

Product datasheet for **RG234371**

GABA A Receptor alpha 4 (GABRA4) (NM_001204266) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GABA A Receptor alpha 4 (GABRA4) (NM_001204266) 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)



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ORF Nucleotide Sequence:

>RG234371 representing NM_001204266
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTTGCAAAGATGGTTTCTGCCAAGAAGTTTAAACGAATCCCCAGGACAGAACCAAAGGAGGAGAAAT
 TGTGCACAGAAAATTTACCCCGCATCCTGGACAGTTTGCTCGATGGTTATGACAACAGGCTGCGTCTGG
 ATTTGGGGTCTCTTACAGAAGTGAAAACGACATATATGTCACCGAGCTTTGGACCTGTTTCTGATGTT
 GAAATGGAATACACAATGGATGTGTTCTTCAGGCAGACATGGATTGACAAAAGATTAAAATATGACGGCC
 CCATTGAAATTTGAGATTGAACAATATGATGGTAACGAAAGTGTGGACCCCTGATACTTCTTCAGGAA
 TGGAAAGAAATCTGTCTCACATAATATGACAGCTCCAAAATAAGCTTTTTAGAATTATGAGAAATGGTACT
 ATTTTATACACAATGAGACTCACATAAGTGGGAGTGTCCCATGAGATTGGTGGATTTCCCATGGATG
 GTCATGCATGCCCTTTGAAATTCGGGAGTTATGCCTATCCAAAGAGTGAGATGATCTATACCTGGACAAA
 AGGTCCTGAGAAATCAGTTGAAGTTCGGAAGAGTCTTCCAGCTTAGTTCAATATGATTTGATTGGGCAA
 ACCGTATCAAGTGAACCATCAAATCAATTACGGGTGAATATATTGTTATGACGGTTTACTTCCACCTCA
 GACGGAAGATGGGTTATTTATGATTGACAGCTATATTCCGTGCATTATGACAGTGATTCTTTCTCAAGT
 TTCATTTTGGATAAATAAGAATCAGTTCCTGACTAGGACTGTATTTGGAATAACAACTGTCTCACCATG
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 TCAAATGGAAAAGCCAAAAGGAAGACATCAAAGCCCCCTCAGGAAGTTCCTGCTCCAGTGCAGAGA
 GAGAAGCATCCTGAAGCCCTCTGCAGAATACAAATGCCAATTTGAACATGAGAAAAGAACAATGCTT
 TGGTTCCTCTGAATCTGATGTTGGCAACAGAACTGAGGTGGGAAACCATTCAAGCAAATCTTCCACAGT
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 AAAGACCACAGTTAATACCATAGGGGCTACTGGGAAGTTGTCAGCTACTCCTCCTCCATCGGCTCCACCA
 CCTTCTGGATCTGGCACAAGTAAAATAGACAAATATGCCCGTATTCTCTTCCAGTCACATTTGGGGCAT
 TTAACATGTTTATTGGGTTGTTATTTATCTAAGGACACTATGGAGAAATCAGAAAGTCTAATG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

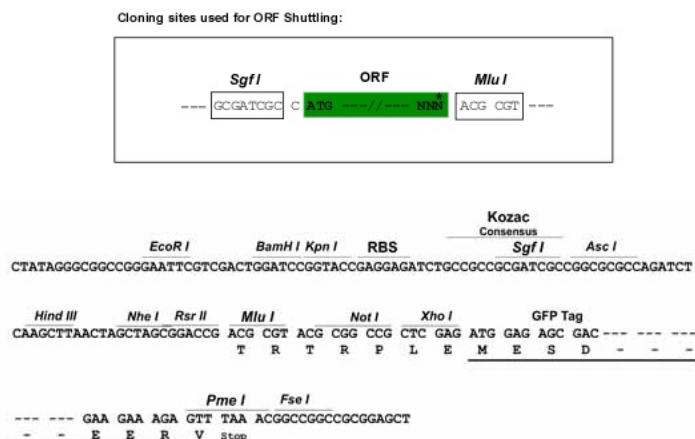
>RG234371 representing NM_001204266
 Red=Cloning site Green=Tags(s)

MLQRWFLPRSLNESPGQNQKEEKLCTENFTRILDSLDDGYDNRLRPGFPGPVTEVKTDIYVTSFGPVSDV
 EMEYTMDFVFRQTWIDKRLKYDGPPIEILRLNMMVTKVWTPDTFFRNGKKSVMHNTAPNKLFRIMRNGT
 ILYTMRLTISAECMRLVDFPMDGHACPLKFGSYAYPKSEMIYTWKGPESVVEPKESSLVQYDLIGQ
 TVSSETIKSITGEYIVMTVYFHLRRKMGYFMIQTYIPCIMTVILSQVSWINKESVPARTVFGITVLTMT
 TTLSISARHSLPKVSYATAMDWFIAVCFVFSALIEFAAVNYFTNIQMEKAKRKTSPKQEVPAAPVQR
 EKHPEAPLQNTNANLNMRRKTNALVHSESDVGNRTEVGNHSSKSSVVQESSKGTGPRSYLASSPNPFSRA
 NAAETISAARALPSASPTSIRTGYMPRKASVGSASTRHVFGSRLQRKTTVNTIGATGKLSATPPPSAPP
 PSGSGTSKIDKYARILFPVTFGAFNMVYVWVYLSKDTMEKSESLM

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001204266

ORF Size: 1605 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_001204266.2](#)

RefSeq Size: 11017 bp

RefSeq ORF: 1608 bp

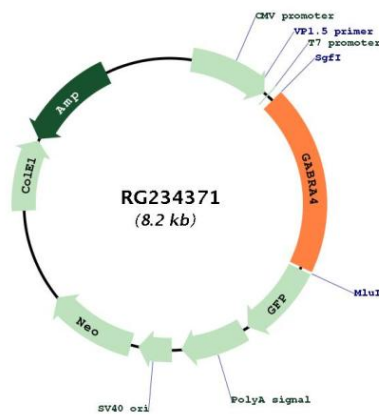
Locus ID: 2557

UniProt ID: [P48169](#)

Cytogenetics: 4p12

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 RG234371