

GABA_B R2 (1): sc-136365

BACKGROUND

In the central nervous system (CNS), γ -aminobutyric acid (GABA) is the 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 adenylyl 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.

RESEARCH USE

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

SOURCE

GABA_B R2 (1) is a mouse monoclonal antibody raised against amino acids 809-930 of GABA_B R2 of rat origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

GABA_B R2 (1) 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) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

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.

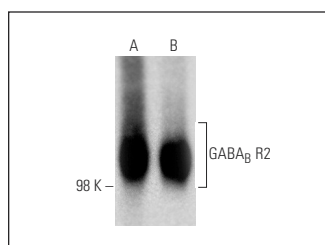
Molecular Weight of GABA_B R2: 106 kDa.

Positive Controls: mouse brain extract: sc-2253, rat brain extract: sc-2392 or human cerebral cortex tissue extract.

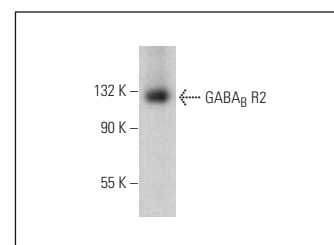
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



GABA_B R2 (1): sc-136365. Western blot analysis of GABA_B R2 expression in mouse brain (A) and rat brain (B) tissue extracts.



GABA_B R2 (1): sc-136365. Western blot analysis of GABA_B R2 expression in human cerebral cortex tissue extract.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.