

**MULTISCREEN™ STABLE CELL LINE  
HUMAN RECOMBINANT GPR84 RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** C1137-1

**Lot Number:** C1137-1-022511

**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 GPR84 cDNA (GenBank accession Number NM\_020370) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

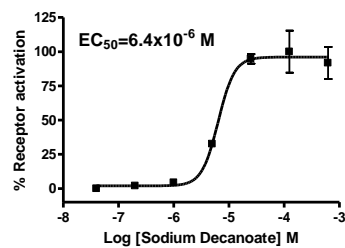
**Propagation Medium:** DME/F12, 10% FBS, 10  $\mu$ g/mL puromycin

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

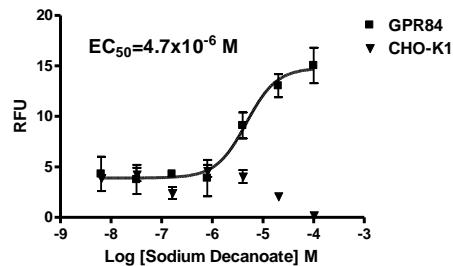
**Background:** Human GPR84 is a G protein-coupled receptor with 396 amino acids. The hgrp84 transcript was found in brain, heart, muscle, colon, thymus, spleen, kidney, liver, intestine, placenta, lung and leukocytes. A study in GPR84-deficient mice revealed a novel role for GPR84 in regulating early IL-4 gene expression in activated T cells in response to CD3 crosslinking.

**Application:** Functional assays

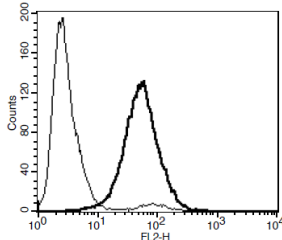
**Figure 1**



**Figure 2**



**Figure 3**



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

Wittenberger *et al.* (2001) An expressed sequence tag (EST) data mining strategy succeeding in the discovery of new G-protein coupled receptors. *J Mol Biol* 307:799-813.

Venkataraman and Kuo (2005) The G-protein coupled receptor, GPR84 regulates IL-4 production by T lymphocytes in response to CD3 crosslinking. *Immunol Lett* 101:144-153.

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