# MULTISCREEN$^{TM}$ DIVISION ARRESTED CELL LINE HUMAN RECOMBINANT GPR41 RECEPTOR

## Datasheet

**PRODUCT INFORMATION**

**Catalog Number**: DCG1102-1

**Lot Number**: 02/08/13

**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 human FFAR3 cDNA (GenBank Accession Number: NM_005304) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

**Propagation Medium:** DMEF/12, 10% FBS

**Stability:** Stable for 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. Although propionate and short chain fatty acids were identified recently as the cognate physiological ligands for GPR41, the functional roles of the receptor is still not clear and awaits the development of specific high affinity agonist and antagonists and the evaluation of knock-out animals.

**Application:** Functional assays

**Figure 1**

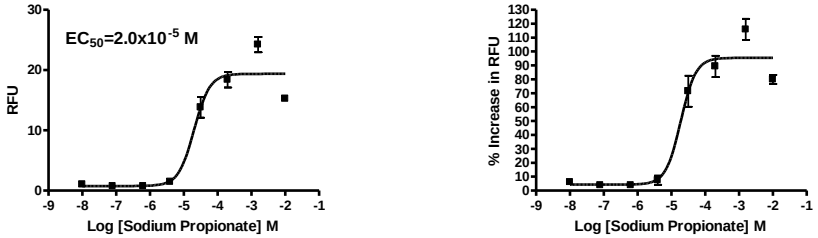


**Figure 1.** Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FlexStation.

**References:**

Sawzdargo et al. (1997) 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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