

Product datasheet for **SC119625**

GABA A Receptor alpha 4 (GABRA4) (NM_000809) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GABA A Receptor alpha 4 (GABRA4) (NM_000809) Human Untagged Clone
Tag:	Tag Free
Symbol:	GABA A Receptor alpha 4
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC119625 sequence for NM_000809 edited (data generated by NextGen Sequencing)

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ATGTTTCTGCCAAGAAGGTACCCGCGATCGCTCTGTCCGCCGGGGTCAGTTTCGCCCTC
CTGCGCTTCTGTGCCTGGCGGTTTGTTTAAACGAATCCCCAGGACAGAACCAAAAGGAG
GAGAAATTGTGCACAGAAAATTTACCCGCATCCTGGACAGTTTGCTCGATGGTTATGAC
AACAGGCTGCGTCTGGATTTGGGGTCTGTTACAGAAGTAAAAGTGCATATATGTC
ACCAGCTTTGGACCTGTTTCTGATGTTGAAATGGAATACACAATGGATGTGTTCTTCAGG
CAGACATGGATTGACAAAAGATTAATAATGACGGCCCCATTGAAATTTGAGATTGAAC
AATATGATGGTAACGAAAAGTGTGGACCCCTGATACTTTCTTCAGGAATGGAAGAATCT
GTCTCACATAATATGACAGCTCCAAATAAGCTTTTTAGAAATTAGAGAAATGGTACTATT
TTATACACAATGAGACTCACCATAAGTGCGGAGTGTCCCATGAGATTGGTGGATTTCCC
ATGGATGGTCATGCATGCCCTTTGAAATTCGGGAGTTATGCCTATCCAAAGAGTGAGATG
ATCTATACCTGGACAAAAGTCTGAGAAATCAGTTGAAGTTCGAAGGAGTCTCCAGC
TTAGTTCAATATGATTTGATTGGGCAAACCGTATCAAGTGAACCATCAAATCAATTACG
GGTGAATATATTGTTATGACGGTTTACTTCCACCTCAGACGGAAGATGGGTTATTTTATG
ATTCAGACCTATATTCCGTGCATTATGACAGTGATTCTTTCTCAAGTTTCATTTGGATA
AATAAAGAAATCAGTTCCTGCTAGGACTGTATTTGGAATAACAAGTGCCTCACCATGACC
ACACTAAGCATCAGTGCACGACATTCTTTGCCCAAAGTGTCTATGCTACCGCCATGGAC
TGGTTCATAGCTGTCTGCTTTGCTTTTGTATTTTCGGCCCTTATCGAGTTTGCTGCTGTC
AACTATTTACCAATATTCAAATGGAAGGCAAGGACATCAAAGCCCCCTCAG
GAAGTTCCTGCTCCAGTGCAGAGAGAGAAGCATCCTGAAGCCCCCTGCAGAATACA
AATGCCAATTTGAACATGAGAAAAAGCAAAATGCTTTGGTTCAGTCTGAATCTGATGTT
GGCAACAGAACTGAGGTGGGAAACCATCAAGCAAAATCTCCACAGTTGTTCAAGAACTC
TCTAAAGGCACACCTCGGTCTTACTTAGCTTCCAGTCCAAACCCATTAGCCGTGCAAAAT
GCAGCTGAAACCATATCTGCAGCAAGAGCACTTCCATCTGCTTCTCCTACTTCTATCCGA
ACTGGATATATGCCTCGAAAGGCTTCAGTTGGATCTGCTTCTACTCGTCACGTGTTTGG
TCAAGACTGCAGAGGATAAAGACCACAGTTAATACCATAGGGGCTACTGGGAAGTTGTCA
GCTACTCTCCTCCATCGGCTCCACCACCTTCTGGATCTGGCACAAGTAAAATAGACAAA
TATGCCCGTATTCTTTCCAGTACATTTGGGGCATTAAACATGGTTTATTGGGTTGTT
TATTTATCTAAGGACACTATGGAGAAATCAGAAAGTCTAATGTAA

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Clone variation with respect to NM_000809.3

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000809 unedited

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AACCCAATTCGCACGAGGAGTGTGCGCACGCCGCGGGAGCCTCTCTGCCCTCTCCTCGCA
CCCTGCTCAGGGCATCTGAAGAGCCTGGAAACGTGAACAGGCTTGAAGTATGGCATGTTG
CAAAGATGGTTTTCTGCCAAGAAGGTACCCGCGATCGCTCTGTCCGCCGGGGTCAGTTTCT
TCCTCCTGCGCTTCTGTGCCTGGCGGTTTGTTTAAACGAATCCCCAGGACAGAACCAAA
AGGAGGAGAAAATTGTGCACAGAAAATTTACCCGCATCCTGGACAGTTTGCTCGATGTTT
ATGACAACAGGCTGCGTCTGGATTTGGGGTCTGTTACAGAAGTAAAAGTGCATAT
ATGTCACCAGCTTTGGACCTGTTTCTGATGTTGAAATGGAATACACAATGGATGTGTTCT
TCAGGCAGACATGGATTGACAAAAGATTAATAATGACGGCCCCATTGAAATTTGAGAT
TGAACAATATGATGGTAACGAAAAGTGTGGACCCCTGATACTTTCTTCAGGAATGGAAGA
AATCTGTCTCACATAATATGACAGCTCCAAATAAGCTTTTTAGAAATTAGAGAAATGGTA
CTATTTTATACACAATGAGACTCACCATAAGTGCGGAGTGTCCCATGAGATTGGTGGATT
TTCCATGGATGGTCATGCATGCNCTTTGAAATTCGGGAGTTATGCCTATCCAAAGAGTG
AGATGATCTATACCTGGACAAAAGTCTGAGAAATCAGTTGAAGTTTCGAAGGAGTCTT
CCAGCTTAGTTCAATATGATTTGATTGGNGCAACCGTATCAAGTGAACCATCAAATCAT
TACGGGTGAATATATTGGTATGC

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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_000809 unedited NNTTTACTATGNNACCGCGGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTGTAC AAGTACTCTTTATTAATATATACATATATACAGGTGTTACTGGACCTAATTTACTAGA ATCAATTTTAAATTGGGGGGTGGGACTGGGTGATTTTCGACAGTATCTTTCAGCCTTAA ATGTGTTGATTCTATGGAATACCTAGAAAGACAGCCAAGAATGATTTCTCAGATATGACT TACAATTAATATTTGGCATTTCACAATTTTCAGGTATCAAAAACAACCATTATAAGGTA GTGCAATATCTGAAAAATCGATGCCAATTAECTACTATCACTTCTTTTCTATAAAAAACA AAAGAGAGAGAGAGATTTTGTCTGCAAGGTGGTCAATTTCTATCAATATGTTCCCTAAAAC ACCCAGAACACATTCACTCATCCATTCCAGAGCAGATAGAGAGAAGCACAGAAGAAAATC TAGAGGCAATATGACAAAAACCATACTTAGATTAGCTCAGTGCATAGACAGTTGCAAAATTC TCAAGTAAGTTGTTAAGCCTACCTAATGAGAAAGAAGTCAGTAGATGAAAACCCTGATAA ATCACATAGCAGAGTCAGTGGCATCCTACCCGACAGCTATTTTTTTCTTACTCCTTTCA TTTGCTGCTCTTAATTTAAAAATTTCCCTTATTATTAACCTTAAAAAACTCCAAAA AAACAACATGATGACTGCCAGAATACAGAACTACNGACAAAACTCTTAAAAATTTAGC ATTNCACTACCTAATATCTAGATCTATCTTGGGGAAAGCACCTGAAAAAGACTGTGCTCA GTTCTATGTCTGATGGATCTGGGATTCTGATCAATCTACTTGGGACTCTGACAAATTGC GACGTTATCTATAAGGCTTAATTGGCTGAATTTACTTTTCATACAA
Restriction Sites:	NotI-NotI
ACCN:	NM_000809
Insert Size:	4050 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none"> 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_000809.2 , NP_000800.2
RefSeq Size:	11143 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]
Transcript Variant: This variant (1) encodes the longest isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.