

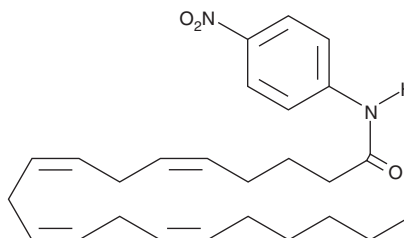
# PRODUCT INFORMATION



## Arachidonoyl *p*-Nitroaniline

Item No. 10168

**CAS Registry No.:** 119520-58-0  
**Formal Name:** N-(4-nitrophenyl)-5Z,8Z,11Z,14Z-eicosatetraenamide  
**Synonym:** ApNA  
**MF:** C<sub>26</sub>H<sub>36</sub>N<sub>2</sub>O<sub>3</sub>  
**FW:** 424.6  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A solution in methyl acetate  
**UV/Vis.:** λ<sub>max</sub>: 204, 316 nm



### Laboratory Procedures

For long term storage, we suggest that arachidonoyl *p*-nitroaniline (ApNA) be stored as supplied at -20°C. It should be stable for at least two years.

ApNA is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of ApNA in these solvents is approximately 50 mg/ml.

ApNA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ApNA should first be dissolved in DMSO and then with the aqueous buffer of choice. ApNA has a solubility of approximately 1 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

ApNA is one of several nitroaniline fatty acid amides which can be used to measure fatty acid amide hydrolase (FAAH) activity.<sup>1</sup> FAAH is a relatively unselective enzyme in that it accepts a variety of amide head groups other than the ethanolamine of its nominal endogenous substrate anandamide (AEA ; Item No. 90050). It also will hydrolyze fatty acid amides with fewer carbons and fewer double bonds than arachidonate. (See also Decanoyl *p*-Nitroaniline - Item No. 90349).

Exposure of ApNA to FAAH activity results in the release of the yellow colorimetric dye *p*-nitroaniline ( $\epsilon = 13,500$  at 382 nm). This offers the potential for fast and convenient measurements of FAAH activity using a 96 well plate spectrophotometer.

### Reference

1. Patricelli, M.P. and Cravatt, B.F. Characterization and manipulation of the acyl chain selectivity of fatty acid amide hydrolase. *Biochemistry* **40**, 6107-6115 (2001).

#### 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.

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