

SSTR5 (H-54): sc-25679

BACKGROUND

SSTRs (for somatostatin receptors) represent a family of G-protein-coupled receptors which mediate the diverse biological actions of Somatostatin (SST). There are five distinct subtypes of SSTRs that bind two natural ligands, SST-14 and SST-28. SSTR2 gives rise to spliced variants, SSTR2A and 2B. SSTRs share common signaling pathways such as the ability to inhibit adenylyl cyclase via GTP binding proteins. Some of the subtypes are also coupled to tyrosine phosphatase (SSTR1,2), Ca²⁺ channels (SSTR2), Na⁺/H⁺ exchanger (SSTR1), PLA-2 (SSTR4), and MAP kinase (SSTR4). Individual target cells typically express more than one SSTR subtype and often all five isoforms. Subtypes of SSTR can form functional homo- and heterodimers.

REFERENCES

- Patel, Y.C., Panetta, R., Escher, E., Greenwood, M. and Srikant, C.B. 1994. Expression of multiple somatostatin receptor genes in AtT-20 cells. Evidence for a novel somatostatin-28 selective receptor subtype. *J. Biol. Chem.* 269: 1506-1509.
- Reardon, D.B., Dent, P., Wood, S.L., Kong, T. and Sturgill, T.W. 1997. Activation *in vitro* of somatostatin receptor subtypes 2, 3, or 4 stimulates protein tyrosine phosphatase activity in membranes from transfected Ras-transformed NIH 3T3 cells: coexpression with catalytically inactive SHP-2 blocks responsiveness. *Mol. Endocrinol.* 11: 1062-1069.
- Patel, Y.C. 1999. Somatostatin and its receptor family. *Front Neuroendocrinol.* 20: 157-198.
- Sharma, K., Patel, Y.C. and Srikant, C.B. 1999. C-terminal region of human somatostatin receptor 5 is required for induction of Rb and G1 cell cycle arrest. *Mol. Endocrinol.* 13: 82-90.

CHROMOSOMAL LOCATION

Genetic locus: SSTR5 (human) mapping to 16p13.3; Sstr5 (mouse) mapping to 17 A3.3.

SOURCE

SSTR5 (H-54) is a rabbit polyclonal antibody raised against amino acids 311-364 of SSTR5 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.

PROTOCOLS

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

APPLICATIONS

SSTR5 (H-54) is recommended for detection of SSTR5 of human and, to a lesser extent, mouse and rat 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).

Suitable for use as control antibody for SSTR5 siRNA (h): sc-42277, SSTR5 siRNA (m): sc-42278, SSTR5 shRNA Plasmid (h): sc-42277-SH, SSTR5 shRNA Plasmid (m): sc-42278-SH, SSTR5 shRNA (h) Lentiviral Particles: sc-42277-V and SSTR5 shRNA (m) Lentiviral Particles: sc-42278-V.

Molecular Weight (predicted) of SSTR5: 39 kDa.

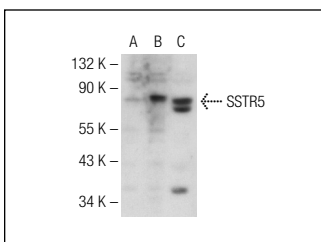
Molecular Weight (observed) of SSTR5: 74 kDa.

Positive Controls: SSTR5 (h2): 293T Lysate: sc-129855 or HeLa whole cell lysate: sc-2200.

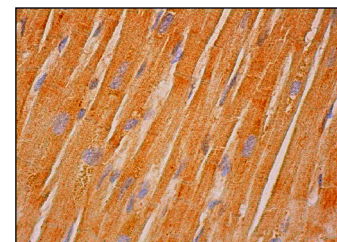
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



SSTR5 (H-54): sc-25679. Western blot analysis of SSTR5 expression in non-transfected 293T: sc-117752 (A), human SSTR5 transfected 293T: sc-129855 (B) and HeLa (C) whole cell lysates.



SSTR5 (H-54): sc-25679. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

SELECT PRODUCT CITATIONS

- Peverelli, E., Lania, A.G., Mantovani, G., Beck-Peccoz, P. and Spada, A. 2009. Characterization of intracellular signaling mediated by human Somatostatin receptor 5: role of the DRY motif and the third intracellular loop. *Endocrinology* 150: 3169-3176.