

SR-4 (N-16): sc-19154

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 G protein-coupled receptors, designated 5-HT receptors or alternatively SR receptors. SR-3 is a ligand-gated ion channel, whereas all other known serotonin receptor subtypes are G protein-coupled receptors. The gene which encodes SR-3 maps to human chromosome 11q23.2. SR-4 mediates widespread effects in central and peripheral nervous systems. The gene which encodes SR-4 maps to human chromosome 5q32. SR-7 belongs to the superfamily of G protein-coupled receptors. The gene which encodes SR-7 maps to human chromosome 10q23.31.

REFERENCES

1. Maricq, A.V., et al. 1991. Primary structure and functional expression of the 5HT3 receptor, a serotonin-gated ion channel. *Science* 254: 432-437.
2. Kenakin, T.P., et al. 1992. Definition of pharmacological receptors. *Pharmacol. Rev.* 44: 351-362.
3. Ruat, M., et al. 1993. Molecular cloning, characterization, and localization of a high-affinity serotonin receptor (5-HT7) activating cAMP formation. *Proc. Natl. Acad. Sci. USA* 90: 8547-8551.

CHROMOSOMAL LOCATION

Genetic locus: HTR4 (human) mapping to 5q32; Htr4 (mouse) mapping to 18 E1.

SOURCE

SR-4 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SR-4 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-19154 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.

RESEARCH USE

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

PROTOCOLS

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

APPLICATIONS

SR-4 (N-16) is recommended for detection of SR-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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-4 (N-16) is also recommended for detection of SR-4 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for SR-4 siRNA (h): sc-42239, SR-4 siRNA (m): sc-42240, SR-4 shRNA Plasmid (h): sc-42239-SH, SR-4 shRNA Plasmid (m): sc-42240-SH, SR-4 shRNA (h) Lentiviral Particles: sc-42239-V and SR-4 shRNA (m) Lentiviral Particles: sc-42240-V.

Molecular Weight of SR-4: 42 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, rat heart extract: sc-2393 or rat brain extract: sc-2392.

DATA



SR-4 (N-16): sc-19154. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Siddiqui, E.J., et al. 2006. The effect of serotonin and serotonin antagonists on bladder cancer cell proliferation. *BJU Int.* 97: 634-639.
2. Siddiqui, E.J., et al. 2006. The role of serotonin (5-hydroxytryptamine1A and 1B) receptors in prostate cancer cell proliferation. *J. Urol.* 176: 1648-1653.

MONOS
Satisfaction
Guaranteed

Try **SR-4 (G-3): sc-376158**, our highly recommended monoclonal alternative to SR-4 (N-16).