MULTISPAN
One-Stop Shop for GPCR Research

MULTISCREEN^{TM} STABLE CELL LINE
HUMAN RECOMBINANT GPR41 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1102-1

Lot Number: C1102-1-120106

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1 Gα16

Transfection: Expression vector containing full-length human GPR41 cDNA (GenBank Accession Number NM_005304) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM/F12, 10% FBS, 800 µg/mL G418, 10 µg/mL puromycin

Stability: Stable after minimum of two months continuous growth

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

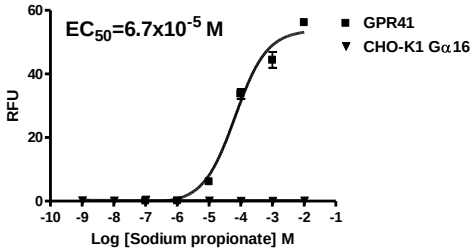

Figure 2

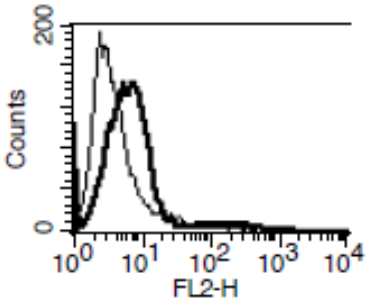

Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FlexStation. **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Sawzdargo *et al*. (1997) A cluster of four novel human G protein-coupled receptor genes occurring in close proximity to CD22 gene on chromosome 19q13.1. Biochem. Biophys Res Commun 239: 543-547.

Brown *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 278:11312-11319.

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