

**MULTISCREEN™ DIVISION ARRESTED CELL LINE  
HUMAN RECOMBINANT LPA5 RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** DC1145-6

**Lot Number:** DC1145-6070314

**Quantity:** 1 vial ( $4 \times 10^6$ ) frozen cells

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

**Host cell:** RH7777

**Transfection:** Expression vector containing full-length human LPA5 cDNA (GenBank accession number NM\_020400.5) with FLAG tag sequence at N-terminus

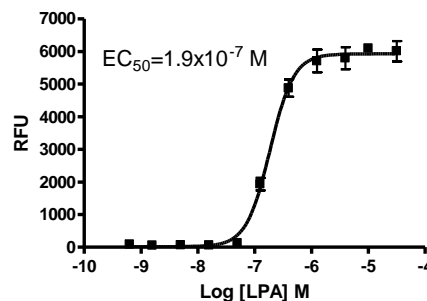
**Recommended Storage:** Liquid nitrogen upon receiving

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

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

**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



Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FLIPR.

**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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