

Product Information

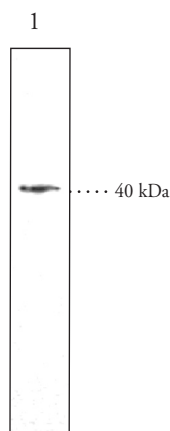


LPA₃ Polyclonal Antibody

Catalog No. 10004840

- Synonyms:** Edg-7; Lysophosphatidic Acid Receptor 3
- Contents:** This vial contains 250 µg peptide affinity-purified IgG in 500 µl TBS, pH 7.4, containing 50% glycerol, 0.1% BSA, and 0.02% sodium azide
- Host:** Rabbit
- Antigen:** Mouse LPA₃ N-terminal amino acids 1-12. The antigen alignment with sequences from other species is as follows:
- | | |
|-------|--------------|
| Mouse | MNECHYDKRMDF |
| Rat | MNECHYDKRMDF |
| Human | MNECHYDKhMDF |
- Cross-reactivity:** (+) Human, murine, and rat LPA₃; other species not yet tested
- Stability:** ≥1 year at -20°C
- Applications:** The recommended starting dilution for western blotting and immunocytochemistry is 2.5 µg/ml. Other applications were not attempted and therefore optimal working dilutions should be determined empirically.

Lysophosphatidic acid receptor 3 (LPA₃; also known as edg-7) is one of three lysophosphatidic acid (LPA) receptors (LPA₁, LPA₂, LPA₃) that are members of large family of G-protein coupled receptors (GPCRs) that also include those for sphingosine-1-phosphate (S1P₁₋₅).¹ The LPA receptors mediate many cellular responses including cytoskeletal rearrangements, cell proliferation, and inhibition of gap junction communication.^{2,3} Murine and human LPA₃ have 353 amino acids with an estimated molecular weight of 40 kDa.^{4,5} The mRNA level of LPA₃ is high in testes, kidney, and lung but low in intestine, heart, thymus, and stomach.⁵ Cayman's LPA₃ polyclonal antibody detects a protein at around 40 kDa in human HepG2 cells, murine macrophages, and in murine and rat liver.



1. HepG2 cell lysate (30 µg)

Laboratory Procedures

Immunofluorescent staining procedure

1. Grow cells in 6 or 24 well plates until confluent.
2. Wash briefly with TBS, pH 7.4.
3. Fix the cells with 1% formaldehyde in TBS, pH 7.4, for 10 minutes.
4. Wash the cells 3 times with TBS containing 0.1% Triton-X 100 (TBSTX), 10 minutes each.
5. Incubate the cells with 10% normal serum (from the same species in which the secondary antibody is raised) in TBSTX for 30 minutes.
6. Incubate the cells with the primary antibody for 1 hour (recommended starting concentration of 2.5 µg/ml. The optimal working condition should be determined by titration).
7. Wash the cells 3 times with TBSTX, 10 minutes each.
8. Incubate the cells in the dark for 1 hour with a fluorochrome-conjugated secondary antibody at a concentration recommended by the provider.
9. Wash the cells 3 times with TBSTX, 10 minutes each.

Examine the staining under a fluorescent microscope with an appropriate filter. Store the plate at 4°C in dark for later analysis.

References

1. Chun, J., Goetzl, E.J., Hla, T., *et al. Pharmacol. Rev.* **54**, 265-269 (2002).
2. Fukushima, N. and Chun, J. *Prostaglandins and Other Lipid Mediators* **64**, 21-32 (2001).
3. Contos, J.J.A., Ishii, I., and Chun, J. *Mol. Pharmacol.* **58**, 1188-1196 (2000).
4. Bandoh, K., Aoki, J., Hosono, H., *et al. J. Biol. Chem.* **274**(39), 27776-27785 (1999).
5. Contos, J.J.A. and Chun, J. *Gene* **267**, 243-253 (2001).

Related Products

1-Oleoyl Lysophosphatidic Acid (sodium salt) - Cat. No. 62215 • Sphingosine-1-phosphate - Cat. No. 62570

WARNING: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN OR VETERINARY USE. USE OF THIS PRODUCT FOR HUMAN OR ANIMAL TESTING IS EXTREMELY HAZARDOUS AND MAY RESULT IN DISEASE, SEVERE INJURY, OR DEATH.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSD supervisor at your institution.

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Cayman Chemical

Mailing address

1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone

(800) 364-9897
(734) 971-3335

Fax

(734) 971-3640

E-Mail

custserv@caymanchem.com

Web

www.caymanchem.com