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Anti-GABAA Receptor ß3 Antibody

Our Anti-GABAA Receptor ß3 rabbit polyclonal primary antibody from PhosphoSolutions is produced in-h
Catalog # AN1400

Product Information

Application	WB, IHC
Primary Accession	P63079
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	54166

Additional Information

Gene ID	24922
Other Names	ECA5 antibody, GABA alpha receptor beta-2 subunit antibody, GABA(A) receptor subunit beta-3 antibody, GABAA receptor beta 3 subunit antibody, GABAA receptor subunit beta 3 antibody, GABR B3 antibody, Gabrb3 antibody, Gamma aminobutyric acid (GABA) A receptor beta 3 antibody, Gamma aminobutyric acid receptor subunit beta 3 antibody, Gamma-aminobutyric acid receptor subunit beta-3 antibody, GBRB3_HUMAN antibody, MGC9051 antibody
Target/Specificity	Gamma-aminobutyric acid (GABA) is the primary inhibitory neurotransmitter in the central nervous system, causing a hyperpolarization of the membrane through the opening of a Cl □channel associated with the GABA-A receptor (GABA-A-R) subtype. GABA-A-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 substance abuse. The GABA-A-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 GABA-A-Rs sensitive to GABA. However, coexpression of a γ-subunit is required for benzodiazepine modulation. The various effects of the benzodiazepines in brain may also be mediated via different α- subunits of the receptor (McKernan et al., 2000; Mehta and Ticku, 1998; Ogris et al., 2004; P □tl et al., 2003).
Dilution	WB~~1:1000 IHC~~1:100~500
Format	Antigen Affinity Purified from Pooled Serum
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	Anti-GABAA Receptor ß3 Antibody is for research use only and not for use in

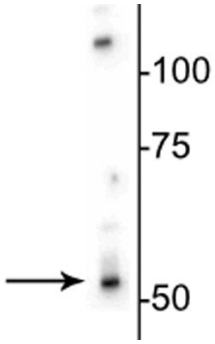
diagnostic or therapeutic procedures.

Shipping Blue Ice

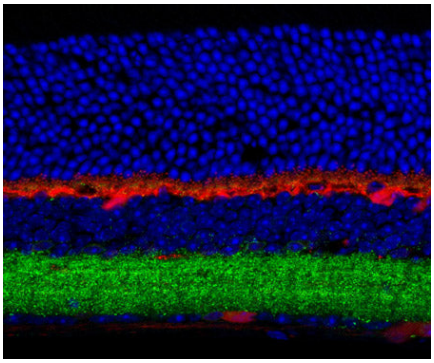
Background

Gamma-aminobutyric acid (GABA) is the primary inhibitory neurotransmitter in the central nervous system, causing a hyperpolarization of the membrane through the opening of a Cl channel associated with the GABA-A receptor (GABA-A-R) subtype. GABA-A-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 substance abuse. The GABA-A-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 GABA-A-Rs sensitive to GABA. However, coexpression of a γ-subunit is required for benzodiazepine modulation. The various effects of the benzodiazepines in brain may also be mediated via different α- subunits of the receptor (McKernan et al., 2000; Mehta and Ticku, 1998; Ogris et al., 2004; P tl et al., 2003).

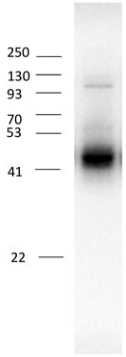
Images



Western blot of rat brain lysate showing specific immunolabeling of the ~53 kDa β3-subunit of the GABAA-R.

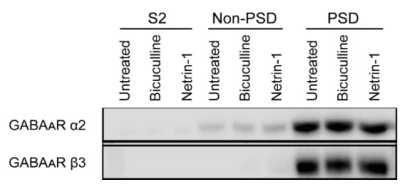


Immunofluorescence of mouse retina showing staining of GABAA-R, β3-subunit (cat. : AN1400, green, 1:300) and calbindin (red). The blue is DAPI staining nuclear DNA. Photo courtesy of Dr. Arlene Hirano, UCLA.



Western blot of rat cortical neurons showing specific immunolabeling of the ~53 kDa β3-subunit of the GABAA-R (1:1000). Image kindly provided by Lidong Liu, University of British Columbia, Vancouver.

Immunoblots showing GABAA Receptor α2 (cat.



822-GA2CL) and GABAA Receptor ß3 (cat. AN1400) subunit expression in the cytosolic (S2), extrasynaptic (non-PSD), and synaptic (PSD) fractions of untreated, bicuculline-pretreated (20 µM, 1h), or netrin-1 treated (250ng/ml, 1h) rat hippocampal neuronal cultures.Image from publication CC-BY-4.0. PMID: 36323250

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.