

MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT β3 ADRENERGIC RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1439a

Lot Number: C1439a-061510

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Expression vector containing full-length human ADRB3 cDNA (GenBank Accession Number NM_000025.1) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS, 1 μg/mL puromycin

Stability: Stable in culture for minimum of two months

Background: The β3-adrenoceptor is also known as the atypical beta-adrenoceptor. It was considered as a potential anti-obesity target by increasing energy expenditure and lipolysis in brown and white adipose tissues of rodents. The functional receptor has been demonstrated in a variety of other tissues including blood vessel, gastrointestinal tract, muscle, and retinal endothelial cells, and its agonist evokes relaxation in some of these tissues such as gall bladder, stomach, small intestine, prostate, colon and bladder.

Application: Functional assays

Figure 1

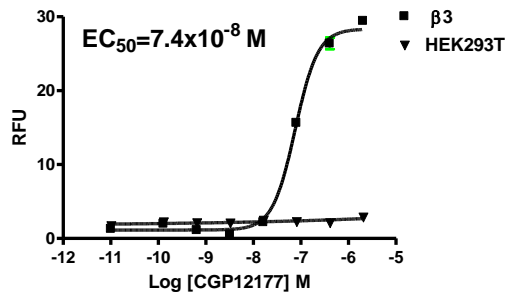


Figure 2

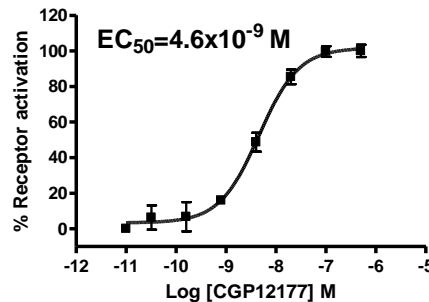


Figure 3

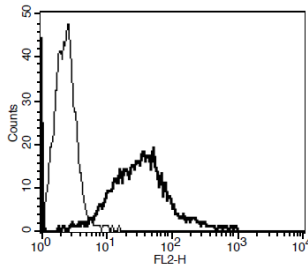


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

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:

Emorine *et al.* (1989) Molecular characterization of the human beta 3-adrenergic receptor. *Science* 245:1118-1121.

Fujimura *et al.* (1999) Expression and possible functional role of the beta3-adrenoceptor in human and rat detrusor muscle. *J Urol.* 161:680-685.

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