

Product datasheet for **MR210927**

Gabbr1 (BC056990) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gabbr1 (BC056990) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gabbr1
Synonyms:	GABABR1, bM573K1.1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>MR210927 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGCCCGGGGGACCCTGTACCCCGGTGGGGTGGCCGCTGCCTCTTCTGCTGGTATGGCGGCTGGGG
 TGGCTCCGGTGTGGCCCTCACTCCCCTCATCTCCCGCGCCTCACCGAGGGTCCCCCGCACCCCTC
 CTCAGAACCGCGTGCAGTATACATCGGGCGCTGTTTCCCATGAGCGGGGCTGGCCGGGGGCCAGGCC
 TGCCAGCCTGCGGTGGAGATGGCGCTGGAGGACGTTAACAGCCGCAGAGACATCTGCCGGACTACGAGC
 TCAAGCTTATCCACCACGACAGCAAGTGCACCCAGGGCAAGCCACCAAGTACTTGTATGAACTACTCTA
 CAACGACCCCATCAAGATCATCTCATGCCCGGCTGCAGCTCTGTGTCCACACTGGTAGCCGAGGCTGCC
 CGGATGTGGAACCTTATTGTGCTCTCATATGGCTCCAGCTCACCAGCCTTGTCAAACCGACAGCGGTTTC
 CAACGTTCTTTTCGGACACATCCATCCGCCACACTCCACAATCCCACCCGGGTGAAACTCTTCGAAAAGTG
 GGGCTGGAAGAAGATTGCCACCATCCAGCAGACTACCGAGGTCTTACCTCAACTGGATGACCTGGAG
 GAGCGAGTGAAAGAGGCTGGGATTGAGATCACTTTTCGACAGAGTTTCTTCTCAGATCCAGCTGTGCTG
 TTA AAAACCTGAAGCGTCAAGATGCTCGAATCATCGTGGGACTTTTCTATGAGACCGAAGCCCGAAAGT
 TTTTTGTGAGGTCTATAAGGAACGGCTCTTTGGGAAGAAGTATGTCTGGTTTCTCATCGGGTGGTATGCT
 GACAACTGGTTCAAAACCTATGACCCGTCAATCAATTGTACAGTAGAAGAGATGACTGAGGCGGTGGAGG
 GCCATATCACCACGGAGATTGTCATGCTGAACCCGTGCAAACCCGAAGCATTTC AACATGACATCACA
 GGAATTTGTGGAGAACTAACCAAGCGGCTGAAAAGACACCCTGAGGAGACTGGAGGCTTCCAGGAGGCA
 CCACTGGCCTATGATGCTATCTGGCCCTGGCTTTGGCCTTGAACAAGACCTCTGGAGAGGTGGCCGTT
 CAGGAGTGGCCCTGGAGGACTTTAACTACAACAACCAGACCATTACAGACCAAATCTACCGGGCATGAA
 CTCTCTCTCTTTGAGGGTGTTTCTGGCCACGTGGTCTTTGATGCCAGCGGCTCCCGGATGGCATGGACG
 CTTATCGAGCAGCTACAGGGCGGAGCTACAAGAAGATCGGCTACTACGACAGCACAAGGATGATCTTT
 CCTGGTCCAAAACAGACAAGTGGATCGGAGGGTCTCCCCAGCCGACCAGACCTTGGTCAACAGACATT
 CCGTTTCTGTACAGAAACTCTTATCTCCGTCTCAGTTCTCTCCAGCCTGGGCATTGTTCTTGTCTGT
 GTCTGTCTGTCTTTAACATCTACAACCTCCACGTTTCTTATATCCAGAACTCCCAGCCAACTGAACA
 ATCTGACTGCTGTGGCTGCTCACTGGCACTAGCTGCTGTCTTCCCCTTGGGCTGGATGGTTACCCAT
 AGGGAGAAGCCAGTTCCTTTGTCTGCCAGGCCCGCCTTTGGCTCTTGGGCTTAGGCTT TAGTCTGGGC
 TATGGCTCTATGTTACCAAGATCTGGTGGTCCACACAGTCTTCAAAAGAAGGAGGAGAAGAAGGAAC
 GGAGGAAGACCCTAGAGCCTTGAAACTGTACGCCACTGTAGGCCTGCTGGTGGGATGGATATCCTGAC
 TCTTGCCATCTGGCAGATTGTGGACCCCTTGACCCGAACCATTGAGACTTTTGCCAAGGAGGAACCAAAG
 GAAGACATTGATGCTCCATTCTGCCCCAGCTGGAGCACTGCAGCTCCAAGAAGATGAATACATGGCTCG
 GCATTTTCTATGGTTACAAAGGGCTGCTGCTGCTGCTGGGAATCTTTCTTGTATGAGACCAAAAGTGT
 GTCCACTGAAAAGATCAATGACCACAGGGCCGTGGGCATGGCTATCTACAATGTTGCGGTCTGTGTCTC
 ATTACCGCTCTGTCACCATGATCTTTCCAGCCAGCAGGACGCAGCCTTCGCCTTTGCCTCTCTGGCCA
 TTGTGTTCTCTTCTACATTACTCTGGTTGTGCTCTTTGTGCCTAAGATGCGCAGGTTGATCACTCGAGG
 TGAATGGCAGTCTGAAGCACAGGACACAATGAAAACAGGATCATCCACCAACAACATGAGGAAGAGAAG
 TCCCGACTGTTGGAGAAGGAAAACCGTGAATTGAAAAGATCATCGCCGAGAAAAGAGGAGCGTGTCTCTG
 AACTGCGCCATCAGCTCCAGTCTCGGCAGCAGATCCGCTCCCGGCACCCCCAACACCCCCAGACCC
 CTCTGGGGCCTTCCAGGGGACCTCAGAGCCCCCTGACCGGCTTAGCTGTGATGGGAGTCGAGTACAT
 TTGCTTTACAAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR210927 protein sequence
 Red=Cloning site Green=Tags(s)

MGPGGPCTPVGWPLPLLLVMAAGVAPVWASHSPHLPRPHPRVPPHPSSERRAVYIGALFPMSSGGWPGGQA
 CQPAVEMALEDVNSRRDILPDYELKLIHHSKCDPGQATKYL YELLYNDPIKIIILMPGSSVSTLVAEAA
 RMWNLIVLSYGSSPALSNRQRFPTFFRTHPSATLHNPTRVKLFEKWGWKKIATIQQTTEVFTSTLDDLE
 ERVKEAGIEITFRQSFFSDPAVPVKNLKRQDARIIVGLFYETEARKVFCEVYKERLFGKKYVWFLIGWYA
 DNWFKTYDPSINCTVEEMTEAVEGHITTEIVMLNPANTRISINMTSQEFVEKLTKRLKRHPEETGGFQEA
 PLAYDAIWALALALNKTSGGGGRSGVRLDFNYNNQITDQIYRAMNSSSFEGVSGHVVFASGSRMAWT
 LIEQLQGGSYKKIGYYDSTKDDL SWSKTDKWIGGSPADQTLVIKTRFLSQKLFISVSVLSSLGIVLAV
 VCLSFNIYNHSHVYIQNSQPNLNNLTAVGCSLALAAVFPGLDGYHIGRSQFPFVCQARLWLLGLGSLG
 YGSMFTKIWWVHTVFTKKEEKERRKTLPEWKL YATVGLLVGMDILTLAIWQIVDPLHRTIETFAKEEPK
 EDIDVSI LPQLEHCSSKKMNTWLGIFYGYKLLLLL GIFLAYETKSVSTEKINDHRAVGMAIYNVAVLCL
 ITAPVTMILSSQQDAAF AFASLAI VSSYITLVVLFVPKMRRLITRGEWQSEAQDTMKTGSSTNNNEEEK
 SRLLEKENRELEKIIAEKEERVSELRHQLQSRQQIRSRHPPTPPDPSSGGLPRGPSEPPDRLSCDGSRVH
 LLYK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

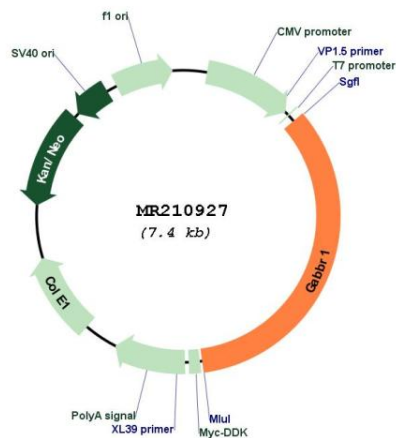
Cloning Scheme:



ACCN:	BC056990
ORF Size:	2532 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:	BC056990 , AAH56990
RefSeq Size:	3883 bp
RefSeq ORF:	2534 bp
Locus ID:	54393
Cytogenetics:	17 19.16 cM
MW:	95 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 MR210927