

## Product datasheet for **MG225368**

### **Pou4f1 (NM\_011143) Mouse Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Pou4f1 (NM_011143) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pou4f1
Synonyms:	Brn-3; Brn-3.0; Brn3; Brn3.0; Brn3a; E130119J07Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG225368 representing NM_011143 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**

ATGATGTCCATGAACAGCAAGCAGCCTCACTTTGCCATGCATCCACCCCTCCCTGAGCACAAGTACCCGT  
CGCTGCACTCCAGCTCCGAGGCCATCCGGCGGGCCTGCCTGCCACGCCGCCGCTGCAGAGCAACCTCTT  
CGCCAGCCTGGACGAGACGCTGCTGGCGCGGGCCGAGGCGCTGGCGGCCGTGGACATCGCGGTGTCCAG  
GGCAAGAGCCACCCTTTCAAGCCGACGCCACGTACCACACGATGAATAGCGTGCCCTGCACGTCCACGT  
CCACCGTGCCGCTGGCGCACCACCACCACCACCACCACCAGGCGCTCGAGCCCGGTGACCTGCT  
GGACCACATCTCGTCGCCGTCGCTCGCGCTCATGGCCGGCGCAGGGGGCGCAGGCCGCGCGGGAGGCGGC  
GGCGGCGCCACGACGGCCCCGGGGCGGAGGCGGACCGGGGGCGGCGGTGGCCCGGGCGGCGGGCC  
CCGGGGGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG  
CTCGGCGCATCCGCACCCGCACATGCACGGCCTGGGCCACCTGTCGCACCCCGCGGCGGCGGCGGCGG  
AACATGCCGTCCGGGTGCCGCATCCCGGGCTCGTGCCGCGGCGGCGCACACGCGCGGCGGCGGCGGCG  
CGG  
GGCGTCCATCTGCGACTCGGACACGACCCGCGGAGCTCGAGGCGTTCCCGAGCGCTTCAAGCAGCGG  
CGCATCAAGCTGGCGTGACGACAGGCCGACGTGGGCTCGGCGCTGGCCAACTCAAGATCCCGGGCGTGG  
GCTCGCTCAGCCAGAGCACCATCTGCAGTTTCGAGTCGCTCACGCTCTCGCACAACAACATGATCGCGCT  
CAAGCCCATCCTGCAGGCGTGGCTGGAGGAGGCCGAGGGCGCGCAGCGTGAGAAAATGAACAAGCCGGAG  
CTCTTCAACGGCGGCGAGAAGAAGCGCAAGCGGACTTCCATCGCCGCGCCGAGAAGCGCTCCCTCGAGG  
CCTATTTTGCGGTACAACCCCGGCCCTCGTCTGAGAAGATCGCCGCCATCGCCGAGAACTGGACCTCAA  
AAAGAACGTGGTGGGGTGTGGTTTGAACCAGAGACAGAAGCAGAAGCGGATGAAATTCTCTGCCACT  
TAC

**ACGCGT**ACGCGGCGGCTCGAG - GFP Tag - GTTTAA


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**Protein Sequence:** >MG225368 representing NM\_011143  
 Red=Cloning site Green=Tags(s)

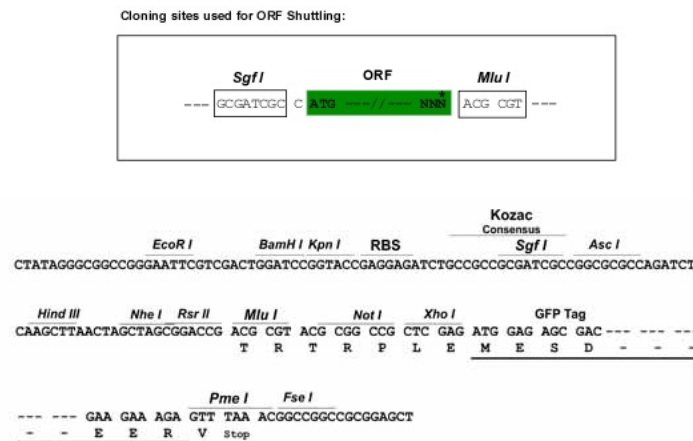
MMSMNSKQPHFAMHPTLPEHKYPSLHSSSEAIRRACLTPPLQSNLFASLDETLARAEALAAVDIAVSQ  
 GKSHPFKPDATYHTMNSVPCTSTSTVPLAHHHHHHHHQALEPGDLLDHISPSLALMAGAGGAGAAGGG  
 GGAHDGPGGGGPGGGGPGGGGPGGGGPGGGGPGGGGPGGGGPGGGGPGGGGPGGGGPGGGGPGGGG  
 NMP SGLPHPGLVAAAAHHGAAAAAAAAAGQVAAASAAAVVGAAGLASICDSDTDPRELEAFERFKQR  
 RIKLGVTQADVGSALANLKIPGVGSLSQSTICRFESLTLSHNNMIALKPILQAWLEEAEGAQREKMNKPE  
 LFNGGEKKRKRTSIAAPEKRSLEAYFAVQPRPSSEKIAAIAEKLDLKNVVRVWFCNQRQKQKRMKFSAT  
 Y

TRTRPLE – GFP Tag – V

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja2380\\_b01.zip](https://cdn.origene.com/chromatograms/ja2380_b01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_011143

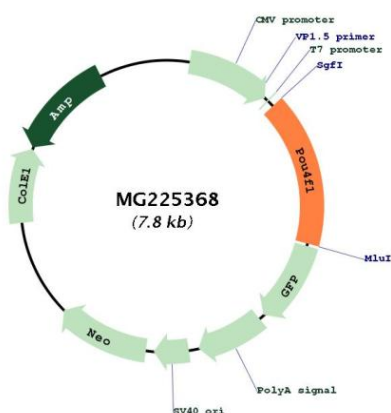
**ORF Size:** 1263 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_011143.4, NP_035273.3</u>
<b>RefSeq Size:</b>	3801 bp
<b>RefSeq ORF:</b>	1266 bp
<b>Locus ID:</b>	18996
<b>UniProt ID:</b>	<u>P17208</u>
<b>Cytogenetics:</b>	14 E2.3
<b>Gene Summary:</b>	<p>Multifunctional transcription factor with different regions mediating its different effects (PubMed:10640682, PubMed:8621561, PubMed:9694219, PubMed:9722627). 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 (PubMed:8621561, PubMed:17668438). 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 (PubMed:12934100). Activates BCL2 expression and protects neuronal cells from apoptosis (via the N-terminal domain) (PubMed:9722627). Induces neuronal process outgrowth and the coordinate expression of genes encoding synaptic proteins (PubMed:8972215). 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 (PubMed:9448000). May positively regulate POU4F2 and POU4F3 (PubMed:8876243). Regulates dorsal root ganglion sensory neuron specification and axonal projection into the spinal cord (PubMed:22326227). Plays a role in TNFSF11-mediated terminal osteoclast differentiation (PubMed:17668438). Negatively regulates its own expression interacting directly with a highly conserved autoregulatory domain surrounding the transcription initiation site (PubMed:12441296).[UniProtKB/Swiss-Prot Function]</p>

## Product images:



Circular map for MG225368