MULTISCREEN^{TM} STABLE CELL LINE
HUMAN RECOMBINANT GPR142 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1286a

Lot Number: C1286a-120117

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 GPR142 cDNA (GenBank Accession Number NM_181790.1) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

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

Stability: Stable for a minimum of 2 months in continuous culture

Background: GPR142 belongs to the family of class A (rhodopsin-like) orphan G protein-coupled receptors. Research has linked GPR142 to type 2 diabetes mellitus. GPR142 is reported to be highly expressed in pancreatic β-cells, and upon ligand binding and also in the presence of a high concentration of blood glucose, can stimulate insulin secretion. It has been hypothesized that GPR142 agonists can provide a benefit over existing type 2 diabetes therapies because of a greatly reduced risk of hypoglycemia.

Application: Functional assays

Figure 1

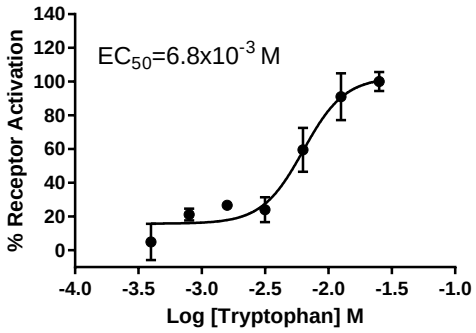

Figure 2

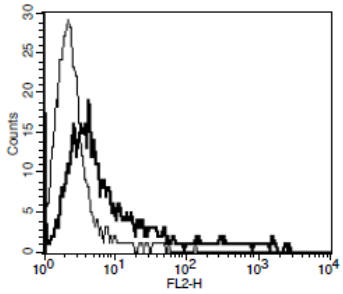

Figure 1. Dose response of intracellular IP1 accumulation upon treatment with ligand, measured with IP-one Tb kit. **Figure 2**. Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Fredriksson R et al. (2003). "Seven evolutionarily conserved human rhodopsin G protein coupled receptors lacking close relatives". *FEBS Lett* 554(3):381-8.

Lizarzaburu M et al. (2012). "Discovery and optimization of a novel series of GPR142 agonists for the treatment of type 2 diabetes mellitus". *Bioorganic & Medicinal Chemistry Letters*

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