

Product datasheet for **RC216541**

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:	Myc-DDK
Symbol:	GABA A Receptor alpha 5
Synonyms:	DEE79; EIEE79
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC216541 representing NM_000810.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGCAATGGAATGTTCTCTGGTTTTATCATGATCAAAAACCTCCTTCTTTTTGTATTCCATGAAC
TTATCCAGTCACTTTGGCTTTTACAGATGCCAACCAAGTTCAGTAAAAGATGAGACCAATGACAACATC
ACGATATTTACCAGGATCTTGGATGGGCTCTTGGATGGCTACGACAACAGACTTCGGCCCCGGCTGGGA
GAGCGCATCACTCAGGTGAGGACCGACATCTACGTCAACAGCTTCGGCCCCGGTGTCCGACACGAAATG
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CCAAAA
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ATCCTGGATTACAAGGATGACGACGATAAGGTTTAA
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Protein Sequence:

>Peptide sequence encoded by RC216541
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MDNGMFSGFIMIKNLLFCISMNLSHFQFSQMPSTSSVKDETNDNITIFTRILDGLLDGYDNRLRPLG
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KKSIAHNMTTPNKLLRLEDDGTLTYMRLTISAECPMQLEDFFPMDAHACPLKFGSYAYPNSEVVYWTN
GSTKSVVAEDGSRLNQYHLMGQTVGTENISTSTGEYIMTAHFHLKRKIGYFVIQTYLPCIMTVILSQ
VSFWLNRESVPARTVFGVTTVLTMTTLSISARNSLPKVAYATAMDWFIAVCYAFVFSALIEFATVNYFT
KRGWAWDGKKALEAAKIKKKREVILNKSTNAFTTGKMSHPPNIPKEQTPAGTSNTTSVSVKPSSEKTSE
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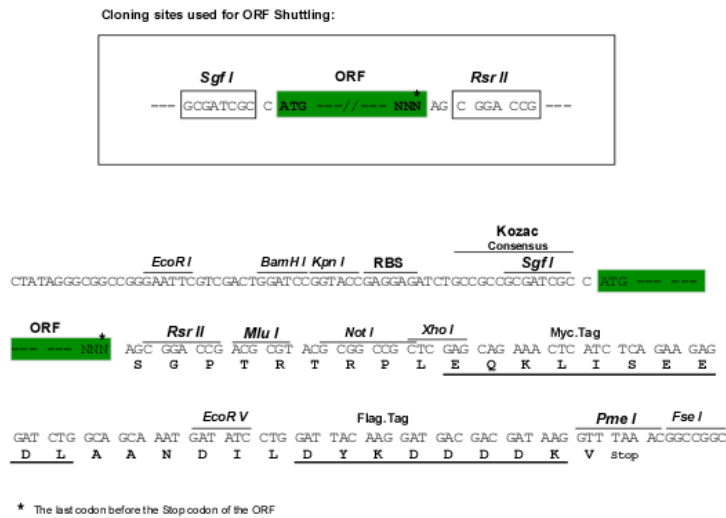
Recombinant protein using RC216541 also available, [TP316541M](#)

Chromatograms:

https://cdn.origene.com/chromatograms/mg2486_e09.zip

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.

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

RefSeq: [NM_000810.4](#)

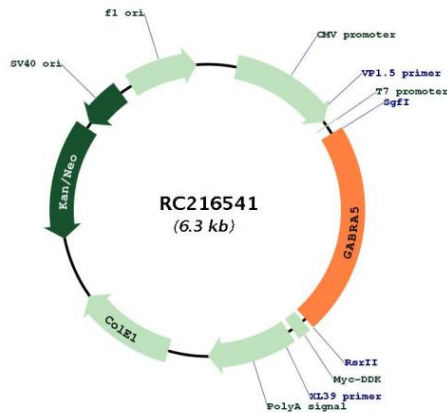
RefSeq Size: 2352 bp

RefSeq ORF: 1389 bp

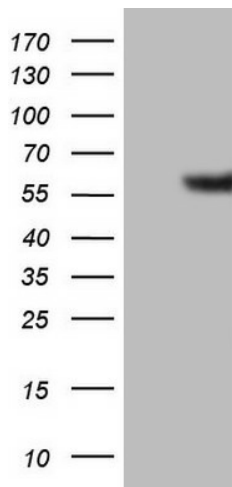
Locus ID: 2558

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
MW:	52.1 kDa
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]

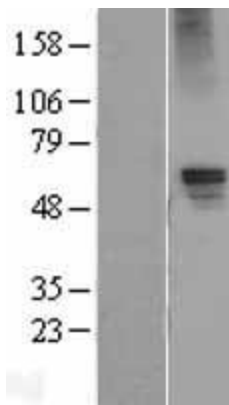
Product images:



Circular map for RC216541



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GABRA5 (Cat# RC216541, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GABRA5 (Cat# [TA806473]). Positive lysates [LY400284] (100ug) and [LC400284] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY431938]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC228910] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GABRA5 protein (Cat# [TP316541]). The protein was produced from HEK293T cells transfected with GABRA5 cDNA clone (Cat# RC216541) using MegaTran 2.0 (Cat# [TT210002]).