

Affinity Purified Rabbit Anti-GABA_A Receptor (β_1 Subunit, C-Terminus) Certificate of Analysis

ORDERING INFORMATION

Catalog Number: PPS030B

Lot Number: 1489653
1728240

Size: 100 μ L (sufficient for 10 mini-blot)

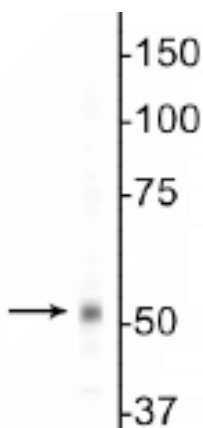
Storage: $\leq -20^\circ\text{C}$

Specificity: Mouse and rat ~ 55 kDa
GABA_A R β_1 subunit, C-Terminus

Immunogen: Fusion protein from the cytosolic
loop of the rat GABA_A R β_1
subunit, C-Terminus

Ig Type: rabbit IgG

Applications: Western Blot



Western Blot of mouse whole brain
lysates showing specific immunolabeling
of the ~ 55 kDa β_1 -subunit of the
GABA_A-R.

Description

GABA_A (γ -aminobutyric acid-type A) receptors are members of the cysteine-loop family of neurotransmitter-gated ion channels. GABA binding to A-type receptors induces anion-selective ion channel opening. These receptors are the principal fast inhibitory neurotransmitter receptors in the CNS. GABA_A receptors are heteropentamer combinations of seven subunit types; α , β , γ , δ , ϵ , θ , and π . Three subunits, α , β , and γ , have at least three separate gene products in mammals, and typical GABA_A receptors have some combination of α , β and γ subunits. The rat β_1 isoform is a 58 - 60 kDa, 449 amino acid (aa), 4 transmembrane protein with two terminal extracellular regions. The ligand-binding region is in the N-terminus (aa 13 - 218). The β_1 subunit is known to be phosphorylated on a consensus phosphorylation site (S409 of the precursor) that exists in the cytoplasmic domain between transmembrane segments 3 and 4. PKA or PKC β II-induced phosphorylation decreases GABA_A receptor activity.

Preparation

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

Formulation

100 μ L in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 μ g/mL BSA and 50% Glycerol.

Storage

For long-term storage, $\leq -20^\circ\text{C}$ is recommended. Product is stable at $\leq -20^\circ\text{C}$ for at least 1 year.

Specificity

This antibody is specific for the ~ 55 kDa β_1 subunit of the GABA_A Receptor in Western Blots of mouse and rat brain lysates.

Applications

Western Blot - 1:1000

Optimal dilutions should be determined by each laboratory for each application.

References

1. Darlison, M.G. *et al.* (2005) Cell. Mol. Neurobiol. **25**:607.
2. Akabas, M.H. (2004) Int. Rev. Neurobiol. **62**:1.
3. Song, M. and R.O. Messing (2005) Cell. Mol. Life Sci. **62**:119.
4. Hinkle, D.J. and R.L. MacDonald (2003) J. Neurosci. **23**:11698.
5. Brandon, N.J. *et al.* (2003) Mol. Cell. Neurosci. **22**:87.

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