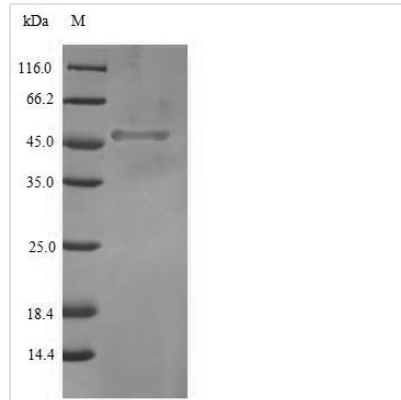




# Recombinant Human Transcription factor SOX-2 (SOX2)

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Code</b>      | CSB-EP022426HU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Relevance</b>         | Transcription factor that forms a trimeric complex with OCT4 on DNA and controls the expression of a number of genes involved in bryonic development such as YES1, FGF4, UTF1 and ZFP206 . Critical for early bryogenesis and for bryonic st cell pluripotency. May function as a switch in neuronal development. Downstream SRRT target that mediates the promotion of neural st cell self-renewal . Keeps neural cells undifferentiated by counteracting the activity of proneural proteins and suppresses neuronal differentiation . |
| <b>Abbreviation</b>      | Recombinant Human SOX2 protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Storage</b>           | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.                                                                                                                                                                                                                                                         |
| <b>Uniprot No.</b>       | P48431                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Product Type</b>      | Recombinant Protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Immunogen Species</b> | Homo sapiens (Human)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Purity</b>            | Greater than 90% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Sequence</b>          | MYNMMETELKPPGPQQTSGGGGGNSTAAAAGGNQKNSPDRVKRPMNAFMV<br>WSRGQRRKMAQENPKMHNSEISKRLGAEWKLLSETEKRPFIDEAKRLRALHM<br>KEHPDYKYRPRRKTKTLMKKDKYTLPGGLLAPGGNSMASGVGVGAGLGAGV<br>NQRMDSYAHMNGWSNGSYSMMQDQLGYPQHPLNAHGAAQMMPMHRYD<br>VSALQYNSMTSSQTYMNGSPTYMSYSQQGTPGMALGSMGSVVKSEASSSP<br>PVVTSSSHSRAPCQAGDLRDMISMYLPGAEVPEPAAPSRLHMSQHYQSGPVP<br>GTAINGTLPLSHM                                                                                                                                                                                     |
| <b>Research Area</b>     | Transcription                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Source</b>            | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Target Names</b>      | SOX2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Expression Region</b> | 1-317aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Notes</b>             | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Tag Info</b>          | N-terminal 6xHis-SUMO-tagged                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Mol. Weight</b>       | 50.3kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Protein Length</b>    | Full Length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Image</b>             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

## Description

To produce recombinant Human SOX2 protein, a well-established recombinant DNA technology is the key. A DNA template of SOX2 was constructed with N-terminal 6xHis-SUMO tag using the technique. Once the template was made, the recombinant Human SOX2 protein could be produced with it efficiently. CUSABIO has built a strict QC system to ensure quality. The expression region is 1-317aa of the Human SOX2. The purity of this recombinant is 85% determined by SDS-PAGE.

SOX2 is a protein coding gene that encodes Transcription factor SOX-2. According to some studies, SOX2 may have the following features. The basic function of Sox2 is to stabilize ES cells in a pluripotent state by maintaining the necessary expression levels of Oct3/4. Oct4 and Sox2 bind to the Nanog promoter in live mouse and human embryonic stem cells. Pluripotent cell lines in early mouse development depend on SOX2 function. Constitutive expression of SOX2 inhibits neuronal differentiation and leads to the maintenance of primary characteristics. SOX2 controls tumorigenesis and cancer stem cell function in squamous cell carcinoma. SOX2 is an amplified linear survival oncogene in lung and esophageal squamous cell carcinoma.

## Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

## Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.