

**MULTISCREEN™ STABLE CELL LINE  
HUMAN RECOMBINANT OT RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** C1299-1

**Lot Number:** C1299-1-061709

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

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

**Host cell:** CHO-K1

**Transfection:** Full-length Human OXTR cDNA (GenBank Accession Number NM\_000619.3) with FLAG-tag sequence at the N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

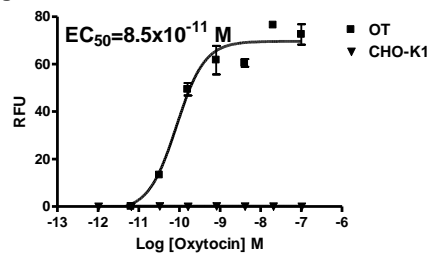
**Propagation Medium:** DME/F12, 10% FBS, 10  $\mu$ g/mL puromycin

**Stability:** Stable in culture for minimum of two months

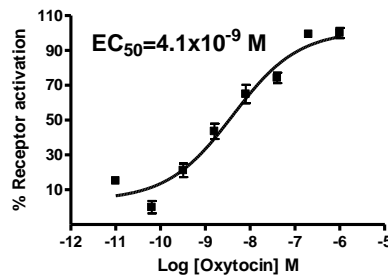
**Background:** Oxytocin (OT) is a member of the neurohypophyseal hormone family. OT receptors are found in uterine smooth muscle, myoepithelial cells in the mammary gland, and in the pituitary. OT stimulates contraction of uterine smooth muscle during labor and stimulates milk secretion in response to suckling. It has been postulated that OT may also facilitate social and bonding behaviors related to the reproduction and care of offspring. Further studies of the OT receptor are essential in gaining a better understanding of the mechanism and in vivo regulation of uterine function.

**Application:** Functional assays

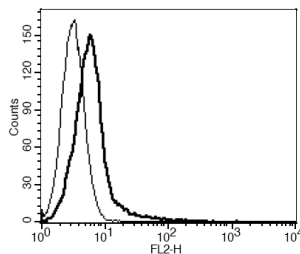
**Figure 1**



**Figure 2**



**Figure 3**



**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.** Dose-dependent accumulation of intracellular IP1 upon treatment with ligand, measured with IP-one Tb kit. **Figure 3.** 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:**

Gimpl and Fahrenholz (2001) The oxytocin receptor system: structure, function, and regulation. *Physiol Rev* 81:629-683.

Ivell *et al.* (2001) The structure and regulation of the oxytocin receptor. *Exp Physiol* 86:289-296.

Shojo and Kaneko (2000) Characterization and expression of oxytocin and the oxytocin receptor. *Mol Genet Metab* 71:552-558.

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