

## ARG44295 anti-GABA B Receptor 1 antibody

Package: 50 µl  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes GABAB Receptor 1
Tested Reactivity	Hu, Ms, Rat
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	GABAB Receptor 1
Species	Human
Immunogen	Synthetic peptide
Conjugation	Un-conjugated
Alternate Names	Gb1; GABA-B-R1; GABA-B receptor 1; GABA-BR1; GPRC3A; GABBR1-3; dJ271M21.1.2; dJ271M21.1.1; GABABR1; Gamma-aminobutyric acid type B receptor subunit 1; GB1

### Application Instructions

Application table	Application	Dilution
	WB	1:500-1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

### Properties

Form	Liquid
Purification	Antigen Affinity Purified
Buffer	PBS with 0.02% Sodium azide
Preservative	0.02% Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

### Bioinformation

Gene Symbol	Gabbr1
Gene Full Name	gamma-aminobutyric acid (GABA) B receptor 1

Background	<p>Gamma-aminobutyric acid (GABA) is the main inhibitory neurotransmitter in the mammalian central nervous system. GABA exerts its effects through ionotropic [GABA(A/C)] receptors, to produce fast synaptic inhibition, and metabotropic [GABA(B)] receptors, to produce slow, prolonged inhibitory signals. The GABA(B) receptor consists of a heterodimer of two related 7-transmembrane receptors, GABA(B) receptor 1 and GABA(B) receptor 2. The GABA(B) receptor 1 gene is mapped to chromosome 6p21.3 within the HLA class I region close to the HLA-F gene. Susceptibility loci for multiple sclerosis, epilepsy, and schizophrenia have also been mapped in this region. Alternative splicing of this gene generates multiple transcript variants. [provided by RefSeq, Jun 2009]</p>
Function	<p>Component of a heterodimeric G-protein coupled receptor for GABA, formed by GABBR1 and GABBR2. Within the heterodimeric GABA receptor, only GABBR1 seems to bind agonists, while GABBR2 mediates coupling to G proteins. 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. Signaling inhibits adenylate cyclase, stimulates phospholipase A2, activates potassium channels, inactivates voltage-dependent calcium-channels and modulates inositol phospholipid hydrolysis. Calcium is required for high affinity binding to GABA. Plays a critical role in the fine-tuning of inhibitory synaptic transmission. 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. Not only implicated in synaptic inhibition but also in hippocampal long-term potentiation, slow wave sleep, muscle relaxation and antinociception. Activated by (-)-baclofen, cgp27492 and blocked by phaclofen.</p> <p>Isoform 1E may regulate the formation of functional GABBR1/GABBR2 heterodimers by competing for GABBR2 binding. This could explain the observation that certain small molecule ligands exhibit differential affinity for central versus peripheral sites. [UniProt]</p>
Calculated Mw	108 kDa
Cellular Localization	Cell Junction, Cell membrane, postsynaptic cell membrane, Synapse

Images

ARG44295 anti-GABA B Receptor 1 antibody WB image

Western blot: Brain stained with ARG44295 anti-GABA B Receptor 1 antibody.

