SANTA CRUZ BIOTECHNOLOGY, INC.

SSTR2 (A-8): sc-365502

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.

CHROMOSOMAL LOCATION

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

SOURCE

SSTR2 (A-8) is a mouse monoclonal antibody raised against amino acids 320-369 mapping at the C-terminus of SSTR2a of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SSTR2 (A-8) is available conjugated to agarose (sc-365502 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-365502 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365502 PE), fluorescein (sc-365502 FITC), Alexa Fluor® 488 (sc-365502 AF488), Alexa Fluor® 546 (sc-365502 AF546), Alexa Fluor® 594 (sc-365502 AF594) or Alexa Fluor® 647 (sc-365502 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365502 AF680) or Alexa Fluor® 790 (sc-365502 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

SSTR2 (A-8) is recommended for detection of SSTR2a of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 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: 87/148 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, IMR-32 cell lysate: sc-2409 or SH-SY5Y cell lysate: sc-3812.

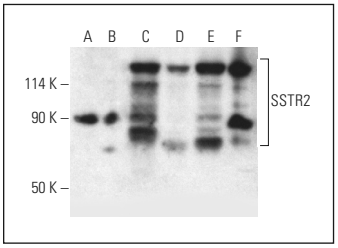
RESEARCH USE

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

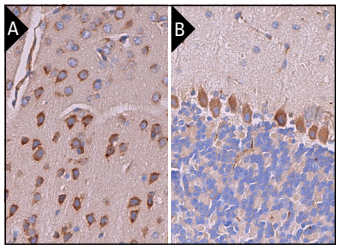
STORAGE

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

DATA



SSTR2 (A-8) HRP: sc-365502 HRP. Direct western blot analysis of SSTR2 expression in IMR-32 (**A**), HeLa (**B**), Neuro-2A (**C**), C6 (**D**), SH-SY5Y (**E**) and AtT-20/D16vF2 (**F**) whole cell lysates.



SSTR2 (A-8): sc-365502. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse brain tissue showing cytoplasmic staining of neuronal cells, glial cells and endothelial cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse cerebellum tissue showing cytoplasmic staining of Purkinje cells (**B**).

SELECT PRODUCT CITATIONS

1. Vitali, E., et al. 2016. Filamin-A is required to mediate SST2 effects in pancreatic neuroendocrine tumours. Endocr. Relat. Cancer 23: 181-190.
2. Bakht, M.K., et al. 2018. Neuroendocrine differentiation of prostate cancer leads to PSMA suppression. Endocr. Relat. Cancer 26: 131-146.
3. Guenter, R.E., et al. 2019. Pulmonary carcinoid surface receptor modulation using histone deacetylase inhibitors. Cancers 11: 767.
4. Herring, B., et al. 2020. A growth model of neuroendocrine tumor surrogates and the efficacy of a novel somatostatin-receptor-guided antibody-drug conjugate: perspectives on clinical response? Surgery 167: 197-203.
5. Picech, F., et al. 2021. TGF-β1/Smad2/3 signaling pathway modulates octreotide antisecretory and antiproliferative effects in pituitary somatotroph tumor cells. J. Cell. Physiol. 236: 6974-6987.
6. Carter, A.M., et al. 2021. Cdk5 drives formation of heterogeneous pancreatic neuroendocrine tumors. Oncogenesis 10: 83.
7. Tsai, W.H., et al. 2023. A clinicopathological analysis of asian patients with adrenocortical carcinoma: a single-center experience. Curr. Oncol. 30: 4117-4125.
8. Sosa, L.D.V., et al. 2023. Regulation of FGF2-induced proliferation by inhibitory GPCR in normal pituitary cells. Front. Endocrinol. 14: 1183151.
9. Wang, H., et al. 2025. The primary cilia are associated with the axon initial segment in neurons. Adv. Sci. 12: e2407405.

PROTOCOLS

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