

**MULTISCREEN™ STABLE CELL LINE  
HUMAN RECOMBINANT LPA3 (EDG7) RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** C1053-6a

**Lot Number:** C1053-6a-04052013

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

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

**Host cell:** RH7777

**Transfection:** Expression vector containing full-length human LPAR3 cDNA (GenBank Accession Number NM\_012152) with FLAG tag sequence at N-terminus

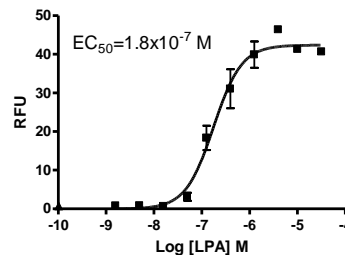
**Recommended Storage:** Liquid nitrogen upon receiving

**Propagation Medium:** DMEM, 10% FBS, 3 µg/mL puromycin

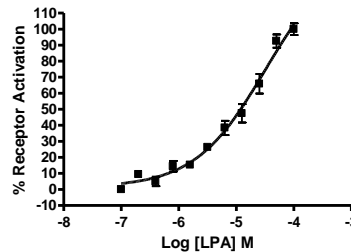
**Stability:** Stable in culture for a minimum of 2 months

**Background:** LPA and the structurally related lysophospholipid mediator sphingosine 1-phosphate (S1P) signal cells through a set of G protein-coupled receptors known as EDG receptors. Some EDG receptors (e.g., EDG1) are S1P receptors; others (e.g., EDG2) are LPA receptors. LPA3 receptor (EDG7) mediates responses preferentially to unsaturated LPA, whereas LPA2 receptor (EDG4) mediates responses to both saturated and unsaturated LPA.

**Application:** Functional assays  
**Figure 1**

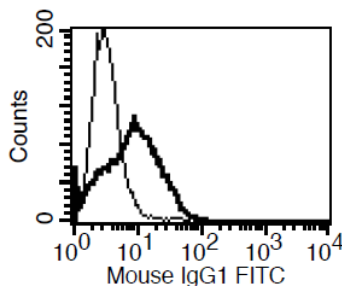


**Figure 2**



**Figure 1.** Dose-dependent calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Dose-dependent inhibition of forskolin-stimulated intracellular cAMP level upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 3.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

**Figure 3**



**References:**

Bandoh *et al.* (1999) Molecular cloning and characterization of a novel human G-protein-coupled receptor, EDG7, for lysophosphatidic acid. *J. Biol. Chem.* 274:27776-27785.

Ye *et al.* (2005) LPA3-mediated lysophosphatidic acid signalling in embryo implantation and spacing. *Nature* 435:104-108.

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