

## Product datasheet for **RC209260**

### **GABA A Receptor gamma 2 (GABRG2) (NM\_198904) Human Tagged ORF Clone**

#### **Product data:**

|                           |                                         |
|---------------------------|-----------------------------------------|
| Product Type:             | Expression Plasmids                     |
| Tag:                      | Myc-DDK                                 |
| Symbol:                   | GABA A Receptor gamma 2                 |
| Synonyms:                 | CAE2; DEE74; ECA2; EIEE74; FEB8; GEFSP3 |
| Mammalian Cell Selection: | Neomycin                                |
| Vector:                   | pCMV6-Entry (PS100001)                  |
| E. coli Selection:        | Kanamycin (25 ug/mL)                    |



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**ORF Nucleotide Sequence:**

>RC209260 representing NM\_198904  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGTTCGCCAAATATATGGAGCACAGGAAGCTCAGTCTACTCGACTCCTGTATTTTCACAGAAAATGA  
 CGGTGTGGATTCTGCTCCTGCTGCTGCTCTACCCTGGCTTCACTAGCCAGAAATCTGATGATGACTATGA  
 AGATTATGCTTCTAACAAAACATGGGTCTTGACTCCAAAAGTTCTGAGGGTGATGTCAGTGTCTATCTTA  
 AACAACTGCTGGAAGGATATGACAATAAACTTCGGCCTGATATAGGAGTGAAGCCAACGTTAATTCACA  
 CAGACATGTATGTGAATAGCATTGGTCCAGTGAACGCTATCAATATGGAATACACTATTGATATATTTTT  
 TGCGCAAACGTGGTATGACAGACGTTTGAATTTAACAGCACCATTAAAGTCCTCCGATTGAACAGCAAC  
 ATGGTGGGAAAATCTGGATTCCAGACACTTTCTTCAGAAATCCAAAAAGCTGATGCACACTGGATCA  
 CCACCCCAACAGGATGCTGAGAATTTGGAATGATGGTCGAGTGTCTACACCCTAAGGTTGACAATTGA  
 TGCTGAGTGCCAATTACAATTGCACAACTTCCAATGGATGAACACTCCTGCCCTTGGAGTTCTCAAGT  
 TATGGCTATCCACGTGAAGAAATGTTTATCAATGGAAGCGAAGTTCTGTTGAAGTGGGCGACACAAGAT  
 CCTGGAGGCTTTATCAATTCTCATTGTTGGTCTAAGAAATACCACCGAAGTAGTGAAGCAACTCCGG  
 AGATTATGTGGTCATGTCTGTCTACTTTGATCTGAGCAGAAGAATGGGATACTTTACCATCCAGACCTAT  
 ATCCCCTGCACACTCATTGTCTGCTATCCTGGGTGTCTTTCTGGATCAATAAGGATGCTGTTCCAGCCA  
 GAACATCTTTAGGTATCACCACTGTCTGACAATGACCACCCTCAGCACCATTGCCCGGAAATCGCTCCC  
 CAAGGTCTCCTATGTACAGCGATGGATCTCTTTGTATCTGTTTGTTCATCTTTGTCTTCTGCTCTG  
 GTGGAGTATGGCACCTTGCCTTATTTTGTCAAGGCCCTACCATTGATATCCGCCCAAGATCAGCAACCAT  
 TCAAATGAATAATGCTACACACCTTCAAGAGAGAGATGAAGAGTACGGCTATGAGTGTCTGGACGCAAG  
 GACTGTGCCAGTTTTTTCTGCTGTTTTGAAGATTGTCGAACAGGAGCTTGAGACATGGGAGGATACATA  
 TCCGATTGCCAAATGGACTCCTATGCTCGGATCTTCTCCCACTGCCTTCTGCCTGTTAATCTGGT  
 CTATTGGGTCTCTACCTCTACCTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC209260 representing NM\_198904  
 Red=Cloning site Green=Tags(s)

MSSPNIWSTGSSVYSTPVFSQKMTVWILLLSLYPGFTSQKSDDDYEDYASNKTWVLTpkVPEGDVTVIL  
 NNLEGYDNKLRPDIGVKPTLIHTDMYVNSIGPVNAINMEYIDIFFAQTWYDRRLKFNSTIKVLRRLNSN  
 MVGKIWIPTFFRNSKKADAHWITTPNRLRIWNGRVLVTLRLTIDAECQLQLHNFPMDHSCPLEFSS  
 YGYPREEIVYQWRSSVEVDTRSWRLYQFSFVGLRNTTEVVKTTSGDYVVMVSVFDLSRRMGYFTIQTY  
 IPCTLIIVLSWVSFWINKDAVPARTSLGITTVLTMTTLSTIARKSLPKVSVVTAMDLFVSVCFIFVFSAL  
 VEYGTLYRFVSNRKPSKDKDKKKKNPLLRMFSFKAPTIDIRPRSATIQMNNATHLQERDEEYGYECLDGK  
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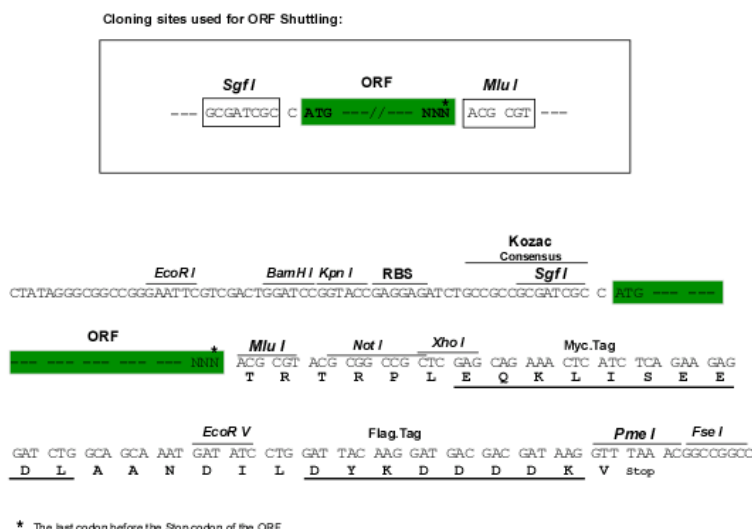
**TR**TRPLE**QKLISEEDLA**AND**ILDYKDDDDKV**

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg2436\\_h05.zip](https://cdn.origene.com/chromatograms/mg2436_h05.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_198904

**ORF Size:** 1425 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_198904.4](#)

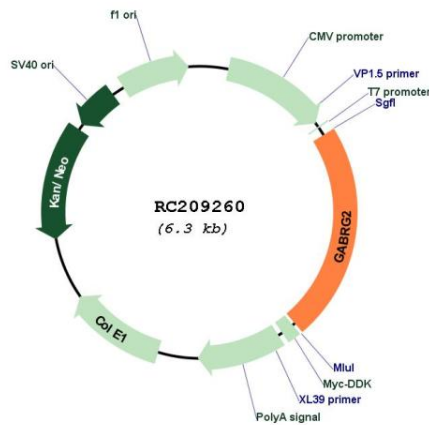
**RefSeq Size:** 3871 bp

**RefSeq ORF:** 1428 bp

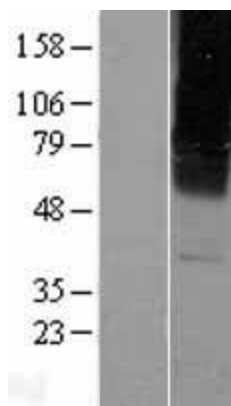
**Locus ID:** 2566

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UniProt ID:       | <u>P18507</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Cytogenetics:     | 5q34                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Protein Families: | Druggable Genome, Ion Channels: Cys-loop Receptors, Transmembrane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Protein Pathways: | Neuroactive ligand-receptor interaction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| MW:               | 50.8 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Gene Summary:     | This gene encodes a gamma-aminobutyric acid (GABA) receptor. GABA is the major inhibitory neurotransmitter in the mammalian brain, where it acts at GABA-A receptors, which are ligand-gated chloride channels. GABA-A receptors are pentameric, consisting of proteins from several subunit classes: alpha, beta, gamma, delta and rho. Mutations in this gene have been associated with epilepsy and febrile seizures. Multiple transcript variants encoding different isoforms have been identified for this gene. [provided by RefSeq, Jul 2008] |

## Product images:



Circular map for RC209260



Western blot validation of overexpression lysate (Cat# [LY403697]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209260 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).