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

Data sheet

PRODUCT INFORMATION

Catalog Number: C1053-6

Lot Number: C1053-6-081009

Quantity: 1 vial (2 x 10^6) 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 after minimum two months continuous growth

Background: LPA and the structurally related lysophoslipid 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

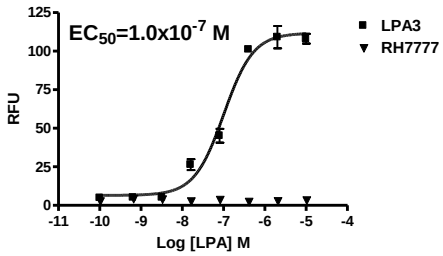

Figure 2

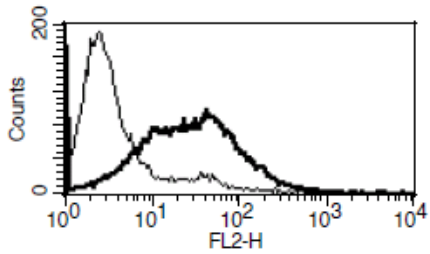

Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick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

References:

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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