

Product datasheet for **MC220651**

Gabbr1 (BC056990) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gabbr1 (BC056990) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Gabbr1
Synonyms:	GABAbR1, bM573K1.1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >BC056990
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGCCCGGGGGACCCTGTACCCCGGTGGGGTGGCCGCTGCCTCTTCTGCTGGTATGGCGGCTGGGG
 TGGCTCCGGTGTGGCCCTCACTCCCCTCATCTCCCGCGGCTCACCGAGGGTCCCCCGCACCCCTC
 CTCAGAACCGCGTGCAGTATACATCGGGCGCTGTTTCCCATGAGCGGGGCTGGCCGGGGGCCAGGCC
 TGCCAGCCTGCGGTGGAGATGGCGCTGGAGGACGTTAACAGCCGCAGAGACATCTGCCGGACTACGAGC
 TCAAGCTTATCCACCACGACAGCAAGTGCACCCAGGGCAAGCCACCAAGTACTTGTATGAACTACTCTA
 CAACGACCCCATCAAGATCATCTCATGCCCGGCTGCAGCTCTGTGTCCACACTGGTAGCCGAGGCTGCC
 CGGATGTGGAACCTTATTGTGCTCTCATATGGCTCCAGCTCACCAGCCTTGTCAAACCGACAGCGGTTTC
 CAACGTTCTTTCGGACACATCCATCCGCCACACTCCACAATCCCACCCGGGTGAAACTCTTCGAAAAGTG
 GGGCTGGAAGAAGATTGCCACCATCCAGCAGACTACCGAGGTCTTACCTCAACTGGATGACCTGGAG
 GAGCGAGTGAAAGAGGCTGGGATTGAGATCACTTTTCGACAGAGTTTCTTCTCAGATCCAGCTGTGCTG
 TAAAAAACCCTGAAGCGTCAAGATGCTCGAATCATCGTGGGACTTTTCTATGAGACCGAAGCCCGAAAGT
 TTTTGTGAGGTCTATAAGGAACGGCTCTTTGGGAAGAAGTATGTCTGGTTTCTCATCGGGTGGTATGCT
 GACAACTGGTTCAAAACCTATGACCCGTCAATCAATTGTACAGTAGAAGAGATGACTGAGGCGGTGGAGG
 GCCATATCACCACGGAGATTGTCATGCTGAACCCGTGCAACACCCGAAGCATTTCACATGACATCACA
 GGAATTTGTGGAGAACTAACCAAGCGGCTGAAAAGACACCCTGAGGAGACTGGAGGCTTCCAGGAGGCA
 CCACTGGCCTATGATGCTATCTGGGCTTGGCTTTGGCCTTGAACAAGACCTCTGGAGGAGGTGGCCGTT
 CAGGATGCGCCTGGAGGACTTTAACTACAACAACCAGACCATTACAGACCAAATCTACCGGGCATGAA
 CTCTCTCTCTTTGAGGGTGTTTCTGGCCACGTGGTCTTTGATGCCAGCGGCTCCCGGATGGCATGGACG
 CTTATCGAGCAGCTACAGGGCGGAGCTACAAGAAGATCGGCTACTACGACAGCACAAGGATGATCTTT
 CCTGGTCCAAAACAGACAAGTGGATCGGAGGGTCTCCCCAGCCGACCAGACCTTGGTCAACAGACATT
 CCGTTTCTGTACAGAACTCTTATCTCCGTCTCAGTTCTCTCCAGCCTGGGCATTGTTCTTGTCTGT
 GTCTGTCTGTCTTTAACATCTACAACCTCCACGTTTCTTATATCCAGAACTCCCAGCCAACTGAACA
 ATCTGACTGCTGTGGGCTGCTCACTGGCACTAGCTGCTGTCTTCCCCTTGGGCTGGATGGTTACCACAT
 AGGGAGAAGCCAGTTCCTATTTGTCTGCCAGGCCCGCTTTGGCTCTTGGGCTTAGGCTTATGCTGGGC
 TATGGCTCTATGTTACCAAGATCTGGTGGTCCACACAGTCTTCAAAAGAAGGAGGAGAAGAAGAAC
 GGAGGAAGACCCTAGAGCCTTGAAACTGTACGCCACTGTAGGCCTGCTGGTGGGATGGATATCCTGAC
 TCTTGCCATCTGGCAGATTGTGGACCCCTTGACCCGAACCATTGAGACTTTTGCCAAGGAGGAACCAAAG
 GAAGACATTGATGCTCCATTCTGCCCCAGCTGGAGCACTGCAGCTCCAAGAAGATGAATACATGGCTCG
 GCATTTTCTATGGTTACAAAGGGCTGCTGCTGCTGCTGGGAATCTTTCTTGTATGAGACCAAAAGTGT
 GTCCACTGAAAAGATCAATGACCACAGGGCCGTGGGCATGGCTATCTACAATGTTGCGGTCTGTGTCTC
 ATTACCGCTCTGTACCATGATCTTTCCAGCCAGCAGGACGCAGCCTTCGCCTTTGCCTCTCTGGCCA
 TTGTGTTCTCTTCTACATTACTCTGGTTGTGCTCTTTGTGCCTAAGATGCGCAGGTTGATCACTCGAGG
 TGAATGGCAGTCTGAAGCACAGGACACAATGAAAACAGGATCATCCACCAACAACATGAGGAAGAGAAG
 TCCCGACTGTTGGAGAAGGAAAACCGTGAATTGAAAAGATCATCGCCGAGAAAAGAGGAGCGTGTCTCTG
 AACTGCGCCATCAGCTCCAGTCTCGGCAGCAGATCCGCTCCCGGCCACCCCCAACACCCCCAGACCC
 CTCTGGGGCCTTCCAGGGGACCTCAGAGCCCCCTGACCGGCTTAGCTGTGATGGGAGTCGAGTACAT
 TTGCTTTACAAGTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: BC056990
Insert Size: 2535 bp

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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
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 adenylylase (PubMed:10773016, PubMed:10075644). Signaling inhibits adenylylase, 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]