

DESCRIPTION

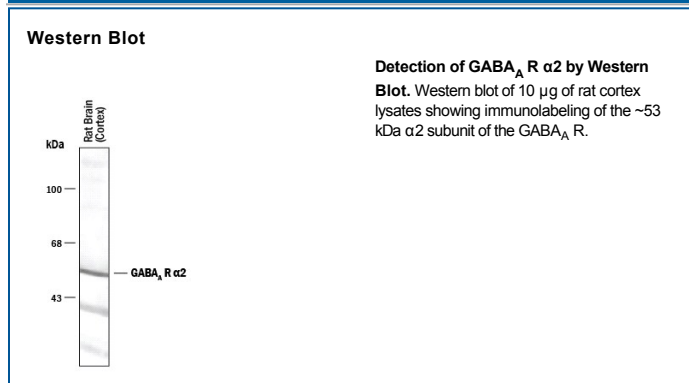
Species Reactivity	Human/Mouse/Rat/Bovine/Canine/Primate
Specificity	Human, mouse, rat and bovine ~53 kDa GABA _A R α2 subunit
Source	Polyclonal Rabbit Serum
Purification	Antigen Affinity-purified
Immunogen	GABA _A R α2 subunit specific peptide
Formulation	50 µL unpurified neat rabbit serum. See Certificate 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

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. 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 α2 isoform is a 53 kDa, 423 amino acid (aa), 4 transmembrane protein with two terminal extracellular regions. The ligand-binding region is in the N-terminus (aa 15 - 222). As with many receptors, phosphorylation is likely to be used as a regulatory mechanism. The α2 subunit is known to be phosphorylated on Ser/Thr residues. Rat α2 has multiple isoforms, all involving the 5' UTR. These may dictate α2 levels within the cell. This receptor subunit is particularly abundant in forebrain areas and is a potential target of anabolic steroids. Behavioral alterations associated with steroid abuse may be a manifestation of α2β3γ2L receptor activation.

References:

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4. Yang, P. et al. (2005) Neuropharmacology 49:300.
5. Tian, H. et al. (2005) Mol. Brain Res. 137:174.
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