SANTA CRUZ BIOTECHNOLOGY, INC.

SR-2B (6B1): sc-135568

BACKGROUND

Serotonin (also designated 5-hydroxytryptamine or 5-HT) is a molecule that functions as a neurotransmitter, a hormone and a mitogen, and it is predominantly expressed in the gut, platelets and central nervous system (CNS). In the CNS, serotonin modulates several processes, including anxiety, sleep, appetite, behavior and drug abuse. In platelets and gut, serotonin plays a major role in cardiovascular function and motility of the gastrointestinal tract, respectively. Serotonin mediates its effects through several of G protein-coupled receptors, designated 5-HT receptors or alternatively SR receptors. The SR-2 receptors are comprised of three subtypes, SR-2A, SR-2B and SR-2C, which activate phospholipase C and release intracellular stores of calcium in response to serotonin. SR-2A has a specific role in tracheal smooth muscle contraction, bronchoconstriction and mediating aldosterone production, and it is also thought to play a role in several psychiatric disorders, including depression and schizophrenia. SR-2B is expressed in embryonic and adult cardiovascular tissues, gut and brain, and plays an important role in the pathology of cardiac disorders. SR-2C is thought to mediate the effects of atypical antipsychotic drugs.

REFERENCES

1. Watts, S.W., et al. 1994. Contractile serotonin-2A receptor signal transduction in guinea pig trachea: importance of protein kinase C and extracellular and intracellular calcium but not phosphoinositide hydrolysis. J. Pharmacol. Exp. Ther. 271: 832-844.
2. Goppelt-Struebe, M., et al. 1998. Signaling pathways mediating induction of the early response genes prostaglandin G/H synthase-2 and Egr-1 by serotonin via 5-HT2A receptors. J. Cell. Physiol. 175: 341-347.
3. Nebigil, C.G., et al. 2000. Serotonin 2B receptor is required for heart development. Proc. Natl. Acad. Sci. USA 97: 9508-9513.
4. Contesse, V., et al. 2000. Role of 5-HT in the regulation of the brain-pituitary-adrenal axis: effects of 5-HT on adrenocortical cells. Can. J. Physiol. Pharmacol. 78: 967-983.
5. Xu, T., et al. 2000. Cellular localization of serotonin(2A) (5HT(2A)) receptors in the rat brain. Brain Res. Bull. 51: 499-505.
6. Herrick-Davis, K., et al. 2000. Inverse agonist activity of atypical antipsychotic drugs at human 5-hydroxytryptamine2C receptors. J. Pharmacol. Exp. Ther. 295: 226-232.

CHROMOSOMAL LOCATION

Genetic locus: HTR2B (human) mapping to 2q37.1.

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 or our catalog for detailed protocols and support products.

SOURCE

SR-2B (6B1) is a mouse monoclonal antibody raised against recombinant SR-2B protein of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

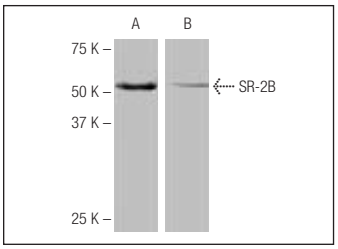
SR-2B (6B1) is recommended for detection of SR-2B of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SR-2B siRNA (h): sc-42233, SR-2B shRNA Plasmid (h): sc-42233-SH and SR-2B shRNA (h) Lentiviral Particles: sc-42233-V.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



SR-2B (6B1): sc-135568. Western blot analysis of SR-2B expression in human SR-2B transfected (**A**) and non-transfected (**B**) 293T whole cell lysates.

RESEARCH USE

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