

GABA B Receptor 2 Rabbit mAb

Catalog # AP77938

Product Information

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| Application | WB, IHC-P, IF, FC, ICC |
| Primary Accession | O75899 |
| Reactivity | Rat, Human, Mouse |
| Host | Rabbit |
| Clonality | Monoclonal Antibody |
| Isotype | IgG |
| Conjugate | Unconjugated |
| Immunogen | A synthesized peptide derived from human GABA B Receptor 2 |
| Purification | Affinity Chromatography |
| Calculated MW | 105821 |

Additional Information

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| Gene ID | 9568 |
| Other Names | GABBR2 |
| Dilution | WB~~1/500-1/1000 IHC-P~~N/A IF~~1:50~200 FC~~1:10~50 ICC~~N/A |
| Format | Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol. |
| Storage | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |

Protein Information

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| 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).

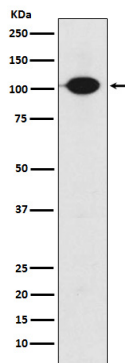
Cellular Location

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)

Images



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