SANTA CRUZ BIOTECHNOLOGY, INC.

p-GABA$_B$ R2 (Ser 893): sc-135696

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

GAD-65 and GAD-67, glutamate decarboxylases, catalyze the production of GABA (γ-aminobutyric acid). In the central nervous system GABA acts as the main inhibitory transmitter by increasing a Cl-conductance that inhibits neuronal firing. GABA activates both ionotropic (GABA$_A$) and metabotropic (GABA$_B$) receptors as well as a third class of receptors called GABA$_C$. Members of the GABA$_A$ receptor family include GABA$_A$ Rα1-6, GABA$_A$ R β1-3, GABA$_A$ Rγ1-3, GABA$_A$ Rδ, GABA$_A$ Rε, GABA$_A$ Rρ1 and GABA$_A$ Rρ2. The GABA$_B$ family is composed of GABA$_B$ R1α and GABA$_B$ R1β. PKA phosphorylates GABA$_B$ R2 at Ser 893. This phosphorylation appears to enhance the membrane stability of GABA$_B$ R2.

REFERENCES

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3. Lukasiewicz, P.D. 1996. GABA$_C$ receptors in the vertebrate retina. Mol. Neurobiol. 12: 181-194.
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CHROMOSOMAL LOCATION

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

SOURCE

p-GABA$_B$ R2 (Ser 893) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 892 phosphorylated GABA$_B$ R2 of rat origin.

PRODUCT

Each vial contains IgG in 100 µl of 10 mM HEPES with 150 mM NaCl, 50% glycerol and < 0.1% BSA.

RESEARCH USE

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

APPLICATIONS

p-GABA$_B$ R2 (Ser 893) is recommended for detection of Ser 893 phosphorylated GABA$_B$ R2 of human origin and correspondingly Ser 892 phosphorylated GABA$_B$ R2 of mouse and rat origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunoprecipitation [1-2 µl per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution to be determined by researcher, dilution range 1:50-1:2500).

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 p-GABA$_B$ R2: 105 kDa.

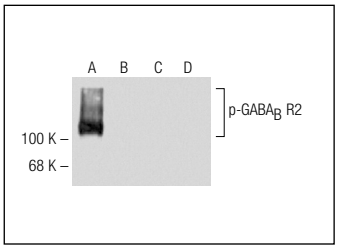
Molecular Weight of glycosylated p-GABA$_B$ R2: 130 kDa.

Positive Controls: Mouse brain extract: sc-2253 or rat brain extract: sc-2392.

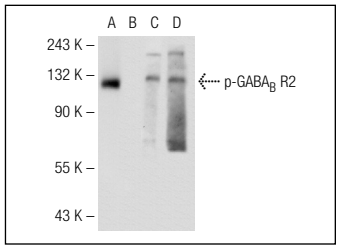
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



p-GABA$_B$ R2 (Ser 893): sc-135696. Western blot analysis of GABA$_B$ R2 phosphorylation in rat GABA$_B$ R2 transfected (**A**,**C**) and non-transfected (**B**,**D**) COS-7 whole cell lysates. Lanes C and D were treated with lambda protein phosphatase.



Western blot analysis of GABA$_B$ R2 phosphorylation in untreated (**A**,**C**) and lambda protein phosphatase (sc-200312A) treated (**B**,**D**) rat brain tissue extracts. Antibodies tested include p-GABA$_B$ R2 (Ser 893): sc-135696 (**A**,**B**) and GABA$_B$ R2 (E-16): sc-22322 (**C**,**D**).

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.