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GABBR2 Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP10214b

Specification

GABBR2 Antibody (C-term) Blocking peptide - Product Information

Primary Accession	O75899
Other Accession	NP_005449.5

GABBR2 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 9568

Other Names
Gamma-aminobutyric acid type B receptor subunit 2, GABA-B receptor 2, GABA-B-R2, GABA-BR2, GABABR2, Gb2, G-protein coupled receptor 51, HG20, GABBR2, GPR51, GPRC3B

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

GABBR2 Antibody (C-term) Blocking peptide - Protein Information

Name GABBR2

Synonyms GPR51, GPRC3B

Function
Component of a heterodimeric G-protein coupled receptor for GABA, formed by GABBR1 and GABBR2 (PubMed:9872316, PubMed:9872744, PubMed:15617512, PubMed:18165688, PubMed:22660477, PubMed:24305054). Within the heterodimeric GABA receptor, only GABBR1 seems to bind agonists, while GABBR2 mediates coupling to G proteins (PubMed:18165688). 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, PubMed:<a href="http://www.uniprot.org/citations/10773016"

target="_blank">10773016, PubMed:24305054). Signaling inhibits adenylate cyclase, stimulates phospholipase A2, activates potassium channels, inactivates voltage-dependent calcium-channels and modulates inositol phospholipid hydrolysis (PubMed:10075644, PubMed:9872744, PubMed:10906333, PubMed:10773016). Plays a critical role in the fine-tuning of inhibitory synaptic transmission (PubMed:9872744, PubMed:22660477). 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:9872316, PubMed:10075644, PubMed:9872744, PubMed:22660477). Not only implicated in synaptic inhibition but also in hippocampal long-term potentiation, slow wave sleep, muscle relaxation and antinociception (Probable).

Cellular Location
Cell membrane; Multi-pass membrane protein. Postsynaptic cell membrane {ECO:0000250|UniProtKB:O88871}; Multi-pass membrane protein. Note=Coexpression of GABBR1 and GABBR2 is required for GABBR1 maturation and transport to the plasma membrane. In contrast, GABBR2 does not depend on GABBR1 for transport to the cell membrane

Tissue Location
Highly expressed in brain, especially in cerebral cortex, thalamus, hippocampus, frontal, occipital and temporal lobe, occipital pole and cerebellum, followed by corpus callosum, caudate nucleus, spinal cord, amygdala and medulla (PubMed:10087195, PubMed:10328880, PubMed:10727622, PubMed:9872744). Weakly expressed in heart, testis and skeletal muscle (PubMed:10087195, PubMed:10727622)

GABBR2 Antibody (C-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

GABBR2 Antibody (C-term) Blocking peptide - Images

GABBR2 Antibody (C-term) Blocking peptide - Background

The multi-pass membrane protein encoded by this genebelongs to the G-protein coupled receptor 3 family and GABA-Breceptor subfamily. The GABA-B receptors inhibit neuronal activitythrough G protein-coupled second-messenger systems, which regulatethe release of neurotransmitters, and the activity of ion channelsand adenylyl cyclase. This receptor subunit forms an activeheterodimeric complex with GABA-B receptor subunit 1, neither ofwhich is effective on its own. Allelic variants of this gene havebeen associated with nicotine dependence.

GABBR2 Antibody (C-term) Blocking peptide - References

Oblak, A.L., et al. J. Neurochem. 114(5):1414-1423(2010)Letra, A., et al. Am. J. Med. Genet. A 152A (7), 1701-1710 (2010) :Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :Yokoyama, K., et al. Nephron Clin Pract 115 (4), C237-C243 (2010) :