SANTA CRUZ BIOTECHNOLOGY, INC.

GABA_A Rα2 (C-20): sc-7349



BACKGROUND

GAD-65 and GAD-67, glutamate decarboxylases function to catalyze the production of GABA (γ -aminobutyric acid). In the central nervous system GABA functions as the main inhibitory transmitter by increasing a Cl-conductance that inhibits neuronal firing. GABA has been shown to activate both ionotropic (GABA_A) and metabotropic (GABA_B) receptors as well as a third class of receptors called GABA_C. Both GABA_A and GABA_C are ligand-gated ion channels, however, they are structurally and functionally distinct. Members of the GABA_A receptor family include GABA_A R α 1-6, GABA_A R β 1-3, GABA_A R γ 1-3, GABA_A R δ , GABA_A R ϵ , GABA_A R ρ 1 and GABA_A R ρ 2. The GABA_B family is composed of GABA_B R1 α and GABA_B R1 β . GABA transporters have also been identified and include GABA transporters function to terminate GABA action.

REFERENCES

- 1. Nelson, H., et al. 1990. Cloning of the human brain GABA transporter. FEBS Lett. 269: 181-184.
- Cherubini, E., et al. 1991. GABA: an excitatory transmitter in early postnatal life. Trends Neurosci. 14: 515-519.
- 3. Borden, L.A., et al. 1992. Molecular heterogeneity of the γ -aminobutyric acid (GABA) transport system. Cloning of two novel high affinity GABA transporters from rat brain. J. Biol. Chem. 267: 21098-21104.
- Dirkx, R., Jr., et al. 1995. Targeting of the 67-kDa isoform of glutamic acid decarboxylase to intracellular organelles is mediated by its interaction with the NH₂-terminal region of the 65-kDa isoform of glutamic acid decarboxylase. J. Biol. Chem. 270: 2241-2246.

SOURCE

GABA_A R α 2 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of GABA_A R α 2 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-7349 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

PROTOCOLS

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

APPLICATIONS

GABA_A R α 2 (C-20) is recommended for detection of GABA_A R α 1, GABA_A R α 2, GABA_A R α 3 and GABA_A R α 5 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), immunohistochemistry (including paraffin-embedded sections) (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_A R α 2 (C-20) is also recommended for detection of GABA_A R α 1, GABA_A R α 2, GABA_A R α 3 and GABA_A R α 5 in additional species, including equine, canine, bovine and porcine.

Molecular Weight of GABA_A Ra2: 52 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

DATA



 $\mathsf{GABA}_A\,\mathsf{R}\alpha2$ (C-20): sc-7349. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Nguyen, L., et al. 2003. Autocrine/paracrine activation of the GABA_A receptor inhibits the proliferation of neurogenic polysialylated neural cell adhesion molecule-positive (PSA-NCAM⁺) precursor cells from postnatal striatum. J. Neurosci. 23: 3278-3294.
- 2. Foley, C.M., et al. 2003. GABA_A α 1 and α 2 receptor subunit expression in rostral ventrolateral medulla in nonpregnant and pregnant rats. Brain Res. 975: 196-206.
- Ohshita, N., et al. 2004. Characteristics of the trigeminal depressor response in cats. J. Neurosci. Res. 76: 891-901.

MONOS Satisfation Guaranteed Try GABA_A Rα1-6 (Erecommended monocl (C-20).

Try **GABA_A R\alpha1-6 (E-8): sc-376282**, our highly recommended monoclonal aternative to GABA_A R α 2 (C-20)