

**Sox2, human recombinant protein****Sox-2****Catalog # PBV10832r****Specification**

---

**Sox2, human recombinant protein - Product info**

Primary Accession

[P48431](#)

Calculated MW

**34.3 kDa KDa****Sox2, human recombinant protein - Additional Info**

Gene ID

**6657**

Gene Symbol

**Sox2****Other Names**

Sox-2

Gene Source

**Human**

Source

**E. Coli**

Assay&amp;Purity

**SDS-PAGE; ≥95%**

Assay2&amp;Purity2

**HPLC;**

Recombinant

**Yes**

Sequence

**MYNMMETELK PPGPQQTSGG GGGNSTAAAA  
GGNQKNSPDR VKRPMNAFMV  
WSRGQRRKMA QENPKMHNSE ISKRLGAEWK  
LLSETEKRPF IDEAKRLRAL HMKEHPDYKY  
RPRRKTCTLM KDKYTLPGG LLAPGGNSMA  
SGVGVGAGLG AGVNQRMDSY  
AHMNGWSNGS YSMMQDQLGY  
PQHPGLNAHG AAQMOPMHRY  
DVSALQYNSM TSSQTYMNGS PTYSMSYSQQ  
GTPGMALGSM GSVVKSEASS SPPVVTSSSH  
SRAPCQAGDL RDMISMYLPG AEVPEPAAPS  
RLHMSQHYQS GPVPGTAING TLPLSHM****Target/Specificity**

Sox2

**Application Notes**

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

**Format**

Lyophilized powder

**Storage**

-20°C; Sterile filtered through a 0.2 micron filter. Lyophilized from 10 mM Sodium Acetate, pH 6.0

## **Sox2, human recombinant protein - 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](#)

## **Sox2, human recombinant protein - Images**

## **Sox2, human recombinant protein - Background**

Sox2, also known as sex determining region Y (SRY)-box 2, belongs to a diverse family of structurally-related transcription factors whose primary structure contains a 79-residue DNA-binding domain, called high mobility group (HMG) box. It plays an essential role in maintaining the pluripotency of embryonic stem cells (ESC) and determination of cell fate. Microarray analysis showed that Sox2 regulates the expression of multiple genes involved in embryonic development including FGF-4, YES1 and ZFP206. Sox2 acts as a transcriptional activator after forming a ternary complex with Oct3/4 and a conserved non-coding DNA sequence (CNS1) located approximately 2 kb upstream of the RAX promoter. The introduction of Sox2, Oct4, Myc, and Klf4, into human dermal fibroblasts isolated from a skin biopsy of a healthy research fellow was sufficient to confer a pluripotent state upon the fibroblast genome. The reprogrammed cells thus obtained resemble ESC in morphology, gene expression, and in the capacity to form teratomas in immune-deficient mice. Recombinant human Sox2 is a 34.3 kDa protein containing 317 amino-acid residues.

## **Sox2, human recombinant protein - References**

Stevanovic M., et al. Mamm. Genome 5:640-642(1994).  
Sadler L.A., et al. Submitted (DEC-1992) to the EMBL/GenBank/DDBJ databases.  
Fantes J., et al. Nat. Genet. 33:461-463(2003).  
Takahashi K., et al. Cell 131:861-872(2007).  
Rigbolt K.T., et al. Sci. Signal. 4:RS3-RS3(2011).