SANTA CRUZ BIOTECHNOLOGY, INC.

SSTR3 (W-15): sc-11614

SANTA CRUZ BIOTECHNOLOGY

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. Patel, Y.C. 1999. Somatostatin and its receptor family. Front. Neuroendocrinol. 20: 157-198.

CHROMOSOMAL LOCATION

Genetic locus: SSTR3 (human) mapping to 22q13.1; Sstr3 (mouse) mapping to 15 E1.

SOURCE

SSTR3 (W-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SSTR3 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-11614 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SSTR3 (W-15) is recommended for detection of SSTR3 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), 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 SSTR3 siRNA (h): sc-42273, SSTR3 siRNA (m): sc-42274, SSTR3 shRNA Plasmid (h): sc-42273-SH, SSTR3 shRNA Plasmid (m): sc-42274-SH, SSTR3 shRNA (h) Lentiviral Particles: sc-42273-V and SSTR3 shRNA (m) Lentiviral Particles: sc-42274-V.

Molecular Weight of SSTR3: 80/45 kDa.

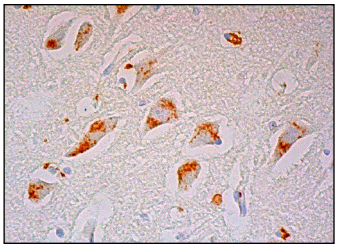
STORAGE

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.

DATA



SSTR3 (W-15): sc-11614. Immunoperoxidase staining of formalin fixed, paraffin-embedded human hippocampus tissue showing cytoplasmic staining of neuronal cells and glial cells.

SELECT PRODUCT CITATIONS

1. Griffith, T.S., et al. 1995. Fas ligand-induced apoptosis as a mechanism of immune privilege. Science 270: 1189-1192.
2. Burgos-Ramos, E., et al. 2007. Chronic but not acute intracerebroventricular administration of amyloid β-peptide (25-35) decreases somatostatin content, adenylate cyclase activity, somatostatin-induced inhibition of adenylate cyclase activity, and adenylate cyclase I levels in the rat hippocampus. J. Neurosci. Res. 85: 433-442.
3. Bell, D., et al. 2008. SRIF receptor subtype expression and involvement in positive and negative contractile effects of somatostatin-14 (SRIF-14) in ventricular cardiomyocytes. Cell. Physiol. Biochem. 22: 653-664.
4. Burgos-Ramos, E., et al. 2008. Minocycline provides protection against β-amyloid (25-35)-induced alterations of the Somatostatin signaling pathway in the rat temporal cortex. Neuroscience 154: 1458-1466.
5. Minsel, I., et al. 2009. Somatostatin actions via Somatostatin receptors on the ocular surface are modulated by inflammatory processes. Endocrinology 150: 2254-2263.
6. Burgos-Ramos, E., et al. 2009. Sulfadiazine partially protects the rat temporal cortex from amyloid β peptide (25-35)-induced alterations of the somatostatinergic system. Neuroendocrinology 89: 400-410.
7. Saowakon, N., et al. 2009. *Fasciola gigantica:* anthelmintic effect of the aqueous extract of *Artocarpus lakoocha.* Exp. Parasitol. 122: 289-298.
8. Aguado-Llera, D., et al. 2010. Role of ethanolamine phosphate in the hippocampus of rats with acute experimental autoimmune encephalomyelitis. Neurochem. Int. 58: 22-34.