# MULTISCREEN™ STABLE CELL LINE
# HUMAN RECOMBINANT κ OPIOID RECEPTOR

## Data sheet

**PRODUCT INFORMATION**

**Catalog Number**: CG1352-1

**Lot Number**: CG1352-1-042814

**Quantity**: 1 vial (2 x $10^6$) frozen cells

**Freeze Medium**: Sigma Freezing Medium (C-6164)

**Host cell**: CHO-K1 Gαqi5

**Transfection**: Expression vector containing full-length human OPRK1 cDNA (GenBank Accession Number NM_000912.3) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

**Propagation Medium:** DMEM/F12, 10% FBS, 10 µg/mL puromycin, 250 µg/mL hygromycin

**Stability:** Stable after minimum two months continuous growth

**Background:** κ Opioid Receptor (KOR) is a receptor for dynorphins. KOR inhibits neurotransmitter release by reducing calcium currents and increasing potassium conductance and may play a role in arousal and regulation of autonomic and neuroendocrine functions. Some studies suggest that stimulation of KOR improves memory dysfunctions resulting from the blockade of muscarinic M1 receptors. In addition, KOR agonists attenuate several behavioral responses induced by drugs of abuse, raising the possibility that KOR agonists may be useful for the treatment of dependence on drugs of abuse.

**Application:** Functional assays

**Figure 1**

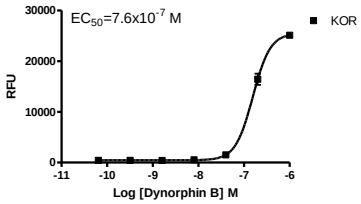


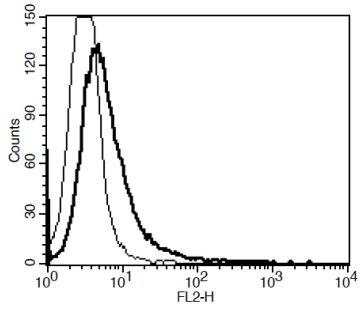

**Figure 1.** Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).
**Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

**References:**


Ukai *et al.* (1995) Kappa-Opioid receptor agonists improve pirenzepine-induced disturbance of spontaneous alternation performance in the mouse. *Eur J Pharmacol* 281:173-178.

Hasebe *et al.* (2004) Possible pharmacotherapy of the opioid kappa receptor agonist for drug dependence. *Ann N Y Acad Sci* 1025:404-413.


**Figure 2**




***FOR RESEARCH USE ONLY.***




©2016 by Multispan, Inc. 26219 Eden Landing Rd, Hayward, CA 94545 Tel: 510-887-0817 Email: info@multispaninc.com