

## SR-3A (H-138): sc-28958

### 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 10q21-q24.

### 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 (H-138) is a rabbit polyclonal antibody raised against amino acids 341-478 mapping at 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.

### 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

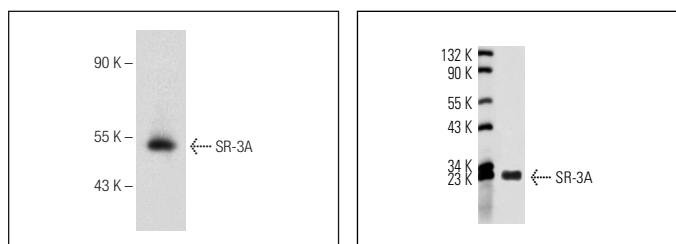
SR-3A (H-138) is recommended for detection of SR-3A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

Positive Controls: human colon extract: sc-363757.

### DATA



SR-3A (H-138): sc-28958. Western blot analysis of SR-3A expression in human colon tissue extract.

SR-3A (H-138): sc-28958. Western blot analysis of human recombinant SR-3A.

### SELECT PRODUCT CITATIONS

1. Li, Y., et al. 2011. Colonic submucosal 5-HT(3) receptor-mediated somatostatin-dependent secretoinhibitory pathway is suppressed in water-immersion restraint stressed rats. *Eur. J. Pharmacol.* 656: 94-100.
2. Liu, H.N., et al. 2011. Serotonin augments gut pacemaker activity via 5-HT3 receptors. *PLoS ONE* 6: e24928.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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