

Product datasheet for **RG207208**

GABA A Receptor alpha 4 (GABRA4) (NM_000809) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GABA A Receptor alpha 4 (GABRA4) (NM_000809) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GABA A Receptor alpha 4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG207208 representing NM_000809
 Red=Cloning site Blue=ORF Green=Tags(s)

GACGTTGTATACGACTCCTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGGCGCGCC

ATGGTTTCTGCCAAGAAGGTACCCGCGATCGCTCTGTCCGCCGGGTGAGTTTCGCCTCCTGCGCTTCC
 TGTGCCTGGCGGTTTGTAAACGAATCCCAGGACAGAACCAAAAGGAGGAGAAATTGTCACAGAAAA
 TTTCACCCGCATCCTGGACAGTTTGTCTGATGTTATGACAACAGGCTGCGTCTGGATTTGGGGTCTCT
 GTTACAGAAGTAAAACTGACATATATGTCACCAGCTTTGGACCTGTTTCTGATGTTGAAATGGAATACA
 CAATGGATGTGTTCTTCAGGCAGACATGGATTGACAAAAGATTAATAATGACGGCCCCATTGAAATTTT
 GAGATTGAACAATATGATGGTAACGAAAGTGTGGACCCCTGATACTTTCTCAGGAATGGAAGAAATCT
 GTCTCACATAATGACAGCTCCAATAAGCTTTTGAATTATGAGAAATGGTACTATTTTATACACAA
 TGAGACTACCATAAGTGGGAGTGTCCATGAGATTGGTGGATTTCCCATGGATGGTCATGCATGCC
 TTTGAAATTCGGGAGTTATGCCTATCCAAGAGTGAGATGATCTATACCTGGACAAAAGGTCTGAGAAA
 TCAGTTGAAGTTCGAAGGAGTCTCCAGCTTAGTTCAATATGATTTGATTTGGGCAAAACCGTATCAAGT
 AAACCATCAAATCAATTACGGGTGAATATATTGTTATGACGGTTTACTTCCACCTCAGACGGAAGATGGG
 TTTTTATGATTCAGACCTATATCCGTGCATTATGACAGTGATTCTTTCTCAAGTTTCATTTGGATA
 AATAAAGAATCAGTTCCTAGGACTGTATTTGGAATAACAACCTGCTCCACCATGACCACACTAAGCA
 TCAGTGCACGACATCTTTGCCCAAAGTGCCTATGCTACCGCCATGGACTGGTTCATAGCTGTCTGCTT
 TGCTTTGTATTTTCGGCCCTTATCGAGTTTGTGCTGTCAACTATTTACCAATATTTCAAATGGAAAA
 GCCAAAAGGAAGACATCAAAGCCCCCTCAGGAAGTTCCTGCTCCAGTGCAGAGAGAGAAGCATCCTG
 AAGCCCCCTGCGAGAATACAAATGCCAATTTGAACATGAGAAAAAGAACAATGCTTTGGTCACTCTGA
 ATCTGATGTTGGCAACAGAAGTCTGAGGTGGGAAACCATTCAGCAAAATCTCCACAGTTGTTCAAGAACT
 TCTAAAGGCACACCTCGTCTTACTTAGCTTCCAGTCCAAACCCATTAGCCGTGCAAAATGCAGCTGAAA
 CCATATCTGCAGCAAGAGCACTTCCATCTGCTTCTCTACTTCTATCCGAACTGGATATATGCCTCGAAA
 GGCTTCAGTTGGATCTGCTTCTACTCGTCACGTGTTGGATCAAGACTGCAGAGGATAAAGACCACAGTT
 AATACCATAGGGGCTACTGGGAAGTTGTCAGCTACTCCTCCTCCATCGGCTCCACCACCTTCTGGATCTG
 GCACAAGTAAAAAGACAAATAGCCCGTATTCTTTCCAGTCACATTTGGGGCATTAAACATGGTTTA
 TTGGTGTGTTATTTATCTAAGGACACTATGGAGAAATCAGAAAGTCTAATG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG207208 representing NM_000809
 Red=Cloning site Green=Tags(s)

MVSAKKVPAL SAGVSFALLRFLCLAVCLNESPGQNQKEEKLCTENFTRILDSLDDGYDNRLRPGFGGP
 VTEVKTDIYVTSFGPVSDEVEMETMDVFFRQTWIDKRLKYDGP I EILRLNMMVTKVWTPDTFFRNGKKS
 VSHNMTAPNKLFRIMRNGTILYTMRLTISAECPMRLVDFPMDGHACPLKFGSYAYPKSEMIYTWKGP
 SVEVPKESSSLVQYDLIGQTVSSETIKSITGEYIVMTVYFHLRRKMGYFMIQTYIPCIMTVILSQVSWI
 NKESVPARTVFGITTVLTMTLTISARHSLPKVSYATAMDWFIACVFAVFSALIEFAAVNYFTNIQMEK
 AKRKTSPKPPQEVPAAPVQREKHPEAPLQNTNANLNMKRTNALVHSESDVGNRTEVGNHSSKSSTVVQES
 SKGTPRSYLASSPNPFSRANAETISAARALPSASPTSIRTGYMPRKASVGSASTRHVFGSRLQRIKTTV
 NTIGATGKLSATPPPSAPPPSGSGTSKIDKYARILFPVTFGAFNMVYVWVYL SKDTMEKSES LM

TRTRPLE – GFP Tag – V

Restriction Sites:

AscI-MluI

Cloning Scheme:


ACCN: NM_000809

ORF Size: 1662 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_000809.4](#)

RefSeq Size: 11987 bp

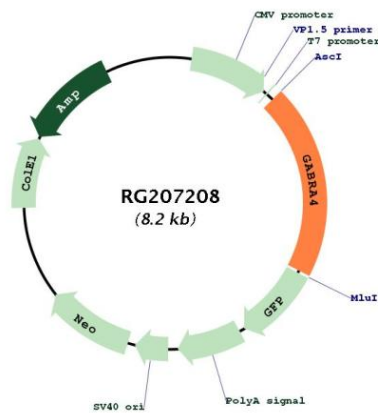
RefSeq ORF: 1665 bp

Locus ID: 2557

UniProt ID: [P48169](#)

Cytogenetics:	4p12
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:	Gamma-aminobutyric acid (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. This gene encodes subunit alpha-4, which is involved in the etiology of autism and eventually increases autism risk through interaction with another subunit, gamma-aminobutyric acid receptor beta-1 (GABRB1). Alternatively spliced transcript variants encoding different isoforms have been found in this gene.[provided by RefSeq, Feb 2011]

Product images:



Circular map for RG207208