SANTA CRUZ BIOTECHNOLOGY, INC.

SR-2B (Y-15): sc-15080

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: HTR2B (human) mapping to 2q37.1; Htr2b (mouse) mapping to 1 C5.

SOURCE

SR-2B (Y-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SR-2B 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-15080 P, (100 µg 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.

APPLICATIONS

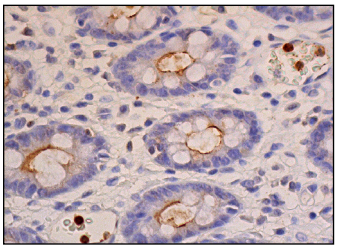
SR-2B (Y-15) is recommended for detection of serotonin 2B receptor (5-HT2B) of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 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).

Suitable for use as control antibody for SR-2B siRNA (h): sc-42233, SR-2B siRNA (m): sc-42234, SR-2B shRNA Plasmid (h): sc-42233-SH, SR-2B shRNA Plasmid (m): sc-42234-SH, SR-2B shRNA (h) Lentiviral Particles: sc-42233-V and SR-2B shRNA (m) Lentiviral Particles: sc-42234-V.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



SR-2B (Y-15): sc-15080. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing apical membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Tadros, S.F., et al. 2007. Serotonin 2B receptor: upregulated with age and hearing loss in mouse auditory system. Neurobiol. Aging 28: 1112-1123.
2. Morán, A., et al. 2008. Characterization of contractile 5-hydroxytryptamine receptor subtypes in the *in situ* autoperfused kidney in the anaesthetized rat. Eur. J. Pharmacol. 592: 133-137.
3. Morán, A., et al. 2009. Characterization of the contractile 5-hydroxytryptamine receptor in the autoperfused kidney of L-NAME hypertensive rats. Eur. J. Pharmacol. 620: 90-96.
4. Delaney, C., et al. 2011. Pulmonary vascular effects of serotonin and selective serotonin reuptake inhibitors in the late-gestation ovine fetus. Am. J. Physiol. Lung Cell. Mol. Physiol. 301: L937-L944.

RESEARCH USE

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