

**MULTISCREEN™ STABLE CELL LINE**  
**HUMAN RECOMBINANT β1 ADRENERGIC RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** C1437-1

**Lot Number:** C1437-1-092309

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

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

**Host cell:** CHO-K1

**Transfection:** Expression vector containing full-length human ADRB1 cDNA (GenBank Accession Number AF169007.1) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

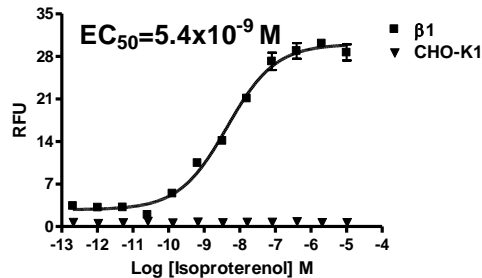
**Propagation Medium:** DMEM/F12, 10% FBS, 800 µg/mL G418

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

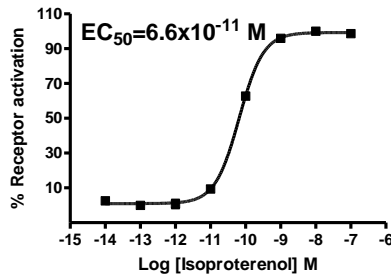
**Background:** Norepinephrine is implicated in a wide range of physiological processes through activation of nine different G-protein-coupled receptors ( $\alpha1a$ ,  $\alpha1b$ ,  $\alpha1d$ ,  $\alpha2a$ ,  $\alpha2b$ ,  $\alpha2c$ ,  $\beta1$ ,  $\beta2$ ,  $\beta3$ ). The human  $\beta1$ -adrenergic receptor is a 477-amino acid protein found in various heart and brain tissues.  $\beta1$  has an important role in the contractile action of valves in cardiac and digestive systems.

**Application:** Functional assays

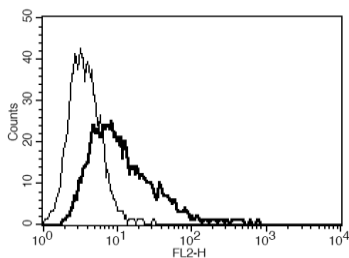
**Figure 1**



**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 increase of intracellular cAMP level upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **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:**

Oostendorp *et al.* (2000) Contribution of beta-adrenoceptor subtypes to relaxation of colon and oesophagus and pacemaker activity of ureter in wildtype and beta(3)-adrenoceptor knockout mice. *Br J Pharmacol* 130:747-758.

Sato *et al.* (1996) Molecular characterization of pharmacological properties of T-0509 for beta-adrenoceptors. *Eur J Pharmacol* 315:363-367.

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