

## Product datasheet for **RG225755**

### **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:	TurboGFP
Symbol:	GABRA1
Synonyms:	ECA4; EJM; EJM5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG225755 representing NM\_001127646  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGGAAAAGTCCAGGTCTGTCTGACTGTCTTTGGCCTGGATCCTCTCTGAGCACACTGACTGGAA  
 GAAGCTATGGACAGCCGTCATTACAAGATGAACCTAAAGACAATACCACTGTCTTACCAGGATTTGGGA  
 CAGACTCTAGATGGTTATGACAATCGCCTGAGACCAGGATTGGGAGAGCGTGTAAACGAAGTGAAGACT  
 GATATCTTCGTCACCAGTTTCGGACCCGTTTCAGACCATGATATGGAATATACAATAGATGTATTTTCC  
 GTCAAAGCTGGAAGGATGAAAGTTAAATTTAAAGGACCTATGACAGTCTCCGGTTAAATAACCTAAT  
 GGCAAGTAAAATCTGGACTCCGGACACATTTTCCACAATGAAAGAAAGTCAGTGGCCACAACATGACC  
 ATGCCCAACAACTCCTGCGGATCACAGAGGATGGCACCTTGCTGTACCCATGAGGCTGACAGTGAAG  
 CTGAATGTCGATGCATTTGGAGGACTTCCCTATGGATGCCCATGCTTGGCCACTAAAATTTGGAAGTTA  
 TGCTTATAACAAGAGCAGAAGTTGTTTATGAATGGACCAGAGAGCCAGCACGCTCAGTGGTTGTAGCAGAA  
 GATGGATCACGTCTAAACCAAGTATGACCTTCTTGACAAAACAGTAGACTCTGGAATTGTCCAGTCAAGTA  
 CAGGAGAATATGTTGTTATGACCACTCATTTCCTTGAAGAGAAAGATTGGCTACTTTGTTATTCAAAC  
 ATACCTGCCATGCATAATGACAGTGATTCTCTCAAGTCTCCTTCTGGCTCAACAGAGAGTCTGTACCA  
 GCAAGAAGTGTCTTTGGAGTAACAACCTGTGCTCACCATGACAACATTGAGCATCAGTGCCAGAACTCCC  
 TCCCTAAGGTGGCTTATGCAACAGCTATGGATTGGTTTATTGCCGTGTGCTATGCCTTTGTGTTCTCAGC  
 TCTGATTGAGTTTGCCACAGTAACTATTTCACTAAGAGAGGTTATGCATGGGATGGCAAAAGTGTGGTT  
 CCAGAAAAGCCAAAGAAAGTAAAGGATCCTCTTATTAAGAAAAACAACACTTACGCTCCAACAGCAACCA  
 GCTACACCCCTAATTTGGCCAGGGGCGACCCGGCTTAGCCACCATTGCTAAAAGTGAACCATAGAACC  
 TAAAGAGGTCAAGCCCGAAACAAAACCAGAACCCCAAGAAAACCTTTAACAGTGTGAGCAAAATTTGAC  
 CGACTGTCAAGAATAGCCTTCCCGCTGCTATTTGGAATCTTTAAGTCTACTGGGCTACGTATTTAA  
 ACAGAGAGCCTCAGCTAAAAGCCCCACACCACATCAA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG225755 representing NM\_001127646  
 Red=Cloning site Green=Tags(s)

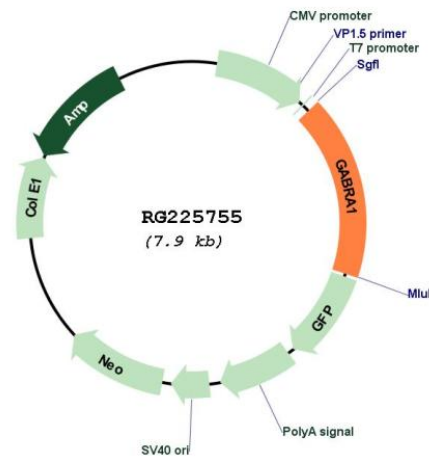
MRKSPGLSDCLWAWILLSTLTGRSYGQPSLQDELKDNTTVFTRILDRLLDGYDNLRPGLGERVTEVKT  
 DIFVTSFGPVS DHMEYIDVFFRQSWKDERLKFKGPMTVLRLNNLMASKIWPDTFFHNGKKSVAHNM  
 MPNKLLRITEDGTLTYMRLTVRAECPMHLEDFPMDAHACPLKFGSYAYTRAEVVYEWTRPARSVVVAE  
 DGSRLNQYDLLGQTVDSGIVQSSTGEYVVMTHFHLKRKIGYFVIQTYLPCIMTVILSQVSFWLNRESVP  
 ARTVFGVTTVLMTTLSISARNSLPKVAYATAMDWFIACVYAFVFSALIEFATVNYFTKRGYAWDGKSVV  
 PEKPKVKDPLIKKNNTYAPTATSYPNLARGDPGLATIAKSATIEPKVKPETKPEPKKTFNSVSKID  
 RLSRIAFLPLFGIFNLVYWATYLNREPQLKAPTPHQ

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

**Plasmid Map:**


**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.

<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_001127646.1, NP_001121118.1</u>
<b>RefSeq Size:</b>	4067 bp
<b>RefSeq ORF:</b>	1370 bp
<b>Locus ID:</b>	2554
<b>Cytogenetics:</b>	5q34
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Cys-loop Receptors, Transmembrane
<b>Protein Pathways:</b>	Neuroactive ligand-receptor interaction
<b>Gene Summary:</b>	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]