

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT GPR84 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: CG1137-1

Lot Number: CG1137-1-042711

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1 Gaqi5

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 μ g/mL puromycin, 250 μ g/mL hygromycin

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

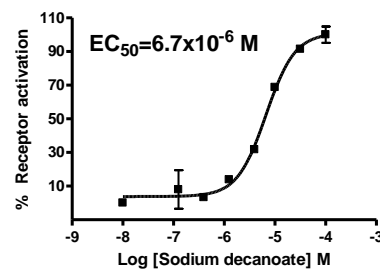


Figure 2

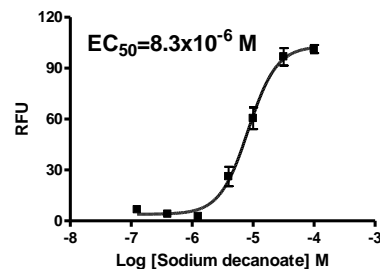


Figure 3

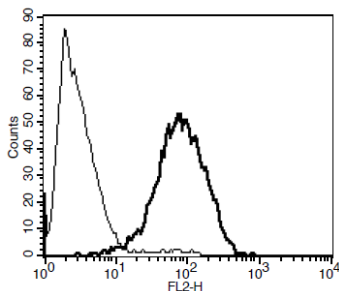


Figure 1. Dose-dependent inhibition of forskolin-stimulated intracellular cAMP level upon treatment with ligand, measured with cAMP HiRange kit (Cisbio 62AM6PEC).

Figure 2. Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FlexStation. **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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