

## Recombinant Human SOX2-TAT

#R00547

Size: 5 µg/100 µg/500 µg

### Stability & Storage

- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
  - 1 month, 2 to 8 °C under sterile conditions after reconstitution.
  - 3 months, -20 to -70 °C under sterile conditions after reconstitution.



**Warning:** This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

### Background

Sox2, also named SRY (sex determining region Y)-box 2, is belonging to the Sox family and it is encoded by the Sox gene in human. This protein family shares highly conserved DNA binding domains known as HMG (High-mobility group) box domains containing approximately 80 amino acids. Sox2 plays a role in maintenance of embryonic and neural stem cells and holds great promise in research involving induced pluripotency, an emerging and very promising field of regenerative medicine. Mature human Sox2 shares 100 amino acid sequence identity with murine and rat Sox2. Recombinant human Sox2-TAT expressed in E. coli is a 36 kDa protein containing 330 amino-acid residues, including the 317 residues of full-length Sox2 and a 13-residue C-terminal TAT peptide (GGYGRKKRRQRRR).

### AA Sequence

MYNMMETELKPPGPQQTSGGGGGNSTAAAAGGNQ  
KNSPDRVKRPMNAFMVWSRGQRRKMAQENPKMHN  
SEISKRLGAEWKLLSETEKRPFIDEAKRLRALHMKEH  
PDYKYRPRRKTCTLMKKDKYTLPGGLLAPGGNSMAS  
GVGVGAGLGAGVNQRMDSYAHMNGWSNGSYSMM  
QDQLGY PQHPGLNAHGAAQM QPMHRYDV SALQYN  
SMTSSQTYMNGSPTYSMSYSQQGTPGMALGSMGS  
VVKSEASSSPVVTSSSHSRAPCQAGDLRDMISMYL  
PGA EVPEPAAP SRLHMSQHYQSGPVPGTAIN GTLPL  
SHMGGYGRKKRRQRRR

### Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

### Product Specification

|                     |                                                                                                                                                                                                         |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Synonyms            | SOX2-TAT                                                                                                                                                                                                |
| Accession           | P48431                                                                                                                                                                                                  |
| GeneID              | 6657                                                                                                                                                                                                    |
| Species             | Human                                                                                                                                                                                                   |
| Source              | Escherichia coli.                                                                                                                                                                                       |
| Molecular Weight    | Approximately 36.0 kDa, a single non-glycosylated polypeptide chain containing 330 amino acids, including the 317 residues of full-length Sox2 and a 13-residue C-terminal TAT peptide (GGYGRKKRRQRRR). |
| Purity              | > 95 % by SDS-PAGE and HPLC analyses.                                                                                                                                                                   |
| Biological Activity | Data Not Available.                                                                                                                                                                                     |
| Physical Appearance | Sterile Filtered White Lyophilized (freeze-dried) powder.                                                                                                                                               |

|                    |                                                                                                 |
|--------------------|-------------------------------------------------------------------------------------------------|
| <b>Formulation</b> | Lyophilized from a 0.2 μm filtered concentrated solution in 2 × PBS, pH 7.4, with 5% Trehalose. |
| <b>Endotoxin</b>   | Less than 1 EU/μg of rHuSOX2-TAT as determined by LAL method.                                   |