MULTISCREEN™ DIVISION ARRESTED CELL LINE MOUSE RECOMBINANT FFA3 RECEPTOR

Datasheet

PRODUCT INFORMATION

Catalog Number: DCGm1102-1

Lot Number: DCGm1102-1-04102012

Quantity: 1 vial (4 x 10^6) frozen cells

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1 Gα16

Transfection: Expression vector containing full-length mouse FFA3 cDNA (GenBank Accession Number BC125009) with a FLAG-tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM/F12, 10% FBS,

Stability: Stable 1-2 days after thawing

Background: GPR41 or free fatty acid receptor 3 (FFAR3) shares 98% amino acid identity with GPR42 and closely related to GPR43. While GPR43 is expressed in immune cells, GPR41 appears to be expressed in blood vessel endothelial cells, particularly in adipose tissue, with significant expression also in immune cells and endothelial cells of other tissues. Propionate and short chain fatty acids have been identified as the cognate physiological ligands for GPR41.

Application: Functional assays

Figure 1

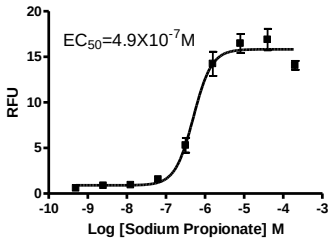

Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

References:

Samuel BS *et al*. (2008) Effects of the gut microbiota on host adiposity are modulated by the short-chain fatty-acid binding G protein-coupled receptor, Gpr41. Proc Natl Acad Sci USA 105:16767-16772.

Brown AJ *et al*. (2003) The Orphan G Protein-coupled Receptors GPR41 and GPR43 Are Activated by Propionate and Other Short Chain Carboxylic Acids. *J Biol Chem* 278:11312-9

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