

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT MT1 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1223-1

Lot Number: C1223-1-021309

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1

Transfection: Full-length Human MTNR1A cDNA (GenBank Accession Number NM_005958) with FLAG-tag sequence at the N-terminus

Recommended Storage: Liquid nitrogen upon receiving

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

Stability: Stable in culture for minimum of two months

Background: MT1 (Melatonin receptor 1A, previously Mel 1A or ML 1A) is a receptor for melatonin. Melatonin is synthesized mainly in the pineal gland but is also made by other organs, such as the retina and the stomach. It is essential to the regulation of the mammalian circadian system and reproductive function. Melatonin receptor agonists may also be useful as a supplement to classical antidepressant treatments.

Application: Functional assays

Figure 1

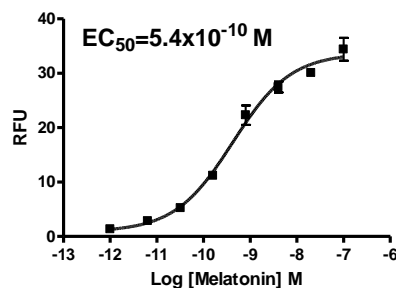


Figure 2

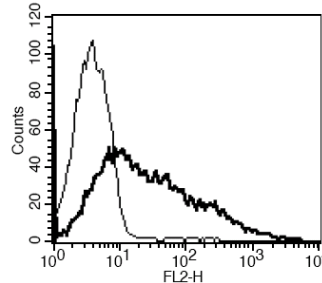


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

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:

Audinot *et al.* (2003) New selective ligands of human cloned melatonin MT1 and MT2 receptors. *Naunym Schmiedebergs Arch Pharmacol* 367:553-561.

Browning *et al.* (2000) Pharmacological characterization of human recombinant melatonin mt1 and MT2 receptors. *Br J Pharmacol* 129:877-886.

Hirsch-Rodriguez *et al.* (2007) The pattern of melatonin receptor expression in the brain may influence antidepressant treatment. *Med hypotheses* 69:120-124.

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