

**MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT SST4 RECEPTOR**

Data sheet

PRODUCT INFORMATION

Catalog Number: C1348-1a

Lot Number: C1348-1a-100909

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 SSTR4 (GenBank Accession Number NM_001052) cDNA 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. The human medullary thyroid carcinoma cell line TT expresses all SSTR subtypes. SSTR4 is highly expressed in human brain, lungs, gastrointestinal tract, pancreas and prostates. It inhibits the release of many hormones and other secretory proteins.

Application: Functional assays

Figure 1

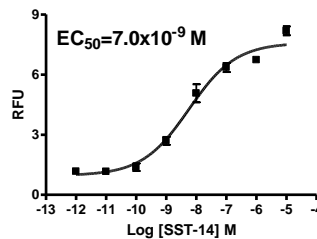


Figure 2

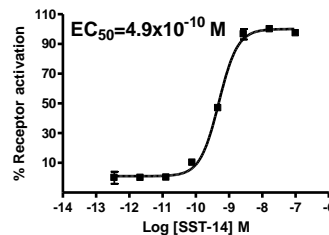


Figure 3

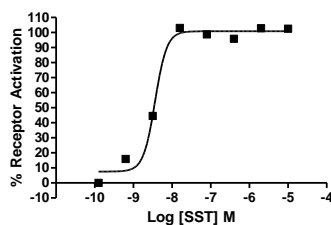


Figure 4

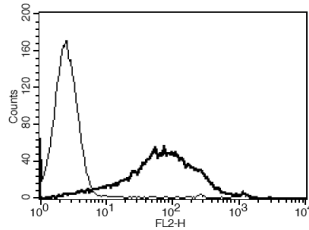


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). Cells were transiently transfected with Gaqi5. **Figure 2.** Dose-dependent inhibition of forskolin-stimulated intracellular cAMP accumulation upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 3.** Dose-dependent stimulation of pERK level upon treatment with ligand, monitored with FlexStation. **Figure 4.** 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:

Brinkmeier and Camper (1997) Localization of somatostatin receptor genes on mouse chromosomes 2, 11, 12, 15, and 17: correlation with growth QTLs. *Genomics* 43:9-14.

Demchyshyn *et al.* (1993) Cloning and expression of a human somatostatin-14-selective receptor variant (somatostatin receptor 4) located on chromosome 20. *Molec Pharm* 43:894-901.

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