

Recombinant Mouse Pou5f1, TAT-tagged

Cat. No. Pou5f1-200M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse TAT-Oct-3/4 is produced with our E. coli expression system. The target protein is expressed with sequence (Met1-Asn352) of Mouse OCT4 fused with a TAT tag at the N-terminus.
Species	Mouse
Source	E.coli
Description	Octamer-Binding Protein 4 (Oct4) is a homeodomain transcription factor of the POU family and can be expressed in embryonic stem cells and embryonic carcinoma cells. Oct 4 is critically involved in the signaling pathway for maintaining self-renewal and pluripotency of embryonic stem cells. Oct4 binds to the octamer motif to form a trimeric complex with SOX2 on DNA and controls the expression of many genes involved in embryonic development, such as YES1, FGF4, UTF1, ZFP206. Oct4 can regulate SOX2 and Nanog to support stem cell potency and self-renewal. The transcriptional activity can be positively regulated by PKM2.
AA Sequence	MAGHLASDFAFSPPPGGGDSAGLEPGWVDPRTWLSFQGPPGGPGIGPGSEVLGI SPCPPAYEFC GGMAYCGPQVGLGLVPQVGVELTQPEGQAGARVESNSEGTSSEP CADRPNAVKLEKVEPTPEESQ DMKALQKELEQFAKLLKQKRITLGYTQADVGLTLG VLFGKVFSQTTICRFEALQLSLKNMCKLRP LLEKWVEEADNNENLQEICKSETLVQA RK RKRTSIENRVRWSLETMFLKCPKPSLQQITHIANQL GLEKDVVRVWFCNRRQKG KRSSIEYSQREEYEATGTPFGGAVSFPLPPGPHFGTPGYGSPHFTT LYSVPFPEG EAFPSVPVTALGSPMHSN

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Endotoxin	Less than 0.1 ng/μg (1 IEU/μg).
Purity	Greater than 95% as determined by SEC-HPLC and reducing SDS-PAGE.
GENE INFORMATION	
Gene Name	Pou5f1 POU domain, class 5, transcription factor 1 [<i>Mus musculus</i>]
Official Symbol	Pou5f1
Synonyms	POU5F1; POU domain, class 5, transcription factor 1; octamer-binding protein 3; octamer-binding protein 4; octamer-binding transcription factor 3; Oct3; Oct4; Otf3; Otf4; NF-A3; Oct-3; Oct-4; Otf-3; Otf-4; Otf3g; Oct3/4; Oct-3/4; Otf3-rs7;
Gene ID	18999
mRNA Refseq	NM_001252452
Protein Refseq	NP_001239381
Pathway	PluriNetWork, organism-specific biosystem; Wnt Signaling Pathway and Pluripotency, organism-specific biosystem;
Function	DNA binding; DNA binding; DNA binding; chromatin binding; miRNA binding; protein binding; sequence-specific DNA binding; sequence-specific DNA binding; sequence-specific DNA binding RNA polymerase II transcription factor activity; sequence-specific DNA binding transcription factor activity; sequence-specific DNA binding transcription factor activity; transcription corepressor activity; transcription factor binding; transcription factor binding; transcription regulatory region DNA binding; transcription regulatory region DNA binding; ubiquitin protein ligase binding; ubiquitin protein ligase binding;

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