

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT β 2 ADRENERGIC RECEPTOR

PRODUCT INFORMATION

Catalog Number: CG1438-1a

Lot Number: CG1438-1a-030222

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

Freeze Medium: Cellbanker 2
(Amsbio)

Host cell: CHO-K1 Gqi5

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

Propagation Medium: DMEM/F12, 10% FBS, 10 μ g/mL puromycin, 250 μ g/mL hygromycin

Recommended Storage: Liquid nitrogen upon receiving

Stability: Stable for a minimum of 2 months in continuous culture

Data sheet

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, β 1, β 2, β 3). The human β 2-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 β 2-adrenoceptor may form homodimers as well as oligomers with other receptors. The β 2-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

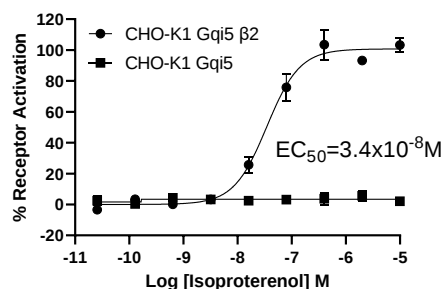


Figure 2

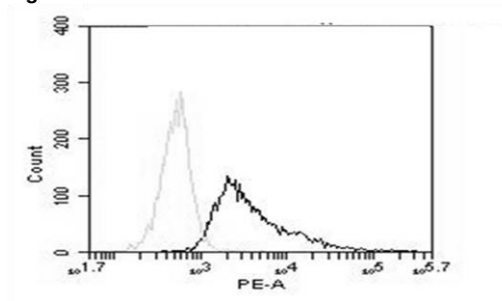


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with MULTISCREEN™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Black line: parental cells; gray 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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