

**MULTISCREEN™ STABLE CELL LINE  
HUMAN RECOMBINANT GPR120 RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** C1294

**Lot Number:** C1294-062008

**Quantity:** 1 vial (2 x 10<sup>6</sup>) frozen cells

**Freeze Medium:** Sigma Freezing Medium (C-6164)

**Host cell:** HEK293T

**Transfection:** Expression vector containing full-length human GPR120 cDNA (GenBank Accession Number: BC101175.2) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

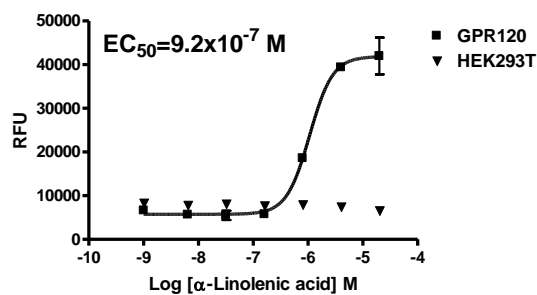
**Propagation Medium:** DMEM, 10% FBS, 1 µg/mL puromycin

**Stability:** Stable in culture for minimum of two months

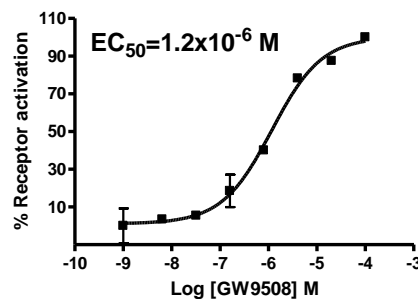
**Background:** GPR120 is a G protein-coupled receptor for the long-chain free fatty acids. GPR120 mediated calcium mobilization, Erk1/Erk2 activation and GLP1 secretion. Unsaturated long-chain FFAs had a dose-dependent stimulatory effect, and α-linolenic acid was the most potent. GPR120 and GLP1 colocalized in human colonic intraepithelial neuroendocrine cells, and GPR120 may mediate dietary FFA-stimulated GLP1 secretion.

**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).

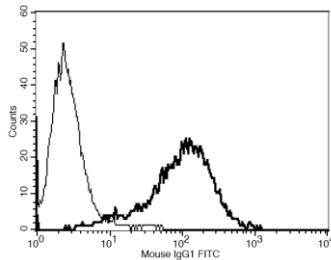
**Figure 2.** Dose-dependent accumulation of intracellular IP1 upon treatment with ligand, measured with IP-one Tb kit. **Figure 3.** Receptor Expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

**References:**

Fredriksson *et al.* (2003) Seven evolutionarily conserved human rhodopsin G protein-coupled receptors lacking close relatives. *FEBS Lett* 554:381-388.

Hirasawa *et al.* (2005) Free fatty acids regulate gut incretin glucagon-like peptide-1 secretion through GPR120. *Nature Med* 11:90-94.

**Figure 3**



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