Datasheet for ABIN7043195

# anti-GABBR1 antibody (Extracellular)

3 Images

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## Overview

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| Quantity: | 50 µL |
| Target: | GABBR1 |
| Binding Specificity: | AA 66-79, Extracellular |
| Reactivity: | Rat |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Conjugate: | This GABBR1 antibody is un-conjugated |
| Application: | Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Live Cell Imaging (LCI), Flow Cytometry (FACS) |

## Product Details

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| Purpose: | A Rabbit Polyclonal Antibody to GABA(B) Receptor 1 |
| Immunogen: | Immunogen: Synthetic peptide<br>Immunogen Sequence: CRGEREVVGPKVRK, corresponding to amino acid residues 66-79 of rat GABBR1 |
| Isotype: | IgG |
| Specificity: | Extracellular, N-terminus |
| Cross-Reactivity: | Human, Mouse, Rat |
| Cross-Reactivity (Details): | Does not recognize alternative splice 1b. |
| Predicted Reactivity: | Mouse,human,canine,bovine - identical |

## Product Details

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| Characteristics: | Anti-GABA(B) R1 (extracellular) Antibody is directed against an epitope of rat GABA(B) receptor 1. Anti-GABA(B) R1 (extracellular) Antibody (ABIN7043195, ABIN7044319 and ABIN7044320) can be used in western blot and immunohistochemistry applications. It has been designed to recognize GABBR1 from human, rat, and mouse samples. |
| Purification: | Affinity purified on immobilized antigen. |

## Target Details

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| Target: | GABBR1 |
| Alternative Name: | GABBR1 (GABBR1 Products) |
| Background: | γ-Aminobutyric acid type B receptor subunit 1, GABA B receptor 1, GABABR1, Gb1, GABBR1, GPRC3A,GABA (gamma-aminobutyric acid) is the major inhibitory neurotransmitter in the central nervous system and plays a crucial role in the modulation of neuronal activity.1,2The GABA transmitter interacts with three types of receptors: the ionotropic receptors, GABA(A) R and GABA(C) R, and the metabotropic GABA (B) receptor, [GABA(B) R].3 The latter belongs to the G-protein coupled receptor superfamily and mediates slow synaptic inhibition in the brain and spinal cord.1,4The functional GABA (B) receptor is a heterodimer consisting of two subunits, the GABA(B) R1 and the GABA(B) R2. These subunits were demonstrated to have complementary roles essential for the functional receptor.5,6 The GABA(B) R1 subunit was demonstrated to be important for agonist and antagonist binding, while GABA(B) R2 was shown to be essential for trafficking and for G-protein binding.To date, eight alternatively spliced isoforms of GABA (B) R1 have been proposed. These are named 1a-1h, of which 1a and 1b are the most prominent. Only 1a, 1b, and 1c appear to act as functional subunits.6,7 They are widespread, being expressed in the testis, stomach, spinal cord, and brain. Isoform 1b is also expressed in the kidney and liver.7<br><br>Alternative names: GABA(B) R1, gamma-Aminobutyric acid type B receptor subunit 1, GABA B receptor 1, GABABR1, Gb1, GABBR1, GPRC3A |
| Gene ID: | 81657 |
| NCBI Accession: | NM_001319053 |
| UniProt: | Q9Z0U4 |
| Pathways: | Positive Regulation of Peptide Hormone Secretion, cAMP Metabolic Process |

## Application Details

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| Application Notes: | Antigen preadsorption control: 1 µg peptide per 1 µg antibody<br>Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:100<br>Application Dilutions Western blot wb: 1:200 |
| Comment: | Negative Control: (ABIN7235523)<br>Blocking Peptide: (ABIN7235523) |
| Restrictions: | For Research Use only |

## Handling

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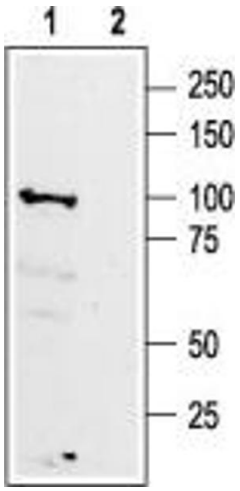
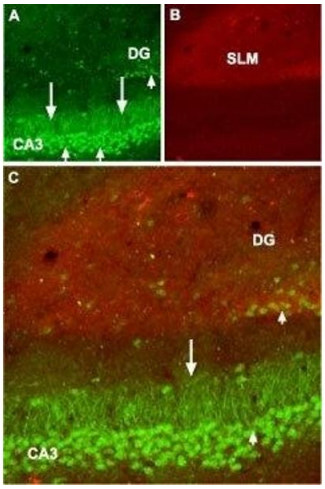
| Format: | Lyophilized |
| Reconstitution: | Recosntitute with double distilled water (DDW) to a concentration of 1.0 mg/mL. |
| Concentration: | 1 mg/mL |
| Buffer: | PBS pH 7.4 |
| Storage: | 4 °C,-20 °C |
| Storage Comment: | Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C.<br>Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min). |

## Images



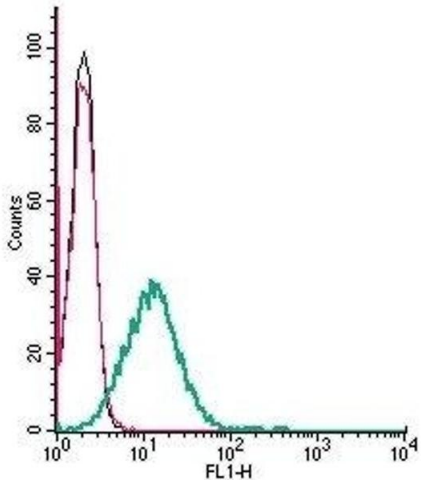

**Western Blotting**

**Image 1.** Western blot analysis of rat brain membranes: -1. Anti-GABA(B) R1 (extracellular) Antibody (ABIN7043195, ABIN7044319 and ABIN7044320), (1:200).2. Anti-GABA(B) R1 (extracellular) Antibody, preincubated with GABA(B) R1 (extracellular) Blocking Peptide (#BLP-GB001).




## Immunohistochemistry

**Image 2.** Expression of GABA(B) receptor 1 in mouse hippocampus - Immunohistochemical staining of mouse hippocampus frozen sections using Anti-GABA(B) R1 (extracellular) Antibody (ABIN7043195, ABIN7044319 and ABIN7044320), (1:100). A. GABBR1 staining (green) is detected in neurons in the CA3 field and in the dentate granule layer (short arrows), as well as in dendrites of CA3 pyramidal neurons (long arrows). B. Staining with mouse anti-GAP43 antibody (red) sets apart the stratum lacunosum moleculare (SLM). C. Confocal merge suggests the presence of GABBR1 in pyramidal neurons.




## Flow Cytometry

**Image 3.** Cell surface detection of GABA(B) Receptor 1 by indirect flow cytometry in live intact mouse BV-2 microglia cells: (black line) Cells.(red line) Cells + goat-anti-rabbit-FITC.(green line) Cells + Anti-GABA(B) R1 (extracellular) Antibody (ABIN7043195, ABIN7044319 and ABIN7044320), (2.5 µg) + goat-anti-rabbit-FITC.