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Datasheet for 612-401-D52

GABA(A) Receptor gamma 2 phospho S327 Antibody

Overview

Description:	Anti-GABA(A) Receptor gamma 2 pS327 (RABBIT) Antibody - 612-401-D52
Item No.:	612-401-D52
Size:	100 µL
Applications:	WB
Reactivity:	Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Anti-GABA(A) Receptor gamma 2 pS327 Antibody detects phosphorylated GABA(A) Receptor gamma 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. GABAA-Rs are important therapeutic targets for a range of sedative, anxiolytic, and hypnotic agents and are implicated in several diseases including epilepsy, anxiety, depression, and sub-stance abuse. The GABAA-R is a multimeric subunit complex. To date six alphas, four betas and four gammas, plus alternative splicing variants of some of these subunits, have been identified. Injection in oocytes or mammalian cell lines of cRNA coding for alpha- and beta-subunits results in the expression of functional GABAA-Rs sensitive to GABA. However, coexpression of a gamma- subunit is required for benzodiazepine modulation. It has recently been suggested that PKCE regulates the sensitivity of GABAA alpha1-beta2-gamma2 receptors to ethanol and benzodiazepines through phosphorylation of serine 327 in the large intracellular loop of gamma2. GABA(A) Receptor gamma2 pS327 antibody is ideal for investigators involved in Neuroscience.
Synonyms:	Gamma-aminobutyric acid receptor subunit gamma-2, GABA(A) receptor subunit gamma-2, Gabrg2
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Gabrg2

Reactivity:	Mouse, Rat
PTM Specificity:	Phosphorylation
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-GABA(A) Receptor gamma 2 pS327 Antibody was produced by repeated immunizations with synthetic phospho-peptide corresponding to amino acid residues surrounding Ser327 of rat GABAA receptor gamma 2.
Purity/Specificity:	Anti-GABA(A) Receptor gamma 2 pS327 Antibody is directed against rat phosphorylated GABA (A) Receptor gamma 2. The antibody was affinity purified from monospecific antiserum by immunoaffinity purification. Immunolabeling of the GABAA band is completely blocked by lambda-phosphatase treatment. This antibody is directed against rat GABA(A) receptor gamma 2 proteins phosphorylated at Ser327. Cross reactivity with GABA(A) Receptor gamma 2 pS327 from other sources has not been determined. However, reactivity is also expected against bovine, canine, chicken, human, and non-human primate.
Relevant Links:	• UniProtKB - P18508 • GeneID - 29709 • NCBI - 8393403

Application Details

Tested Applications:	WB
Application Note:	Anti-GABA(A) Receptor gamma 2 pS327 (Rabbit) antibody is tested for use in Western Blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band of approximately 45 kDa in size corresponding to GABA(A) receptor gamma 2 subunit phosphorylated at Ser327 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.
WB:	1:1000

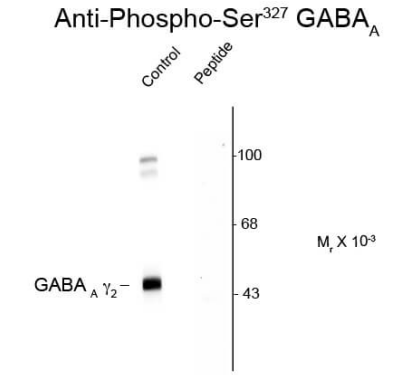
Formulation

Physical State:	Liquid
Concentration:	10 titrated reagent Sufficient to run approximately 10 miniblots
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 cortex showing phosphospecific immunolabeling of the ~45k $GABA_A$ γ_2 protein phosphorylated at Ser^{327}.

Western Blot
Western Blot of Rabbit Anti-GABA(A) Receptor gamma 2 pS327 antibody. Lane 1: rat cortex. Lane 2: rat cortex blocked by the phospho-peptide. Load: 10 µg per lane. Primary antibody: GABAA-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: ~45kDa/~45kDa for GABAA γ 2 protein phosphorylated at Ser327. Other band(s): none.

References

- Dunham TL et al. Modulation of GABAA receptor trafficking by WWC2 reveals class-specific mechanisms of synapse regulation by WWC family proteins. *bioRxiv* (2024)

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