

**MULTISCREEN™ STABLE CELL LINE  
HUMAN RECOMBINANT OX2 RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** C1034-1

**Lot Number:** C1034-1-120809

**Quantity:** 1 vial ( $4 \times 10^6$ ) frozen cells

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

**Host cell:** CHO-K1

**Transfection:** Full-length Human HCRTR2 cDNA (GenBank Accession Number NM\_001526.2) with FLAG-tag sequence at the N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

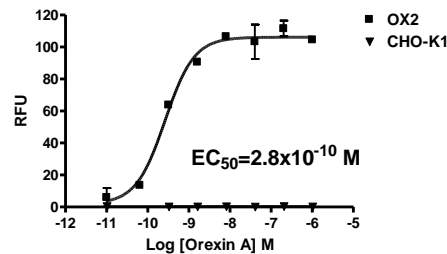
**Propagation Medium:** DME/F12, 10% FBS, 10  $\mu$ g/mL puromycin

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

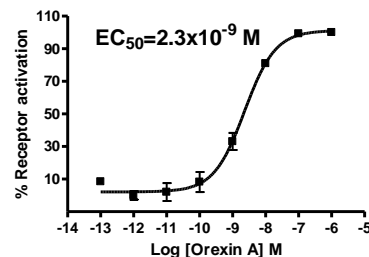
**Background:** Orexins, or hypocretins, produced by a small group of neurons in lateral hypothalamus, are involved in many physiological functions such as feeding, energy metabolism, sleep, arousal, reward, substance abuse, stress, as well as sympathetic and cardiovascular functions. OX2 is one of the two receptors for the orexins. The receptor is expressed in the brain regions such as the hypothalamus, hippocampus and thalamus. Recent studies have indicated that orexins may also be useful in the treatment of schizophrenia and other psychiatric disorders.

**Application:** Functional assays

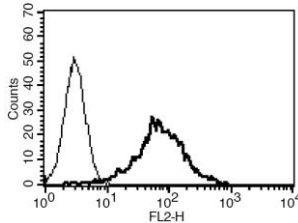
**Figure 1**



**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 (Cisbio 62IPAPEC). **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:**

Deutch and Bubser (2007) The orexins/hypocretins and schizophrenia. *Schizophr Bull* 33:1277-1283.

Smart *et al.* (1999) Characterization of recombinant human orexin receptor pharmacology in a Chinese hamster ovary cell-line using FLIPR. *Br J Pharmacol* 128:1-3.

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