

## Product datasheet for **RC219404**

### **GABA B Receptor 2 (GABBR2) (NM\_005458) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GABA B Receptor 2 (GABBR2) (NM_005458) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GABA B Receptor 2
Synonyms:	DEE59; EIEE59; GABABR2; GPR51; GPRC3B; HG20; HRIHFB2099; NDPLHS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC219404 representing NM\_005458  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCTTCCCGCGGAGCTCCGGCAGCCCGGGCCGCGCCGCCACCGCCCGCGCGCCTGC  
 TACTGCTACTGCTGCTGCCGCTGCTGCTGCCTCTGGCGCCCGGGGCTGGGGCTGGGCGCGGGCGCCCC  
 CCGGCCGCGCCAGCAGCCCGCGCTCTCCATCATGGGCCTCATGCCGCTCACCAAGGAGGTGGCCAAG  
 GGCAGCATCGGGCGCGGTGTGCTCCCGCGGTGGAAGTGGCCATCGAGCAGATCCGCAACGAGTCACTCC  
 TGCGCCCTACTTCTCGACCTGCGGCTCTATGACACGGAGTGCACAACGAAAAGGGTTGAAAGCCTT  
 CTACGATGCAATAAAAACGGGCCGAACCACTTGATGGTGTGGAGGCGTGTCCATCCGTCACATCC  
 ATCATTGCAGAGTCCCTCAAGGCTGGAATCTGGTGCAGCTTTCTTTTGTGCAACCACGCTGTTCTAG  
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 GTGCGGAATGACCTGACTGGAGTCTGTATGGCGAGGACATTGAGATTTAGACACCGAGAGCTTCCCA  
 ACGATCCCTGTACCAGTGTCAAAAAGCTGAAGGGGAATGATGTGCGGATCATCCTTGCCAGTTTGACCA  
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 GACCATCATCCTGGAGCAGTGCAGGAAGATCTCCCTACCTCTCTACAGCATCCTCTGCGCTCACCATC  
 CTCGGGATGATCATGGCCAGTGTCTTCTTCTTCAACATCAAGAACCAGGATCAGAAGCTCATAAAGA  
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 TGGCCTTGATGGATCCTTTGTCTGAAAAGACCTTTGAAACACTTTGCACCGTACAGGACCTGGATTCTC  
 ACCGTGGGCTACACGACCGCTTTTGGGGCCATGTTTGAAAGACCTGGAGAGTCCACGCCATCTTAAAA  
 ATGTGAAAATGAAGAAGAAGATCATCAAGGACCAGAACTGCTTGTGATCGTGGGGGGCATGCTGCTGAT  
 CGACCTGTGATCCTGATCTGCTGGCAGGCTGTGGACCCCTGCGAAGGACAGTGGAGAAGTACAGCATG  
 GAGCCGGACCCAGCAGGACGGGATATCTCCATCCGCCCTCTCCTGGAGCACTGTGAGAACACCCATATGA  
 CCATCTGGCTTGGCATCGTCTATGCCTACAAGGGACTTCTCATGTTGTTGCGTTGTTTCTTAGCTTGGGA  
 GACCCGCAACGTGAGCATCCCCGCACTCAACGACAGCAAGTACATCGGGATGAGTGTCTACAACGTGGGG  
 ATCATGTGCATCATCGGGGCCGCTGTCTCCTTCTGACCCGGGACCAGCCCAATGTGCAGTCTGCATCG  
 TGGCTCTGGTTCATCTTCTGCAGCACCATCACCTCTGCCTGGTATTCTGTCGCGAAGCTCATCACCT  
 GAGAACAACCCAGATGCAGCAACGCAGAACAGGCGATTCCAGTCACTCAGAATCAGAAGAAAGAAGAT  
 TCTAAAACGTCCACCTCGGTCAACAGTGTGAACCAAGCCAGCACATCCCGCTGGAGGGCCTACAGTCAG  
 AAAACCATCACCTGCGAATGAAGATCACAGAGCTGGATAAAGACTTGAAGAGGTACCATGCACTGCA  
 GGACACACCAGAAAAGACCACCTACATTAACAGAAACCACTACCAAGAGCTCAATGACATCCTCAACCTG  
 GGAAACTTCACTGAGAGCACAGATGGAGGAAAGGCCATTTTAAAAATCACCTCGATCAAAATCCCCAGC  
 TACAGTGGAAACAACAGAGCCCTCTGAAACATGCAAAGATCCTATAGAAGATATAAACTCTCCAGAACA  
 CATCCAGCGTGGCTGTCCCTCCAGCTCCCATCCTCCACCACGCTACCTCCATCCATCGGAGGCGTG  
 GACGCCAGCTGTGTCAGCCCTGCGTCAGCCCCACCGCCAGCCCCGCCACAGACATGTGCCACCCTCT  
 TCCGAGTCATGGTCTCGGGCCTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC219404 representing NM\_005458  
 Red=Cloning site Green=Tags(s)

```
MASPRSSGQPGPPPPPPPPARLLLLLLPLLLPLAPGAWGARGAPRPPSSPPLSIMGLMPLTKEVAK
GSI GRGVLPAVELAIEQIRNESLLRPYFLDLRLYDTECDNAKGLKAFYDAIKYGNHLMVFGGVCPSVTS
IIAESLQGNLVQLSFAATTPVLADKKKYPYFFRTVPSDNAVNPAILKLLKHYQWKRVTLTQDVQRSE
VRNDLTGVLVYGEDIEISDTEFSNDPCTSVKCLKGNDVRIILGQFDQNMAAKVFCCAYEENMYGSKYQWI
IPGWYEPSWWEQVHTEANSSRCLRKNLLAAMEGYIGVDFEPLSSKQIKTISGKTPQQYEREYNNKRSVG
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ERMGTIKFTQFQDSREVKVGEYNAVADTLEIINDTIRFQGSEPPKDKTIILEQLRKISLPLYSILSALTI
LGMIMASAFLLFFNIKRNQKLIKSSPYMNNL IILGGMLSYASIFLFGLDGSFVSEKTFETLCTVRTWIL
TVGYTTAFGAMFAKTWRVHAIFKNVMMKKKI IKDQKLLVIVGGMLLIDL CILICWQAVDPLRRTVEKYSM
EPDPAGRDISIRPLLEHCENTHMTIWLGI VYAYKGLLMLFGCFLAWETRNV SIPALNDSKYIGMSVYNVG
IMCII GAAVSFLTRDQPNVQFCIVALVIIFCSTITLCLVFPKILTRTNPDAATQNRRFQFTQNKKED
SKTSTSVTSVNQASTSRLEGLQSENHHLRMKITELDKDLEEVTMQLQDTPEKTTYIKQNHYQELNDILNL
GNFTSTDGGKAILKNHLDQNPQLQWNTTEPSRTCKDPIEDINSPEHIQRRLSLQLPILHHAYLPSIGGV
DASCVSPCVSPTASPRHRHVPPSFRVMVSGL
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6260\\_h01.zip](https://cdn.origene.com/chromatograms/mk6260_h01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_005458

**ORF Size:** 2823 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](#)

**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\\_005458.8](#)

**RefSeq Size:** 5786 bp

**RefSeq ORF:** 2826 bp

**Locus ID:** 9568

**UniProt ID:** [O75899](#)

**Cytogenetics:** 9q22.33

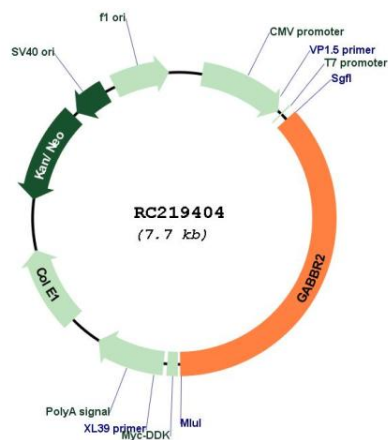
**Protein Families:** Druggable Genome, GPCR, Transmembrane

**Protein Pathways:** Neuroactive ligand-receptor interaction

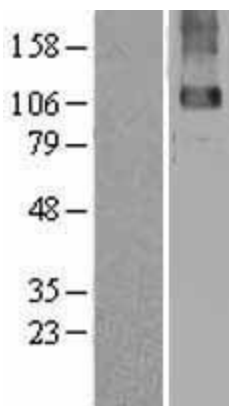
**MW:** 105.8 kDa

**Gene Summary:** The multi-pass membrane protein encoded by this gene belongs to the G-protein coupled receptor 3 family and GABA-B receptor subfamily. The GABA-B receptors inhibit neuronal activity through G protein-coupled second-messenger systems, which regulate the release of neurotransmitters, and the activity of ion channels and adenylyl cyclase. This receptor subunit forms an active heterodimeric complex with GABA-B receptor subunit 1, neither of which is effective on its own. Allelic variants of this gene have been associated with nicotine dependence.[provided by RefSeq, Jan 2010]

Product images:



Circular map for RC219404



Western blot validation of overexpression lysate (Cat# [LY417297]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219404 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).