

**MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT M4 RECEPTOR**

Data sheet

PRODUCT INFORMATION

Catalog Number: C1025-1

Lot Number: C1025-1-101209

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 CHRM4 cDNA (GenBank accession number NM_000741.2) 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 human muscarinic M4 receptor is a 479-amino acid, 7-transmembrane protein. In heart muscle, M4 receptors are coupled to specific K⁺ currents that regulate cardiac muscle contractions. They can also be found in tissues of the central nervous system and bladder.

Application: Functional assays
Figure 1

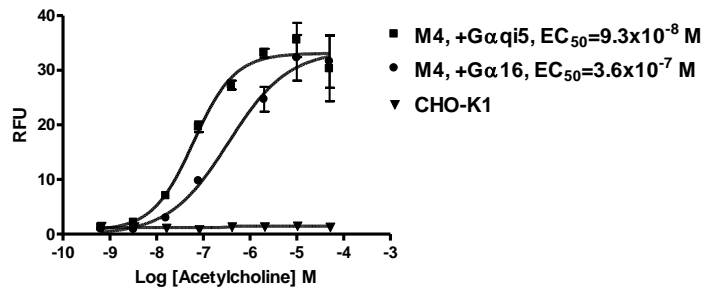


Figure 2

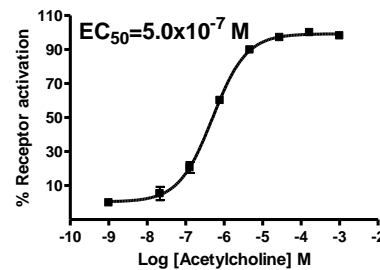


Figure 3

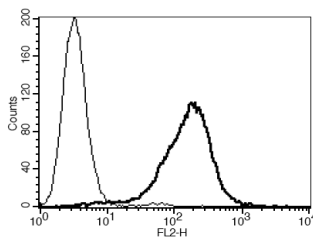


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Dose-dependent stimulation of intracellular cAMP accumulation upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 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:

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

Yeh *et al.* (2007) Atrial tachycardia induces remodeling of muscarinic receptors and their coupled potassium currents in canine left atrial and pulmonary vein cardiomyocytes. *Br J Pharmacol* 152:981-982.

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