Datasheet for ABIN2469109

SOX2 Protein (TAT tag)

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Overview

Quantity:	0.005 mg
Target:	SOX2
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SOX2 protein is labelled with TAT tag.

Product Details

Sequence:	MYNMMETELK PPGPQQTSGG GGGNSTAAAA GGNQKNSPDR VKRPMNAFMV WSRGQRRKMA QENPKMHNSE ISKRLGAEWK LLSETEKRPF IDEAKRLRAL HMKEHPDYKY RPRRKTKTLM KKDKYTLPGG LLAPGGNSMA SGVGVGAGLG AGVNQRMDSY AHMNGWSNGS YSMMQDQLGY PQHPGLNAHG AAQMQPMHRY DVSALQYNSM TSSQTYMNGS PTYSMSYSQQ GTPGMALGSM GSVVKSEASS SPPVVTSSSH SRAPCQAGDL RDMISMYLPG AEVPEPAAPS RLHMSQHYQS GPVPGTAING TLPLSHMGGY GRKKRRQRRR
Purity:	< 95 % by SDS-PAGE gel and HPLC analyses.
Endotoxin Level:	Endotoxin level is less than 0.1 ng per µg (1 EU/µg).

Target Details

Target:	SOX2
Alternative Name:	Sox2 (SOX2 Products)
Background:	Sox2, also known as sex determining region Y (SRY)-box 2, belongs to a diverse family of

Target Details

	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. Sox2 and other transcription factors have been introduced into cells by DNA transfection, viral infection, or microinjection. Protein transduction using TAT fusion proteins represents an alternative methodology for introducing transcription factors and other nuclear proteins into primary as well as transformed cells. 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).
Gene ID:	6657
NCBI Accession:	NP_003097
OMIM:	28195386
UniProt:	P48431
Pathways:	Dopaminergic Neurogenesis, Sensory Perception of Sound, Stem Cell Maintenance, Cell RedoxHomeostasis

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Handling Advice:	As with any protein, exposing Sox2-TAT recombinant protein to repeated freeze / thaw cycles is not recommended. When working with proteins care should be taken to keep recombinant protein at a cool and stable temperature.

Handling

Storage:	-20 °C
Storage Comment:	The recombinant protein is stable for at least 2 years from date of receipt at -20 °C. Reconstituted Sox2-TAT is stable for at least 3 months when stored in working aliquots with a carrier protein at -20 °C.
Expiry Date:	24 months

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