PRODUCT INFORMATION

ABHD4 (human, recombinant)

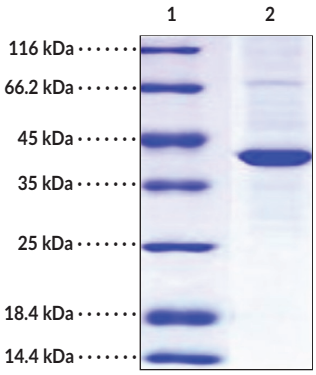
Item No. 44970

Overview and Properties

Synonyms:	Abhydrolase Domain-containing Protein 4, α/β-Hydrolase 4, α/β Hydrolase Domain-containing Protein 4, (Lyso)-N-Acylphosphatidylethanolamine Lipase
Source:	Recombinant human N-terminal His-tagged ABHD4 expressed in insect cells
Amino Acids:	1-342 (full length)
Uniprot No.:	Q8TB40
Molecular Weight:	41 kDa
Storage:	-80°C (as supplied)
Stability:	≥1 year
Purity:	≥82% estimated by SDS-PAGE
Supplied in:	Lyophilized from sterile 50 mM Tris, with 100 mM sodium chloride, 10% glycerol, and pH 8.0
Endotoxin Testing:	<1.0 EU/µg, determined by the LAL endotoxin assay
Protein Concentration:	***batch specific*** mg/ml

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: ABHD4

SDS-PAGE Analysis of ABHD4. This protein has a calculated molecular weight of 41 kDa.

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Description

α/β-Hydrolase domain-containing protein 4 (ABHD4) is a serine hydrolase and lysophospholipase/phospholipase B that hydrolyzes N-acyl phosphatidylethanolamines (NAPEs) and lyso-NAPEs.[1,2] It is expressed in the brain, spinal cord, testes, liver, kidney, and heart.[2] *Abhd4*$^{-/-}$ mice exhibit decreased brain levels of various N-acyl phospholipids, including plasmalogen-based lyso-NAPEs, N-acyl lysophosphatidylserines, and glycerophospho-N-acylethanolamines (GP-NAEs).[1] Cayman's ABHD4 (human, recombinant) protein consists of 360 amino acids and has a calculated molecular weight of 41 kDa.

References

1. Lee, H.-C., Simon, G.M., and Cravatt, B.F. ABHD4 regulates multiple classes of *N-acyl* phospholipids in the mammalian central nervous system. *Biochemistry* **54(15)**, 2539-2549 (2015).
2. Simon, G.M. and Cravatt, B.F. Endocannabinoid biosynthesis proceeding through glycerophospho-*N-acyl* ethanolamine and a role for *α/β*-hydrolase 4 in this pathway. *J. Biol. Chem.* **281(36)**, 26465-26472 (2006).

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