

## SR-3A (C-20): sc-19152

### 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. SR-4 mediates widespread effects in central and peripheral nervous systems. SR-7 belongs to the superfamily of G protein-coupled receptors. The gene which encodes SR-7 maps to human chromosome 11q23.2.

### 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.
4. Gelernter, J., et al. 1995. Assignment of the 5HT7 receptor gene (HTR7) to chromosome 10q and exclusion of genetic linkage with Tourette syndrome. *Genomics* 26: 207-209.
5. Weiss, B., et al. 1995. Assignment of a human homolog of the mouse Htr3 receptor gene to chromosome 11q23.1-q23.2. *Genomics* 29: 304-305.
6. Eglen, R.M., et al. 1995. Central 5-HT4 receptors. *Trends Pharmacol. Sci.* 16: 391-398.

### CHROMOSOMAL LOCATION

Genetic locus: HTR3A (human) mapping to 11q23.2; Htr3a (mouse) mapping to 9 A5.3.

### SOURCE

SR-3A (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SR-3A 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-19152 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

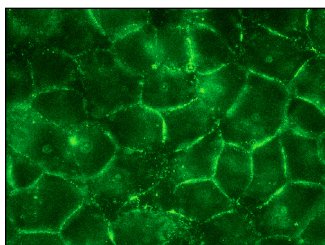
SR-3A (C-20) is recommended for detection of SR-3A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SR-3A (C-20) is also recommended for detection of SR-3A in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SR-3A siRNA (h): sc-42237, SR-3A siRNA (m): sc-42238, SR-3A shRNA Plasmid (h): sc-42237-SH, SR-3A shRNA Plasmid (m): sc-42238-SH, SR-3A shRNA (h) Lentiviral Particles: sc-42237-V and SR-3A shRNA (m) Lentiviral Particles: sc-42238-V.

Molecular Weight of SR-3A isoforms: 55/58/54/56/59 kDa.

### DATA



SR-3A (C-20): sc-19152. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

### SELECT PRODUCT CITATIONS

1. 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.
2. Siddiqui, E.J., et al. 2006. The effect of serotonin and serotonin antagonists on bladder cancer cell proliferation. *BJU Int.* 97: 634-639.
3. 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.
4. Arpin-Bott, M.P., et al. 2006. Induction by cocaine of the serotonergic 5-HT3 receptor in rat cerebellum. *Ann. N.Y. Acad. Sci.* 1074: 382-389.

### RESEARCH USE

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



Try **SR-3A (A-9): sc-390168**, our highly recommended monoclonal alternative to SR-3A (C-20).