10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

GABA B Receptor 2 Polyclonal Antibody
Catalog # AP63681

Specification

GABA B Receptor 2 Polyclonal Antibody - Product Information

Application	**IHC-P**
Primary Accession	O75899
Reactivity	**Human, Rat, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**

GABA B Receptor 2 Polyclonal Antibody - Additional Information

Gene ID 9568

Other Names
GABBR2; GPR51; GPRC3B; 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

Dilution
IHC-P~~N/A

Format
Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions
-20℃

GABA B Receptor 2 Polyclonal Antibody - Protein Information

Name GABBR2

Synonyms GPR51, GPRC3B

Function
Component of a heterodimeric G-protein coupled receptor for GABA, formed by GABBR1 and GABBR2 (PubMed:15617512, PubMed:18165688, PubMed:22660477, PubMed:24305054, PubMed:9872316, PubMed:9872744). 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:<a href="http://www.uniprot.org/citations/10075644"

target="_blank">10075644, PubMed: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:10773016, PubMed:10906333, PubMed:9872744). Plays a critical role in the fine-tuning of inhibitory synaptic transmission (PubMed:22660477, PubMed:9872744). 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, PubMed:22660477, PubMed:9872316, PubMed:9872744). 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)

GABA B Receptor 2 Polyclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GABA B Receptor 2 Polyclonal Antibody - Images

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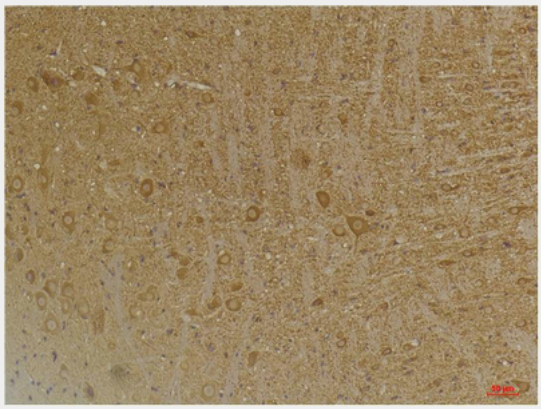

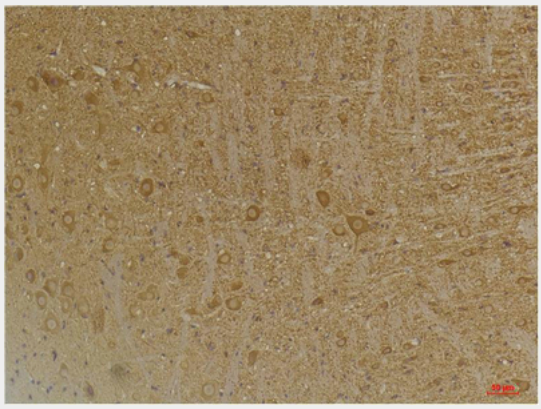

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GABA B Receptor 2 Polyclonal Antibody - Background

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: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).