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Anti-GABAA Receptor δ, N-Terminus Antibody

Our Anti-GABAA Receptor δ, N-Terminus primary antibody from PhosphoSolutions is rabbit polyclonal. I
Catalog # AN1402

Product Information

Application	WB, IHC, ICC
Primary Accession	P18506
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	50566

Additional Information

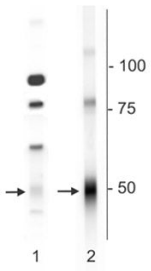
Gene ID	29689
Other Names	GABA(A) receptor subunit delta antibody, Gabrd antibody, Gamma aminobutyric acid GABA A receptor delta antibody, Gamma aminobutyric acid receptor delta subunit precursor GABA A receptor antibody, Gamma-aminobutyric acid receptor subunit delta antibody, GBRD_HUMAN antibody, MGC45284 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, co-expression of a γ-subunit is required for benzodiazepine modulation. The various effects of the benzodiazepines in brain may also be mediated via different a-subunits of the receptor (McKernan et al., 2000; Mehta and Ticku, 1998; Ogris et al., 2004; P □tl et al., 2003). More recently there have been a number of studies demonstrating that the δ-subunit of the receptor may affect subunit assembly (Korpi et al., 2002) and may also confer differential sensitivity to neurosteroids and to ethanol (Wallner et al., 2003; Wohlfarth et al., 2002).
Dilution	WB~~1:1000 IHC~~1:100~500 ICC~~N/A
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 δ, N-Terminus Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

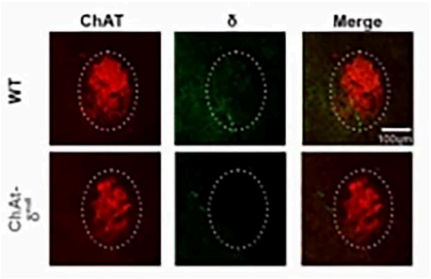
Background

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, co-expression of a γ-subunit is required for benzodiazepine modulation. The various effects of the benzodiazepines in brain may also be mediated via different a-subunits of the receptor (McKernan et al., 2000; Mehta and Ticku, 1998; Ogris et al., 2004; P tl et al., 2003). More recently there have been a number of studies demonstrating that the δ-subunit of the receptor may affect subunit assembly (Korpi et al., 2002) and may also confer differential sensitivity to neurosteroids and to ethanol (Wallner et al., 2003; Wohlfarth et al., 2002).

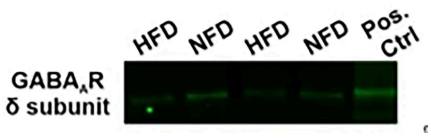
Images



Western blot of mouse whole brain (1) and mouse synaptic plasma membrane (2) lysates showing specific immunolabeling of the ~50 kDa δ-subunit of the GABAA-R.



Immunostaining of a novel ChAT-δ knock down mouse brain labeling GABAA(δ)R (Cat no AN1402, 1:50, green) in WT c57Bl/6 mouse brain, and confirmation of a negative signal in the ChAT-δ knock down mouse brain. Image from publication CC-BY-4.0. PMID: 37085567



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