

Anti-GABAA Receptor, γ 2-Subunit Antibody

Product Data Sheet · P/N 74093 Rev 01 · Reissued 2026-09-19 (layout only)

Product code	Pack size
P40011-100	100 μ L
Host Species	Rabbit (Polyclonal)
Mr (kDa)	46

Description

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 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 GABAA-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; Pörtl et al., 2003).

Immunogen

Fusion protein from the cytoplasmic loop of the γ 2-subunit of rat GABAA receptor.

Species Reactivity

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 and non- human primate based on the fact that these species have 100% homology with the amino acid sequence used as antigen.

Physical State

Liquid; Buffer contents: 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 μ g per mL BSA and 50% glycerol

Purification Method

Prepared from rabbit serum by affinity purification using a column to which the fusion protein immunogen was coupled.

Recommended Antibody Dilutions

WB: 1:1000

IHC: 1:100

Storage/Stability

Stable at -20 °C for at least 1 year.

For long term storage -20 °C is recommended

Shipping Conditions

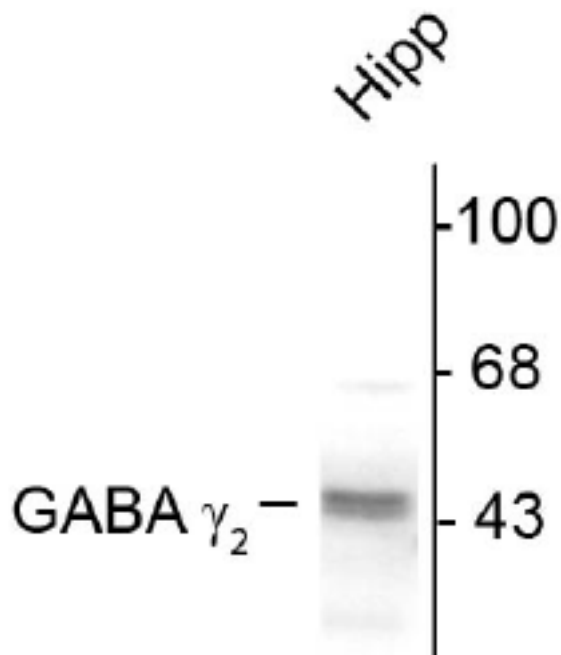
Domestic: Blue Ice

International: Blue Ice or Dry Ice

References

1) Brandon NJ et al. (2003) Mol Cell Neurosci 22:87-97.

- 2) McKernan RM, et al. (2000) Nature Neurosci 3:587-592.
- 3) Mehta AK et al. (1998) Mol Brain Res 67:194-199.
- 4) Ogris W et al. (2004) Biochem Pharmacol 68:1621-1629.
- 5) Olsen RW et al. (1990) FASEB 4:1469-1480.
- 6) Pörtl A et al. (2003) J Neurochem 87:1444-1455.
- 7) Whiting PJ et al. (1999) Ann NY Acad Sci 868:645-653.



Western Blot 10 μ g of rat hippocampal (Hipp) lysate showing specific immunolabeling of the ~46k γ 2-subunit of GABAA -R.

For research use or further manufacturing only. Not for use in diagnostic procedures, or for human or animal consumption.