

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:<a href="http://www.uniprot.org/citations/9872316"

GABBR2 Antibody (C-term) Blocking peptide - Background

The multi-pass membrane protein encoded by this gene belongs to the G-protein coupled receptor 3 family and GABA-B receptor subfamily. The GABA-B receptors inhibit neuronal activity through G protein-coupled second-messenger systems, which regulate the release of neurotransmitters, and the activity of ion channels and adenylyl cyclase. This receptor subunit forms an active heterodimeric complex with GABA-B receptor subunit 1, neither of which is effective on its own. Allelic variants of this gene have been 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) :

target="_blank">9872316,
PubMed:<a href="http://www.uniprot.org/citations/9872744"
target="_blank">9872744,
PubMed:<a href="http://www.uniprot.org/citations/15617512"
target="_blank">15617512,
PubMed:<a href="http://www.uniprot.org/citations/18165688"
target="_blank">18165688,
PubMed:<a href="http://www.uniprot.org/citations/22660477"
target="_blank">22660477,
PubMed:<a href="http://www.uniprot.org/citations/24305054"
target="_blank">24305054). Within the heterodimeric GABA receptor, only GABBR1 seems to bind agonists, while GABBR2 mediates coupling to G proteins (PubMed:<a href="http://www.uniprot.org/citations/18165688"
target="_blank">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:<a href="http://www.uniprot.org/citations/10075644"
target="_blank">10075644,
PubMed:<a href="http://www.uniprot.org/citations/10773016"
target="_blank">10773016,
PubMed:<a href="http://www.uniprot.org/citations/24305054"
target="_blank">24305054). Signaling inhibits adenylate cyclase, stimulates phospholipase A2, activates potassium channels, inactivates voltage-dependent calcium-channels and modulates inositol phospholipid hydrolysis (PubMed:<a href="http://www.uniprot.org/citations/10075644"
target="_blank">10075644,
PubMed:<a href="http://www.uniprot.org/citations/9872744"
target="_blank">9872744,
PubMed:<a href="http://www.uniprot.org/citations/10906333"
target="_blank">10906333,
PubMed:<a href="http://www.uniprot.org/citations/10773016"
target="_blank">10773016). Plays a critical role in the fine-tuning of inhibitory synaptic transmission (PubMed:<a href="http://www.uniprot.org/citations/9872744"
target="_blank">9872744,
PubMed:9872316).

tations/22660477"
target="_blank">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:<a href="http://www.uniprot.org/ci
tations/9872316"
target="_blank">9872316,
PubMed:<a href="http://www.uniprot.org/ci
tations/10075644"
target="_blank">10075644,
PubMed:<a href="http://www.uniprot.org/ci
tations/9872744"
target="_blank">9872744,
PubMed:<a href="http://www.uniprot.org/ci
tations/22660477"
target="_blank">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. Cell junction, synapse, 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](#)