

Product Information

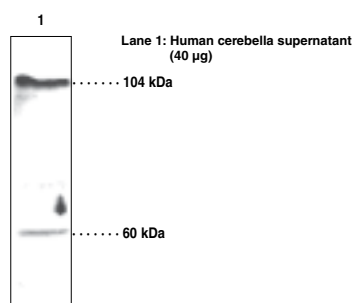


Lysophospholipase D Polyclonal Antibody

Item No. 10005375 • Lot No. XXXXX

- Synonyms:** lysoPLD, Autotaxin, ENPP2
- Contents:** This vial contains **lot specific** µg peptide affinity-purified IgG, lyophilized from TBS, pH 7.4
- Host:** Rabbit
- Antigen:** Rat lysoPLD amino acids 573-588 (KNKLEELNKRLHTKGS); the antigen alignment with other known sequences is as follows:
Rat and mouse KNKLEELNKRLHTKGS
Human and chimpanzee KNKLdELNKRLHTKGS
- Cross-reactivity:** (+) Human, mouse, and rat lysoPLD; other species not tested
- Stability:** ≥3 years at 4°C
- Applications:** For detection of lysoPLD by western blot (WB) and immunocytochemistry (ICC). Recommended starting dilution for WB is **lot specific** µg/ml and 2 µg/ml for ICC. Other applications were not attempted and therefore optimal working dilutions should be determined empirically.

Lysophosphatidic acid (LPA) is an extracellular signaling lipid that evokes multiple biological functions including induction of platelet aggregation, smooth muscle contraction, and stimulation of cell proliferation and chemotaxis.¹ Lysophospholipase D (lysoPLD) was first discovered in 1999 as the enzyme responsible for generating LPA from lysophosphatidylcholine (LPC).² It was later revealed to be identical to an autocrine motility factor, autotaxin (ATX), which plays a role in tumor progression and metastasis.^{3,4} lysoPLD/ATX mRNA is widely expressed with highest levels found in brain, ovary, lung, intestine, and testis.^{5,6} Rat lysoPLD is composed of 885 amino acids with an estimated molecular weight of 101 kDa. The protein is reported to be heavily glycosylated and thus its apparent size on SDS-PAGE may be run as high as 125 kDa.⁷ Useful positive controls include cerebrospinal fluid, mouse ascites, or seminal plasma.



Laboratory Procedures

Immunofluorescent staining of cultured cells

1. Grow cells in 6 to 24 well plates until confluence.
2. Wash (attached) cells briefly with TBS and fix cells 10 minutes in 1% formalin in TBS, pH 7.4.
3. Wash cells 3 times in TBS, pH 7.4, 5 minutes each.
4. Incubate cells with 5% normal serum from the same species as the host of the secondary antibody in TBS, pH 7.4, containing 0.1% Triton X-100 (TBSTX) for 30 minutes.
5. Incubate cells with 2 µg/ml lysophospholipase D polyclonal antibody in TBSTX (recommended starting dilution; optimal dilution to be determined by end user) for 1 hour at room temperature.
6. Wash cells 3 times in TBSTX, 5 minutes each.
7. Incubate cells for 1 hour with an anti-rabbit IgG fluorochrome conjugate in TBSTX, using a dilution as recommended by provider.
8. Wash cells 3 times in TBSTX, 5 minutes each.
9. Counter-stain cells if desired.

The stained cells are now ready to be examined under a fluorescent microscope.

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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 via email to your institution.

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