

Recombinant Mouse Napepld Protein, Myc/DDK-tagged

Cat. No. Napepld-003M Lot. No. (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of Mouse N-acyl phosphatidylethanolamine phospholipase D (Napepld), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	D-type phospholipase that hydrolyzes N-acyl-phosphatidylethanolamines (NAPEs) to produce bioactive N-acylethanolamines/fatty acid ethanolamides (NAEs/FAEs) and phosphatidic acid (PubMed:14634025, PubMed:15760304, PubMed:17655883, PubMed:21801852). Cleaves the terminal phosphodiester bond of diacyl- and alkenylacyl-NAPEs, primarily playing a role in the generation of long-chain saturated and monounsaturated NAEs in the brain (PubMed:21801852, PubMed:16605240). May control NAPE homeostasis in dopaminergic neuron membranes and regulate neuron survival, partly through RAC1 activation (PubMed:31685899). As a regulator of lipid metabolism in the adipose tissue, mediates the crosstalk between adipocytes, gut microbiota and immune cells to control body temperature and weight. In particular, regulates energy homeostasis by promoting cold-induced brown or beige adipocyte differentiation program to generate heat from fatty acids and glucose (PubMed:25757720). Has limited D-type phospholipase activity toward N-acyl lyso-NAPEs (PubMed:14634025).
Molecular Mass	45.8 kDa

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Purity	>80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Napepld N-acyl phosphatidylethanolamine phospholipase D [Mus musculus (house mouse)]
Official Symbol	Napepld
Synonyms	Napepld; N-acyl phosphatidylethanolamine phospholipase D; NAP; Mbldc1; NAPE-PLD; A530089G06; N-acyl-phosphatidylethanolamine-hydrolyzing phospholipase D; Metallo-beta-lactamase domain containing 1; NAPE-hydrolyzing phospholipase D; EC 3.1.4.54
Gene ID	242864
mRNA Refseq	NM_178728
Protein Refseq	NP_848843
UniProt ID	Q8BH82

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