

MULTISCREEN™ STABLE CELL LINE RAT RECOMBINANT GPR120 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: Cr1294

Lot Number: Cr1294-120810

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: full-length rat GPR120 cDNA (GenBank accession Number NM_001047088.1) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS, 1 μ g/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

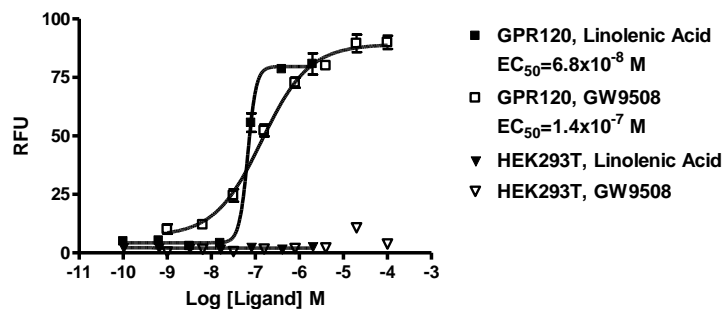


Figure 2

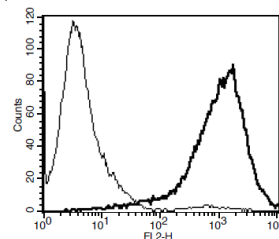


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Receptor Expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

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

Tanaka *et al.* (2008) Cloning and characterization of the rat free fatty acid receptor GPR120: in vivo effect of the natural ligand on GLP-1 secretion and proliferation of pancreatic beta cells. *Naunyn Schmiedebergs Arch Pharmacol* 377:515-522.

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