

## Sox2 Human E. coli

### Product Data Sheet

<b>Type:</b> Recombinant	<b>Cat. No.:</b>	
<b>Source:</b> E. coli	RBG10299005	(5 µg)
<b>Species:</b> Human	RBG10299025	(25 µg)
<b>Other names:</b> ,	RBG10299100	(100 µg)

### Description

Sox2 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 the 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 their capacity to form teratomas in immune-deficient mice. Recombinant Human Sox2 is a 34.3 kDa protein containing 317 amino acid residues.

### Research topic

Others

### Amino Acid Sequence

MYNMMETELK PPGPQQTSGG GGGNSTAAAA GGNQKNPDR VKRPMNAFMV WSRGQRRKMA QENPKMHNSE ISKRLGAEWK  
 LLSETEKRPF IDEAKRLRAL HMKEHPDYKY RPRRKTKTLM KDKYTLPGG LLAPGGNSMA SGVGVGAGLG AGVNQRMSY  
 AHMNGWSNGS YSMMQDQLGY PQHPGLNAHG AAQMOPMRY DVSALQYNSM TSSQTYMNGS PTYSMSYSQQ GTPGMALGSM  
 GSVVKSEASS SPPVVTSSSH SRAPCQAGDL RDMISMYLPG AEVPEPAAPS RLHMSQHYQS GPVPGTAING TLPLSHM

### Source

E. coli

### Purity

95%

### Biological Activity

Data Not Available.

### Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

### Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. 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.

### Storage, Stability/Shelf Life

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