

MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT NPY4 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: CG1300-1

Lot Number: CG1300-1-100608

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1 Gαq5

Transfection: Expression vector containing full-length human Y4 cDNA (GenBank Accession Number AY268432) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM-F12, 10% FBS, 10 µg/mL puromycin, 150 µg/mL hygromycin

Stability Stable after minimum of two months continuous growth

Background: NPY4R (Y4) has been reported to be expressed at highest levels in brain, coronary artery and ileum, low levels in pancreas and kidney. It is also been detected in colon and small intestine and isolated from human colon and head/neck libraries. It is one of the receptors for neuropeptide Y and peptide YY. The rank order of affinity of this receptor for pancreatic polypeptides is PP, PP (2-36) and [Ile-31, Gln-34] PP > [Pro-34] PYY > PYY and [Leu-31, Pro-34] NPY > NPY > PYY (3-36) and NPY (2-36) > PP (13-36) > PP (31-36) > NPY free acid. Ligand: Neuropeptide Y, Peptide YY.

Application: Functional assays

Figure 1

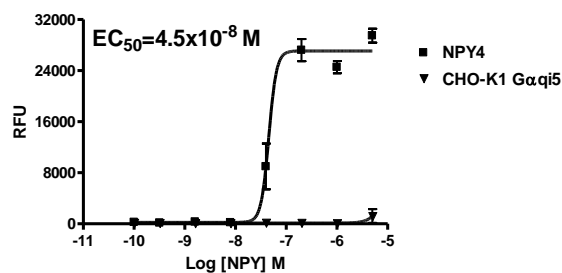


Figure 2

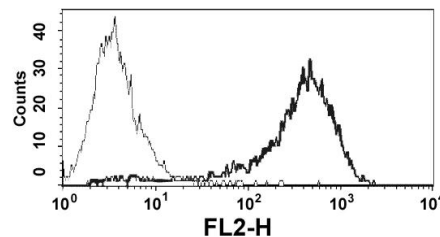


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

Figure 2. 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:

Bard *et al.* (1995) Cloning and functional expression of a human Y4 subtype receptor for pancreatic polypeptide, neuropeptide Y, and peptide YY. *J Biol Chem* 270:26762-26765.

Yan *et al.* (1996) Cloning and functional expression of cDNAs encoding human and rat pancreatic polypeptide receptors. *Proc Natl Acad Sci USA* 93:4661-4665.

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