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

POU Class 5 Homeobox 1 Human Recombinant, Polyarginine-Tag
RCP1695

Product Overview

Name	POU5F1 Human, PolyR

Description

POU Class 5 Homeobox 1 Human Recombinant, Polyarginine-Tag

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

POU5F1 0.2 µm filtered solution in PBS, pH7.4 and 5% 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. Avoid multiple freeze-thaw cycles.

Purity

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Greater than 95.0% as determined by: (a) Analysis by SEC-HPLC. (b) Analysis by SDS-PAGE.

Amino acid sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Ala-Gly-His-Leu.

Precautions

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

Target Information: (Q01860)