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GABBR2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10214b

Specification

GABBR2 Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	O75899
Other Accession	O88871, Q80T41, NP_005449.5
Reactivity	**Human, Mouse**
Predicted	**Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**105821**
Antigen Region	**861-890**

GABBR2 Antibody (C-term) - 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

Target/Specificity
This GABBR2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 861-890 amino acids from the C-terminal region of human GABBR2.

Dilution
WB~~1:1000
IHC-P~~1:50~100

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
GABBR2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

GABBR2 Antibody (C-term) - 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: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)

GABBR2 Antibody (C-term) - 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

GABBR2 Antibody (C-term) - Images

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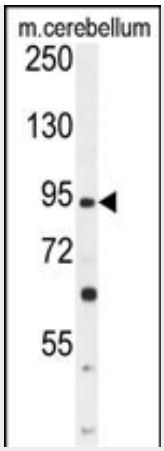
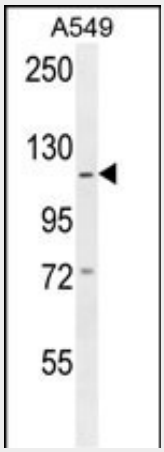
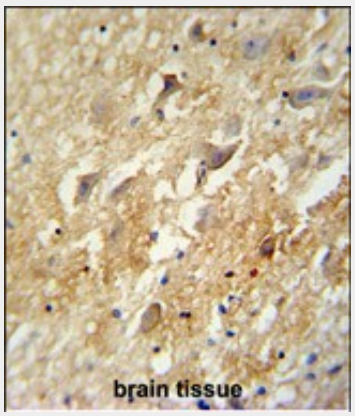


GABBR2 Antibody (C-term) (Cat. #AP10214b) western blot analysis in mouse cerebellum tissue lysates (35ug/lane).This demonstrates the GABBR2 antibody detected the GABBR2 protein (arrow).



GABBR2 Antibody (C-term) (Cat. #AP10214b) western blot analysis in A549 cell line lysates (35ug/lane).This demonstrates the GABBR2 antibody detected the GABBR2 protein (arrow).



GABBR2 antibody (C-term) (Cat. #AP10214b) immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the GABBR2 antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

GABBR2 Antibody (C-term) - 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) - 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) :