

DESCRIPTION

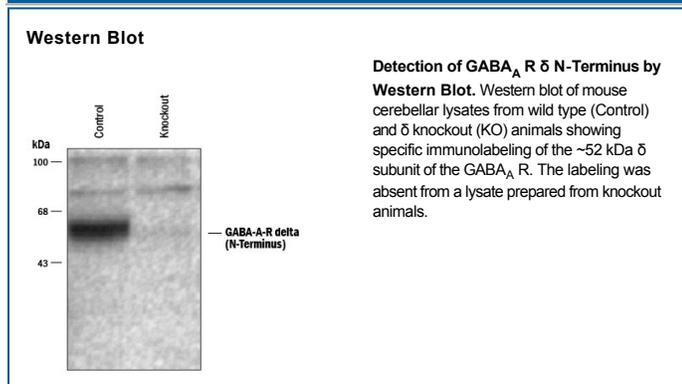
Species Reactivity	Human/Mouse/Rat/Bovine
Specificity	Human, mouse, rat, and bovine ~52 kDa GABA _A R δ subunit, N-Terminus
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	Fusion protein from the cytosolic loop of the rat GABA _A R δ subunit, N-Terminus
Formulation	100 µL in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg/mL BSA and 50% glycerol. See Certificate of Analysis for details.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1:1000 dilution	See Below
Immunohistochemistry	1:250 dilution	(frozen sections; unpublished observations)
Immunoprecipitation	10 µL/50 µg cell lysate	

DATA



PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	For long-term storage, ≤ -20° C is recommended. Product is stable at ≤ -20° C for at least 1 year.

BACKGROUND

GABA_A (γ-aminobutyric acid-type A) receptors are members of the cysteine-loop family of neurotransmitter-gated ion channels. Receptors in this group operate as GABA-gated Cl⁻ channels. 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. Typical GABA_A receptors have some combination of an α, β, and γ subunit. In select neurons, however, a δ subunit replaces the γ-subunit. It would appear that δ subunits have a preference for various α-β combinations. In cerebellar granule cells, the δ subunit contributes to a unique α6βδ heteromer. δ subunit receptors may function to limit the spread of excitatory impulses to dendritically-complexed neurons. They also appear to be sensitive to steroid modulation. The rat δ subunit is a 50 kDa, 433 amino acid (aa), 4 transmembrane protein with two terminal extracellular regions. The ligand-binding region is in the N-terminus (aa 4 - 246). The rat and mouse N-terminal extracellular domains (ECD) (aa 17 - 248) are 99% aa identical; the mouse and human ECD are 95% aa identical.

References:

- Whiting, P.J. et al. (1999) *Ann. N.Y. Acad. Sci.* 868:645.
- Rudolph, U. et al. (2001) *Trends Pharmacol. Sci.* 22:188.
- Shivers, B.D. et al. (1989) *Neuron* 3:327.
- Sommer, B. et al. (1990) *DNA Cell Biol.* 9:561.
- Bianchi, M.T. and R.L. MacDonald (2003) *J. Neurosci.* 23:10934.