

**MULTISCREEN™ DIVISION ARRESTED CELL LINE  
HUMAN RECOMBINANT P2Y<sub>14</sub> RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** DC1057

**Lot Number:** DC1057-05112012

**Quantity:** 1 vial (2 x 10<sup>6</sup>) frozen cells

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

**Host cell:** HEK293T

**Transfection:** Expression vector containing full-length human P2Y<sub>14</sub> cDNA (GenBank Accession Number NM\_014879) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

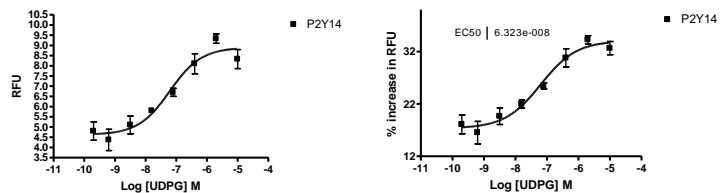
**Propagation Medium:** DMEM, 10% FBS

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

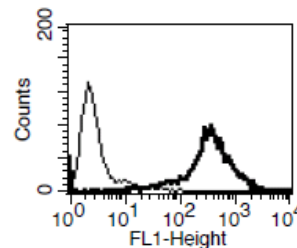
**Background:** P2Y<sub>14</sub> (GPR105) is a purinergic G protein-coupled receptor that specifically responds to UDP-glucose and related sugar-nucleotides. This receptor has important structural similarities to known members of the P2Y receptor family but also shows a distinctly different pharmacological profile, as the receptor does not respond to ATP, ADP, UTP, UDP, other nucleotides, dinucleotides, and nucleosides. Widespread distribution of P2Y<sub>14</sub> has been observed in humans, with highest expression in placenta, adipose tissue, stomach and intestine, and moderate levels in the brain, spleen, lung and heart. In transfected cells, the P2Y<sub>14</sub> receptor reportedly couples to pertussis toxin-sensitive G<sub>α<sub>i</sub></sub> proteins. However, the transduction pathway(s) used by this receptor in native systems still remains to be defined.

**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). Cells were transiently transfected with Gα<sub>i5</sub>. **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:**

Abbracchio *et al.* (2003) Characterization of the UDP-glucose receptor (re-named here the P2Y<sub>14</sub> receptor) adds diversity to the P2Y receptor family. *Trends Pharmacol Sci* 24:52-55.

Lee *et al.* (2003) P2Y-like receptor, GPR105 (P2Y<sub>14</sub>), identifies and mediates chemotaxis of bone-marrow hematopoietic stem cells. *Genes Dev* 17:1592-1604.

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