Rabbit anti-Rat GABAA Receptor, b3 (Ser408/409) Polyclonal Antibody | anti-GABRB3 antibody

Anti-Phospho-Ser408/409 GABAA Receptor, beta3 subunit

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA72812	**Rabbit**	**Rat**	**Western Blot**

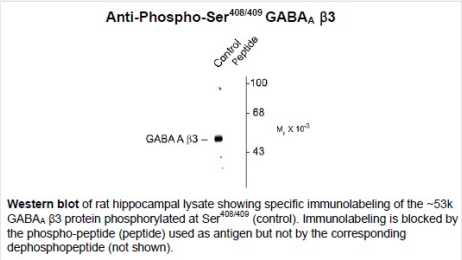
PRODUCT SYNONYMS

GABAA Receptor; b3 (Ser408/409); Polyclonal Antibody; Anti-Phospho-Ser408/409 GABAA Receptor; beta3 subunit; anti-GABRB3 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Rat
Clonality	Polyclonal
Specificity	Specific for the ~53k GABAA receptor beta3 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.
Purity/Purification	Affinity Purified (Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephospho-peptide affinity columns.)
Form/Format	100 ul in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 ug per ml BSA and 50% glycerol. Adequate amount of material to conduct 10-mini Western Blots
Sequence Length	473
Applicable Applications for anti-GABRB3 antibody	WB (Western Blot)
Antigen	Phosphopeptide corresponding to amino acid residues surrounding the di-phospho-Ser408/409 of the rat GABAA receptor, beta3 subunit.
Immunogen Information	Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser408/409 conjugated to KLH
Immunogen Species	Rat
Reactivity Assumed Based on 100% Sequence Homology	Bovine, canine, chicken, human, mouse, non-human primates, Xenopus and zebra fish
Species Reactivity Note	The antibody has been directly tested for reactivity in Western blots with rat tissue. It is anticipated that the antibody will react with bovine, canine, chicken, mouse, human, non-human primate, Xenopus and zebrafish tissues based on the fact that these species have 100% homology with the amino acid sequence used as antigen.
Biological Significance	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 (Olsen and Tobin, 1990; Whiting et al., 1999; Ogris et al., 2004). 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. Phosphorylation of serine 408 and serine 409 within the beta3 subunit have been shown to be critical for the functional modulation of beta3 containing recombinant receptors (Brandon et al., 2000).
Preparation and Storage	Store at -20 degree C; stable for at least one year.

IMAGES



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~53k $GABA_A$ β3 protein phosphorylated at $Ser^{408/409}$ (control). Immunolabeling is blocked by the phospho-peptide (peptide) used as antigen but not by the corresponding dephosphopeptide (not shown).

Application Data

ADDITIONAL INFORMATION

Related Product Information for anti-GABRB3 antibody	Affinity purified rabbit polyclonal antibody
References	• Olsen RW, Tobin AJ (1990) Molecular biology of GABAA receptors. FASEB 4:1469-1480. • 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 gamma2-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 • 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

NCBI AND UNIPROT INFORMATION

NCBI GI #	8393390
NCBI GeneID	24922
NCBI Accession #	NP_058761.1
NCBI GenBank Nucleotide #	NM_017065.1
UniProt Accession #	P63079; P15433
Molecular Weight	53
NCBI Official Full Name	gamma-aminobutyric acid receptor subunit beta-3
NCBI Official Synonym Full Names	gamma-aminobutyric acid (GABA) A receptor, beta 3
NCBI Official Symbol	Gabrb3
NCBI Protein Information	gamma-aminobutyric acid receptor subunit beta-3; GABA(A) receptor subunit beta-3; Gamma-aminobutyric acid receptor beta 3; gamma-aminobutyric acid receptor, subunit beta 3; testis gamma-aminobutyric acid receptor subunit beta 3; gamma-aminobutyric acid (GABA-A) receptor, subunit beta 3
UniProt Protein Name	Gamma-aminobutyric acid receptor subunit beta-3
UniProt Gene Name	**Gabrb3**
UniProt Synonym Gene Names	Gabrb-3
UniProt Entry Name	GBRB3_RAT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://www.aaabiotech.com/polyclonal/gabaa-receptor-b3-ser408-409-antibody-western-blot-elisa/72812