SANTA CRUZ BIOTECHNOLOGY, INC.

# SSTR2a (C-15): sc-11608

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*The Power to Question*

## 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), $Ca^{2+}$ 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


1. Patel, Y.C., et al. 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.
2. Reardon, D.B., et al. 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.
3. Patel, Y.C. 1999. Somatostatin and its receptor family. Front. Neuroendocrinol. 20: 157-198.
4. Sharma, K., et al. 1999. C-terminal region of human somatostatin receptor 5 is required for induction of Rb and $G_1$ cell cycle arrest. Mol. Endocrinol. 13: 82-90.


## CHROMOSOMAL LOCATION

Genetic locus: SSTR2 (human) mapping to 17q25.1; Sstr2 (mouse) mapping to 11 E2.

## SOURCE

SSTR2a (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of SSTR2a 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-11608 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.

## APPLICATIONS

SSTR2a (C-15) is recommended for detection of SSTR2a 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).

SSTR2a (C-15) is also recommended for detection of SSTR2a in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SSTR2 siRNA (h): sc-44119, SSTR2 siRNA (m): sc-42270, SSTR2 shRNA Plasmid (h): sc-44119-SH, SSTR2 shRNA Plasmid (m): sc-42270-SH, SSTR2 shRNA (h) Lentiviral Particles: sc-44119-V and SSTR2 shRNA (m) Lentiviral Particles: sc-42270-V.

Molecular Weight of SSTR2: 80 kDa.

Positive Controls: AT-3 whole cell lysate.

## 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) 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.

## SELECT PRODUCT CITATIONS


1. Koriyama, N., et al. 2006. Oncogenic osteomalacia in a case with a maxillary sinus mesenchymal tumor. Am. J. Med. Sci. 332: 142-147.
2. Ruscica, M., et al. 2009. Regulation of prostate cancer cell proliferation by somatostatin receptor activation. Mol. Cell. Endocrinol. 315: 254-262.
3. Bencivinni, I., et al. 2011. The somatostatin analogue octreotide inhibits capsaicin-mediated activation of nociceptive primary afferent fibres in spinal cord lamina II (substantia gelatinosa). Eur. J. Pain 15: 591-599.
4. Salio, C., et al. 2011. Combined light and electron microscopic visualization of neuropeptides and their receptors in central neurons. Methods Mol. Biol. 789: 57-71.
5. Ferrini, F., et al. 2014. Fos and pERK immunoreactivity in spinal cord slices: comparative analysis of in vitro models for testing putative antinociceptive molecules. Ann. Anat. 196: 217-223.