

## MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT M4 RECEPTOR

### Data sheet

#### PRODUCT INFORMATION

**Catalog Number:** CG1025-1

**Lot Number:** CG1025-1-072015

**Quantity:** 1 vial (2 x 10<sup>6</sup>) frozen cells

**Freeze Medium:** Sigma Freezing Medium (C-6164)

**Host cell:** CHO-K1 Gq*q*5

**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

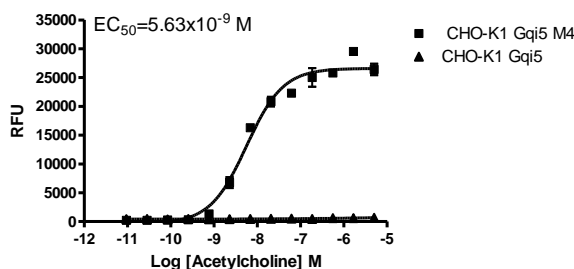
**Propagation Medium:** DMEM/F12, 10% FBS, 10 µg/mL puromycin, 250 µg/ml hygromycin

**Stability:** Stable in culture for minimum of two months

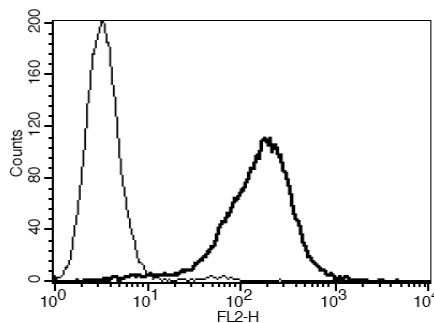
**Background:** The human muscarinic M4 receptor is a 479-amino acid, 7-transmembrane protein. In heart muscle, M4 receptors are coupled to specific K<sup>+</sup> currents that regulate cardiac muscle contractions. They can also be found in tissues of the central nervous system and bladder.

**Application:** Functional assays

**Figure 1**



**Figure 2**



**Figure 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. Thin line: parental cells; thick line: receptor-expressing cells.

#### References:

Eglen (2006) Muscarinic receptor subtypes in neuronal and non-neuronal cholinergic function. *Auton Toxicol 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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