

Anti-GABAA Receptor α 1 Antibody

Our Anti-GABAA Receptor α 1 primary antibody from PhosphoSolutions is rabbit polyclonal. It detects m
Catalog # AN1390

Product Information

Application	WB, IHC
Primary Accession	P62813
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	51754

Additional Information

Gene ID	29705
Other Names	ECA4 antibody, EIEE19 antibody, EJM antibody, EJM5 antibody, Gaba receptor alpha 1 polypeptide antibody, GABA(A) receptor antibody, GABA(A) receptor subunit alpha 1 antibody, GABA(A) receptor subunit alpha-1 antibody, GABA(A) receptor alpha 1 antibody, GABRA 1 antibody, GABR α 1 antibody, Gamma aminobutyric acid (GABA) A receptor alpha 1 antibody, Gamma aminobutyric acid A receptor alpha 1 antibody, Gamma aminobutyric acid receptor subunit alpha 1 antibody, Gamma aminobutyric acid type A receptor alpha1 subunit antibody, Gamma-aminobutyric acid receptor subunit alpha-1 antibody, GBR α 1_HUMAN 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 sub-stance abuse. The GABA-A-R is a multimeric subunit complex. To date six α s, four β s and four γ s, 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 α tl et al., 2003).
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Dilution	WB~~1:1000 IHC~~1:100~500
Format	Antigen Affinity Purified
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 $\alpha 1$ Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

Blue Ice

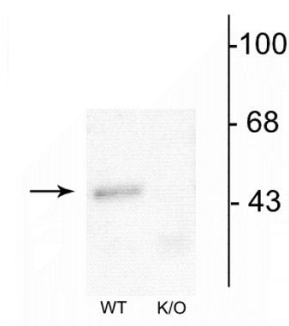
Background

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 sub-stance abuse. The GABA-A-R is a multimeric subunit complex. To date six α s, four β s and four γ s, 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 α tl et al., 2003).

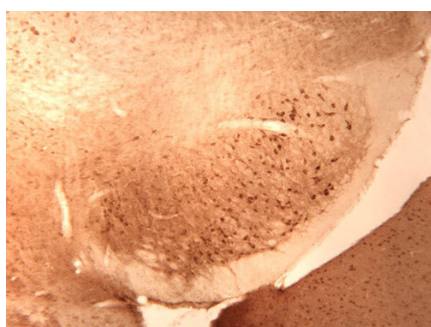
Images

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Immunolabeling of mouse globus pallidus externus (subcortical structure) labelling the $\alpha 1$ -subunit of the GABAA Receptor (cat. AN1390, DAB, 1:100). Images courtesy Dr. Anton Reiner, University of Tennessee Health Science Center (Memphis, TN).



Western blot of mouse forebrain lysates from wild type (WT) and $\alpha 1$ -knockout (K/O) animals showing specific immunolabeling of the ~51 kDa $\alpha 1$ -subunit of the GABAA-R. The labeling was absent from a lysate prepared from $\alpha 1$ -knockout animals.



Immunolabeling of mouse substantia nigra (mid brain) labelling the $\alpha 1$ -subunit of the GABAA Receptor (cat. AN1390, DAB, 1:100). Images courtesy Dr. Anton Reiner, University of Tennessee Health Science Center (Memphis, TN).

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Immunolabeling of mouse deep cerebellar nucleus labelling the $\alpha 1$ -subunit of the GABAA Receptor (cat. AN1390, DAB, 1:100). Images courtesy Dr. Anton Reiner, University of Tennessee Health Science Center (Memphis, TN).