MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT GPR81 RECEPTOR

PRODUCT INFORMATION

Catalog Number: C1134

Lot Number: C1134-110617

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

Freeze Medium: Cell Banker 2 (Amsbio 11891)

Host cell: HEK293T

Transfection: Full-length Human GPR81 (GenBank Accession Number NM_032554.3) with FLAG-tag sequence at the N-terminus

Recommended Storage: Liquid nitrogen upon receiving

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

Stability: In Progress

Data sheet

Background: GPR81 is an orphan G protein-coupled receptor homologous to GPR109A and GPR109B. It is highly expressed in adipose tissues and also regarded as a sensor for Lactate and can mediate an anti-lipolytic effect of lactate. GPR81 can modulate the free fatty acid pool under exercise or conditions of oxygen deficit and is target for the treatment of dyslipidemia and other metabolic disorders.

Application: Functional assays

Figure 1

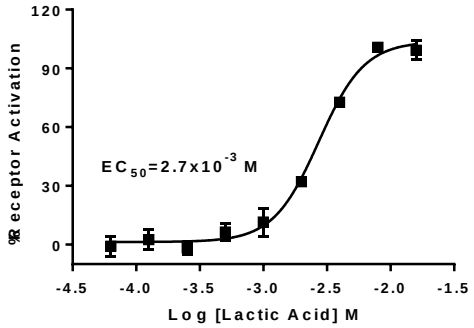

Figure 2

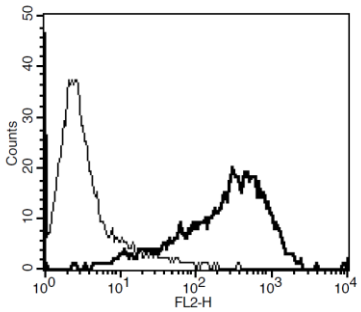

Figure 1. Dose-dependent inhibition of forskolin-stimulated intracellular cAMP accumulation upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Ge *et al* (2008) Elucidation of signaling and functional activities of an orphan GPCR, GPR81. *Journal of Lipid Research 49:797*-803.

Liu *et al.* (2009) Lactate Inhibits Lipolysis in Fat Cells through Activation of an Orphan G-protein-coupled Receptor, GPR81. *Journal of Biological Chemistry* 284: 2811–2822.

Cai *et al* (2008) Role of GPR81 in lactate-mediated reduction of adipose lipolysis. *Biochem Biophys Res Commun*, 377(3): 987-991

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