

Recombinant Mouse Pou4f2 Protein, Myc/DDK-tagged

Cat. No. Pou4f2-5023M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length POU domain, class 4, transcription factor 2 (Pou4f2), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Tissue-specific DNA-binding transcription factor involved in the development and differentiation of target cells. Functions either as activator or repressor by modulating the rate of target gene transcription through RNA polymerase II enzyme in a promoter-dependent manner. Binds to the consensus octamer motif 5'-AT[A/T]A[T/A]T[A/T]A-3' of promoter of target genes. Plays a fundamental role in the gene regulatory network essential for retinal ganglion cell (RGC) differentiation. Binds to an octamer site to form a ternary complex with ISL1; cooperates positively with ISL1 and ISL2 to potentiate transcriptional activation of RGC target genes being involved in RGC fate commitment in the developing retina and RGC axon formation and pathfinding. Inhibits DLX1 and DLX2 transcriptional activities preventing DLX1- and DLX2-mediated ability to promote amacrine cell fate specification In cooperation with TP53 potentiates transcriptional activation of BAX promoter activity increasing neuronal cell apoptosis Negatively regulates BAX promoter activity in the absence of TP53 Acts as a transcriptional coactivator via its interaction with the transcription factor ESR1 by enhancing its effect on estrogen response element (ERE)-containing promoter. Antagonizes the transcriptional stimulatory activity of POU4F1 by preventing its binding to an octamer motif. Involved in TNFSF11-mediated terminal

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	osteoclast differentiation
Molecular Mass	43.6 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Pou4f2 POU domain, class 4, transcription factor 2 [Mus musculus (house mouse)]
Official Symbol	Pou4f2
Synonyms	POU4F2; POU domain, class 4, transcription factor 2; brain-3B; brain-specific homeobox/POU domain protein 3B; POU domain, class 4, transcription factor, related sequence 1; Brn3b; Brn-3b; Brn-3.2; mBrn3-3R; Pou4f-rs1
Gene ID	18997
mRNA Refseq	NM_138944
Protein Refseq	NP_620394

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