

MULTISCREEN™
HUMAN ENDOGENOUS GPR40 RECEPTOR

PRODUCT INFORMATION

Catalog Number: C1101-E

Lot Number: C1101-E-03072014

Cell: MIN6 cells naturally expressing human GPR40

Propagation Medium: DMEM with high glucose, 15% FBS, 10 mM HEPES, 0.285 mM β -mercaptoethanol

Data sheet

Background: G-protein coupled receptor 40 (GPR40 or FFA1) is specifically expressed in brain and pancreas. In pancreas, abundant GPR40 is localized to insulin-producing beta cells. Long-chain FFAs amplify glucose-stimulated insulin secretion from pancreatic beta cells by activating GPR40, indicating that GPR40 agonists and/or antagonists have potential for the development of new anti-diabetic drugs.

Application: Functional assays

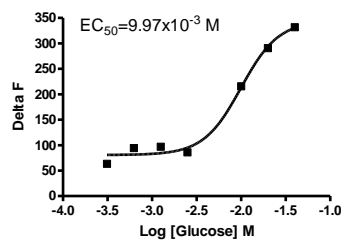


Figure legend: Dose-dependent stimulation of insulin secretion upon treatment with glucose.

References:

Briscoe CP *et al.* (2003) The orphan G protein-coupled receptor GPR40 is activated by medium and long chain fatty acids. *J Biol Chem* 278:11303-11311.

Steneberg P *et al.* (2005) The FFA receptor GPR40 links hyperinsulinemia, hepatic steatosis, and impaired glucose homeostasis in mouse. *Cell Metab* 1:245-258.

Hardy S *et al.* (2005) Oleate promotes the proliferation of breast cancer cells via the G protein-coupled receptor GPR40. *J Biol Chem* 280:13285-13291.

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