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## Product datasheet for RC234371

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

## Product data:

Product Type:
Product Name:

## Tag:

Symbol:
Mammalian Cell
Selection:
Vector:
E. coli Selection:

Expression Plasmids
GABA A Receptor alpha 4 (GABRA4) (NM_001204266) Human Tagged ORF Clone
Myc-DDK
GABA A Receptor alpha 4
Neomycin
pCMV6-Entry (PS100001)
Kanamycin ( $25 \mathrm{ug} / \mathrm{mL}$ )

| ORF Nucleotide Sequence: | >RC234371 representing NM_001204266 |
| :---: | :---: |
|  | Red=Cloning site Blue=ORF Green=Tags(s) |
|  | TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC |
|  | GCCGCGATCGCC |
|  | ATGTTGCAAAGATGGTTTCTGCCAAGAAGTTTAAACGAATCCCCAGGACAGAACCAAAAGGAGGAGAAAT |
|  | TGTGCACAGAAAATTTCACCCGCATCCTGGACAGTTTGCTCGATGGTTATGACAACAGGCTGCGTCCTGG |
|  | ATTTGGGGGTCCTGTTACAGAAGTGAAAACTGACATATATGTCACCAGCTTTGGACCTGTTTCTGATGTT |
|  | GAAATGGAATACACAATGGATGTGTTCTTCAGGCAGACATGGATTGACAAAAGATTAAAATATGACGGCC |
|  | CCATTGAAATTTTGAGATTGAACAATATGATGGTAACGAAAGTGTGGACCCCTGATACTTTCTTCAGGAA |
|  | TGGAAAGAAATCTGTCTCACATAATATGACAGCTCCAAATAAGCTTTTTAGAATTATGAGAAATGGTACT |
|  | ATTTTATACACAATGAGACTCACCATAAGTGCGGAGTGTCCCATGAGATTGGTGGATTTTCCCATGGATG |
|  | GTCATGCATGCCCTTTGAAATTCGGGAGTTATGCCTATCCAAAGAGTGAGATGATCTATACCTGGACAAA |
|  | AGGTCCTGAGAAATCAGTTGAAGTTCCGAAGGAGTCTTCCAGCTTAGTTCAATATGATTTGATTGGGCAA |
|  | aCCGTATCAAGTGAAACCATCAAATCAATTACGGGTGAATATATTGTTATGACGGTTTACTTCCACCTCA |
|  | GACGGAAGATGGGTTATTTTATGATTCAGACCTATATTCCGTGCATTATGACAGTGATTCTTTCTCAAGT |
|  | TTCATTTTGGATAAATAAAGAATCAGTTCCCGCTAGGACTGTATTTGGAATAACAACTGTCCTCACCATG |
|  | ACCACACTAAGCATCAGTGCACGACATTCTTTGCCCAAAGTGTCCTATGCTACCGCCATGGACTGGTTCA |
|  | TAGCTGTCTGCTTTGCTTTTGTATTTTCGGCCCTTATCGAGTTTGCTGCTGTCAACTATTTCACCAATAT |
|  | TCAAATGGAAAAAGCCAAAAGGAAGACATCAAAGCCCCCTCAGGAAGTTCCCGCTGCTCCAGTGCAGAGA |
|  | GAGAAGCATCCTGAAGCCCCTCTGCAGAATACAAATGCCAATTTGAACATGAGAAAAAGAACAAATGCTT |
|  | TGGTTCACTCTGAATCTGATGTTGGCAACAGAACTGAGGTGGGAAACCATTCAAGCAAATCTTCCACAGT |
|  | TGTTCAAGAATCTTCTAAAGGCACACCTCGGTCTTACTTAGCTTCCAGTCCAAACCCATTCAGCCGTGCA |
|  | AATGCAGCTGAAACCATATCTGCAGCAAGAGCACTTCCATCTGCTTCTCCTACTTCTATCCGAACTGGAT |
|  | ATATGCCTCGAAAGGCTTCAGTTGGATCTGCTTCTACTCGTCACGTGTTTGGATCAAGACTGCAGAGGAT |
|  | AAAGACCACAGTTAATACCATAGGGGCTACTGGGAAGTTGTCAGCTACTCCTCCTCCATCGGCTCCACCA |
|  | CCTTCTGGATCTGGCACAAGTAAAATAGACAAATATGCCCGTATTCTCTTTCCAGTCACATTTGGGGCAT |
|  | tTAACATGGTTTATTGGGTTGTtTATTTATCTAAGGACACTATGGAGAAATCAGAAAGTCTAATG |
|  | acGcgtacgcgcccgctcgagcaganactcatctcagaigagcatctggcagcanatgatatcctggatt |
|  | ACAAGGATGACGACGATAAGGTTTAA |
| Protein Sequence: | >RC234371 representing NM_001204266 |
|  | Red=Cloning site Green=Tags(s) |
|  | MLQRWFLPRSLNESPGQNQKEEKLCTENFTRILDSLLDGYDNRLRPGFGGPVTEVKTDIYVTSFGPVSDV |
|  | EMEYTMDVFFRQTWIDKRLKYDGPIEILRLNNMMVTKVWTPDTFFRNGKKSVSHNMTAPNKLFRIMRNGT |
|  | ILYTMRLTISAECPMRLVDFPMDGHACPLKFGSYAYPKSEMIYTWTKGPEKSVEVPKESSSLVQYDLIGQ |
|  | TVSSETIKSITGEYIVMTVYFHLRRKMGYFMIQTYIPCIMTVILSQVSFWINKESVPARTVFGITTVLTM |
|  | TTLSISARHSLPKVSYATAMDWFIAVCFAFVFSALIEFAAVNYFTNIQMEKAKRKTSKPPQEVPAAPVQR |
|  | EKHPEAPLQNTNANLNMRKRTNALVHSESDVGNRTEVGNHSSKSSTVVQESSKGTPRSYLASSPNPFSRA |
|  | NAAETISAARALPSASPTSIRTGYMPRKASVGSASTRHVFGSRLQRIKTTVNTIGATGKLSATPPPSAPP |
|  | PSGSGTSKIDKYARILFPVTFGAFNMVYWVVYLSKDTMEKSESLM |
|  | TRTRPLEQKLISEEDLAANDILDYkDddodk |
| Restriction Sites: | Sgfl-Mlul |

## Cloning Scheme:

## ACCN: NM_001204266

ORF Size:
OTI Disclaimer:

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 5 min .
2. Carefully open the tube and add 100 ul 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 5000 xg ) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at $-20^{\circ} \mathrm{C}$. The DNA is stable for at least one year from date of shipping when stored at $-20^{\circ} \mathrm{C}$.

| RefSeq: | NM 001204266.2 |
| :--- | :--- |
| RefSeq Size: | 11017 bp |
| RefSeq ORF: | 1608 bp |
| Locus ID: | 2557 |
| UniProt ID: | $\underline{\text { P48169 }}$ |

Cytogenetics:
Protein Families:
Protein Pathways:
MW:
Gene Summary:

4p12
Druggable Genome, Ion Channels: Cys-loop Receptors, Transmembrane
Neuroactive ligand-receptor interaction
60.4 kDa

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, gammaaminobutyric 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:



