

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 10⁶) 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 (α_{1a}, α_{1b}, α_{1d}, α_{2a}, α_{2b}, α_{2c}, β₁, β₂, β₃). The human β₂-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

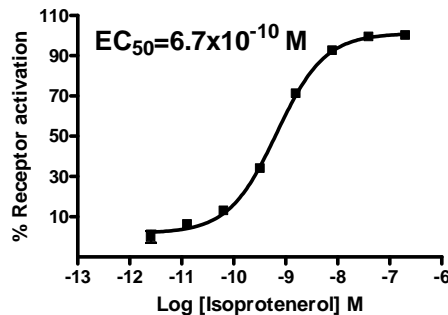


Figure 2

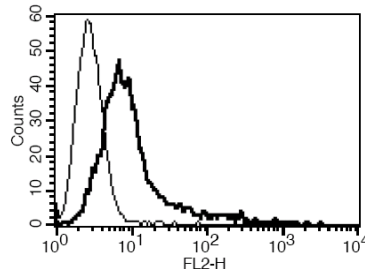


Figure 1. Dose-dependent stimulation of intracellular cAMP accumulation upon treatment with ligand, measured with cAMP HiRange kit (Cisbio 62AM6PEC).

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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