

## MULTISCREEN™ STABLE CELL LINE RAT RECOMBINANT MU OPIOID RECEPTOR

### PRODUCT INFORMATION

**Catalog Number:** MCr1350-1a

**Lot Number:** MCr1350-1a-09092013

**Quantity:** 1 vial (14.89mg/ml)

**Host cell:** CHO dhfr<sup>-</sup>

**Packaging Buffer:** 20 mM Gly-Gly,  
1 mM MgCl<sub>2</sub>, 250 mM Sucrose

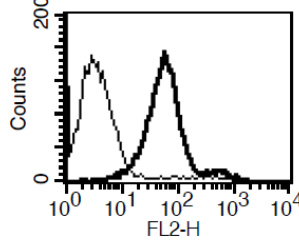
**Transfection:** Full-length rat Oprm1  
opioid receptor cDNA (GenBank  
Accession Number L13069)

**Recommended Storage:** Liquid  
nitrogen upon receiving

### Data Sheet

**Background:** Mu opioid receptor (MOR) is a receptor for beta-endorphin, inhibits neurotransmitter release by reducing calcium ion currents and increasing potassium ion conductance. MOR signaling and regulation are strongly agonist-dependent. MOR mediates positive reinforcement following direct (morphine) or indirect (alcohol, cannabinoids, nicotine) activation. MOR plays a genetic role in the control of gut inflammation. MOR-deficient mice are highly susceptible to colon inflammation, with a 50% mortality rate occurring 3 days after administration of TNBS that induces inflammation. MOR agonists regulate cytokine production and T cell proliferation and might be new therapeutic molecules in inflammatory bowel disease.

**Figure 1**



**Figure 1.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-MOR antibody. Thin line: parental cells; thick line: receptor-expressing cells.

### References:

Chen *et al.* (1993) Molecular cloning and functional expression of a mu-opioid receptor from rat brain. *Mol Pharmacol* 44:8-12.

Contet *et al.* (2004) Mu opioid receptor: a gateway to drug addiction. *Curr Opin Neurobiol* 14:370-378.

Philippe *et al.* (2003) Anti-inflammatory properties of the mu opioid receptor support its use in the treatment of colon inflammation. *J Clin Invest* 111:1329-1338.

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