

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT LPA5 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1145-6

Lot Number: C1145-6-072908

Quantity: 1 vial (2×10^6) frozen cells

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: RH7777

Transfection: Expression vector containing full-length human LPA5 cDNA (GenBank Accession Number: AJ272207) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS, 5 μ g/mL puromycin

Stability: Stable after minimum two months continuous growth

Background: LPA5 (GPR92) represents a putative orphan G protein coupled receptor with unknown functions. ESTs for LPA5 have been isolated from human normal brain, testis, and tonsil B-cell libraries and from a human blood cancer cell library (pre-B cell). LPA5 protein contains 372 amino acids and shared 36 to 40% sequence identity in the transmembrane regions with the G protein-coupled purinergic receptor P2Y5 (P2RY5), GPR23, and GPR17. Recently, functional characteristics of GPR92/LPA5 have been elucidated that demonstrate the receptor's identity as an LPA receptor.

Application: Functional assays
Figure 1

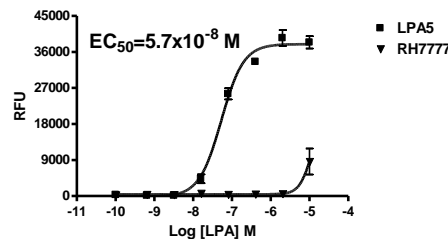


Figure 2

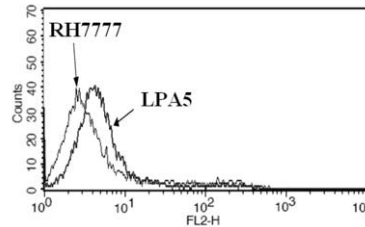


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FlexStation. **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody.

References:

Lee *et al.* (2001) Discovery and mapping of ten novel G protein coupled receptor genes. *Gene* 275:83-91.

White *et al.* (2000) Autosomal dominant hypophosphataemic rickets is associated with mutations in FGF23. *Nat Genet* 26:345-348.

Lee *et al.* (2006) GPR92 as a new G12/13- and Gq-coupled lysophosphatidic acid receptor that increases cAMP, LPA5. *J Biol Chem* 281:23589-23597.

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www.multispaninc.com
sales@multispaninc.com
support@multispaninc.com

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Phone: +1 (510) 887-0817
Fax: +1 (510) 887-0863
26219 Eden Landing Road
Hayward, CA 94545-3718
U.S.A.