

PRODUCT INFORMATION



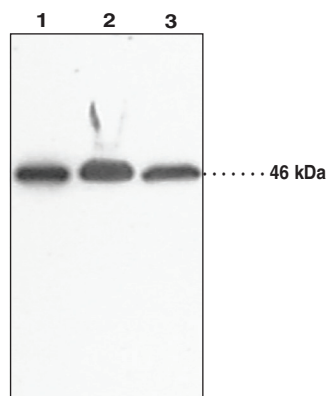
NAPE-PLD (Internal) Polyclonal Antibody

Item No. 10305

Overview and Properties

Contents: This vial contains 500 µl of peptide affinity-purified polyclonal antibody.
Synonym: N-Acyl-Phosphatidylethanolamine-Hydrolysing Phospholipase D
Immunogen: Synthetic peptide from an internal region of human protein NAPE-PLD
Species Reactivity: (+) Human, mouse, and rat NAPE-PLD; other species not tested
Uniprot No.: Q6IQ20
Form: Liquid
Storage: -20°C (as supplied)
Stability: ≥3 years
Storage Buffer: PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host: Rabbit
Applications: Western blot; the recommended starting dilution is 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: Human Cerebellum Supernatant (20 µg)
Lane 2: Mouse Brain Homogenate (30 µg)
Lane 3: Mouse Brain High-Density Membrane (30 µg)

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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Description

N-acylethanolamines (NAEs) are involved in diverse biological processes such as inflammatory regulation, apoptosis, and tissue degeneration.¹ In animals, NAEs are mainly biosynthesized *via* a membrane phospholipid-dependent pathway, which is the enzymatic hydrolysis of N-acyl-phosphatidylethanolamine (NAPE). The enzyme catalyzing this reaction is a phospholipase D subtype selective for NAPE named N-acyl-phosphatidylethanolamine-hydrolysing phospholipase D (NAPE-PLD). It has been cloned from mouse, rat, and human and is 393-396 amino acids in length, with an estimated molecular weight of 46 kDa. Both NAPE-PLD mRNA and protein activity have been detected in a wide range of tissues with the highest levels in brain, kidney, and testis.² In rat, NAPE-PLD activity in the brain is low in neonates and is 15-fold higher in adults, whereas the activity remains constant in the heart during development.³

References

1. Hansen, H.S., Moesgaard, B., Petersen, G., *et al.* Putative neuroprotective actions of N-acyl-ethanolamines. *Pharmacol. Ther.* **95(2)**, 119-126 (2002).
2. Okamoto, Y., Morishita, J., Tsuboi, K., *et al.* Molecular characterization of a phospholipase D generating anandamide and its congeners. *J. Biol. Chem.* **279(7)**, 5298-5305 (2004).
3. Moesgaard, B., Petersen, G., Jaroszewski, J.W., *et al.* Age dependent accumulation of N-acyl-ethanolamine phospholipids in ischemic rat brain: A 31P NMR and enzyme activity study. *J. Lipid Res.* **41(6)**, 985-990 (2000).

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