

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

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** C1435-1

**Lot Number:** C1435-1-040109

**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 ADRA2B cDNA (GenBank Accession Number NM\_000682.5) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

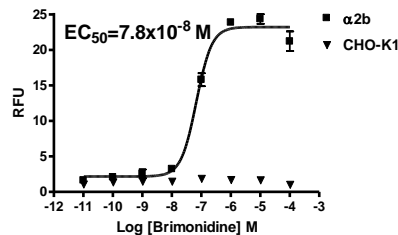
**Propagation Medium:** DMEM/F12, 10% FBS, 10  $\mu$ g/mL puromycin

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

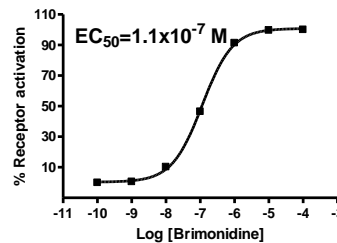
**Background:** Adrenergic  $\alpha$ 2b receptor belongs to the group of nine adrenoceptors that mediate the biological actions of the endogenous catecholamines adrenaline and noradrenaline. While  $\alpha$ 2a receptor exerts a tonic sympathoinhibitory function, the  $\alpha$ 2b is responsible for the central hypertensive sympathoexcitatory response. Development of agents capable of selectively activating the  $\alpha$ 2a or blocking the  $\alpha$ 2b may further improve our capability to treat hypertension, ischemic heart disease and heart failure. The  $\alpha$ 2b receptor also contributes to the peripheral regulation of vascular tone.

**Application:** Functional assays

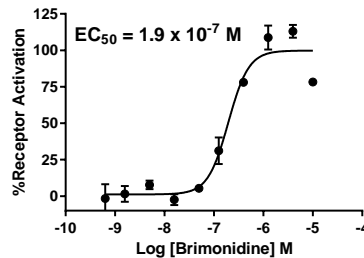
**Figure 1**



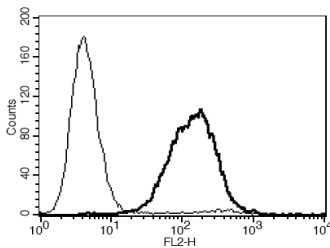
**Figure 2**



**Figure 3**



**Figure 4**



**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, monitored on Flexstation. Cells were pre-treated with pertussis toxin. **Figure 3.** 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 not pre-treated. **Figure 4.** 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.

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One-Stop Shop for GPCR Research

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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