MULTISCREEN™ DIVISION-ARRESTED CELL LINE
HUMAN RECOMBINANT NPY5 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: DCG1275

Lot Number: DCG1275-042122

Quantity: 1 vial (4 x 10^6) frozen cells

Freeze Medium: Cellbanker 2

Host cell: HEK293T Gαqi5

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

Stability: Stable for 1 – 2 days after thawing

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 assay

Figure 1

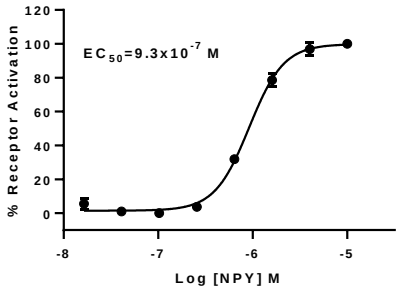

Figure 1. Dose-dependent calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

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 217:26315-26319.

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