# SOX-2 Monoclonal Antibody

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| **Catalog No** | BYab-01054 |
| **Isotype** | IgG |
| **Reactivity** | Human;Mouse;Rat;Bovine;Pig;sheep |
| **Applications** | WB |
| **Gene Name** | SOX2 |
| **Protein Name** | Transcription factor SOX-2 |
| **Immunogen** | Purified recombinant human SOX-2 protein fragments expressed in E.coli. |
| **Specificity** | SOX-2 Monoclonal Antibody detects endogenous levels of SOX-2 protein. |
| **Formulation** | Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50% glycerol. |
| **Source** | Monoclonal, Mouse |
| **Purification** | Affinity purification |
| **Dilution** | Western Blot: 1/1000 - 1/2000. Not yet tested in other applications. |
| **Concentration** | 1 mg/ml |
| **Purity** | ≥90% |
| **Storage Stability** | -20°C/1 year |
| **Synonyms** | SOX2; Transcription factor SOX-2 |
| **Observed Band** | |
| **Cell Pathway** | Nucleus speckle . Cytoplasm . Nucleus . 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). . |
| **Tissue Specificity** | Fetal brain,Lung,Retina, |
| **Function** | disease:Defects in SOX2 are the cause of microphthalmia syndromic type 3 (MCOPS3) [MIM:206900]. Microphthalmia is a clinically heterogeneous disorder of eye formation, ranging from small size of a single eye to complete bilateral absence of ocular tissues (anophthalmia). In many cases, microphthalmia/anophthalmia occurs in association with syndromes that include non-ocular abnormalities. MCOPS3 is characterized by the rare association of malformations including uni- or bilateral anophthalmia or microphthalmia, and esophageal atresia with trachoesophageal fistula.,function:Transcription factor |

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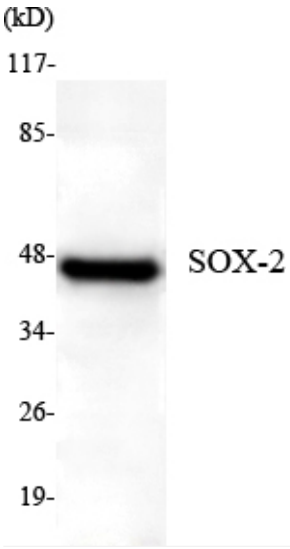
| | that forms a trimeric complex with OCT4 on DNA and controls the expression of a number of genes involved in embryonic development such as YES1, FGF4, UTF1 and ZFP206. Critical for early embryogenesis and for embryonic stem cell pluripotency.,online information:Sox2 entry,PTM:Sumoylation inhibits bin |
| **Background** | SRY-box 2(SOX2) Homo sapiens 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). [provided by RefSeq, Jul 2008], |
| **matters needing attention** | Avoid repeated freezing and thawing! |
| **Usage suggestions** | This product can be used in immunological reaction related experiments. For more information, please consult technical personnel. |

## Products Images




Western Blot analysis using SOX-2 Monoclonal Antibody against Mouse F9 cell lysate.