10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Phospho-Ser327 GABAA Receptor, γ2 subunit Antibody

Affinity purified rabbit polyclonal antibody
Catalog # AN1162

Specification

Phospho-Ser327 GABAA Receptor, γ2 subunit Antibody - Product Information

Application	**FC, WB**
Primary Accession	P18508
Reactivity	**Rat**
Host	**Rabbit**
Clonality	**polyclonal**
Calculated MW	**45 KDa**

Phospho-Ser327 GABAA Receptor, γ2 subunit Antibody - Additional Information

Gene ID	**29709**
Gene Name	**GABRG2**

Other Names
Gamma-aminobutyric acid receptor subunit gamma-2, GABA(A) receptor subunit gamma-2, Gabrg2

Target/Specificity
Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser327 conjugated to KLH.

Dilution
FC~~1:500
WB~~ 1:1000

Format
Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephospho-peptide affinity columns.

Antibody Specificity
Specific for ~45k GABAA receptor γ2 subunit phosphorylated at Ser327. Immunolabeling of the GABAA band is completely blocked by λ-phosphatase treatment

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Phospho-Ser327 GABAA Receptor, γ2 subunit Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

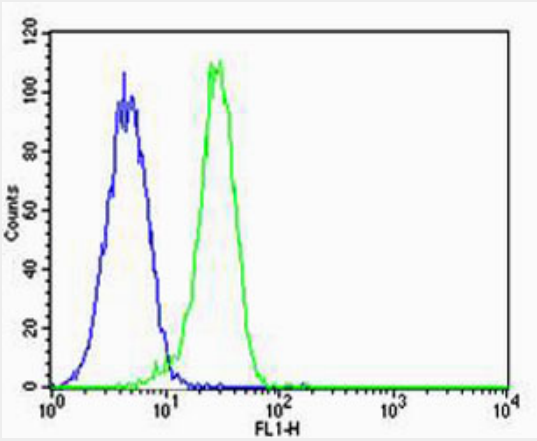
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Phospho-Ser327 GABAA Receptor, γ2 subunit Antibody - Protocols

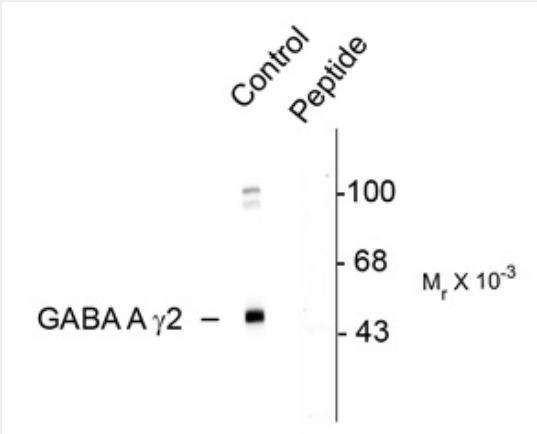
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-Ser327 GABAA Receptor, γ2 subunit Antibody - Images



Flow cytometric analysis of PC-12 cells using Park7 (DJ-1) Antibody(green, Cat#AN1162) compared to an isotype control of rabbit IgG(blue). AN1162 was diluted at 1:500 dilution. An Alexa Fluor® 488 goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody.



Western blot of rat cortex showing specific immunolabeling of the ~45k GABAA γ 2 protein phosphorylated at Ser327 (control). Immunolabeling is blocked by the phospho-peptide (peptide) used as antigen but not by the corresponding dephosphopeptide (not shown).

Phospho-Ser327 GABAA Receptor, γ2 subunit Antibody - Background

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 αs, four βs and four γs, plus alternative splicing variants of some of these subunits, have been identified (Olsen and Tobin, 1990; Whiting et al., 1999; Ogris et al., 2004). Injection in oocytes or mammalian cell lines of cRNA coding for α- and β-subunits results in the expression of functional GABAA-Rs sensitive to GABA. However, coexpression of a γ-subunit is required for benzodiazepine modulation. It has recently been suggested that PKCE regulates the sensitivity of GABAA α1β2γ2 receptors to ethanol and benzodiazepines through phosphorylation of serine 327 in the large intracellular loop of γ2 (Qi et al., 2007)

Phospho-Ser327 GABAA Receptor, γ2 subunit Antibody - References

Olsen RW, Tobin AJ (1990) Molecular biology of GABAA receptors. FASEB 4:1469-1480.
Whiting PJ, Bonnert TP, McKernan RM, Farrar S, Le Bourdellès B, Heavens RP, Smith DW, Hewson L, Rigby MR, Sirinathsinghji DJS, Thompson SA, Wafford KA (1999) Molecular and functional diversity of the expanding GABAA receptor gene family. Ann NY Acad Sci 868:645-653
Ogris W, Pöltl A, Hauer B, Ernst M, Oberto A, Wulff P, Höger H, Wisden W, Sieghart W (2004) Affinity of various benzodiazepine site ligands in mice with a point mutation in the GABAA receptor γ2-subunit. Biochem Pharmacol 68:1621-1629.
Qi ZH, Song M, Wallace MJ, Wang D, Newton PM, McMahon T, Chou WH, Zhang C, Shokat KM, Messing RO (2007) Protein kinase Cε regulates γ-aminobutyrate type A receptor sensitivity to ethanol and benzodiazepines through phosphorylation of γ2 subunits. J Biol Chem 282(45):33052-63.