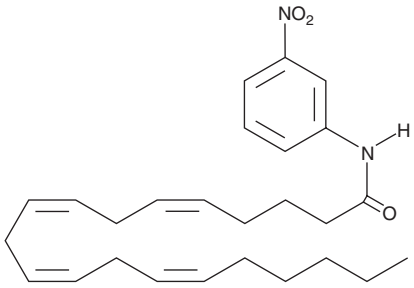
PRODUCT INFORMATION

Arachidonoyl *m*-Nitroaniline

Item No. 90059

CAS Registry No.:	1175954-87-6
Formal Name:	N-(3-nitrophenyl)-5Z,8Z,11Z,14Z-eicosatetraenamide
Synonym:	A*m*NA
MF:	$C_{26}H_{36}N_2O_3$
FW:	424.6
Purity:	≥98%
UV/Vis.:	λ_{max}: 203, 242 nm
Supplied as:	A solution in methyl acetate
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

Arachidonoyl *m*-Nitroaniline (A*m*NA) 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 A*m*NA in these solvents is approximately 50 mg/ml.

A*m*NA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of A*m*NA should be diluted with the aqueous buffer of choice. A*m*NA 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

A*m*NA is one of several nitroaniline fatty acid amides which can be used to measure fatty acid amide hydrolase (FAAH) activity.[1] 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 (arachidonoyl ethanolamide; AEA). It also will hydrolyze fatty acid amides with fewer carbons and fewer double bonds than arachidonate (see also Decanoyl *m*-Nitroaniline; Item No. 90349). Exposure of A*m*NA to FAAH activity results in the release of the yellow colorimetric dye *m*-nitroaniline (ε = 13,500 at 410 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(20)**, 6107-6115 (2001).

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