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Somatostatin Receptor 2 Recombinant Rabbit mAb

Catalog # AP100007

Product Information

Application	WB, IHC-P, IHC-F, IF, IP
Primary Accession	P30874
Other Accession	P30874
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Recombinant
Calculated MW	41333
Physical State	Liquid
Immunogen	A synthesized peptide derived from human SSTR2
Epitope Specificity	311-369
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	10mM phosphate buffered saline(pH 7.4) with 150mM sodium chloride, 0.05% BSA, 0.02% Proclin300 and 50% glycerol.
SIMILARITY	Belongs to the G-protein coupled receptor 1 family.
SUBUNIT	The C-terminus interacts with SHANK1 PDZ domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Somatostatin acts at many sites to inhibit the release of many hormones and other secretory proteins. The biologic effects of somatostatin are probably mediated by a family of G protein-coupled receptors that are expressed in a tissue-specific manner. SSTR2 is a member of the superfamily of receptors having seven transmembrane segments and is expressed in highest levels in cerebrum and kidney.

Additional Information

Gene ID	6752
Other Names	SST2; SRIF-1; SS2R; SSTR-2; Smstr-2; Smstr2; SSR2_HUMAN; SSTR2; SS-2-R; SS2-R; SSR2_MOUSE; SSR2_RAT; somatostatin receptor 2
Dilution	WB=1:500-2000,IHC-P=1:50-200,IHC-F=1:50-200,IP=1:20-50,IF=1:50-200
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	SSTR2

Function	Receptor for somatostatin-14 and -28. This receptor is coupled via pertussis toxin sensitive G proteins to inhibition of adenylyl cyclase. In addition it stimulates phosphotyrosine phosphatase and PLC via pertussis toxin insensitive as well as sensitive G proteins. Inhibits calcium entry by suppressing voltage-dependent calcium channels. Acts as the functionally dominant somatostatin receptor in pancreatic alpha- and beta-cells where it mediates the inhibitory effect of somatostatin-14 on hormone secretion. Inhibits cell growth through enhancement of MAPK1 and MAPK2 phosphorylation and subsequent up-regulation of CDKN1B. Stimulates neuronal migration and axon outgrowth and may participate in neuron development and maturation during brain development. Mediates negative regulation of insulin receptor signaling through PTPN6. Inactivates SSTR3 receptor function following heterodimerization.
Cellular Location	Cell membrane; Multi-pass membrane protein. Cytoplasm. Note=Located mainly at the cell surface under basal conditions. Agonist stimulation results in internalization to the cytoplasm
Tissue Location	Expressed in both pancreatic alpha- and beta-cells (at protein level). Expressed at higher levels in the pancreas than other somatostatin receptors. Also expressed in the cerebrum and kidney and, in lesser amounts, in the jejunum, colon and liver. In the developing nervous system, expressed in the cortex where it is located in the preplate at early stages and is enriched in the outer part of the germinal zone at later stages. In the cerebellum, expressed in the deep part of the external granular layer at gestational week 19. This pattern persists until birth but disappears at adulthood

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.