## **PRODUCT INFORMATION**



### Autotaxin Polyclonal Antibody

Item No. 10005375

### **Overview and Properties**

Contents:	This vial contains 500 $\mu$ l of peptide affinity-purified polyclonal antibody.
Synonyms:	ENPP2, Lysophospholipase D, Lyso-PLD
Immunogen:	Peptide from the C-terminal region of rat LysoPLD
<b>Species Reactivity</b>	: (+) Human, mouse, and rat; other species not tested
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	TBS, pH 7.4, with 50% glycerol, 0.1%l BSA, and 0.02% sodium azide
Host:	Rabbit
Applications:	Immunocytochemistry (ICC), Immunohistochemistry (IHC), and Western blot (WB); the recommended starting dilution for ICC is 1:500, 1:80 for IHC, and 1:200 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

#### Images



Lane 1: Human cerebella supernatant (40 µg)



Immunohistochemistry analysis of formalin-fixed, paraffin-embedded (FFPE) human cerebellum tissue after heat-induced antigen retrieval in pH 6.0 citrate buffer. After incubation with Autotaxin Polyclonal Antibody (Item No. 10005375) at a dilution of 1:80, slides were incubated with biotinylated secondary antibody, followed by alkaline phosphatase-strepavidin and chromogen (DAB).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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### CAYMAN CHEMICAL

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#### Description

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.<sup>1</sup> Lysophospholipase D (lysoPLD) was first discovered in 1999 as the enzyme responsible for generating LPA from lysophosphatidylcholine (LPC).<sup>2</sup> It was later revealed to be identical to an autocrine motility factor, autotaxin (ATX), which plays a role in tumor progression and metastasis.<sup>3,4</sup> LysoPLD/ATX mRNA is widely expressed with highest levels found in brain, ovary, lung, intestine, and testis.<sup>5,6</sup> 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.<sup>7</sup> Useful positive controls include cerecrospinal fluid, mouse ascites, or seminal plasma.

#### References

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- Tokumura, A., Majima, E., Kariya, Y., *et al.* Identification of human lysophospholipase D, a lysophosphatidic acid-producing enzyme, as autotaxin, a multifunctional phosphodiesterase. *J. Biol. Chem.* 277(42), 39436-39442 (2002).
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- 4. Nam, S.W., Clair, T., Campo, C.K., *et al.* Autotaxin (ATX), a potent tumor motogen, augments invasive and metastatic potential of ras-transformed cells. *Oncogene* **19(2)**, 241-247 (2000).
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- 7. Murata, J., Lee, H.Y., Clair, T., *et al.* cDNA cloning of the human tumor motility-stimulationg protein, autotaxin, reveals a homology with phosphodiesterases. *J. Biol. Chem.* **269(48)**, 30479-30484 (1994).

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