MULTISPAN
One-Stop Shop for GPCR Research

MULTISCREEN^{TM} STABLE CELL LINE HUMAN RECOMBINANT M2 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1023-1

Lot Number: C1023-1-051209

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 CHRM2 cDNA (GenBank Accession Number NM_001006632.1) 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: The muscarinic M2 receptor is a 466-amino acid, 7-transmembrane protein. In heart muscle, M2 receptors represent the prevailing subtype of muscarinic receptors. They can also be found in neurons of central and peripheral nervous system. In neuronal cells, mainly on synaptic terminals, stimulation of the M2 autoreceptors is responsible for presynaptic muscarinic autoinhibition of acetylcholine release in both central and peripheral cholinergic neurons. Loss of function of these M2 receptors, as occurs in some patients with asthma and in animal models of inflammation, leads to an increase in vagally mediated hyperreactivity.

Application: Functional assays

Figure 1

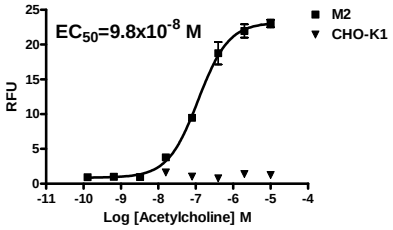

Figure 2

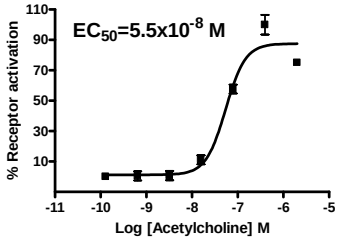

Figure 3

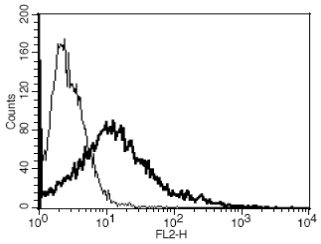

Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FlexStation. **Figure 2.** Dose-dependent inhibition of forskolin-stimulated intracellular cAMP accumulation upon treatment with ligand, measured with cAMP HiRange kit (Cisbio 62AM6PEC). **Figure 3.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Eglen (2006) Muscarinic receptor subtypes in neuronal and non-neuronal cholinergic function. *Auton Atacoid Pharmcol* 26:219-233.

FOR RESEARCH USE ONLY.

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