SANTA CRUZ BIOTECHNOLOGY, INC.

SR-2C (H-85): sc-10802

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.

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.

CHROMOSOMAL LOCATION

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

SOURCE

SR-2C (H-85) is a rabbit polyclonal antibody raised against amino acids 374-458 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.

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.

APPLICATIONS

SR-2C (H-85) 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), 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).

SR-2C (H-85) is also recommended for detection of serotonin 2C receptor (5-HT2C) in additional species, including equine, canine, bovine and porcine.

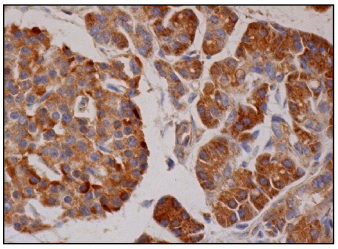
Suitable for use as control antibody for SR-2C siRNA (h): sc-42235, SR-2C siRNA (m): sc-42236, SR-2C shRNA Plasmid (h): sc-42235-SH, SR-2C shRNA Plasmid (m): sc-42236-SH, SR-2C shRNA (h) Lentiviral Particles: sc-42235-V and SR-2C shRNA (m) Lentiviral Particles: sc-42236-V.

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

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

Positive Controls: SK-N-MC cell lysate: sc-2237, mouse brain extract: sc-2253 or rat brain extract: sc-2392.

DATA



SR-2C (H-85): sc-10802. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells and Islets of Langerhans.

SELECT PRODUCT CITATIONS

1. Watanabe, R.L., et al. 2010. Long-term consumption of fish oil-enriched diet impairs serotonin hypophagia in rats. Cell. Mol. Neurobiol. 30: 1025-1033.