

Product datasheet

Recombinant Human Oct4 protein (denatured)  
ab140060

1 Image

Description	
Product name	Recombinant Human Oct4 protein (denatured)
Purity	> 85 % SDS-PAGE.
Expression system	Escherichia coli
Accession	<u>Q01860-2</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MGSSHHHHHH SSGLVPRGSH MHFYRLF LGA TRRFLNPEWK GEIDNWCYVY LTSLLPFIQ SQDIKALQKE LEQFAKLLKQ KRITLGYTQA DVGLTLGVLF GKVFSQTTIC RFEALQLSFK NMCKLRPLLQ KVVVEADNNE NLQEICKAET LVQARKRKRT SIENRVRGNL ENLFLQCPKP TLQQISHIAQ QLGLEKDVVR VWFCNRRQKG KRSSSDYAQR EDFEAAGSPF SGGPVSFPLA PGPHFGTPGY GSPHFTALYS SVPFPEGEAF PPVSVTTLGS PMHSN
Predicted molecular weight	32 kDa including tags
Amino acids	1 to 265
Tags	His tag N-Terminus
Description	Recombinant Human Oct4 protein

Specifications	
Our <b>Abpromise guarantee</b> covers the use of <b>ab140060</b> in the following tested applications.	
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.	
Applications	SDS-PAGE
Form	Liquid

## Preparation and Storage

### Stability and Storage

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.

pH: 8.00

Constituents: 2.4% Urea, 0.32% Tris HCl, 10% Glycerol (glycerin, glycerine)

## General Info

### Function

Transcription factor that binds to the octamer motif (5'-ATTTGCAT-3'). Forms a trimeric complex with SOX2 on DNA and controls the expression of a number of genes involved in embryonic development such as YES1, FGF4, UTF1 and ZFP206. Critical for early embryogenesis and for embryonic stem cell pluripotency.

### Tissue specificity

Expressed in developing brain. Highest levels found in specific cell layers of the cortex, the olfactory bulb, the hippocampus and the cerebellum. Low levels of expression in adult tissues.

### Sequence similarities

Belongs to the POU transcription factor family. Class-5 subfamily.

Contains 1 homeobox DNA-binding domain.

Contains 1 POU-specific domain.

### Developmental stage

Highly expressed in undifferentiated embryonic stem cells and expression decreases gradually after embryoid body (EB) formation.

### Domain

The POU-specific domain mediates interaction with PKM2.

### Post-translational modifications

Sumoylation enhances the protein stability, DNA binding and transactivation activity. Sumoylation is required for enhanced YES1 expression.

Ubiquitinated; undergoes 'Lys-63'-linked polyubiquitination by WWP2 leading to proteasomal degradation.

### Cellular localization

Nucleus. Expressed in a diffuse and slightly punctuate pattern.

## Images



15% SDS-PAGE analysis of ab140060 (3µg)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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