

**MULTISCREEN™ STABLE CELL LINE  
RAT RECOMBINANT A2B RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** Cr1429

**Lot Number:** Cr1429-092013

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

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

**Host cell:** HEK293T

**Transfection:** Expression vector containing full-length rat ADORA2B cDNA (GenBank accession number NM\_017161.1) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

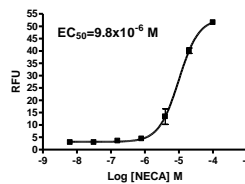
**Propagation Medium:** DMEM, 10% FBS, 1  $\mu$ g/mL puromycin

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

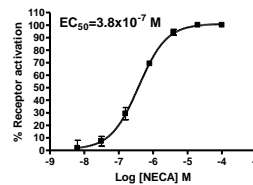
**Background:** A2B is a receptor for adenosine. A2B receptor is upregulated during intestinal inflammation and mediates key events such as chloride, IL-6 and fibronectin secretion in intestinal epithelial cells. A2B receptor antagonists may have important clinical value in the treatment of inflammatory diseases, such as asthma and chronic obstructive pulmonary disease (COPD), as well as inflammatory bowel disease. In rats, the A2B receptor has also been shown to stimulate the growth of arterial endothelial cells and may be critical in regulating vascular remodeling associated with endothelial cell proliferation in angiogenesis, collateral vessel development, and recovery after vascular injury.

**Application:** Functional assays

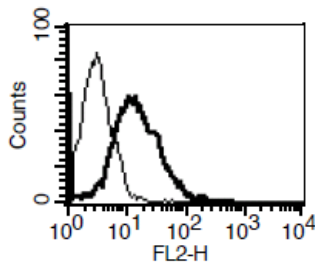
**Figure 1**



**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 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:**

Hasko *et al.* (2008) Adenosine receptors: therapeutic aspects for inflammatory and immune diseases. *Nat Rev Drug Discov* 7:759-770.

Linden *et al.* (1999) Characterization of human A (2B) adenosine receptors: radioligand binding, wester blotting, and coupling to G(q) in human embryonic kidney 293 cells and HMC-1 mast cells. *Mol Pharmacol* 56:705-713.

Dubey *et al.* (2002) A2B Adenosine Receptors Stimulate Growth of Porcine and Rat Arterial Endothelial Cells. *Hypertension* 39: 530-535.

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