

## Product datasheet for **RC225755**

### **GABA A Receptor alpha 1 (GABRA1) (NM\_001127646) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GABA A Receptor alpha 1 (GABRA1) (NM_001127646) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GABA A Receptor alpha 1
Synonyms:	ECA4; EJM; EJM5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC225755 representing NM\_001127646  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGGAAAAGTCCAGGTCTGTCTGACTGTCTTTGGCCTGGATCCTCTCTGAGCACACTGACTGGAA  
 GAAGCTATGGACAGCCGTCATTACAAGATGAACCTAAAGACAATACCACTGTCTTACCAGGATTTTGGAA  
 CAGACTCTAGATGGTTATGACAATCGCCTGAGACCAGGATTGGGAGAGCGTGTAAACCGAAGTGAAGACT  
 GATATCTTCGTCACCAGTTTCGGACCCGTTTCAGACCATGATATGGAATATACAATAGATGTATTTTCC  
 GTCAAAGCTGGAAGGATGAAAGTTAAAAATTAAGGACCTATGACAGTCTCCGGTTAAATAACCTAAT  
 GGCAAGTAAAATCTGGACTCCGGACACATTTTCCACAATGAAAAGAAGTCAGTGGCCACAACATGACC  
 ATGCCAACAACTCCTGCGGATCACAGAGGATGGCACCTTGCTGTACCCATGAGGCTGACAGTGAGAG  
 CTGAATGTCGATGCATTTGGAGGACTTCCTATGGATGCCATGCTTGCCCACTAAAATTTGGAAGTTA  
 TGCTTATAACAAGAGCAGAAGTTGTTTATGAATGGACCAGAGAGCCAGCACGCTCAGTGGTTGTAGCAGAA  
 GATGGATCACGTCTAAACCAAGTATGACCTTCTGGACAAACAGTAGACTCTGGAATTGTCCAGTCAAGTA  
 CAGGAGAATATGTTGTTATGACCACTCATTTCCTTGAAGAGAAAGATTGGCTACTTTGTTATTCAAAC  
 ATACCTGCCATGCATAATGACAGTGATTCTCTACAAGTCTCTTCTGGCTCAACAGAGAGTCTGTACCA  
 GCAAGAAGTGTCTTTGGAGTAACAAGTGTGCTCACCATGACAACATTGAGCATCAGTGCCAGAACTCCC  
 TCCCTAAGGTGGCTTATGCAACAGCTATGGATTGGTTTATTGCCGTGTGCTATGCCTTTGTGTTCTCAGC  
 TCTGATTGAGTTTGCCACAGTAACTATTTCACTAAGAGAGGTTATGCATGGGATGGCAAAAGTGTGTT  
 CCAGAAAAGCCAAAGAAAGTAAAGGATCCTCTTATTAAGAAAAACAACACTTACGCTCCAACAGCAACCA  
 GCTACACCCCTAATTTGGCCAGGGGCGACCCGGCTTAGCCACCATGCTAAAAGTGAACCATAGAACCC  
 TAAAGAGGTCAAGCCCGAAACAAAACACCAGAACCCAAAGAAAACCTTTAACAGTGTGAGCAAAAATTGAC  
 CGACTGTCAAGAATAGCCTTCCCGCTGCTATTTGGAATCTTTAACTTAGTCTACTGGGCTACGTATTTAA  
 ACAGAGAGCCTCAGCTAAAAGCCCCACACCACATCAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC225755 representing NM\_001127646  
 Red=Cloning site Green=Tags(s)

MRKSPGLSDCLWAWILLSTLTGRSYGQPSLQDELKDNTVFTRILDRLLDGYDNRLRPGLGERVTEVKT  
 DIFVTSFGPVSDDHMEYIDVFFRQSWKDERLKFPGPMTVLRNLNLMASKIWTPTDFFHNGKKSVAHNMT  
 MPNKLLRITEDGTLTYMRLTVRAECPMHLEDFPMDAHACPLKFGSYAYTRAEEVYEWTRPARSVVVAE  
 DGSRLNQQYDLLGQTVDSGIVQSSTGEYVVMTHFHLKRIQYFVIQTYLPCIMTVILSQVSWLNRESVP  
 ARTVFGVTTVLMTTLSISARNSLPKVAYATAMDWFIAVCYAFVFSALIEFATVNYFTKRGYAWDGKSVV  
 PEKPKVKDPLIKKNNTYAPTATSYTPNLARGDPGLATIAKSATIEPKEVKPETKPPKPTFNSVSKID  
 RLSRIAFPLLFGIFNLVYWATYLNREPQLKAPTPHQ

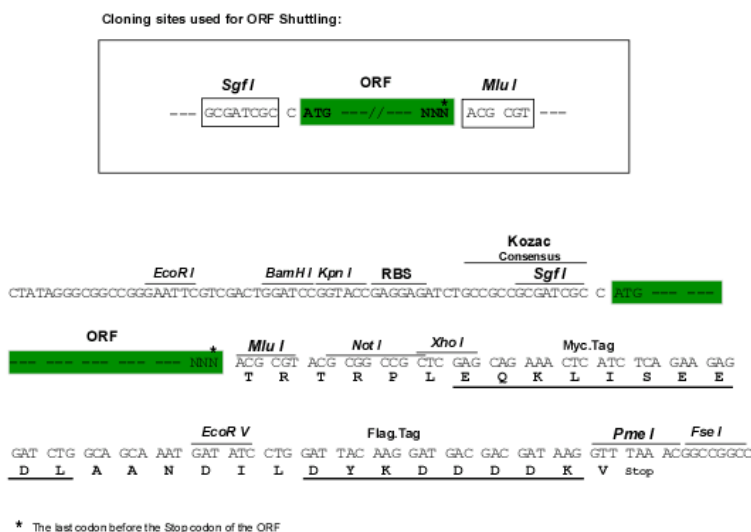
**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg2436\\_g04.zip](https://cdn.origene.com/chromatograms/mg2436_g04.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001127646

**ORF Size:** 1368 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\\_001127646.1](#), [NP\\_001121118.1](#)

**RefSeq Size:** 4067 bp

**RefSeq ORF:** 1370 bp

**Locus ID:** 2554

**Cytogenetics:** 5q34

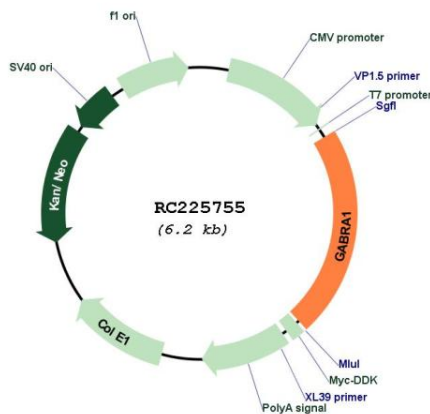
**Protein Families:** Druggable Genome, Ion Channels: Cys-loop Receptors, Transmembrane

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

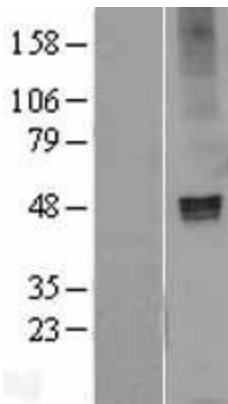
**MW:** 51.8 kDa

**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. Chloride conductance of these channels can be modulated by agents such as benzodiazepines that bind to the GABA-A receptor. GABA-A receptors are pentameric, consisting of proteins from several subunit classes: alpha, beta, gamma, delta and rho. Mutations in this gene cause juvenile myoclonic epilepsy and childhood absence epilepsy type 4. Multiple transcript variants encoding the same protein have been identified for this gene. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RC225755



Western blot validation of overexpression lysate (Cat# [LY426831]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC225764] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).