

21-6011: Human Recombinant SOX2 protein

Application : ELISA, WB

Reactivity : Human

Gene ID : L07335.1

Uniprot ID : P48431

Immunogen Information : SOX2 (AAH13923, 1 a.a. - 318 a.a.) recombinant protein with an N-terminal His-PTD-NLS tag.

Description

Recombinant, 6xHis tag

Expression system : *E. coli*

Domains : HMG box DNA-binding domain

Molecular weight : 44 kDa

SOX2 (SRY-related HMG-Box Gene 2) is a helix-loop helix transcription factor, which controls the expression of a number of genes involved in embryonic development. The SOX2 family of transcription factors have been shown to play key roles in mammalian development. The SOX2 factor is the one of the four original Yamanaka Factors and has been shown to be essential for pluripotency of embryonic stem cells. Along with Oct-4, Klf-4 and c-myc, it can reprogram somatic or differentiated cells into induced pluripotent stem cells (iPSCs).

The recombinant protein is tagged with nuclear localization signal (NLS), a protein translocation domain (PTD, a poly arginine cell-penetrating peptide) and 6xHis at N-terminal region of the protein. The PTD will allow the entry of transcription factors through the plasma membrane and the NLS will allow entry of the proteins in to the nucleus to exert their biological actions.

Product Info

Amount : 50 µg / 100 µg

Purification : Approximately 90%

Content : 100 µg purified protein at a concentration of 0.5 mg/ml

Storage condition : -20 Degree C. Stable for one year. Avoid repeated freeze-thaw

Amino Acid : MYNMMETELKPPGPQQTSGGGGGNSTAAAAGGNQKNSPDRVKRPM
NAFMVWSRGQRRKMAQENPKMHNSEISKRLGAEWKLLSETEKRPFD
EAKRLRALHMKEHPDYKYRPRRKTTLMKKDKYTLPGGLLAPGGNSM
ASGVGVGAGLGAGVNQRMDSYAHMNGWSNGSYSMMQDQLGYPHP
GLNAHGAAQMCPMHRYDVSALQYNSMTSSQTYMNGSPTYMSYSQ
QGTPGMALGSMGSSVVKSEASSSPVVTSSSHSRAPCQAGDLRDMISMYLPGAEVPEPAAPSRLH
MSQHYQSGPVPGTAINGTLPLSHMESGGGG SPGRRRRRRRRRRRR

Application Note

Cell culture, WB, ELISA, EMSA

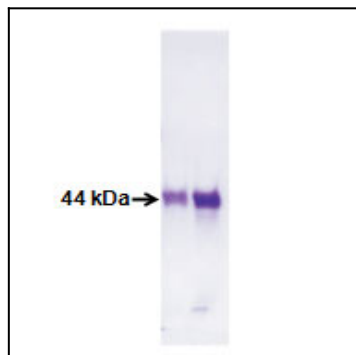


Fig 1. SDS-PAGE analysis of purified recombinant transcription factor, SOX2

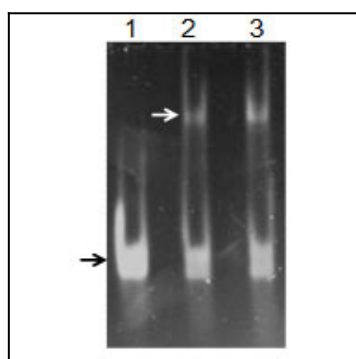


Fig 2. Binding ability of SOX2 with the SOX2 binding sequence (primer) of the DNA was tested by EMSA using 100 ng of primer and different concentrations of SOX2 protein. Lane 1: Primer alone; lane 2: Primer and SOX2 (1 µg) and lane 3: Primer and SOX2 (3 µg).