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Phospho-Ser408/409 GABAA Receptor, β3 subunit Antibody

Affinity purified rabbit polyclonal antibody
Catalog # AN1206

Specification

Phospho-Ser408/409 GABAA Receptor, β3 subunit Antibody - Product Information

Application	**WB**
Primary Accession	P63079
Reactivity	**Rat**
Predicted	**Bovine, Chicken, Human, Mouse, Monkey, Xenopus, Zebrafish**
Host	**Rabbit**
Clonality	**polyclonal**
Calculated MW	**53 KDa**

Phospho-Ser408/409 GABAA Receptor, β3 subunit Antibody - Additional Information

Gene ID	**24922**
Gene Name	**GABRB3**

Other Names
Gamma-aminobutyric acid receptor subunit beta-3, GABA(A) receptor subunit beta-3, Gabrb3, Gabrb-3

Target/Specificity
Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser408/409 conjugated to KLH.

Dilution
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 the ~53k GABAA receptor β3 subunit phosphorylated at Ser408/409. Immunolabeling of the GABAA band is completely blocked by the phospho-peptide used as antigen but not by the corresponding dephospho-peptide.

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-Ser408/409 GABAA Receptor, β3 subunit Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

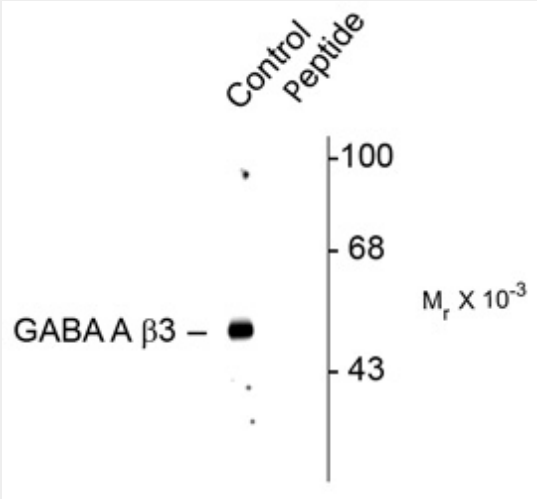
Shipping
Blue Ice

Phospho-Ser408/409 GABAA Receptor, β3 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-Ser408/409 GABAA Receptor, β3 subunit Antibody - Images



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~53k GABAA β3 protein phosphorylated at Ser408/409 (control). Immunolabeling is blocked by the phospho-peptide (peptide) used as antigen but not by the corresponding dephosphopeptide (not shown).

Phospho-Ser408/409 GABAA Receptor, β3 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. Phosphorylation of serine 408 and serine 409 within the β3 subunit have been shown to be critical for the functional modulation of β3 containing recombinant receptors (Brandon et al., 2000).

Phospho-Ser408/409 GABAA Receptor, β3 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.
Brandon NJ, Delmas P, Kittler JT, McDonald BJ, Sieghart W, Brown DA, Smart TG, Moss SJ (2000) GABAA receptor phosphorylation and functional modulation in cortical neurons by a protein kinase C-dependent pathway. J Biol Chem 275, 38856-62