

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT SST1 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: CG1345-1

Lot Number: CG1345-1-081407

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1 Gα16

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, 800µg/mL G418, 10 µg/mL puromycin

Stability: Stable after minimum of two months continuous growth

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 tumours. The human medullary thyroid carcinoma cell line TT expresses all SSTR subtypes. 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. ESTs from SSTR1 have been isolated from normal placenta and colon cancer libraries. Normal T-cells expressed SSTR1 and SSTR5 while T-cell leukaemia lines do not. Selective activation of SSTR1 inhibits hormone secretion and cell viability in GH- secreting and PRL-secreting adenomas *in vitro*.

Application: Functional assay

Figure 1

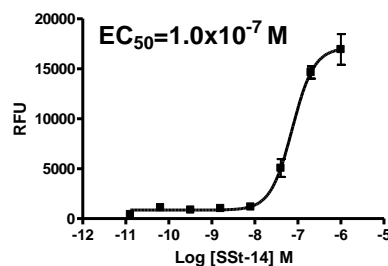


Figure 2

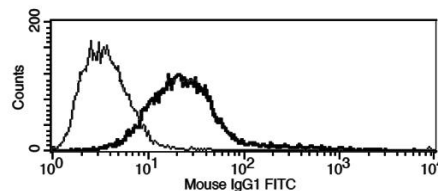


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

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.

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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