ARG22243
anti-GABAB Receptor 1 antibody [S93A-49]

Package: 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [S93A-49] recognizes GABAB Receptor 1
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, WB
Specificity	Detects ~115kDa. No cross-reactivity against GABA(B)R2.
Host	Mouse
Clonality	Monoclonal
Clone	S93A-49
Isotype	IgG1
Target Name	GABAB Receptor 1
Species	Rat
Immunogen	Fusion protein around aa. 873-977 (cytoplasmic C-terminus) of Rat GABA B Receptor 1
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
ICC/IF	Assay-dependent
WB	1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

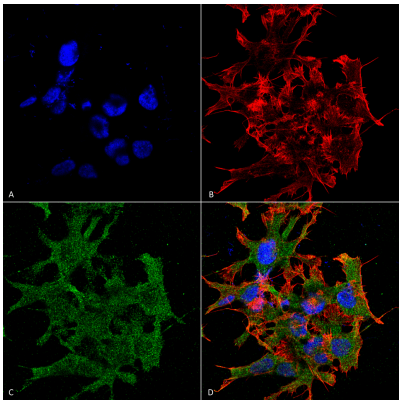
Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS (pH 7.4), 0.09% Sodium azide and 50% Glycerol
Preservative	0.09% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, 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

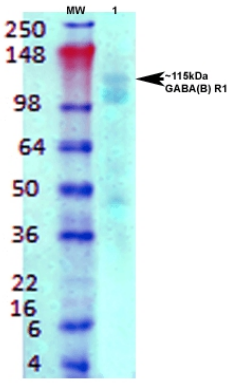
Gene Symbol	Gabbr1
Gene Full Name	gamma-aminobutyric acid (GABA) B receptor 1
Background	Gamma-aminobutyric acid (GABA) is the main inhibitory neurotransmitter in the mammalian central nervous system. GABA exerts its effects through ionotropic [GABA(A/C)] receptors, to produce fast synaptic inhibition, 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]
Function	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. 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]
Calculated Mw	108 kDa
Cellular Localization	Cell Junction, Cell membrane, postsynaptic cell membrane, Synapse

Images



ARG22243 anti-GABAB Receptor 1 antibody [S93A-49] ICC/IF image

Immunofluorescence: Human Neuroblastoma cell line SK-N-BE. Fixation: 4% Formaldehyde for 15 min at RT. Primary antibody: ARG22243 anti-GABAB Receptor 1 antibody [S93A-49] at 1:100 for 60 min at RT. Secondary antibody: Goat anti-Mouse ATTO 488 at 1:100 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain. Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) Primary antibody (D) Composite.



ARG22243 anti-GABAB Receptor 1 antibody [S93A-49] WB image

Western blot: Rat brain membrane lysate stained with ARG22243 anti-GABAB Receptor 1 antibody [S93A-49] at 1:1000 dilution.