

SSTR5 (D-15): sc-11624

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

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- Kumar, U., Sasi, R., Suresh, S., Patel, A., Thangaraju, M., Metrakos, P., Patel, S.C. and Patel, Y.C. 1999. Subtype-selective expression of the five somatostatin receptors (hSSTR1-5) in human pancreatic islet cells: a quantitative double-label immuno-histochemical analysis. *Diabetes* 48: 77-85.
- Rocheville, M., Lange, D.C., Kumar, U., Sasi, R., Patel, R.C. and Patel, Y.C. 2000. Subtypes of the somatostatin receptor assemble as functional homo- and heterodimers. *J. Biol. Chem.* 275: 7862-7869.
- Rocheville, M., Lange, D.C., Kumar, U., Patel, S.C., Patel, R.C., and Patel, Y.C. 2000. Receptors for dopamine and somatostatin: formation of hetero-oligomers with enhanced functional activity. *Science* 288: 154-157.

CHROMOSOMAL LOCATION

Genetic locus: Sstr5 (mouse) mapping to 17 A3.3.

SOURCE

SSTR5 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SSTR5 of mouse origin.

RESEARCH USE

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

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-11624 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SSTR5 (D-15) is recommended for detection of SSTR5 of mouse and rat 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).

SSTR5 (D-15) is also recommended for detection of SSTR5 in additional species, including equine, canine, bovine and porcine.

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

Molecular Weight (predicted) of SSTR5: 39 kDa.

Molecular Weight (observed) of SSTR5: 74 kDa.

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

- Bell, D., Zhao, Y., McMaster, B., McHenry, E.M., Wang, X., Kelso, E.J. and McDermott, B.J. 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.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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