GABA_A Rβ3 (h): 293 Lysate: sc-111141



The Power to Question

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 ligandgated 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 α 5, GABA_A R α 7-3, GABA_A R α 1 and GABA_A R α 2. The GABA_B family is composed of GABA_B R1 α and GABA_B R1 α 5. GABA transporters have also been identified and include GABA transporters function to terminate GABA action.

REFERENCES

- Nelson, H., Mandiyan, S. and Nelson, N. 1990. Cloning of the human brain GABA transporter. FEBS Lett. 269: 181-184.
- 2. Cherubini, E., Gaiarsa, J.L. and Ben-Ari, Y. 1991. GABA: an excitatory transmitter in early postnatal life. Trends Neurosci. 14: 515-519.
- Borden, L.A., Smith, K.E., Hartig, P.R., Branchek, T.A. and Weinshank, R.L. 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.
- 4. Dirkx, R., Jr., Thomas, A., Li, L., Lernmark, A., Sherwin, R.S., De Camilli, P. and Solimena, M. 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.
- Lukasiewicz, P.D. 1996. GABA_C receptors in the vertebrate retina. Mol. Neurobiol. 12: 181-194.
- Kaupmann, K., Huggel, K., Heid, J., Flor, P.J., Bischoff, S., Mickel, S.J., McMaster, G., Angst, C., Bittiger, H., Froestl, W. and Bettler, B. 1997. Expression cloning of GABA_B receptors uncovers similarity to metabotropic glutamate receptors. Nature 386: 239-246.
- 7. Korpi, E.R., Mattila, M.J., Wisden, W. and Lüddens, H. 1997. GABA_A-receptor subtypes: clinical efficiency and selectivity of Benzodiazepine site ligands. Ann. Med. 29: 275-282.

CHROMOSOMAL LOCATION

Genetic locus: GABRB3 (human) mapping to 15q12.

PRODUCT

GABA, R β 3 (h): 293 Lysate represents a lysate of human GABA, R β 3 transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

GABA R β 3 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive GABA R β 3 antibodies. Recommended use: 10-20 μ 1 per lane

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transected 293 cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

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