

**MULTISCREEN™ DIVISION ARRESTED CELL LINE  
HUMAN RECOMBINANT GPR142 RECEPTOR**

**PRODUCT INFORMATION**

**Catalog Number:** DC1286

**Lot Number:** 08/21/13

**Quantity:** 1 vial (4 x 10<sup>6</sup>) frozen cells

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

**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

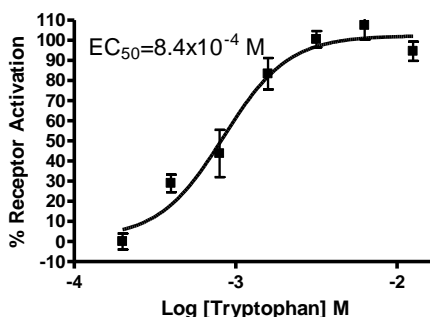
**Stability:** Stable in culture for 1-2 days after thawing

**Data sheet**

**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  $\beta$ -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 1.** Dose response of intracellular IP1 accumulation upon treatment with ligand, measured with IP-one Tb kit (Cisbio 62IPAPEC).

**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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