

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT OX1 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1033-1

Lot Number: C1033-1-061609

Quantity: 1 vial (2×10^6) frozen cells

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1

Transfection: Full-length Human HCRTR1 cDNA (GenBank Accession Number NM_001521.1) with FLAG-tag sequence at the N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DME/F12, 10% FBS, 10 μ 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. OX1 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

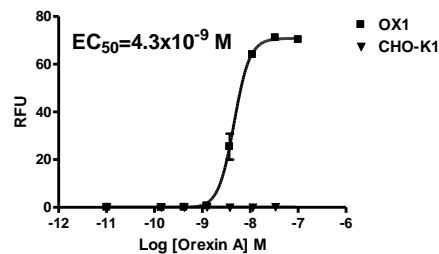


Figure 2

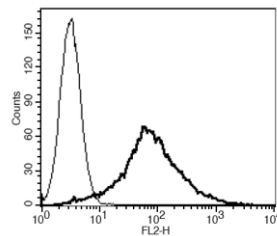


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick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

References:

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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