

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 (2×10^6) 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

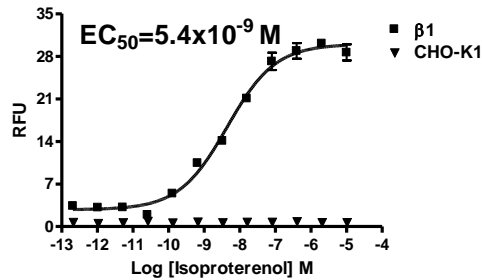


Figure 2

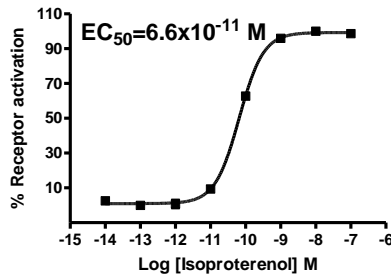


Figure 3

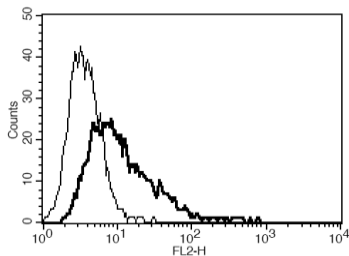


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Dose-dependent increase of intracellular cAMP level upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash 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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