MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT β2 ADRENERGIC RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1438-1a

Lot Number: C1438-1a-061810

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1

Transfection: Expression vector containing full-length human ADRB2 cDNA (GenBank Accession Number NM_000024) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM/F12, 10% FBS, 10 µg/mL puromycin

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, ß1, ß2, ß3). The human ß2-adrenergic receptor was the first 7-transmembrane receptor for a hormone or neurotransmitter to have its crystal structure solved. It has been suggested that the β2-adrenoceptor may form homodimers as well as oligomers with other receptors. The β2-adrenoceptor mediates the actions of catecholamines in multiple tissues. They are responsible for relaxation of vascular, uterine, and airway smooth muscle, and are involved in metabolic and endocrine functions.

Application: Functional assays

Figure 1

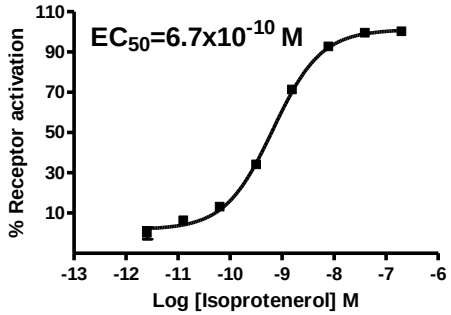

Figure 2

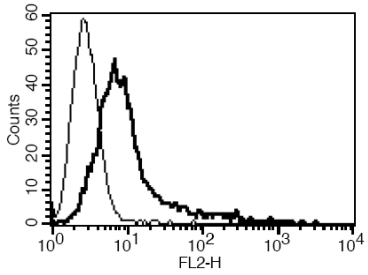

Figure 1. Dose-dependent stimulation of intracellular cAMP accumulation upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Kobilka *et al.* (1987) cDNA for the human beta 2-adrenergic receptor: a protein with multiple membrane-spanning domains and encoded by a gene whose chromosomal location is shared with that of the receptor for platelet-derived growth factor. *Proc Natl Acad Sci USA* 84:46-50.

Frielle *et al.* (1989) Properties of the beta 1- and beta 2-adrenergic receptor subtypes revealed by molecular cloning. *Clin Chem* 35:721-725.

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