

Datasheet for ABIN1098201 **anti-GABBR1 antibody (C-Term)**

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Overview

Quantity:	100 µg
Target:	GABBR1
Binding Specificity:	AA 873-977, C-Term
Reactivity:	Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This GABBR1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (fixed cells) (IF/ICC)

Product Details

Purpose:	Anti-GABA (B)R1 Mouse Monoclonal Antibody
Immunogen:	Fusion protein corresponding to aa 873-977 (cytoplasmic C-terminus) of rat GABA(B)R1 (accession no. NP_112290.2).
Clone:	S93A-49
Isotype:	IgG1
Specificity:	This antibody recognizes human, mouse, and rat GABA(B)R1. It does not cross-react with GABA(B)R2.
Cross-Reactivity:	Human, Mouse, Rat
Cross-Reactivity (Details):	No cross Reactivity with GABA(B)R2
Purification:	Purified by Protein G affinity chromatography.

Target Details

Target:	GABBR1
Alternative Name:	GABA(B)R1 (GABBR1 Products)
Background:	γ-aminobutyric acid type B receptor subunit 1, Component of a heterodimeric G-protein coupled receptor for GABA, formed by GABBR1 and GABBR2 (PubMed:9872315, PubMed:9872317, PubMed:9872744). Within the heterodimeric GABA receptor, only GABBR1 seems to bind agonists, while GABBR2 mediates coupling to G proteins (PubMed:9872317, PubMed:10658574). 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:9872315, PubMed:9872744, PubMed:10924501). Signaling inhibits adenylate cyclase, stimulates phospholipase A2, activates potassium channels, inactivates voltage-dependent calcium-channels and modulates inositol phospholipid hydrolysis (PubMed:9069281, PubMed:10457184, PubMed:9872315, PubMed:9872744, PubMed:10924501, PubMed:10692480). Calcium is required for high affinity binding to GABA (PubMed:10692480). Plays a critical role in the fine-tuning of inhibitory synaptic transmission (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:9872744, PubMed:10924501, PubMed:10692480). Not only implicated in synaptic inhibition but also in hippocampal long-term potentiation, slow wave sleep, muscle relaxation and antinociception (By similarity). {UniProtKB:Q9UBS5, PubMed:10075644, PubMed:10457184, PubMed:10658574, PubMed:10692480, PubMed:10924501, PubMed:9069281, PubMed:9872315, PubMed:9872744}, GABA (g-aminobutyric acid) is the primary inhibitory neurotransmitter in the central nervous system and interacts with three different receptors: GABA(A), GABA(B), and GABA(C). GABA(B) receptor is coupled to G proteins that modulate slow inhibitory synaptic transmission. Functional GABA(B) receptors form heterodimers of GABA(B)R1 and GABA(B)R2 in which GABA(B)R1 binds a ligand and GABA(B)R2 is the primary G protein contact site., Cell membrane, Cell junction, synapse, postsynaptic cell membrane, Cell projection, dendrite, Perikaryon, GABA-B receptor 1, GABA-B-R1, GABA-BR1, GABABR1, Gb1
UniProt:	Q9Z0U4
Pathways:	Positive Regulation of Peptide Hormone Secretion, cAMP Metabolic Process

Application Details

Application Notes:	Immunoblotting: use at 1-2 μ g/mL. A band of ~115 kDa is detected.
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Application Details

	Immunocytochemistry: use at 1-5 µg/mL. These are recommended concentrations. Enduser should determine optimal concentrations for their applications. Positive control: Rat brain membranes.
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Restrictions:	For Research Use only
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Handling

Format:	Liquid
Reconstitution:	Dilute in PBS or medium that is identical to that used in the assay system.
Concentration:	1.0 mg/mL
Buffer:	PBS, pH 7.4, 50 % glycerol, 0.09 % sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	This product is stable for at least 1 year at -20°C. Freeze in multiple aliquots to avoid repeated freeze-thaw cycles.