PRODUCT INFORMATION

PAF Acetylhydrolase (human, recombinant)

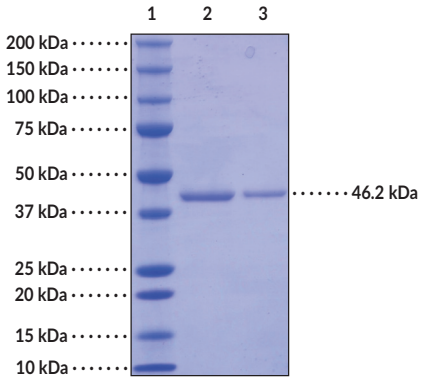
Item No. 10279

Overview and Properties

Synonyms:	Group-VIIA phospholipase A_2, LDL-PLA(2), Lipoprotein PLA_2, PAF-AH, PLA_2G7, gVIIA-PLA_2, Lp-PLA_2, Platelet-activating Factor-Acetylhydrolase
Source:	Active recombinant N-terminal hexahistidine-tagged protein expressed in *E. coli*
Amino acids:	42-441 (full-length)
Uniprot No.:	Q13093
Molecular Weight:	46.4 kDa
Storage:	-80°C (as supplied); avoid freeze/thaw cycles by aliquoting protein
Stability:	≥2 years
Purity:	≥75% estimated by SDS-PAGE
Supplied in:	50 mM sodium phosphate, pH 7.2, with 100 mM sodium chloride and 10% glycerol
Protein Concentration:	***batch specific*** mg/ml
Activity:	***batch specific*** U/ml
Specific Activity:	***batch specific*** U/mg
Unit Definition:	One unit is defined as the amount of enzyme required to produce 1 µmol of TNB per minute at 37°C in buffer containing 100 mM Tris-HCl, pH 7.2, and 300 µM of the substrate 2-thio PAF (Item No. 60945).

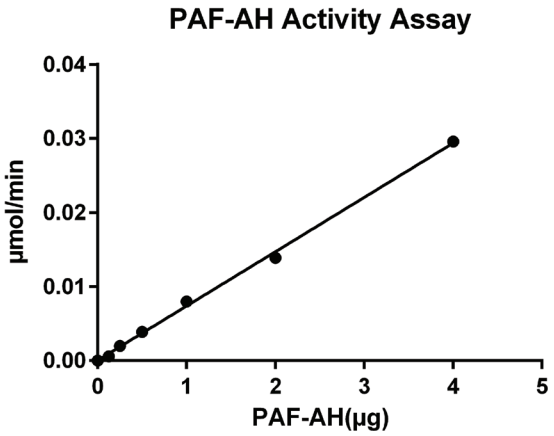
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Images



Lane 1: MW Standards
Lane 2: PAF-AH (4 µg)
Lane 3: PAF-AH (2 µg)

Representative gel image shown; actual purity may vary between each batch.



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Description

Platelet-activating factor (PAF) is an important lipid mediator involved in inflammation. PAF-acetylhydrolase (PAF-AH) is an extracellular phospholipase A_2 which hydrolyzes the acetyl group at the *sn*-2 position of phospholipids.[1] Two main types of PAF-AH have been characterized, namely the secreted (*i.e.* plasma) and intracellular enzymes, which are encoded on individual genes and share only 41% homology at the amino acid level.[2,3] Cayman's PAF-AH is the secreted calcium-independent isoform. PAF deacetylation by PAF-AH causes loss of biological activity, making PAF-AH potentially useful as an anti-inflammation therapy.

References

1. Tjoelker, L.W., Wilder, C., Eberhardt, C., *et al.* Anti-inflammatory properties of a platelet-activating factor acetylhydrolase. *Nature* **374(6522)**, 549-553 (1995).
2. Stafforini, D.M., McIntyre, T.M., Zimmerman, G.A., *et al.* Platelet-activating factor acetylhydrolases. *J. Biol. Chem.* **272(29)**, 17895-17898 (1997).
3. Hattori, K., Adachi, H., Matsuzawa, A., *et al.* cDNA cloning and expression of intracellular platelet-activating factor (PAF) acetylhydrolase II. Its homology with plasma PAF acetylhydrolase. *J. Biol. Chem.* **271(51)**, 33032-33038 (1996).

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