9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
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POU5F1 Human

POU Class 5 Homeobox 1 Human Recombinant
RCP1694

Product Overview

Name	POU5F1 Human
Description	
POU Class 5 Homeobox 1 Human Recombinant	
Accession (Primary)	Q01860
Synonyms	
POU domain class 5 transcription factor 1, Octamer-binding protein 3, Oct-3, Octamer-binding protein 4, Oct-4, Octamer-binding transcription factor 3, OTF-3, POU5F1, OCT3, OCT4, OTF3, OTF4, MGC22487.	
Introduction	
POU5F1 is a homeodomain transcription factor of the POU family, expressed in embryonic stem (ES) cells and embryonic carcinoma (EC) cells.POU5F1 is significantly involved in the signaling pathway for maintaining self-renewal and pluripotency of ES cells. POU5F1 has 2 distinct DNA binding domains which independently bind half-sites of the canonical octamer motif. This flexibility allows POU5F1 to bind with distinct DNA motifs by forming heterodimers with other transcription factors or by forming homodimers in several conformations. Human POU5F1 contains a 75aa POU specific (POUS) domain and a 60aa POU-Homeo-(POUH) domain connected by a linker region. The Human POU5F1 specifically interacts with Octamer motif ATGCAAAT. In addition, 2 proline-rich domains in the N-terminal and C-terminal regions are vital for POU5F1 transactivation. POU5F1 regulates a number of target genes and has been shown to work jointly with other transcription factors including Sox2 as well as Nanog to sustain stem cell potency and self-renewal.	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile filtered colorless solution.	
Formulation	
The POU5F1 solution contains 20mM Tris-HCl buffer (pH 8.0), 0.4M Urea and 10% glycerol.	
Stability	
Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.	
Purity	

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Greater than 85% as determined by SDS-PAGE.

Amino acid sequence

MGSSHHHHHH SSGLVPRGSH MHFYRLFLGA TRRFLNPEWK GEIDNWCVYV LTSLLPFKIQ SQDIKALQKE LEQFAKLLKQ KRITLGYTQA DVGLTLGVLF GKVFSQTTIC RFEALQLSFK NMCKLRPLLQ KWVEEADNNE NLQEICKAET LVQARKRKRT SIENRVRGNL ENLFLQCPKP TLQQISHIAQ QLGLEKDVVR VWFCNRRQKG KRSSSDYAQR EDFEAAGSPF SGGPVSFPLA PGPHFGTPGY GSPHFTALYS SVPFPEGEAF PPVSVTTLGS PMHSN.

Precautions

POU5F1 Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (Q01860)