

MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT α 2A RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1434-1

Lot Number: C1434-1-040209

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1

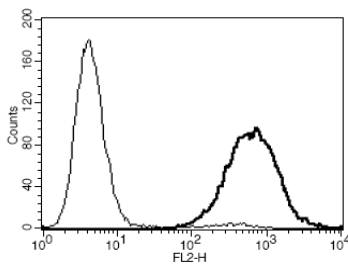
Transfection: Expression vector containing full-length human ADRA2A cDNA (GenBank accession Number NM_000681.2) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

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

Stability: Stable in culture for minimum of two months

Figure 3



Background: Adrenergic α 2a receptor belongs to the group of nine adrenoceptors that mediate the biological actions of adrenaline and noradrenaline. The α 2a receptor is expressed in the brain, spleen, kidney, heart and gastrointestinal tract. It is centrally predominant and exerts a tonic sympathoinhibitory function, whereas peripherally it has a vasoconstrictive effect. The α 2a receptor is also involved in sedation, digestive functions and analgesia.

Application: Functional assays

Figure 1

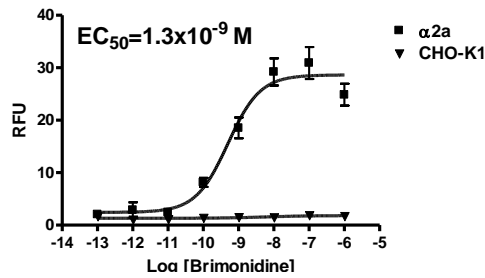


Figure 2

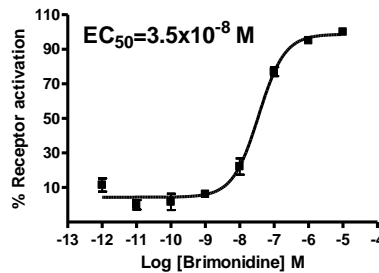


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Dose-dependent increase of intracellular cAMP level upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). Cells were pre-treated with pertussis toxin. **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:

Knaus *et al* (2007) Alpha2-adrenoceptor subtypes--unexpected functions for receptors and ligands derived from gene-targeted mouse models. *Neurochem Int* 51:277-281.

Philipp *et al* (2002) Physiological significance of alpha(2)-adrenergic receptor subtype diversity: one receptor is not enough. *Am J Physiol Regul Integr Comp Physiol* 283:R287-R295.

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