

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT NTS2 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1277-1

Lot Number: C1277-1-010413

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1

Transfection: Expression vector containing full-length human NTSR2 cDNA (GenBank Accession Number NM_012344.3) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM/F12, 10% FBS, 10 μ g/mL puromycin

Stability: In progress

Background: Neurotensin is a tridecapeptide that has been shown to act as a neurotransmitter/neuromodulator in the central nervous system and as a local hormone in the periphery. Human NTS2 is a 410 amino acid transmembrane protein in the neurotensin receptor family. It is primarily expressed in the central nervous system and in peripheral tissues. The neurotensin family plays an important role in a wide range of biological activities, such as hypotension, hyperglycemia, and regulation of vascular permeability. NTS2 has a low affinity for neurotensin, but SR 48692 has been proven to be a strong agonist in many recent studies. NTS2 may be an important target in the treatment of pain and stress-related disorders.

Application: Functional assays

Figure 1

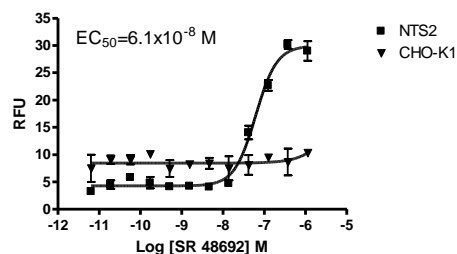


Figure 2

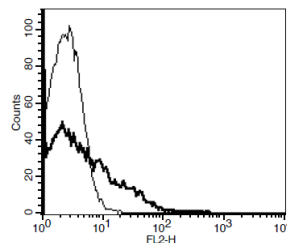


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

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:

Lafrance M, et al. (2010) "Involvement of NTS2 receptors in stress-induced analgesia." *Neuroscience*. 166(2):639-52.

Vincent JP, et al. (1999) "Neurotensin and neurotensin receptors." *Trends Pharmacol Sci*. 20(7):302-9.

Vita N, et al. (1998) "Neurotensin is an antagonist of the human neurotensin NT2 receptor expressed in Chinese Hamster Ovary cells." *Eur J Pharmacol*. 360(2-3):265-72.

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