

Product datasheet for **MR227303**

Gabra1 (NM_010250) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gabra1 (NM_010250) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gabra1
Synonyms:	GABAA-alpha1; GABAAR-alpha1; Gabra-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR227303 representing NM_010250
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAGAAAAGTCGGGGTCTCTCTGACTATCTTTGGCCTGGACCCTCATTCTGAGCACACTGTCGGGAA
 GAAGCTATGGACAGCCCTCCAAGATGAACTTAAAGACAACCACTGTCTTACAGAATTTTGGACCG
 ACTGCTGGACGGTTATGACAATCGTCTGAGACCAGGTTTGGGAGAGCGTGAAGTGAAGACCGAC
 ATTTTCGTCAACAGTTTCGGACCAGTTTCAGACCAGGATATGGAGTATACAATAGATGTGTTTTCCGTC
 AAAGTTGGAAGGATGAAAGATTAATTAAGGACCCATGACAGTGTCCGGCTAAACAACCTTATGGC
 CAGTAAATCTGGACTCCAGATACATTTTCCACAATGGAAGAAGTCTGTGGCCCAACATGACCATG
 CCTAATAAGCTCCTGCGTATCACAGAGGATGGCACTCTGCTGTACACCATGAGGTTGACCGTGAGAGCTG
 AATGCCAATGCACTTGAAGACTTCCCTATGGATGCCCATGCCCTGCCACTAAAATTCGGAAGCTATGC
 TTATACAAGAGCAGAAGTTGTCTATGAGTGGACCAGAGGCCAGCCGTTCAAGTGGTTGTAGCAGAAGAT
 GGGTCACGTTTAAACCAGTATGACCTTCTTGGACAACAGTTGACTCTGGAATTGTTCAAGTCCAGTACTG
 GAGAATATGTGGTTATGACGACTCACTTCCACTTGAAGAGAAAAATTGGCTACTTTGTTATTCAAACATA
 TCTGCCGTGCATAATGACAGTATTCTCTCCCAAGTCTCCTTCTGGCTCAACAGAGAGTCAGTACCAGCA
 AGAACTGTCTTTGGAGTGACGACTGTTCTGACTATGACAACCTTGAAGTATCAGTCCAGAAAATCCCTCC
 CGAAGGTGGCTTATGCAACAGCTATGGACTGGTTTATTGCAAGTATGCTATGCCTTTGTTTCTCAGCTCT
 GATTGAGTTTCCACAGTAACTATTTACCAAGAGAGGGTATGCGTGGGATGGCAAAAGCGTGGTTCCA
 GAAAAGCCAAAGAAAGTAAAGGATCCTCTCATTAAAGAAAAACAACACATATGCTCCTACAGCAACAGCT
 ATACCCCTAACTTAGCCAGGGGTGACCCCGCTTGGCAACTATTGCTAAAAGTGGCACCATAGAACCGAA
 AGAAGTCAAGCCTGAGACAAAACCACCAAGCAACCAAGAAAACCTTTAACAGCGTCAAGCAAAATCGACCGA
 CTGTCAAGAATAGCCTTTCCGCTGCTATTTGGAATCTTTAACTTAGTCTATTGGCCACGTATTTAAACA
 GAGAGCCTCAGCTAAAAGCCCCACACCCCATCAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR227303 representing NM_010250
 Red=Cloning site Green=Tags(s)

MKKSRLSDYLWAWTLILSTLSGRSYGQPSQDELKDNTTFVTRILDRLLDGYDNRLRPGLGERVTEVKTD
 IFVTSFGPVSDDHMEYTDVFFRQSWKDERLKFKGPMVLRNLNLMASKIWPDTFFHNGKKSVAHNMTM
 PNKLLRITEDGTLTYMRLTVRAECPMHLEDFPMDAHACPLKFGSYAYTRAEVVYEWTRPARSVVVAED
 GSRLNQYDLLGQTVDSGIVQSSTGEYVVMTHFHLKRRKIGYFVIQTYLPCIMTVILSQVSFNLNRESVPA
 RTVFGVTTVLTMTLSISARNLSPKVAYATAMDWFIAVCYAFVFSALIEFATVNYFTKRGYAWDGKSVVP
 EKPKVKVDPLIKKNNTYAPTATSYTPNLARGDPGLATIAKSATIEPKVKPETKPPPKTFNSVSKIDR
 LSRIFAPLLFGIFNLVYWATYLNREPQLKAPTPHQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mm9017_e02.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_010250

ORF Size: 1365 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_010250.5](#), [NP_034380.1](#)

RefSeq Size: 4702 bp

RefSeq ORF: 1368 bp

Locus ID: 14394

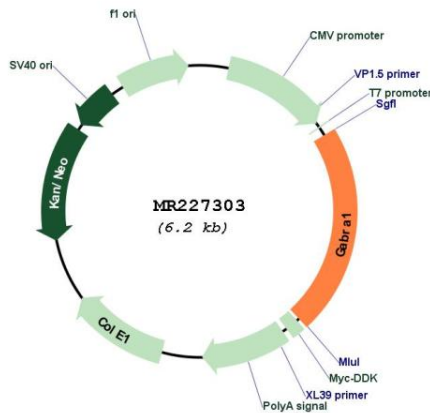
UniProt ID: [P62812](#)

Cytogenetics: 11 24.97 cM

MW: 52.2 kDa

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 alpha1/beta2/gamma2 receptor and the alpha1/beta3/gamma2 receptor exhibit synaptogenic activity (PubMed:27129275). GABRA1-mediated plasticity in the orbitofrontal cortex regulates context-dependent action selection (PubMed:25348603). Functions also as histamine receptor and mediates cellular responses to histamine (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR227303