

Product datasheet for **TA329052**

Sstr5 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide CEPLSLASTPSWNAS, corresponding to amino acid residues 2-15 of rat somatostatin receptor type 5 (accession P30938). Extracellular, N-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN ₃ .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	somatostatin receptor 5
Database Link:	NP_037014 Entrez Gene 20609 Mouse Entrez Gene 25354 Rat



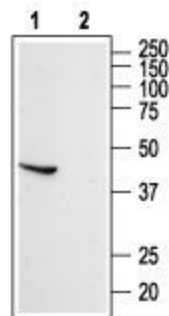
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Background:

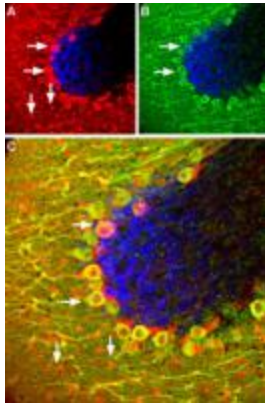
Somatostatin (SST) is a small cyclic peptide that was first identified as a powerful inhibitor of the secretion of various hormones including growth hormone (GH), thyroid-stimulating hormone (TSH) and prolactin from the pituitary, as well as practically every major hormone from the intestinal tract. SST consists of two major bioactive forms, SST-14 and the N-terminus extended peptide SST-28, that can be produced by a wide variety of neuroendocrine, inflammatory and immune cells. In target cells, SST induces a variety of physiological functions that include neuromodulation, cell secretion, cell proliferation and smooth muscle contractility. SST acts on its multiple cell targets via a family of six receptors that originate from five genes: SSTR1, SSTR2a, SSTR2b, SSTR3, SSTR4, SSTR5. The SSTRs are members of the G-protein coupled receptor superfamily and they modulate cell response via multiple second messenger systems such as inhibition of adenylate cyclase, modulation of conductance of ion channels and protein dephosphorylation. In contrast to SSTR1-4 that bind SST-14 and SST-28 with similar affinity, SSTR5 has a much greater affinity to SST-28 over SST-14. SSTRs are widely expressed in both brain and peripheral tissues but with receptor subtype variations between the different cell types. Strong SSTR expression has been detected in a variety of human tumors including pancreatic, breast, lung and prostate cancers. In fact, SST has been shown to inhibit the growth of various normal and tumor cells. On this basis, several long lasting SST analogs have been developed and are being tested for use in several pathologies such as various cancers, acromegaly, immunoproliferative disorders, diabetic retinopathy, epilepsy and pain. SSTR5 is expressed in a variety of tissues and cells, including pancreas, colonic mucosa, small intestine, heart, and vascular smooth muscle cells. SSTR5 has been shown to mediate growth inhibition and cell proliferation, and to play an important role in cancer growth regulation as one of the most potent inhibitory receptors.

Synonyms:

OTTHUMP00000158593; SS5R

Product images:

Western blot analysis of rat brain lysates: 1. Anti-Somatostatin Receptor Type 5 (extracellular) antibody, (1:200). 2. Anti-Somatostatin Receptor Type 5 (extracellular) antibody, preincubated with the control peptide antigen.



IHC staining of Somatostatin receptor 5 (SST5R) in mouse cerebellum using Anti-SST5R (extracellular) antibody. A. SST5R (red) appears in Purkinje cells (horizontal arrows) and in molecular layer interneurons (vertical arrows). B. Parvalbumin (green) appears in the Purkinje cells and their processes. C. merge of SST5R and parvalbumin demonstrates co-localization in Purkinje cells (horizontal arrows) but not in the molecular layer (vertical cells). DAPI is used as the counterstain (blue).