MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT GHRELIN RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1197b

Lot Number: C1197b-060410

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Full-length Human GHSR cDNA (GenBank Accession Number NM_198407.1) with FLAG-tag sequence at the N-terminus

Recommended Storage: Liquid nitrogen upon receiving

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

Stability: Stable in culture for minimum of two months

Background: The ghrelin receptor is the target of growth hormone secretagogues, a class of synthetic peptide and non-peptide compounds that stimulate growth hormone (GH) release from the anterior pituitary. Ghrelin, the endogenous ligand for the ghrelin receptor, is predominantly secreted from X/A-like cells within the gastric mucosa and may be the source of the majority of circulating plasma ghrelin. Ghrelin stimulates gastric acid secretion and motility, and may have significant effects on appetite and energy. It is not only important for the acute regulation of food intake but also plays an important role in the regulation of long term energy homoeostasis. Ghrelin has a number of actions in cardiovascular system, consistent with the localization of receptors to cardiovascular tissue.

Application: Functional assays

Figure 1

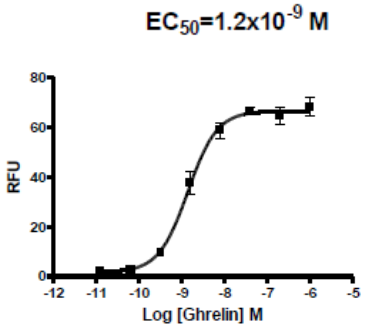

Figure 2

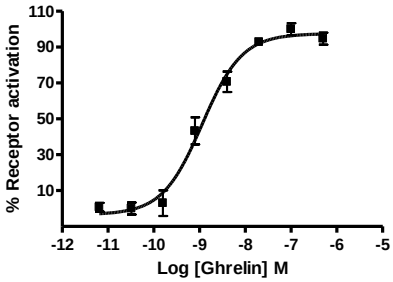

Figure 3

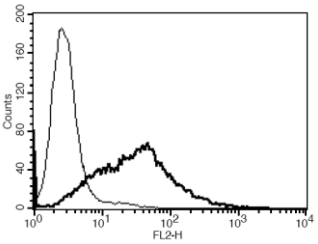

Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Dose-dependent accumulation of intracellular IP1 upon treatment with ligand, measured with IP-one Tb kit. **Figure 3.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Howard *et al*. (1996) A receptor in pituitary and hypothalamus that functions in growth hormone release. *Science* 273:974-977.

Kojima and Kangawa (2005) Ghrelin: structure and function. *Physiol Rev* 85:495-522.

van der Lely *et al.* (2004) Biological, physiological, pathophysiological, and pharmacological aspects of ghrelin. *Endocr Rev* 25:426-457.

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