

Product Information

Anti-Somatostatin Receptor Type 1

produced in rabbit, affinity isolated antibody

Catalog Number **S1445**

Product Description

Anti-Somatostatin Receptor Type 1 (SSTR1) is produced in rabbit using as immunogen a synthetic peptide conjugated to KLH. The peptide corresponds to the C-terminus of human somatostatin receptor Type 1. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Somatostatin Receptor Type 1 specifically recognizes human somatostatin receptor Type 1 by immunohistochemistry with formalin-fixed, paraffin-embedded tissues. Not tested for other uses. The immunizing peptide has 100% homology with mouse and rat genes. Other species reactivity has not been confirmed.

Somatostatin exerts its biologic effects by binding to specific high-affinity receptors, which appear in many cases to be coupled to GTP-binding proteins. SSTR1 and SSTR2 contain 391 and 369 amino acids, respectively, and are members of the superfamily of receptors having 7 transmembrane segments. SSTR1 and SSTR2 showed 46% identity and 70% similarity in amino acid sequence. SSTR1 and SSTR2 are expressed in highest levels in jejunum and stomach, and in cerebrum and kidney, respectively.

Somatostatin receptor 1 is expressed in various endocrine tumors, including glucagonoma and its metastatic lymph, insulinoma, and pheochromocytoma. SSTR1 is also present in normal islet of Langerhans. The latest research has shown that the SST1 receptor modulates somatostatin release in the basal ganglia. SSTR1 and SSTR5 are important regulators of insulin secretion and glucose regulation, and suggest that SSTR1 and SSTR5 are coordinately regulated.

SSTR1 is expressed in adrenal, brain, eye, and pancreas. ESTs have been isolated from normal placenta and colon cancer libraries.

Reagent

Supplied as a solution of 1 mg/mL in phosphate buffered saline, pH 7.7, containing 0.01% sodium azide.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunohistochemistry: a minimum working concentration of 8 µg/mL is determined using human pancreatic islet of Langerhans tissue.

Note: In order to obtain the best results in various techniques and preparations, we recommend determining optimal working concentration by titration.

References

1. Ardjomand, N., et al., Expression of somatostatin receptors in uveal melanomas., *Invest. Ophthalm. Vis. Sci.* 44, 980-987 (2003)
2. Vasilaki, A., et al., The somatostatin receptor (sst(1)) modulates the release of somatostatin in the nucleus accumbens of the rat., *Neuropharmacology.* 47, 612-618 (2004).
3. Wang, X. P. et al., Double-gene ablation of SSTR1 and SSTR5 results in hyperinsulinemia and improved glucose tolerance in mice., *Surgery.* 136(3), 585-92 (2004).

This product is manufactured by MBL International Corporation

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