SANTA CRUZ BIOTECHNOLOGY, INC.

SR-2C (N-19): sc-15081

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: HTR2C (human) mapping to Xq23; Htr2c (mouse) mapping to X F2.

SOURCE

SR-2C (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of SR-2C 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-15081 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SR-2C (N-19) is recommended for detection of serotonin 2C receptor (5-HT2C) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). SR-2C (N-19) is also recommended for detection of serotonin 2C receptor (5-HT2C) in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SR-2C siRNA (h): sc-42235, SR-2C siRNA (m): sc-42236, SR-2C shRNA Plasmid (h): sc-42235-SH, SR-2C shRNA Plasmid (m): sc-42236-SH, SR-2C shRNA (h) Lentiviral Particles: sc-42235-V and SR-2C shRNA (m) Lentiviral Particles: sc-42236-V.

Molecular Weight of endogenous SR-2C: 48 kDa.

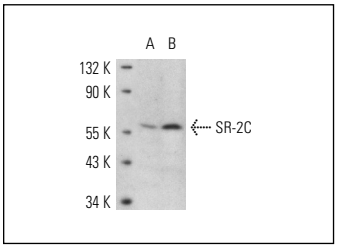
Molecular Weight of glycosylated SR-2C: 63 kDa.

Positive Controls: rat brain extract: sc-2392, SH-SY5Y cell lysate: sc-3812 or SK-N-MC cell lysate: sc-2237.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



SR-2C (N-19): sc-15081. Western blot analysis of SR-2C expression in SK-N-MC (**A**) and SH-SY5Y (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Bubar, M.J., et al. 2005. Validation of a selective Serotonin 5-HT(2C) receptor antibody for utilization in fluorescence immunohistochemistry studies. Brain Res. 1063: 105-113.
2. Tachibana, T., et al. 2005. Receptors and transporter for serotonin in Merkel cell-nerve endings in the rat sinus hair follicle. An immunohistochemical study. Arch. Histol. Cytol. 68: 19-28.
3. Hassanain, M., et al. 2005. Potentiating role of interleukin-1β (IL-1β) and IL-1β type 1 receptors in the medial hypothalamus in defensive rage behavior in the cat. Brain Res. 1048: 1-11.
4. Murray, K.C., et al. 2011. Motoneuron excitability and muscle spasms are regulated by 5-HT2B and 5-HT2C receptor activity. J. Neurophysiol. 105: 731-748.
5. Faingold, C.L., et al. 2011. Differences in serotonin receptor expression in the brainstem may explain the differential ability of a serotonin agonist to block seizure-induced sudden death in DBA/2 vs. DBA/1 mice. Brain Res. 1418: 104-110.
6. Simpson, E.H., et al. 2011. Pharmacologic rescue of motivational deficit in an animal model of the negative symptoms of schizophrenia. Biol. Psychiatry 69: 928-935.
7. Zhang, Q., et al. 2013. Serotonin receptor 2C and Insulin secretion. PLoS ONE 8: e54250.

RESEARCH USE

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