

**MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT MC4 RECEPTOR**

PRODUCT INFORMATION

Catalog Number: H1343

Lot Number: H1343-071211

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 MC4R cDNA (GenBank Accession Number NM_005912.2) 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 for a minimum of two months in culture

Data sheet

Background: The melanocortin receptor MC4 is expressed in the central nervous system, gastrointestinal tract and placenta. The melanocortin family is essential in the control of body weight homeostasis, sexual behavior, and autonomic functions; MC4 receptors are primarily involved in the regulation of food uptake. MC4 agonists have great potential in the treatment of weight disorders and sexual dysfunction, whereas MC4 antagonists may be useful in the treatment of anorectic and cachectic conditions.

Application: Functional assays

Figure 1

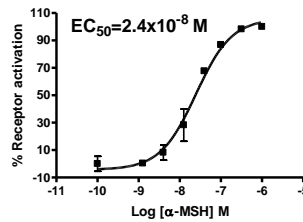


Figure 2

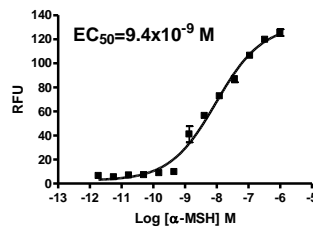


Figure 1. Dose-dependent stimulation of intracellular cAMP level upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 2.** Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FlexStation. **Figure 3.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

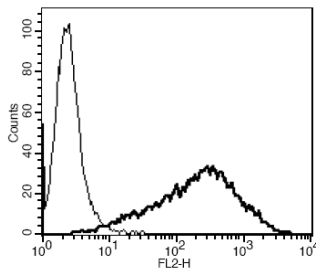
References:

Gantz *et al.* (1993) Molecular cloning of a novel melanocortin receptor. *J Biol Chem* 268:8246-8250.

Voisey *et al.* (2003) Melanocortins and their receptors and antagonists. *Curr Drug Targets* 4:589-597.

Wikberg *et al.* (2008) Targeting melanocortin receptors: an approach to treat weight disorders and sexual disorders. *Nat Rev Drug Discov* 7:307-323.

Figure 3



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