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Phospho-Sox2(S249) Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3736a

Specification

Phospho-Sox2(S249) Antibody - Product Information

Application	**DB,E**
Primary Accession	P48431
Other Accession	P48432, NP_003097.1, P54231
Reactivity	**Human**
Predicted	**Mouse, Sheep**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**

Phospho-Sox2(S249) Antibody - Additional Information

Gene ID 6657

Other Names
Transcription factor SOX-2, SOX2

Target/Specificity
This Sox2 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S249 of human Sox2.

Dilution
DB~~1:500
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
Phospho-Sox2(S249) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-Sox2(S249) Antibody - 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).

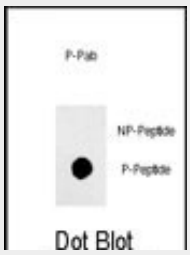
Cellular Location
Nucleus speckle {ECO:0000250|UniProtKB:Q05066}. Cytoplasm {ECO:0000250|UniProtKB:Q05738}. Nucleus {ECO:0000250|UniProtKB:Q05738}. Note=Acetylation contributes to its nuclear localization and deacetylation by HDAC3 induces a cytoplasmic delocalization (By similarity). Colocalizes in 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(S249) Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-Sox2(S249) Antibody - Images



Dot blot analysis of anti-phospho-Sox2-pS249 Phospho-specific Pab(Cat. #AP3736a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.

Phospho-Sox2(S249) Antibody - 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(S249) Antibody - 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)