

**Sox-2 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV10686****Specification**

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**Sox-2 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">P48431</a>
Other Accession	<a href="#">CAA83435</a>
Reactivity	<b>Human, Mouse, Rat, Pig, Sheep, Bovine, Dog</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Calculated MW	<b>34310</b>

**Sox-2 Antibody - Additional Information****Gene ID** 6657

**Application & Usage** **Western blotting (0.5-1 µg/ml). However, the optimal conditions should be determined individually. Other applications have not been tested. The antibody detects ~35kDa of Sox2 in samples from mouse origins.**

**Other Names**

Sox2, Sox 2, SRY-box containing gene 2, sex determining region Y box-2, SRY related HMG box 2, Transcription factor SOX 2

**Target/Specificity**

Sox-2

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (0.5 mg/ml) antigen affinity purified rabbit anti-Sox-2 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol and 0.01% Thimerosal.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions**

### Precautions

Sox-2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### Sox-2 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:<a href="http://www.uniprot.org/citations/18035408" target="\_blank">18035408</a>). 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

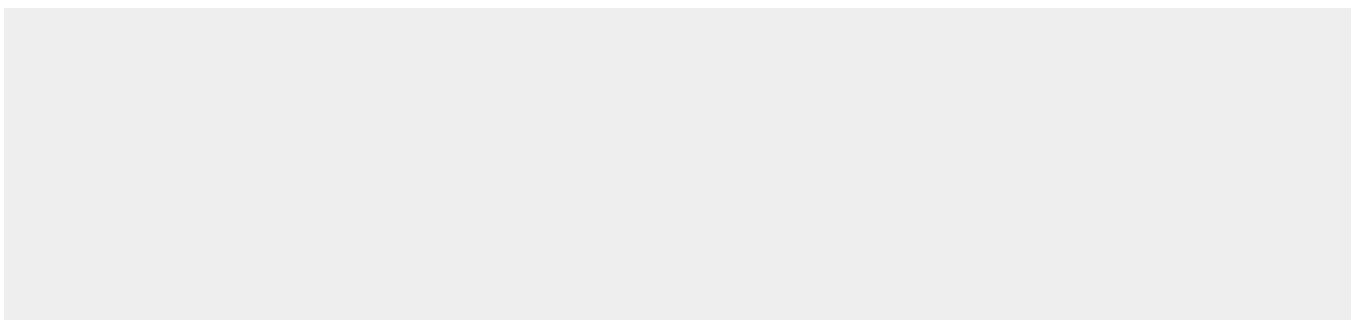
Nucleus speckle {ECO:0000250|UniProtKB:Q05066}. Cytoplasm {ECO:0000250|UniProtKB:Q05738}. Nucleus {ECO:0000250|UniProtKB:Q05738}. Note=Acetylation contributes to its nuclear localization and deacetylation by HDAC3 induces a cytoplasmic delocalization (By similarity). Colocalizes in the nucleus with ZNF208 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}

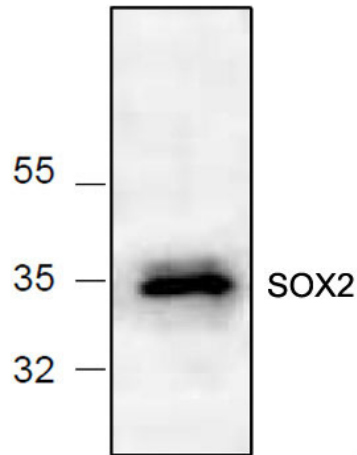
### Sox-2 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Sox-2 Antibody - Images





Western blot analysis of Sox-2 in 3T3 cell lysate.

### **Sox-2 Antibody - Background**

Sox genes encode for transcriptional regulators that are involved in the early embryonic development and in the determination of cell fate. Sox2 is also known as SRY (sex determining region Y)-box2, contain genes that encode for the HMG-box domain that is responsible for DNA binding activity. Mutation of Sox2 genes is link to optic nerve hypoplasia and anophthalmia, a severe form of eye deformity.