MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT NPY1 RECEPTOR

Data sheet

Background: NPY1R (Neuropeptide Y receptor type 1) is a receptor for neuropeptide Y that is the most abundant peptide present in the mammalian central and peripheral nervous system. Neuropeptide Y exhibits a variety of potent central and peripheral effects including those on feeding, memory, blood pressure, cardiac contractility and intestinal secretions. Neuropeptide Y effects are mediated by several different receptor subtypes, Y-1, Y-1-like, Y-2, Y-3, Y-4 and Y-5. NPY1R is correlated with food feeding and subnanomolar antagonists of NPY1R have been discovered as potential anti-obesity agents. NPY1R is also involved in cardiovascular actions of exogenous neuropeptide Y and plays a role in maintaining basal blood pressure and heart rate in ischaemic heart failure.

Application: Functional assays

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


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