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Datasheet for 600-401-D48

GABA(A) Receptor alpha 6 Antibody

Overview

Description:	Anti-GABA(A) Receptor alpha 6 (RABBIT) Antibody - 600-401-D48
Item No.:	600-401-D48
Size:	100 µL
Applications:	WB
Reactivity:	Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Anti-GABA(A) Receptor alpha 6 Antibody detects GABA(A) Receptor alpha 6. 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 αs, four βs and four γs, plus alternative splicing variants of some of these subunits, have been identified. 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. GABA(A) receptor alpha 6 antibody is ideal for investigators involved in Neuroscience.
Synonyms:	Gamma-aminobutyric acid receptor subunit alpha-6, GABA(A) receptor subunit alpha-6
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Gabra6
Reactivity:	Mouse, Rat

Immunogen Type:	Recombinant Protein
Immunogen:	Anti-GABA(A) Receptor alpha 6 Antibody was produced in rabbit by repeated immunizations with recombinant fusion proteins from the cytoplasmic loop of the alpha 6 subunit.
Purity/Specificity:	Anti-GABA(A) Receptor alpha 6 Antibody is directed against rat GABA(A) Receptor alpha 6. The antibody was affinity purified from monospecific antiserum by immunoaffinity purification. Labeling is absent in α6-subunit knockout animals. Reactivity is expected from mouse. Cross reactivity with GABA(A) Receptor alpha 6 from other sources has not been determined.
Relevant Links:	• UniProtKB - P30191 • GeneID - 29708 • NCBI - NP_068613.1

Application Details

Tested Applications:	WB
Application Note:	Anti-GABA(A) Receptor alpha 6 (Rabbit) antibody is tested for use in Western Blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band of approximately 57 kDa in size corresponding to the alpha 6 subunit of the GABA(A) receptor in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
WB:	1:1000

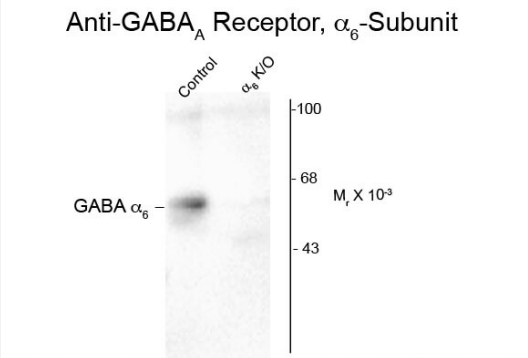
Formulation

Physical State:	Liquid
Buffer:	0.01 M HEPES, 0.15 M Sodium Chloride, pH 7.5
Stabilizer:	0.1 mg/ml Bovine Serum Albumin (BSA) - IgG and Protease free, 50% (v/v) Glycerol

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western blot of 5-7 μg of mouse cerebellum lysates from wild type (control) and α_6 knockout (α_6 K/O) animals showing specific immunolabeling of the ~57k α_6-subunit of the GABA$_A$-R in the wild type but not in the α_6 K/O animals.

Western Blot
Western Blot of Rabbit anti-GABA(A) Receptor alpha 6 antibody. Lane 1: mouse forebrain lysates from Wild Type. Lane 2: mouse forebrain lysates from Wild Type α6 -knockout (α6-K/O). Load: 10 µg per lane. Primary antibody: GABAA-R antibody at 1:400 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~57kDa/~56kDa for α6 -subunit of the GABAA-R. Other band(s): none.

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