

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT SST1 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1345-1a

Lot Number: C1345-1a-081910

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1

Transfection: Expression vector containing full-length human SSTR1 cDNA (GenBank accession number AY322536) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM/F12, 10% FBS, 10 μ g/ mL puromycin

Stability: Stable in culture for minimum of two months

Background: Somatostatin receptors (SSTRs) are activated by somatostatin secreted from nerve and endocrine cells. 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. SSTR1 has been reported at highest levels in the jejunum and stomach. In addition, this receptor is expressed in adrenal, brain, liver, lung, eye, and pancreas. Selective activation of SSTR1 inhibits hormone secretion and cell viability in GH-secreting and PRL-secreting adenomas *in vitro*.

Application: Functional assays

Figure 1

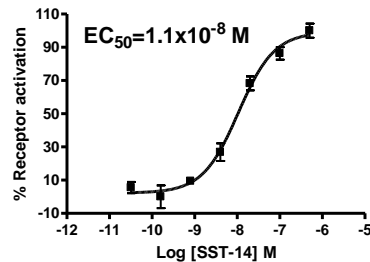


Figure 2

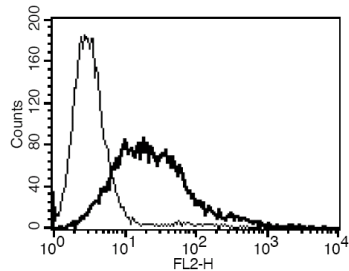


Figure 1. Dose-dependent inhibition of forskolin-stimulated intracellular cAMP accumulation upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

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

Bertherat *et al.* (2003) Somatostatin receptors 2 and 5 are the major somatostatin receptors in insulinomas: an *in vivo* and *in vitro* study. *J Clin Endocr Metab* 88:5353-5360.

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