

## Product datasheet for **RC205204**

### **PJA2 (NM\_014819) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PJA2 (NM_014819) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PJA2
Synonyms:	Neurodap1; RNF131
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC205204 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGTCACAGTACACTGAAAAGGAGCCAGCAGCAATGGACCAAGAATCTGGTAAGGCTGTCTGCCCAAAC  
CAGCAGGAGGGTATCAGACAATTACAGGCAGGAGATATGGAAGAAGACATGCTTATGTCAGTTTTAAACC  
ATGTATGACCAGACATGAAAAGCTTAGTTCGGGCTGGTATGACTATGAAGTGTGGAACTAGATGAT  
GTTCCAAAGGAAAATTCCTCAGGTTCCAGTCTTTGGATCAAGTTGATTCTTTACCAAGTGAACCTA  
TATTTGAAAAAGTGAACAGAAAATCCCACTTGTGGTTCAGCATTGAATCAAACCACTGAGAGCAGTCA  
ATCCTTTGTTGCAGTACATCACAGTGAGGAAGGCAGGGATACCTTAGGAAGCAGTACAAATCTTCATAAT  
CACTCTGAGGGAGAGTATATTCCAGGAGCTGTAGTGCTCAAGTGTCCAAAATGGAATTGCATTGGTTC  
ATACAGACTCTTATGATCCAGATGGCAAACATGGAGAAGATAATGACCATCTTCAACTTTCTGCAGAAGT  
CGTGGAAGGTAGTAGATACCAGGAATCATTAGGCAATACAGTATTTGAGTTGGAAAACAGAGAGGCAGAG  
GCATACACTGGTCTTTCACCACCAGTCCCTCATTAACTGTGAAGTAAGAGATGAGTTTGAAGAGTTAG  
ATTCTGTACCATTAGTAAAAGTTCTGCTGGTGATACTGAGTTTGTCCATCAGAATAGCCAGGAAATTC  
GAGGTCTTCTCAAGATGAAATGGTTAGTACGAAACAACAAAATAACTAGCCAGGAAAGACAGACAGAA  
CATTCACTGAAGATGCAGCCTGTGGTCCAGGGCATAATTTGATGTAACGAAATACCAATGATAGGGAAA  
AGAACCATGGAAGTTCTCCTGAACAGGTAGTGAGGCCAAAAGTTAGAAAAGTATAAGTTCAAGCCAGGT  
GGACCAAGAAACAGGTTTTAATAGGCATGAGGCCAAAAGTGAAGAATATGATGGAGAGAGGCTTTG  
GAAGTTGAGGAAAGTGGCTCAGATGACCTCTTAATAAAAATGTGAAGAATATGATGGAGAGCATGACTGTA  
TGTTCTTGGATCCACCATACTCAAGAGTTATTACACAAAAGGAAACAGAAAATAACCAAAATGACATCAGA  
AAGTGGAGCCACAGCGGGAAGGCAAGAAGTGGATAACACCTTTTGAATGGCTGTGGAGATTATTACCAA  
CTCTATGACAAAAGATGAAGATAGTTCTGAATGCAGTGTGGGAAATGGTCTGCTTCTTGCCTCATCGAT  
TTTCTGTTACAGAAAAGATCAATCCTCAAGTGTGAAAGCTGGGAGACTCTGCCAGGAAAAGATGAGAA  
TGAACCTGAGCTACAAAGTATAGCAGTGGCCCTGAAGAAGAAAACCAAGAATTATCTTTCAGGAAGGG  
GAACAGACATCCTTGAAGAGGGAGAAATTCCTTGGTTACAGTACAATGAAGTCAATGAAAGCAGCAGTG  
ATGAGGGAAATGAACCTGCCAATGAATTTGCACAGCCAGCTTTCATGTTGGATGGTAACAATAACCTGGA  
GGATGACTCCAGTGTGAGTGAAGACTTAGATGTGGATTGGAGCATATTTGATGGCTTTCAGATGGACTA  
GGAGTTGCTGAAGCTATTTCAATGTGGATCCTCAGTTCTTACATACATGGCACTAGAAGAACGCTTAG  
CCCAGGCTATGGAGACTGCTCTGGCCATTTAGAGTCTTTCAGTGGATGTTGAGGTGGCAATCCACC  
AGCTAGTAAGGAAAGCATTGATGGTCTTCCAGAGACCCTTGTCTTGAAGATCACACTGCTATTGGTCAG  
GAACAATGCTGTCCAATCTGTTGCAGTGAATATTAAGGATGATATAGCAACAGAGTTGCCCTGTCACC  
ATTTCTTTCACAAACCTTGTGTCTCAATTTGGCTACAAAAGTCCGGGAACATGCCCTGTGTGCCCGCTCA  
TTTCCACCTGCGGTTATTGAAGCATCTGCAGCTCCTTCTCTGAGCCTGATCCTGATGCCCCACCTTCG  
AATGACAGTATTGCAGAAGCACCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC205204 protein sequence  
Red=Cloning site Green=Tags(s)

```
MSQYTEKEPAAMDQESGKAVWPKPAGGYQTITGRRYGRRHAYVSFKPCMTRHERSLGRAGDDYEVLDD
VPKENSSGSSPLDQVDSSLPSEPIFEKSETEIPTCGSALNQTTSSQSFVAVHHSEGRDTLGSSTNLHN
HSEGEYIPGACSSAVQNGIALVHTDSYDPDGKHGEDNDHLQLSAEVVEGSRYSQESLGNVFELENREAE
AYTGLSPPVPSFNCEVRDEFEELDVPLVKSSAGDTEFVHQNSQEIQRSSQDEMSTKQQNNTSQRQTE
HSPEDAACGPGHICSERNTNDREKNHGSSPEQVVRPKVRKLISSSQVDQETGFNRHEAKQRSVQRWREAL
EVEESGDDLLIKCEEYDGEHDCMFLDPPYSRVIITQRE TENNQMTSESGATAGRQEVNDFWNGCGDYQ
LYDKDEDSSECSDGESASLPHRFSGTEKDQSSSDESWETLPGKDENEPELQSDSSGPEEENQELSLQEG
EQTSLEEGERIPWLQYNEVNESSSDEGNEPANEFAPAFMLDGNNNLEDDSSVSEDLDVDWSIFDGFADGL
GVAEAI SYVDPQFLTYMALEERLAQAMETALAHLESLAVDVEVANPPASKESIDGLPETLVLEDHTAIGQ
EQCCPICSEYIKDDIATELPCHHFFHKPCVSIWLQKSGTCPVCRRHFPFAVIEASAAPSSEPDPDAPPS
NDSIAEAP
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6537\\_g11.zip](https://cdn.origene.com/chromatograms/mk6537_g11.zip)

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_014819

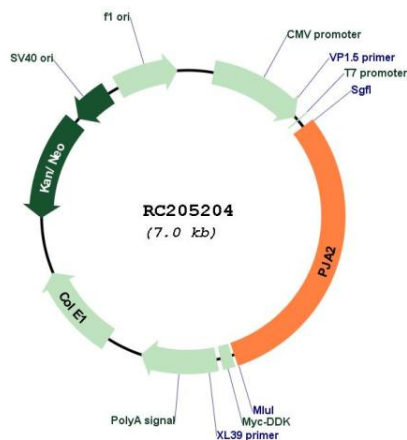
**ORF Size:** 2124 bp

**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](#)

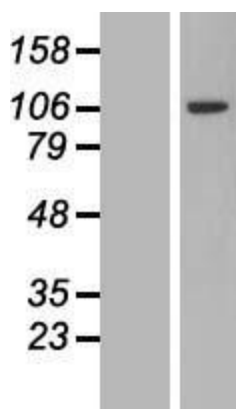
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<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>RefSeq:</b>	<u>NM_014819.3</u>
<b>RefSeq Size:</b>	4878 bp
<b>RefSeq ORF:</b>	2127 bp
<b>Locus ID:</b>	9867
<b>UniProt ID:</b>	<u>O43164</u>
<b>Cytogenetics:</b>	5q21.3
<b>Domains:</b>	RING
<b>Protein Families:</b>	Druggable Genome
<b>MW:</b>	78.2 kDa
<b>Gene Summary:</b>	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 (PubMed:28471450).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC205204



Western blot validation of overexpression lysate (Cat# [LY415026]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205204 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).