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Datasheet for 612-401-D53

GABA(B) Receptor 2 phospho S783 Antibody

Overview

Description:	Anti-GABA(B) Receptor 2 pS783 (RABBIT) Antibody - 612-401-D53
Item No.:	612-401-D53
Size:	100 µL
Applications:	IHC, WB
Reactivity:	Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Anti-GABA(B) Receptor 2 pS783 Antibody detects phosphorylated GABA(B) Receptor 2. Gamma-aminobutyric acid (GABA) is the primary inhibitory neurotransmitter in the central nervous system. There are two major classes of GABA receptors: the GABAA and the GABAB subtype of receptors. GABAB receptors are heterodimeric G protein-coupled receptors that mediate slow synaptic inhibition in the central nervous system. It has recently been demonstrated that AMPK binds directly to GABAB receptors and phosphorylates S783 in the cytoplasmic tail of the R2 subunit and that S783 plays a critical role in enhancing neuronal survival after ischemia as phosphorylation of S783 is evident in many brain regions and is increased dramatically after ischemic injury to the brain. GABA(B) Receptor 2 pS783 antibody is ideal for investigators involved in Neuroscience.
Synonyms:	Gamma-aminobutyric acid type B receptor subunit 2, GABA-B-R2, GABA-BR2, GABABR2, Gb2, G-protein coupled receptor 51
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Gabbr2
Reactivity:	Mouse, Rat
PTM Specificity:	Phosphorylation

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-GABA(B) Receptor 2 pS783 Antibody was produced by repeated immunizations with synthetic phospho-peptide corresponding to amino acid residues surrounding Ser 783 of rat GABAB R2.
Purity/Specificity:	Anti-GABA(B) Receptor 2 pS783 Antibody is directed against rat phosphorylated GABA(B) Receptor 2. The antibody was affinity purified from monospecific antiserum by immunoaffinity purification. Immunolabeling of the GABAB R2 band is completely blocked by lambda-phosphatase treatment. Reactivity is expected from the following species based on 100% sequence homology: bovine, canine, chicken, human, mouse, Xenopus and non-human primates.
Relevant Links:	• UniProtKB - O88871 • GeneID - 83633 • NCBI - 8393403

Application Details

Tested Applications:	IHC, WB
Application Note:	Anti-GABA(B) Receptor 2 pS783 (Rabbit) antibody is tested for use in Western Blotting, ICC, and IHC. Specific conditions for reactivity should be optimized by the end user. Expect a band of approximately 102 kDa in size corresponding to GABA(B) receptor 2 protein phosphorylated at Ser783 in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IF:	1:500
WB:	1:1000

Formulation

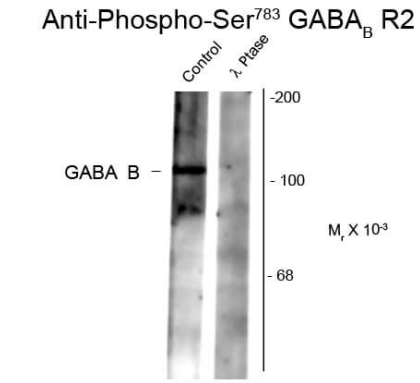
Physical State:	Liquid
Buffer:	0.01 M HEPES, 0.15 M Sodium Chloride, pH 7.5
Stabilizer:	0.1 mg/ml Bovine Serum Albumin (BSA) - IgG and Protease free, 50% (v/v) Glycerol

Shipping & Handling

Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western blot of rat synaptic membrane showing phospho-specific immunolabeling of the ~102k $GABA_B$ R2 protein phosphorylated at Ser^{783}.

Western Blot
Western Blot of Rabbit anti-GABA(B) Receptor 2 pS783 antibody. Lane 1: rat synaptic membrane. Lane 2: rat synaptic membrane incubated in λ-Ptase (1200 units for 30 min). Load: 10 µg per lane. Primary antibody: GABAB-R antibody at 1:400 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C.
Predicted/Observed size: ~102 kDa/~102 kDa for GABAB R2 protein phosphorylated at Ser783. Other band(s): none.

References

- Wu RN, Kuo CC, Min MY, Chen RF, Yang HW. Extracellular Signal-Regulated Kinases Mediate an Autoregulation of GABAB-Receptor-Activated Whole-Cell Current in Locus Coeruleus Neurons. *Sci Rep.* (2020)

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