

**MULTISCREEN™ STABLE CELL LINE**  
**HUMAN RECOMBINANT  $\alpha$ 2C RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** C1436-1

**Lot Number:** C1436-1-101209

**Quantity:** 1 vial ( $2 \times 10^6$ ) frozen cells

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

**Host cell:** CHO-K1

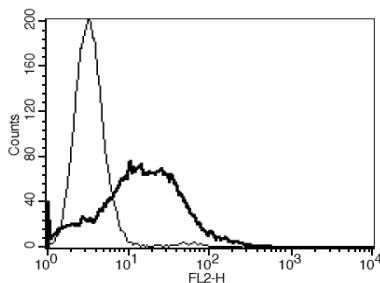
**Transfection:** Expression vector containing full-length human ADRA2C cDNA (GenBank Accession Number AY455666) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

**Propagation Medium:** DMEM/F12, 10% FBS, 10  $\mu$ g/mL puromycin

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

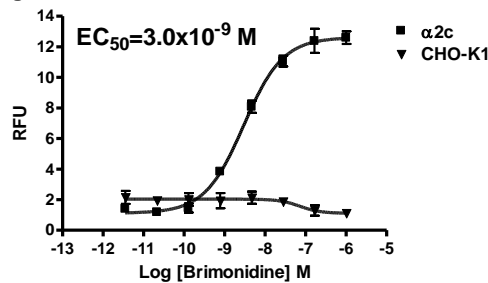
**Figure 3**



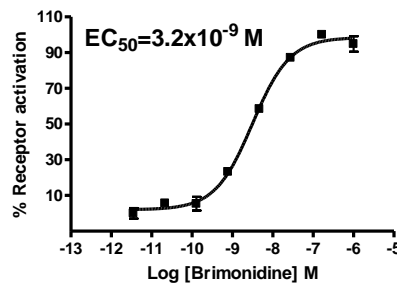
**Background:** The human adrenergic  $\alpha$ 2c receptor is a 458-amino acid, 7-transmembrane protein. It belongs to the group of nine adrenoceptors that mediate the biological actions of the endogenous catecholamines adrenaline and noradrenaline. All three alpha2-receptor subtypes may operate as presynaptic inhibitory feedback receptors to control the release of neurotransmitters. The  $\alpha$ 2c receptor is of particular importance as it appears to regulate venous vasoconstriction.

**Application:** Functional assays

**Figure 1**



**Figure 2**



**Figure 1.** Dose-dependent stimulation of calcium flux upon treatment with ligand, with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Dose-dependent inhibition of forskolin-stimulated 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:**

Gyires *et al.* (2009) alpha(2)-Adrenoceptor subtypes-mediated physiological, pharmacological actions. *Neurochem Int* 55:447-453.

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

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