

Anti-GABAA Receptor, β 3-Subunit Antibody

Product Data Sheet · P/N 74091 Rev 01 · Reissued 2026-09-19 (layout only)

Product code	Pack size
P40009-100	100 μ L
Host Species	Rabbit (Polyclonal)
Mr (kDa)	53

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 β 3-subunit of rat GABAA receptor.

Species Reactivity

The antibody has been directly tested for reactivity in Western blots with rat and mouse tissue.

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

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-

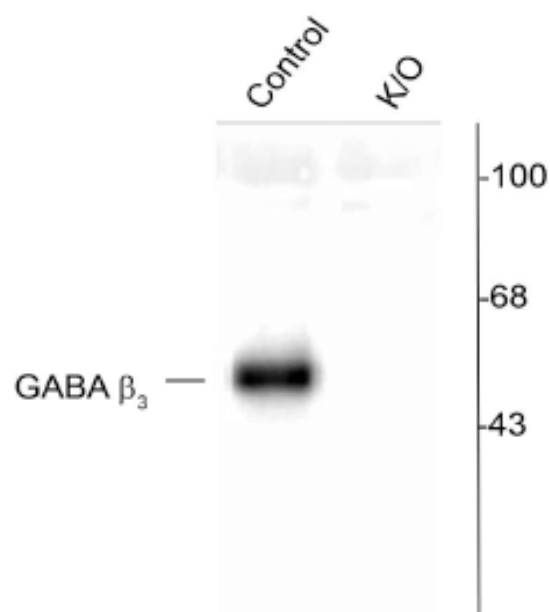
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4) Ogris W et al. (2004) Biochem Pharmacol 68:1621-1629.

5) Olsen RW et al. (1990) FASEB 4:1469-1480.

6) Pölzl A et al. (2003) J Neurochem 87:1444-1455.

7) Whiting PJ et al. (1999) Ann NY Acad Sci 868:645-653.



Western Blot 5-7 μ g of mouse cerebellum lysates from wild type (Control) and $\beta 3$ knockout ($\beta 3$ K/O) animals showing specific immunolabeling of the ~53k $\beta 3$ -subunit of the GABAA-R in the wild type but not in the $\beta 3$ K/O animals.

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