MULTISPAN
Assay Experts in GPCRs and Beyond

# MULTISCREEN$^{TM}$ STABLE CELL LINE HUMAN RECOMBINANT GPR120 RECEPTOR

## Data sheet

**PRODUCT INFORMATION**

**Catalog Number**: CA1522

**Lot Number**: CA1522-061019

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

**Freeze Medium**: CellBanker 2 (Amsbio 11891)

**Host cell**: HEK293T

**Transfection**: Expression vector containing full-length human GPR120 cDNA (GenBank Accession Number: NM_181745.3) with FLAG tag sequence at N-terminus and ARRB2 cDNA (GenBank Accession Number NM_004313.3)

**Recommended Storage:** Liquid nitrogen upon receiving

**Propagation Medium:** DMEM, 10% FBS, 1 µg/mL puromycin, 250 µg/mL hygromycin

**Stability:** In Progress

**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**

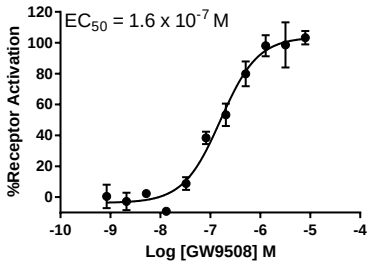


**Figure 2**

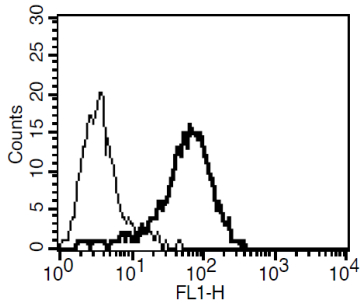


**Figure 1.** Dose-dependent stimulation from arrestin recruitment upon treatment with ligand, monitored on Flexstation III. **Figure 2.** Receptor Expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

**References:**


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.


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