

Recombinant Mouse Pou4f1 Protein, Myc/DDK-tagged

Cat. No. Pou4f1-5022M **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Purified recombinant protein of mouse full-length POU domain, class 4, transcription factor 1 (Pou4f1), with C-terminal MYC/DDK tag, expressed in HEK293T cells.

Species

Mouse

Source

HEK293

Description

Multifunctional transcription factor with different regions mediating its different effects. Acts by binding (via its C-terminal domain) to sequences related to the consensus octamer motif 5'-ATGCAAAT-3' in the regulatory regions of its target genes. Regulates the expression of specific genes involved in differentiation and survival within a subset of neuronal lineages. It has been shown that activation of some of these genes requires its N-terminal domain, maybe through a neuronal-specific cofactor Ativates BCL2 expression and protects neuronal cells from apoptosis (via the N-terminal domain). Induces neuronal process outgrowth and the coordinate expression of genes encoding synaptic proteins. Exerts its major developmental effects in somatosensory neurons and in brainstem nuclei involved in motor control. Stimulates the binding affinity of the nuclear estrogen receptor ESR1 to DNA estrogen response element (ERE), and hence modulates ESR1-induced transcriptional activity. May positively regulate POU4F2 and POU4F3. Regulates dorsal root ganglion sensory neuron specification and axonal projection into the spinal cord Plays a role in TNFSF11-mediated terminal osteoclast differentiation Negatively regulates its own expression interacting directly with a highly conserved autoregulatory domain surrounding the transcription initiation site

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Molecular Mass	43.2 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	Pou4f1 POU domain, class 4, transcription factor 1 [Mus musculus (house mouse)]
Official Symbol	Pou4f1
Synonyms	POU4F1; POU domain, class 4, transcription factor 1; brn-3A; brain-3A; brain-specific homeobox/POU domain protein 3A; Brn3; Brn-3; Brn3a; Brn3.0; Brn-3.0; E130119J07Rik
Gene ID	18996
mRNA Refseq	NM_011143
Protein Refseq	NP_035273
UniProt ID	P17208

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