

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT SST5 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: CG1349-1

Lot Number: CG1349-1-080107

Quantity: 1 vial (2×10^6) frozen cells

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1 Gα16

Transfection: Full-length Human SSTR5 cDNA (GenBank Accession Number NM_001053) with FLAG-tag sequence at the N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM/F12, 10% FBS, 800 µg/mL G418, 10 µg/mL puromycin

Stability: Stable in culture for minimum of two months

Background: Somatostatin receptors are activated by somatostatin secreted from nerve and endocrine cells. The Somatostatin Receptors (SSTRs) are expressed in a tissue-specific manner and involved in the regulation of secretion of insulin, glucagon and growth hormone as well as cell growth induced by neuronal excitation in both the central and peripheral nervous systems. Aberrant expression of somatostatin receptors is known in a large number of human tumors. The human medullary thyroid carcinoma cell line TT expresses all SSTR subtypes. SST5 is expressed in adult pituitary gland, heart, small intestine, adrenal gland, cerebellum and fetal hypothalamus. Expression has not been detected in fetal or adult kidney, liver, pancreas, uterus, spleen, lung, thyroid or ovary. SST5 is a candidate gene for bipolar affective disorder (BPAD) as well as for other neuropsychiatric disorders. Expression of SST2 and SST5 may be important in the growth inhibitory effect of somatostatin in human pancreatic cancer.

Application: Functional assays

Figure 1

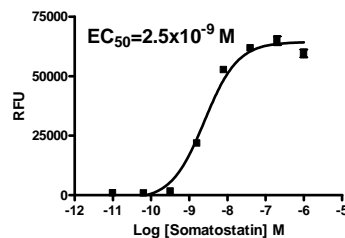


Figure 2

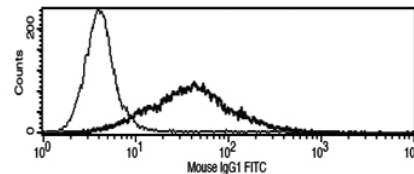


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FlexStation. **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Ardjomand *et al.* (2003) Expression of somatostatin receptors in uveal melanomas. *Invest Ophthal Vis Sci* 44:980-987.

Ballare *et al.* (2001) Mutation of somatostatin receptor type 5 in an acromegalic patient resistant to somatostatin analog treatment. *J Clin Endocr Metab* 86:3809-3814.

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