

## Product datasheet for **MG220203**

### **Pja2 (NM\_001025309) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Pja2 (NM_001025309) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pja2
Synonyms:	AI447901; AL022700; mKIAA0438; Neurodap1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG220203 representing NM\_001025309  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCACAGTACACTGAAAAAGAGCCATCAGTAATGGATCAAGAATCCAGCAAGGCTGCTTGGCCTAAAC  
 CAGCAGGAGGATATCAGACTATCACAGGCAGGAGATATGGAAGAAGACATGCGTATGTCAGTTTTAAGCC  
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 TCTTTCAAGCCCTGTGTCTCCATCTGGCTACAGAAGTCCGGAACATGCCCTGTGTGCCCGCTCACTT  
 CCCACCTGCAGTATTGACGCATCTGCAGCTGCTTCTGACCTGACCCTGATGCCTCGCTGCAAAAT  
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**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

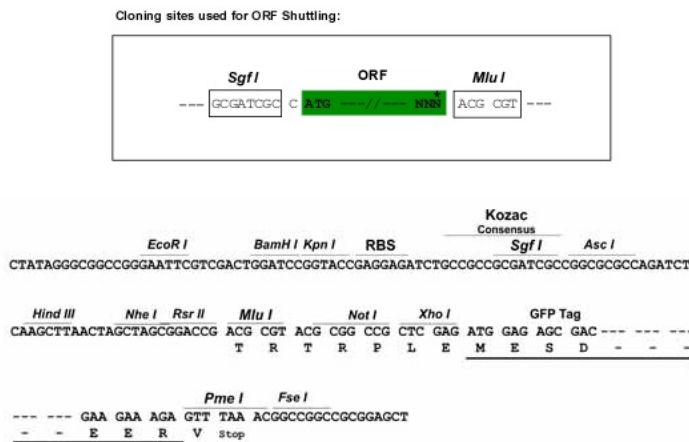
**Protein Sequence:** >MG220203 representing NM\_001025309  
Red=Cloning site Green=Tags(s)

```
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DKDEDSSECSGDGEWSASLPHRFSGTEKDQSSDDSWETLPGKDENDPELQSDSSGPPEENQELSLQEGEQ
TSLEEIGEIPWLQYNEVNESSDEGNEPANEFAPQEAFLDGNNNLEDDSSVSEDLVDVWSLFDGFADGLG
VAEAI SYVDPQLTYMALEERLAQAMETALAHLESLAVDVEVANPPASKESIDGLPETLVLEDHTAIGQE
QCCPICSEYIKDDIATELPCHHFFHKPCVSIWLQKSGTCPVCRRHFPFAVIDASAAASSDPDPDASPAN
DNAEEAP
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001025309

**ORF Size:** 2121 bp

**OTI Disclaimer:** 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](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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:**

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\\_001025309.1](#), [NP\\_001020480.1](#)

**RefSeq Size:** 4706 bp

**RefSeq ORF:** 2124 bp

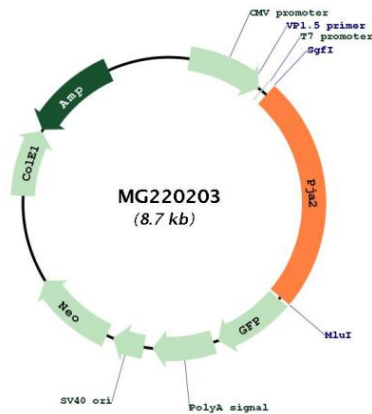
**Locus ID:** 224938

**UniProt ID:** [Q80U04](#)

**Cytogenetics:** 17 E1.1

**Gene Summary:** Has E2-dependent E3 ubiquitin-protein ligase activity. Responsible for ubiquitination of cAMP-dependent protein kinase type I and type II-alpha/beta regulatory subunits and for targeting them for proteasomal degradation. Essential for PKA-mediated long-term memory processes. Through the ubiquitination of MFHAS1, positively regulates the TLR2 signaling pathway that leads to the activation of the downstream p38 and JNK MAP kinases and promotes the polarization of macrophages toward the pro-inflammatory M1 phenotype.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MG220203