Recombinant Human POU5F1

Cat. No. POU5F1-28780TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment, corresponding to amino acids 1-212 of Human Oct4; MWt 23kDa.
Species	Human
Source	E.coli
ProteinLength	212 amino acids
Description	This gene encodes a transcription factor containing a POU homeodomain. This transcription factor plays a role in embryonic development, especially during early embryogenesis, and it is necessary for embryonic stem cell pluripotency. A translocation of this gene with the Ewings sarcoma gene, t(6;22)(p21;q12), has been linked to tumor formation. Alternative splicing, as well as usage of alternative translation initiation codons, results in multiple isoforms, one of which initiates at a non-AUG (CUG) start codon. Related pseudogenes have been identified on chromosomes 1, 3, 8, 10, and 12.
Molecular Weight	23.000kDa
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.
Form	Liquid

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Purity	>90% by SDS-PAGE
Storage buffer	Preservative: NoneConstituents: 5% Glycerol, PBS (1.5% Monobasic dihydrogen potassium phosphate, 8.1mM Dibasic monohydrogen sodium phosphate, 500mM Sodium chloride, 2.7mM Potassium chloride, pH 7.4)
Storage	Aliquot and store at -80°C. Avoid repeated freeze / thaw cycles.
Sequence Similarities	Belongs to the POU transcription factor family. Class-5 subfamily.Contains 1 homeobox DNA-binding domain.Contains 1 POU-specific domain.

GENE INFORMATION

Gene Name	POU5F1 POU class 5 homeobox 1 [Homo sapiens]
Official Symbol	POU5F1
Synonyms	POU5F1; POU class 5 homeobox 1; OTF3, POU domain class 5, transcription factor 1; POU domain, class 5, transcription factor 1; MGC22487; OCT3; Oct4;
Gene ID	5460
mRNA Refseq	NM_001173531
Protein Refseq	NP_001167002
MIM	164177
Uniprot ID	Q01860
Chromosome Location	6p21.33

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Pathway	HIF-2-alpha transcription factor network, organism-specific biosystem; Wnt Signaling Pathway and Pluripotency, organism-specific biosystem;
Function	DNA binding; miRNA binding; protein binding; sequence-specific DNA binding; sequence-specific DNA binding RNA polymerase II transcription factor activity;

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