

SR-4 (N-18): sc-32564

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. 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 11q23.1-q23.2. 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 10q21-q24.

CHROMOSOMAL LOCATION

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

SOURCE

SR-4 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain 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-32564 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SR-4 (N-18) 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), 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-4 (N-18) 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.

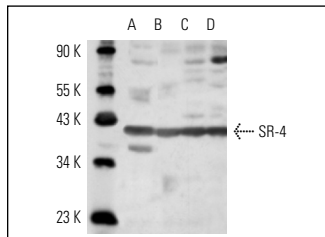
Molecular Weight of SR-4: 42 kDa.

Positive Controls: rat brain extract: sc-2392, U-87 MG cell lysate: sc-2411 or mouse brain extract: sc-2253.

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.

DATA



SR-4 (N-18): sc-32564. Western blot analysis of SR-4 expression in U-87 MG whole cell lysate (A) and rat heart (B), rat brain (C) and mouse brain (D) tissue extracts.

SELECT PRODUCT CITATIONS

- Li, Y., et al. 2011. Colonic submucosal 5-HT(3) receptor-mediated somatostatin-dependent secretory pathway is suppressed in water-immersion restraint stressed rats. *Eur. J. Pharmacol.* 656: 94-100.
- Nedi, T., et al. 2011. Tissue dependent differences in G protein-coupled receptor kinases associated with 5-HT4 receptor desensitization in the rat gastro-intestinal tract. *Biochem. Pharmacol.* 81: 123-133.

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.



Try **SR-4 (G-3): sc-376158**, our highly recommended monoclonal alternative to SR-4 (N-18).