

Product datasheet for **TP523071**

Pou4f2 (NM_138944) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse POU domain, class 4, transcription factor 2 (Pou4f2), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	A DNA sequence from Mouse cDNA ORF Clone, MR223071, encoding Mouse full-length Pou4f2.
Tag:	C-MYC/DDK
Predicted MW:	43.6 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_620394
Locus ID:	18997
UniProt ID:	Q63934
RefSeq Size:	3212
Cytogenetics:	8 C1
RefSeq ORF:	1233
Synonyms:	Brn-3.2; Brn-3b; Brn3b; mBrn3-3R; Pou4f-rs1



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Summary:

Tissue-specific DNA-binding transcription factor involved in the development and differentiation of target cells (PubMed:7904822, PubMed:8995448, PubMed:8972215, PubMed:10357904, PubMed:10414983, PubMed:11163266, PubMed:17668438, PubMed:25775587). Functions either as activator or repressor by modulating the rate of target gene transcription through RNA polymerase II enzyme in a promoter-dependent manner (PubMed:7904822, PubMed:7935408, PubMed:8065921, PubMed:7852360, PubMed:7797498, PubMed:8662774, PubMed:9694219, PubMed:10526314, PubMed:15733064, PubMed:17145718, PubMed:18368538). Binds to the consensus octamer motif 5'-AT[A/T]A[T/A]T[A/T]A-3' of promoter of target genes (PubMed:7904822, PubMed:8290353, PubMed:9111308, PubMed:10414983, PubMed:16152597, PubMed:17668438, PubMed:24643061). Plays a fundamental role in the gene regulatory network essential for retinal ganglion cell (RGC) differentiation (PubMed:8632990, PubMed:10357904, PubMed:25775587). 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 (PubMed:8995448, PubMed:9261145, PubMed:8972215, PubMed:10357904, PubMed:11163266, PubMed:24643061, PubMed:25775587). Inhibits DLX1 and DLX2 transcriptional activities preventing DLX1- and DLX2-mediated ability to promote amacrine cell fate specification (PubMed:21875655). In cooperation with TP53 potentiates transcriptional activation of BAX promoter activity increasing neuronal cell apoptosis (PubMed:17145718). Negatively regulates BAX promoter activity in the absence of TP53 (PubMed:17145718). Acts as a transcriptional coactivator via its interaction with the transcription factor ESR1 by enhancing its effect on estrogen response element (ERE)-containing promoter (PubMed:9448000). Antagonizes the transcriptional stimulatory activity of POU4F1 by preventing its binding to an octamer motif (PubMed:7935408, PubMed:8065921, PubMed:8537352, PubMed:7852360, PubMed:8662774). Involved in TNFSF11-mediated terminal osteoclast differentiation (PubMed:17668438).[UniProtKB/Swiss-Prot Function]