

MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT β1 ADRENERGIC RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: H1437

Lot Number: H1437-090814

Quantity: 1 vial (2 x 10⁶) frozen cells

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

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, 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 (α1a, α1b, α1d, α2a, α2b, α2c, β1, β2, β3). The human β1-adrenergic receptor is a 477-amino acid protein found in various heart and brain tissues. β1 has an important role in the contractile action of valves in cardiac and digestive systems.

Application: Functional assays

Figure 1

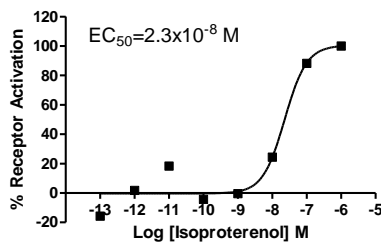


Figure 2

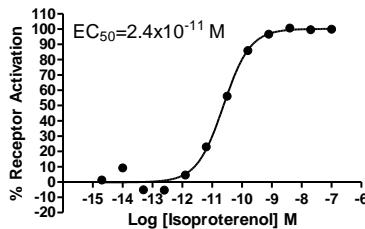


Figure 3

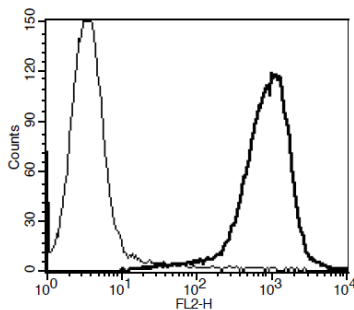


Figure 1. Dose-dependent stimulation of pERK level upon treatment with ligand, monitored with FlexStation. **Figure 2.** Dose-dependent increase of intracellular cAMP level upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 3.** Receptor 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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