prosci-inc.com

HIGH PERFORMANCE ANTIBODIES ... AND MORE

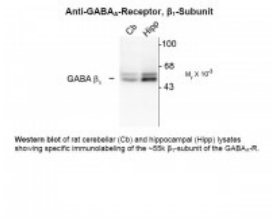
ProSci Incorporated
12170 Flint Place
Poway, CA 92064

Toll Free: +1 (888) 513 9525
Local: +1 (858) 513 2638
Fax: +1 (858) 513 2692

techsupport@prosci-inc.com

GABAA Receptor Antibody

CATALOG NUMBER: 50-212



Western blot of rat cerebellar (Cb) and hippocampal (Hipp) lysates showing specific immunolabeling of the ~55k beta1-subunit of the GABAA receptor.

Specifications

SPECIES REACTIVITY:	Bovine, Dog, Human, Mouse, Rat, Xenopus, Zebrafish
TESTED APPLICATIONS:	WB
APPLICATIONS:	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, human, mouse, non-human primate, Xenopus, and zebra fish based on the fact that these species have 100% homology with the amino acid sequence used as antigen.
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
PREDICTED MOLECULAR WEIGHT:	55
IMMUNOGEN:	Fusion protein from the cytoplasmic loop of the b1-subunit of rat GABAA receptor.
HOST SPECIES:	Rabbit

Properties

PURIFICATION:	Affinity Purified
PHYSICAL STATE:	Liquid
BUFFER:	100 uL in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 ug per mL BSA and 50% glycerol.
STORAGE CONDITIONS:	GABAA Receptor antibody can be stored at -20˚C and is stable at -20˚C for at least 1 year.
CLONALITY:	Polyclonal
CONJUGATE:	Unconjugated

Additional Info

ALTERNATE NAMES:	GARB1, Gabrb-1,
ACCESSION NO.:	P15431
PROTEIN GI NO.:	120769
OFFICIAL SYMBOL:	Gabrb1
GENE ID:	25450

Background

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 GABAA receptor (GABAA-R) subtype. 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 substance 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. The various effects of the benzodiazepines in brain may also be mediated via different alpha-subunits of the receptor (McKernan et al., 2000; Mehta and Ticku, 1998; Ogris et al., 2004; Pöltl et al., 2003).
REFERENCES:	1) Brandon NJ, Jovanovic JN, Colledge M, Kittler JT, Brandon JM, Scott JD, Moss SJ (2003) A kinase anchoring protein 79/150 facilitates the phosphorylation of GABAA receptors by cAMP-dependent protein kinase via selective interaction with receptor β-subunits. Mol Cell Neurosci 22:87-97.
	2) McKernan RM, et al. (2000) Sedative but not anxiolytic properties of benzodiazepines are mediated by the GABAA receptor α1-subtype. Nature Neurosci 3:587-592.
	3) Mehta AK, Ticku MK (1998) Prevalence of the GABAA receptor assemblies containing -subunit in the rat cerebellum and cerebral cortex as determined by immunoprecipitation: Lack of modulation by chronic ethanol administration. Mol Brain Res 67:194-199.

FOR RESEARCH USE ONLY

December 13, 2016