

GABA_B R2 (V-18): sc-31457

BACKGROUND

In the central nervous system (CNS), γ -aminobutyric acid (GABA) is the main main inhibitory neurotransmitter that functions to regulate neuronal firing. GABA exerts its effects through two different kinds of receptors: ionotropic receptors (GABA_A R and GABA_C R), which produce fast inhibitory signals, and metabotropic receptors (GABA_B R), which produce slow inhibitory signals. The GABA_B R receptor is a heterodimer that consists of two multi-pass membrane proteins, designated GABA_B R1 and GABA_B R2, both of which belong to the G protein-coupled receptor family and are highly expressed in brain tissue. Together, GABA_B R1 and GABA_B R2 play a crucial role in the fine-tuning of inhibitory synaptic transmissions and are implicated in slow wave sleep, muscle relaxation, hippocampal long-term potentiation and antinociception events. Both GABA_B R1 and GABA_B R2 are regulated by G proteins that have a variety of functions, including activation of potassium channels, inhibition of adenyl cyclase (A cyclase) activity and modulation of inositol phospholipid hydrolysis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GABBR2 (human) mapping to 9q22.33; Gabbr2 (mouse) mapping to 4 B1.

SOURCE

GABA_B R2 (V-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of GABA_B R2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-31457 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GABA_B R2 (V-18) is recommended for detection of GABA_B R2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GABA_B R2 (V-18) is also recommended for detection of GABA_B R2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for GABA_B R2 siRNA (h): sc-42463, GABA_B R2 siRNA (m): sc-42464, GABA_B R2 shRNA Plasmid (h): sc-42463-SH, GABA_B R2 shRNA Plasmid (m): sc-42464-SH, GABA_B R2 shRNA (h) Lentiviral Particles: sc-42463-V and GABA_B R2 shRNA (m) Lentiviral Particles: sc-42464-V.

Molecular Weight of GABA_B R2: 130 kDa.

Positive Controls: mouse brain extract: sc-2253, IMR-32 cell lysate: sc-2409 or rat cerebellum extract: sc-2398.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS
Satisfaction
Guaranteed

Try **GABA_B R2 (H-10): sc-393270** or **GABA_B R2 (1): sc-136365**, our highly recommended monoclonal alternatives to GABA_B R2 (V-18).