

## Product datasheet for **RG216541**

### **GABA A Receptor alpha 5 (GABRA5) (NM\_000810) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GABA A Receptor alpha 5 (GABRA5) (NM_000810) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GABA A Receptor alpha 5
Synonyms:	DEE79; EIEE79
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG216541 representing NM\_000810  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGACAATGGAATGTTCTCTGGTTTTATCATGATCAAAAACCTCCTTCTTTTTGTATTCCATGAACT  
 TATCCAGTCACTTTGGCTTTTCACAGATGCCAACCAAGTTCAGTGAAAGATGAGACCAATGACAACATCAC  
 GATATTTACCAGGATCTTGGATGGGCTCTTGGATGGCTACGACAACAGACTTCGGCCCGGCTGGGAGAG  
 CGCATCACTCAGGTGAGGACCGACATCTACGTCACCAGCTTCGGCCCGGTGCCGACCGGAAATGGAGT  
 ACACCATAGACGTGTTTTCCGACAAAGCTGAAAAGATGAAAGGCTTCGGTTAAGGGGCCATGCACGG  
 CCTCCCTCTCAACAACCTCCTTGCAGCAAGATCTGGACCCAGACAGTCTTCCACAACGGGAAGAAG  
 TCCATCGCTCACAACATGACCACGCCCAACAAGCTGCTGCGGCTGGAGGACGACGGCACCCCTGCTTACA  
 CCATGCGCTTACCATCTCTGCAGAGTCCCCATGCAGCTTGAGGACTTCCCGATGGATGCGCACGCTTG  
 CCCTCTGAAATTTGGCAGCTATGCGTACCCTAATTCTGAAGTCGTCTACGTCTGGACCAACGGCTCCACC  
 AAGTCGGTGGTGGCGGAAGATGGCTCCAGACTGAACCAAGTACCACCTGATGGGGCAGACGGTGGGCA  
 CTGAGAACATCAGCACCAGCACAGGCGAATACACAATCATGACAGCTCACTTCCACCTGAAAAGGAAGAT  
 TGGCTACTTTGTCATCCAGACCTACCTTCCCTGCATAATGACCGTGATCTTATCAGAGTGTCTTTTGG  
 CTGAACCGGGAATCAGTCCCAGCCAGGACAGTTTTTGGGGTACCACGGTGTGACCATGACGACCCCTCA  
 GCATCAGCGCCAGGAATCTCTGCCAAAGTGGCTACGCCACCGCCATGGACTGGTTCATAGCCGTGTG  
 CTATGCCCTTCTCTCGGCGTGATAGAGTTTGGCACGGTCAATTACTTTACCAAGAGAGGCTGGGCC  
 TGGGATGGCAAAAAGCCTTGAAGCAGCAAGATCAAGAAAAGCGTGAAGTCACTAAATAAGTCAA  
 CAAACGCTTTTACAACCTGGAAGATGTCTCACCCCAACATTCCGAAGGAACAGACCCAGCAGGGAC  
 GTCGAATACAACCTCAGTCTCAGTAAAACCTCTGAAGAGAAGACTTCTGAAAGCAAAAAGACTTACAAC  
 AGTATCAGCAAAATTGACAAAATGTCCGAATCGTATTCCAGTCTTGTTCGGCAGTTTCAACTTAGTTT  
 ACTGGGCAACGTATTTGAATAGGGAGCCGGTGATAAAAGGAGCCGCTCTCAAAA

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

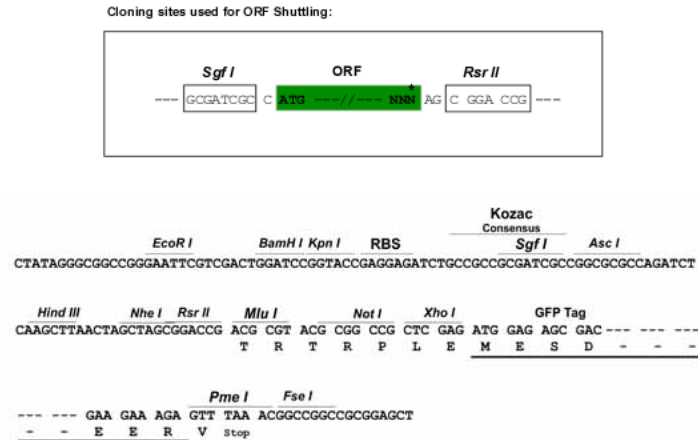
>RG216541 representing NM\_000810  
 Red=Cloning site Green=Tags(s)

MDNGMFSGFIMIKNLLFCISMNLSHFQSMPTSSVKDETNDNITIFTRILDGLLDGYDNRLRPLGLGE  
 RITQVRTDIYVTSFGPVSDEMEYIDVFFRQSWKDERLRFKGPQRPLNLLASKIWTPTFFHNGKK  
 SIAHNMTTPNKLLRLEDDGTLTYMRLTISAECPMQLEDFPMDAHACPLKFGSYAYPNSEVVYVWNGST  
 KSVVAEDGSRLNQYHLMGQTVGTENISTSTGEYTIMTAHFHLKRKIGYFVIQTYLPCIMTVILSQVSW  
 LNRESVPARTVFGVTTVLTMTTLLSISARNLSPKVAYATAMDWFIAVCYAFVFSALIEFATVNYFTKRGWA  
 WDGKKALEAAKIKKKREVILNKSTNAFTTGKMSHPPNIPKEQTPAGTSNTTSVSVKPSSEKTSSEKKTYN  
 SISKIDKMSRIVFPVLFGTFLVYWATYLNREPVIKGAASPK

SGP**TRRRLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-RsrII

**Cloning Scheme:**


**ACCN:** NM\_000810

**ORF Size:** 1386 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\\_000810.2](#), [NP\\_000801.1](#)

**RefSeq Size:** 2352 bp

**RefSeq ORF:** 1389 bp

**Locus ID:** 2558

**UniProt ID:** [P31644](#)

**Cytogenetics:** 15q12

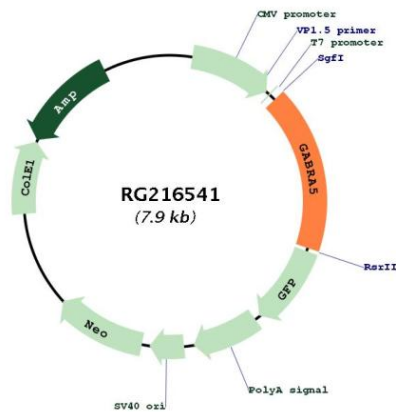
**Domains:** Neur\_chan\_memb, Neur\_chan\_LBD

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

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

**Gene Summary:** 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. At least 16 distinct subunits of GABA-A receptors have been identified. Transcript variants utilizing three different alternative non-coding first exons have been described. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RG216541