

**MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT NPY5 RECEPTOR**

Data sheet

PRODUCT INFORMATION

Catalog Number: CG1275

Lot Number: CG1275-010208

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T Gαq5

Transfection: Expression vector containing full-length human NPY5R cDNA (GenBank Accession Number NM_006174) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS, 1 μg/mL puromycin, 150 μg/mL hygromycin

Stability: Stable after two months continuous growth

Background: The human NPY5 receptor mRNA expresses largely in the central nervous system, and highly expressed in hypothalamic and thalamic nuclei. Neuropeptide Y has a major role in the physiological control of energy homeostasis, and the NPY5 receptor is a prime candidate to mediate some of the effects through metabolic changes such as decreased lipolysis and thermogenesis, as well as hyperphagia. NPY5 is involved in both spontaneous as well as NPY-stimulated food intake and in NPY-induced reduction of blood glucose concentrations. NPY5 also plays an important role in neuroendocrine functions. It mediates the inhibitory effects of NPY on the HPT axis, and may function as part of an endogenous stress-sensing system to mediate social anxiety and motivational deficits. In addition, NPY5 may be involved in NPY-induced ischemic angiogenesis and opioid dependence and withdrawal.

Application: Functional assays

Figure 1

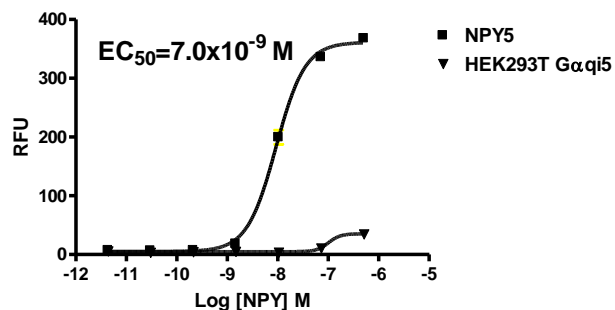


Figure 2

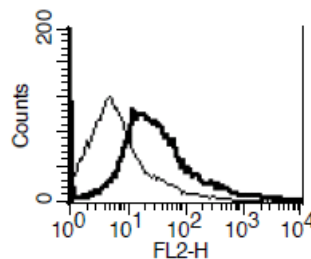


Figure 1. Dose-dependent calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing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

References:

Gerald *et al.* (1996) A receptor subtype involved in neuropeptide-Y induced food intake. *Nature* 382:168-171.

Hu *et al.* (1996) Identification of a novel hypothalamic neuropeptide Y receptor associated with feeding behavior. *J Biol Chem* 271:26315-26319.

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