

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT 5HT7 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1334

Lot Number: C1334-070910

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Expression vector containing full-length human HTR7 cDNA (GenBank accession number NM_019860.2) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS, 1 μ g/mL puromycin

Stability: Stable in culture for minimum of two months

Background: The 5-HT7 receptor is a member of the GPCR superfamily of cell surface receptors and is activated by the neurotransmitter serotonin. The 5-HT7 receptor is expressed in a variety of tissues, particularly in the brain, the gastrointestinal tract, and various blood vessels. The 5-HT7 receptor plays a role in smooth muscle relaxation within the vasculature and in the gastrointestinal tract, and is involved in thermoregulation, circadian rhythm, learning and memory, and sleep. This receptor is also involved in mood regulation, suggesting that it may be a useful target in the treatment of depression.

Application: Functional assays

Figure 1

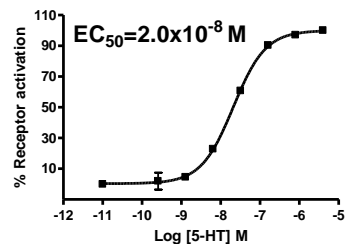


Figure 2

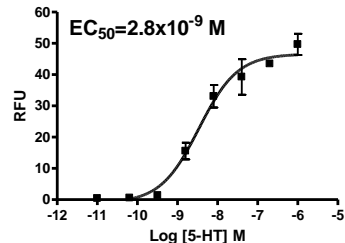


Figure 1. Dose-dependent stimulation of intracellular cAMP accumulation upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 2.** Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

References:

Bard *et al.* (1993) Cloning of a novel human serotonin receptor (5-HT7) positively linked to adenylate cyclase. *J Biol Chem* 268:23422-23426.

Lovenberg *et al.* (1993) A novel adenylyl cyclase-activating serotonin receptor (5-HT7) implicated in the regulation of mammalian circadian rhythms. *Neuron* 11:449-458.

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