

**MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT A1 RECEPTOR**

Data sheet

PRODUCT INFORMATION

Catalog Number: C1427B

Lot Number: C1427b-061716

Quantity: 1 vial (2×10^6) frozen cells

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Expression vector containing full-length human ADORA1 cDNA (GenBank Accession Number NM_000674) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS, 1 μ g/mL puromycin

Stability: Stable for a minimum of 2 months in continuous culture

Background: Adenosine A1 receptor (ADORA1 or RDC7) is a G protein-coupled receptor for adenosine. RT-PCR detected A1 expression in the brain, colon, jejunum, ileum and kidney. A1 functions in sleep-wake regulation, the fertilization process, and modulates coronary blood flow.

Application: Functional assays

Figure 1

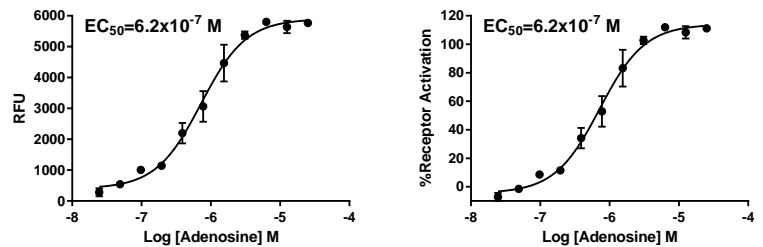


Figure 2

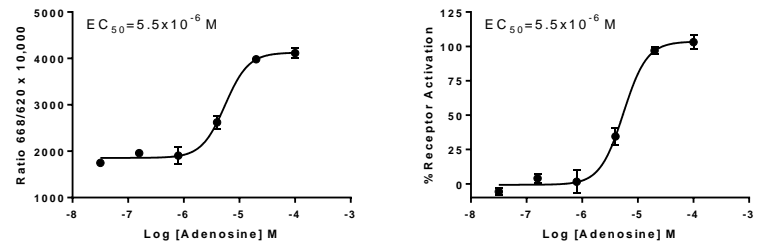


Figure 3

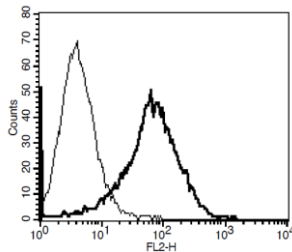


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Dose-dependent inhibition of forskolin-stimulated intracellular cAMP accumulation upon treatment with ligand, measured with Multiscreen™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

Ethier and Madison (2006) Adenosine A1 receptors mediate mobilization of calcium in human bronchial smooth muscle cells. *Am J Respir Cell Mol Biol* 35:496-502.

Zhai, W., Chen, D., Shen, H., Chen, Z., Li, H., Yu, Z., & Chen, G. (2016). A1 adenosine receptor attenuates intracerebral hemorrhage-induced secondary brain injury in rats by activating the P38-MAPKAP2-Hsp27 pathway. *Molecular Brain*, 9, 66. <http://doi.org/10.1186/s13041-016-0247-x>

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