

Product datasheet for **MR211314**

Gabbr1 (NM_019439) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gabbr1 (NM_019439) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gabbr1
Synonyms:	bM573K1.1; GABAB1; GABAbr1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR211314 representing NM_019439
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCTGCTGCTGCTGCTGGTGCCTCTCTTCCGCCCCCTGGGCGCTGGCGGGGCTCAGACCCCAACG
 TCACCTCGGAAGGTTGCCAGATTATACATCCGCCCTGGGAAGGTGGCATCAGGTACCGTGGCTTGACTCG
 CGACCAGGTGAAGGCCATCAATTTCTGCTGTGGACTATGAGATTGAATATGTGTGCCGGGGCGAACGC
 GAGGTGGTGGGGCCCAAGGTGCGCAAGTGCCTGGCCAACGGCTCCTGGACGGATATGGACACACCCAGTC
 GCTGTGTCCGAATCTGCTCCAAGTCTTATTTGACCCTGGAAAAATGGGAAGGTTTTCTGACGGGTGGGA
 CCTCCCAGCTCTGGATGGAGCCCGGTGGATTTCCGATGTGACCCGACTTCCATCTGGTGGCAGCTCC
 CGGAGCATCTGTAGTCAGGGCCAGTGGAGCACCCCAAGCCCACTGCCAGGTGAATCGAACGCCACACT
 CAGAACGGCGTGCAGTATACATCGGGCGCTGTTCCCATGAGCGGGGGTGGCCGGGGGCCAGGCGCTG
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 AAGCTTATCCACCACGACAGCAAGTGCACCCAGGGCAAGCCACCAAGTACTTGTATGAACTACTCTACA
 ACGACCCCATCAAGATCATCCTCATGCCCGGCTGCAGCTCTGTGTCCACACTGGTAGCCGAGGCTGCCCC
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 ACGTTCTTTCCGACACATCCATCCGCCACACTCCACAATCCCACCCGGGTGAAACTCTTCGAAAAGTGGG
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 GCGAGTGAAAGAGGCTGGGATTGAGATCACTTTTCGACAGAGTTTCTTCTCAGATCCAGCTGTGCCTGTT
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 CTGACTGCTGTGGGCTGCTCACTGGCACTAGCTGCTGTCTTCCCCTTGGGCTGGATGGTTACCACATAG
 GGAGAAGCCAGTCCCATTTGTCTGCCAGGCCGCTTTGGCTCTTGGGCTTAGGCTTTAGTCTGGGCTA
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 AATGGCAGTCTGAAGCACAGGACACAATGAAAACAGGATCATCCACCAACAACAATGAGGAAGAGAAGTC
 CCGACTGTTGGAGAAGGAAAACCGTGAATTGAAAAGATCATCGCCGAGAAGAGGAGCGTGTCTCTGAA
 CTGCGCCATCAGCTCCAGTCTCGGCAGCAGATCCGCTCCCGCGCCACCCCAACACCCCAAGACCCCT
 CTGGGGCCCTTCCAGGGGACCCTCAGAGCCCCCTGACCGGCTTAGCTGTGATGGGAGTCGAGTACATTT
 GCTTTACAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR211314 representing NM_019439
 Red=Cloning site Green=Tags(s)

MLLLLLVPLFLRPLGAGGAQTPNVTSEGCQIIHPPWEGGIRYRGLTRDQVKAINFLPVDYEIEYVCRGER
 EVVGPVKRKLANSWTDMDTPSRCVIRICSKSYLLENGKVFLTGGDLPALD GARVDFRCDPDFHLVGSS
 RSICSQGWSTPKPHCQVNRTPHSERRAVYIGALFPMSSGGWPGGQACQPAVEMALEDVNSRRDILPDYEL
 KLIHHSKCDPGQATKYL YELL YNDPIKIIILMPGCCSSVSTLVAEARMWNLIVLSYGSSSPALSNRQRF
 TFFRTHPSATLHNPTRVKLFEKVGWKKIATIQQTTEVFSTLDDLEERVKEAGIEITFRQSFSDPAVPV
 KNLKRQDARIIVGLFYETEARKVFCEVYKERLFGKYYVWFLIGWYADNWFKTYDPSINCTVEEMTEAVEG
 HITTEIVMLNPANTRISNMTSQEFVEKLTKRKRHPEETGGFQEAPLAYDAIWALALALNKTSGGGGRS
 GVRLEDFNYYNQITTDQIYRAMNSSFEGVSGHVVFDA SGRMAWTLIEQLQGGSYKKIGYYDSTKDDLS
 WSKTDKWIGGSPADQTLVIKTRFRLSQKLFISVSVLSSLGIVLAVVCLSFNIYNHSHVRYIQNSQPNNLN
 LTAVGCSLALAAVFLPLGDGYHIGRSQFPFVCQARLWLLGLGFSLGYGSMFTKIWWVHTVFTKKEEKKEW
 RKTLEPWKLYATVGLLVGMDILTLAIWQIVDPLHRTIETFAKEEPKEDIDVSILPQLEHCSKMMNTWLG
 IFYGYKGLLLLLGIFLAYETKSVSTEKINDHRAVGMAYNVAVLCLITAPVTMILSSQDAAFASFALAI
 VFSSYITLVVLFVPMRRLITRGEWQSEAQDTMKTGSSTNNNEEEKSRLLKENRELEKIIAEKEERVSE
 LRHQLQSRQQIRSRRHPTPPDPSGGLPRGPSEPPDRLSCDGRVHLLYK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

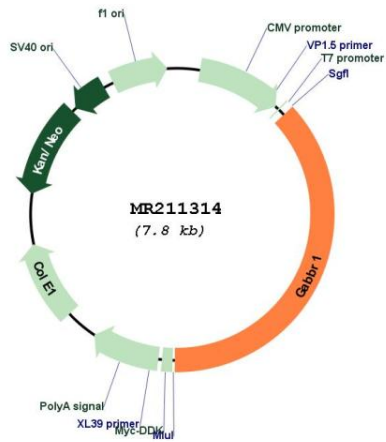


ACCN: NM_019439

ORF Size: 2880 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:	<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_019439.3 , NP_062312.3
RefSeq Size:	4486 bp
RefSeq ORF:	2883 bp
Locus ID:	54393
UniProt ID:	Q9WV18
Cytogenetics:	17 19.16 cM
MW:	108.7 kDa
Gene Summary:	Component of a heterodimeric G-protein coupled receptor for GABA, formed by GABBR1 and GABBR2 (PubMed:10773016, PubMed:10075644). Within the heterodimeric GABA receptor, only GABBR1 seems to bind agonists, while GABBR2 mediates coupling to G proteins (By similarity). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of down-stream effectors, such as adenylate cyclase (PubMed:10773016, PubMed:10075644). Signaling inhibits adenylate cyclase, stimulates phospholipase A2, activates potassium channels, inactivates voltage-dependent calcium-channels and modulates inositol phospholipid hydrolysis (PubMed:10075644). Calcium is required for high affinity binding to GABA (By similarity). Plays a critical role in the fine-tuning of inhibitory synaptic transmission (By similarity). Pre-synaptic GABA receptor inhibits neurotransmitter release by down-regulating high-voltage activated calcium channels, whereas postsynaptic GABA receptor decreases neuronal excitability by activating a prominent inwardly rectifying potassium (Kir) conductance that underlies the late inhibitory postsynaptic potentials (PubMed:10075644). Not only implicated in synaptic inhibition but also in hippocampal long-term potentiation, slow wave sleep, muscle relaxation and antinociception (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR211314