

## MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT GPR41 RECEPTOR

### Data sheet

#### PRODUCT INFORMATION

**Catalog Number:** C1102-1

**Lot Number:** C1102-1-120106

**Quantity:** 1 vial ( $2 \times 10^6$ ) 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

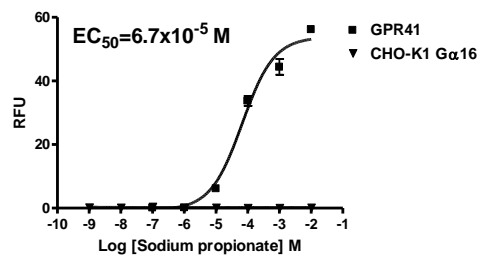
**Propagation Medium:** DMEM/F12, 10% FBS, 800 µg/mL G418, 10 µg/mL puromycin

**Stability:** Stable after minimum of two months continuous growth

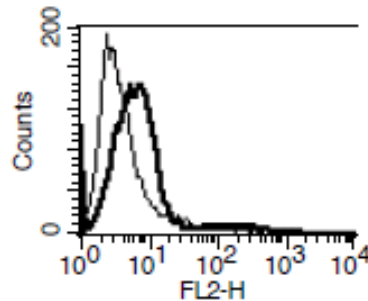
**Background:** GPR41 or free fatty acid receptor 3 (FFAR3) shares 98% amino acid identity with GPR42 and closely related to GPR43. While GPR43 is expressed in immune cells, GPR41 appears to be expressed in blood vessel endothelial cells, particularly in adipose tissue, with significant expression also 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, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

**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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