

Product datasheet for MC209205

Pou4f2 (NM_138944) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pou4f2 (NM_138944) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Pou4f2
Synonyms:	Brn-3.2; Brn-3b; Brn3b; mBrn3-3R; Pou4f-rs1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC209205 representing NM_138944 Red=Cloning site Blue=ORF

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATGATGATGTCCCTGAACAGCAAGCAGGCGTTCAGCATGCCTCACGCAGGCAGCCTGCACGTGGAGC
CCAAGTACTCGGCGCTACACAGTGCCTCCCCGGGCTCCTCTGCGCCCGCGGCCCTCGGCCAGTTCCTCC
TAGCAGCTCCAGCAACGCTGGCGCGCGGCGGTGGCGCGGAGGCGGAGCGCGGCCGCGGCCGAGCAGC
AGTTCAGCAGCAGTGGCAGCGCGGCAGCGCGCGGGGGCTCGGAGGCGATGCGGAGAGCTTGTC
TTCCAACCCACCGAGCAATATATTCGGCGGGCTGGATGAGAGTCTGCTGGCCCGTGCCGAGGCTCTGGC
CGCCGTGGACATCGTCTCCAGAGTAAGAGCCACCACCACATCCGCCACCACAGCCCTTCAAGCCG
GACGCCACTTACCACACCATGAACACCATCCCGTGCACGTGCGCAGCCTCCTCTTCTGTGCCATCT
CGCACCCGTCCGCTCTGGCTGGCACCCATCACCACCACCACCACCACCATCACCACCATCACCAGCCGCA
CCAGGGCGTGGAGGGCGAGCTGCTTGGACACTAAGCCCCGGGCTGGCCCTGGGAGCTATGGCGGGCCCC
GACGGCACGGTGGTGTCCACTCCGGCTCACGCACCACACATGGCCACCATGAACCCATGCACCAAGCAG
CCCTGAGCATGGCCACGCACATGGGCTGCCCTCGCACATGGGCTGCATGAGCGAGTGGATGCAGACCC
GCGGGACCTGGAGGCGTTCGCCGAGCGTTTCAAGCAGCGACGCATCAAGCTGGGAGTGACCCAGGCAGAT
GTGGGCTCGGCGCTGGCCAACCTCAAGATCCCGGGCGTGGGCTCGCTCAGCCAGAGCACCATCTGCAGGT
TTGAGTCTCTCACGTGTACACAACAACATGATCGCGCTCAAGCCCATCCTGCAGGCGTGGTGGAGGA
AGCTGAGAAATCCCACCGCAGAGAAGCTCACTAAGCCGGAGCTCTTCAATGGCGCGGAGAAGAAGCGCAAG
CGCACGTCCATCGCGGCCCGGAGAAGCGCTCTCTGGAAGCTACTTCGCCATCCAGCCAAGGCCCTCT
CGGAGAAGATCGCGGCCATCGCCGAAAAGCTGGATCTCAAGAAAAATGTGGTGCGCGTCTGGTTCTGCAA
CCAGAGGCAGAAACAGAAGAGAATGAAATACTCTGCCGCATTTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Chromatograms:	https://cdn.origene.com/chromatograms/ja1530_h10.zip
Restriction Sites:	Sgfl-Mlul
ACCN:	NM_138944
Insert Size:	1236 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_138944.2 , NP_620394.2
RefSeq Size:	3212 bp
RefSeq ORF:	1236 bp
Locus ID:	18997
UniProt ID:	Q63934
Cytogenetics:	8 C1

Gene 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]