

Product datasheet for **MR222075**

Gabbr2 (NM_001081141) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gabbr2 (NM_001081141) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gabbr2
Synonyms:	GABABR2; Gb2; Gm425; Gpr51
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Protein Sequence: >MR222075 representing NM_001081141
Red=Cloning site Green=Tags(s)

```
MASPPSSGQPRPPPPPPARLLLPLLLSLLSLAPGAWGWARGAPRPPSSPPLSIMGLMPLTKEVAKG
SIGRGVLPAVELAI EQIRNESLLRPYFLDLRLYDTECDNAKGLKAFYDAIKYGNHLMVFGGVCPSVTSI
IAESLQGWNLVQLSFAATTPVLADKKKYPFYFRTVPSDNAVNPAILKLLKHFRRVGTLTQDVQRFSEV
RNDLTGVLYGEDIEISDTEFSNDPCTSVKCLKGNDVRIILGQFDQNAAKVFCCAFEESMFGSKYQWII
PGWYEPAWWEQVHVEANSSRCLRRSLLAAMEGYIGVDFEPLSSKQIKTISGKTPQQYEREYNSKRSGVGP
SKFHGYAYDGIWVI AKTLQRAMETLHASSRHQRIQDFNYDHTLGRILNAMNETNFFGVTGQVVFRRNGE
RMGTIKFTQFQDSREVKVGEYNAVADTLEIINDTIRFQGSEPPKDKTIILEQLRKISLPLYSILSALTIL
GMIMASAFLLFNKRNQKLIKMSPPYMNLIILGGMSYASIFLFGLDGSFVSEKTFETLCTVRTWILT
VGYTTAFGAMFAKTWRVHAIFKNVKMKKKI IKDQKLLVIVGGMLLIDLCILICWQAVDPLRRTVERYSME
PDPAGRDISIRPLLEHCENTHMTIWLGI VYAYKGLLMLFGCFLAWETRNVSIPALNDSKYIGMSVYVNGI
MCIIGA AVSFLTRDQPNVQFCIVALVIIFCSTITLCLVFVPKLITLRTNPAATQNRRFQFTQNQKKEDS
KTSTSVTSVNQASTSRLEGLQSENHRLRMKITELDKDLEEVTMQLQDTPEKTTYIKQNHYQELNDILSLG
NFTESTDGGKAILKNHLDQNPQLQWNTTEPSRTCKDPIEDINSPEHIQRRLSLQLPILHHAYLPSIGGVD
ASCVSPCVSPTASPRHRHVPPSFRVMVSGL
```

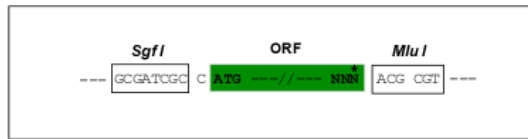
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9002_h11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



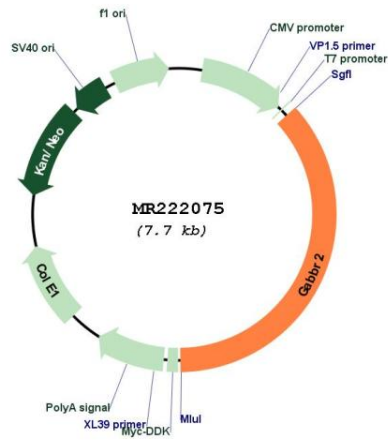
* The last codon before the Stop codon of the ORF

ACCN: NM_001081141

ORF Size: 2820 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_001081141.2
RefSeq Size:	3998 bp
RefSeq ORF:	2823 bp
Locus ID:	242425
UniProt ID:	Q80T41
Cytogenetics:	4 B1
MW:	106.1 kDa
Gene Summary:	Component of a heterodimeric G-protein coupled receptor for GABA, formed by GABBR1 and GABBR2 (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:10075644). Signaling inhibits adenylate cyclase, stimulates phospholipase A2, activates potassium channels, inactivates voltage-dependent calcium-channels and modulates inositol phospholipid hydrolysis (PubMed:10075644). 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 MR222075