Specificity

The synthetic peptide sequence is selected from aa 242-262 of HUMAN SOX2

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(S250) 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}

phospho-Sox2(S250) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

phospho-Sox2(S250) Blocking Peptide - Images

phospho-Sox2(S250) Blocking Peptide - Background

This intronless gene 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 product of this gene is required for stem-cell maintenance in the central nervous system, and also regulates gene expression in the stomach. Mutations in this gene have been associated with optic nerve hypoplasia and with syndromic microphthalmia, a severe form of structural eye malformation. This gene lies within an intron of another gene called SOX2 overlapping transcript (SOX2OT).

phospho-Sox2(S250) Blocking Peptide - References

Tung, C.L., et al. Biochem. Biophys. Res. Commun. 393(3):420-425(2010)
Laga, A.C., et al. Am. J. Pathol. 176(2):903-913(2010)
Gu, H.F., et al. Gend Med 6(4):555-564(2009)
Schneider, A., et al. Am. J. Med. Genet. A 149A (12), 2706-2715 (2009) :
Zhang, X., et al. Mol. Vis. 15, 2911-2918 (2009) :
Gure, A.O., et al. Proc. Natl. Acad. Sci. U.S.A. 97(8):4198-4203(2000)
Kamachi, Y., et al. Trends Genet. 16(4):182-187(2000)
Helland, R., et al. Acta Crystallogr. D Biol. Crystallogr. 55 (PT 1), 139-148 (1999) :
Yuan, H., et al. Genes Dev. 9(21):2635-2645(1995)
Stevanovic, M., et al. Mamm. Genome 5(10):640-642(1994)