

## MULTISCREEN™ MEMBRANE PREPARATION HUMAN RECOMBINANT κ OPIOID RECEPTOR

### PRODUCT INFORMATION

**Catalog Number:** MC1352-1a

**Lot Number:** MC1352-1a-111516

**Quantity:** 1 vial (8.1mg/ml), 6mg

**Packaging Buffer:** 20 mM Gly-Gly,  
1 mM MgCl<sub>2</sub>, 25 mM Sucrose (pH 7.2)

**Host cell:** CHO-K1

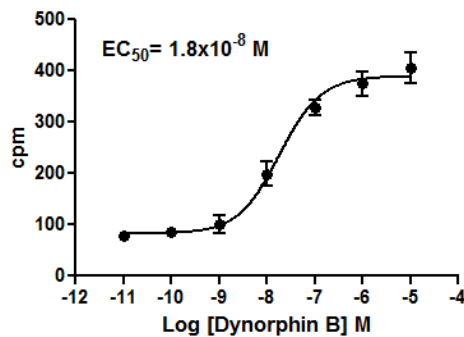
**Transfection:** Expression vector containing full-length human OPRK1 cDNA (GenBank Accession Number NM\_000912.3) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

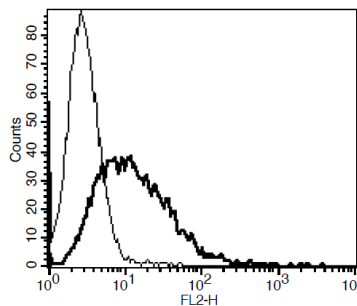
### Data sheet

**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.

**Figure 1**



**Figure 2**



**Figure 1.** Dose-dependent [<sup>35</sup>S]GTPγS Binding to κ opioid membrane upon treatment with agonist using homogenous proximity assay method. **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.

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