

Product datasheet for **MG225561**

Gabra2 (NM_008066) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gabra2 (NM_008066) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Gabra2
Synonyms:	C630048P16Rik; Gabra-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG225561 representing NM_008066
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGACAAAATTGAGCACATGCAATGTATGGTCTCTGCTGCTTGTCTTCTGTTGTGGGACCCAGTCA
 GGTTGGTCTGGCTAACATCCAAGAAGATGAGGCTAAAAATAACATCACCATCTTTACAAGAATTCTAGA
 CAGACTTCTGGATGGTTATGATAATCGGCTTAGACCAGGACTGGGAGACAGTATTACTGAAGTCTTCACT
 AACATTTACGTGACCAGTTTTGGCCCTGTCTCAGATACAGATATGGAGTATACAATAGATGTTTTCTTTC
 GGCAAAAATGGAAAGATGAGCGTTTAAATTTAAAGGTCTATGAATATCCTTCGACTTAACAATTTAAT
 GGCCAGCAAAATCTGGACTCCTGATACCTTCTTTCACAATGGGAAAAAGTCAGTGGCCATAACATGACA
 ATGCCAAACAAGCTGCTTCGAATCCAGGATGATGGAACATTGCTATATACCATGAGGCTTACAGTCCAAG
 CCGAATGTCCCATGCACCTGGAGGATTTCCCGATGGATGCTCATTATGCCCACTGAAATTTGGAAGCTA
 CGTTACACAACCTCAGAAGTCACATATATTTGGACTTACAATGCTTCTGACTCCGTTCCAGTTGCTCCC
 GATGGCTCCAGGTTAAATCAGTATGATTTGCTGGGCCAGTCAATTGGGAAGGAAACAATTAATCCAGTA
 CAGGTGAATATACTGTAATGACAGCTCATTTCCTTGAAGAAAAATTGGGTATTTGTGATTAGAC
 CTATCTGCCTTGATCATGACTGTCATTCTCTCCAAGTGTCATTCTGGCTGAACAGAGAATCGGTGCCA
 GCAAGAACTGTGTTTGGAGTAACAACCTGTTCTAACAATGACAACCTTGAGCATCAGTGCCTGAAATCCC
 TCCCGAAAGTGGCTTATGCCACTGCCATGGACTGGTTTATAGCTGTTTGTATGCGTTTGTGTTCTCTGC
 CCTAATTGAATTTGCAACCGTGAATTACTTCACAAAAAGAGGATGGGCTTGGGACGGGAAGAGTGTAGTC
 AATGACAAGAAAAAGAGAAAGGCTCCGTCATGATACAGAACAACGCCTATGCGGTAGCTGTTGCCAAT
 ATGCCCCGAATCTTTCCAAAGATCCTGCTCTCTACCATTTCCAAAAGTGAACGACGCCAGAACCGAA
 CAAGAAGCCAGAGAAACAAGCCAGCTGAAGCCAAGAAAACCTTCAACAGTGTGAGCAAAAATCGACAGGATG
 TCTAGAATAGTGTCCCAGTTCTGTTTGGTACTTTTAATTTAGTTTATTGGGCTACCTATTTAAACAGG
 AGCCTGTATTAGGGGTCAGTCCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG225561 representing NM_008066
 Red=Cloning site Green=Tags(s)

MKTKLSTCNVWSLLLVLVWDPVRLVLANIQEAEKNNITIFTRILDRLLDGYDNLRPGLGDSITEVFT
 NIYVTSFGPVSDTMEYIDVFFRQKWKDERLKFKGPMNILRLNLMASKIWPDTFFHNGKKSVAHMT
 MPNKLLRIQDDGTLTYMRLTVQAECPMHLEDFPMDAHSCPLKFGSYAYTTSEVYIWTYNASDSVQVAP
 DGSRLNQYDLLGQSIGKETIKSSTGEYVMTAHFHLKRKIGYFVIQTYLPCIMTVILSQVSFWLNRESVP
 ARTVFGVTTVLMTTLSISARNSLPKVAYATAMDWFIACVYAFVFSALIEFATVNYFTKRGWAWDGKSVV
 NDKKKEKGSVMIQNNAYAVAVANYAPNLSKDPVLSTISKSAATPEPNKKPENKPAEAKKTFNSVSKIDRM
 SRIVFPVLFGTFNLVYWATYLNREPVLGVSP

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_008066

ORF Size: 1353 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_008066.4](#)

RefSeq Size: 2392 bp

RefSeq ORF: 1356 bp

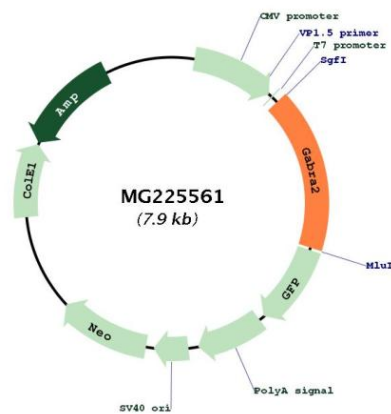
Locus ID: 14395

UniProt ID: [P26048](#)

Cytogenetics: 5 37.59 cM

Gene Summary: Ligand-gated chloride channel which is a component of the heteropentameric receptor for GABA, the major inhibitory neurotransmitter in the brain (PubMed:27129275). Plays an important role in the formation of functional inhibitory GABAergic synapses in addition to mediating synaptic inhibition as a GABA-gated ion channel (PubMed:27129275). The gamma2 subunit is necessary but not sufficient for a rapid formation of active synaptic contacts and the synaptogenic effect of this subunit is influenced by the type of alpha and beta subunits present in the receptor pentamer (PubMed:27129275). The alpha2/beta2/gamma2 receptor exhibits synaptogenic activity whereas the alpha2/beta3/gamma2 receptor shows very little or no synaptogenic activity (PubMed:27129275).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG225561