

PRODUCT INFORMATION



Arachidonoyl-2'-Fluoroethylamide

Item No. 90054

CAS Registry No.: 166100-37-4

Formal Name: N-(2-fluoroethyl)-5Z,8Z,11Z,14Z-eicosatetraenamide

Synonyms: 2-fluoro AEA, 2-fluoro Anandamide

MF: C₂₂H₃₆FNO

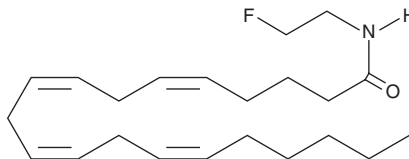
FW: 349.5

Purity: ≥98%

Supplied as: A solution in ethanol

Storage: -20°C

Stability: As supplied, 1 year from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

Arachidonoyl-2'-Fluoroethylamide (2-fluoro AEA) is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 2-fluoro AEA in these solvents is at least 7 mg/ml.

2-fluoro AEA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 2-fluoro AEA should be diluted with the aqueous buffer of choice. 2-fluoro AEA has a solubility of 8 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

2-fluoro AEA is an analog of anandamide in which the alcohol of the ethanolamide group has been removed and replaced with a fluorine atom. This substitution adds considerably increased binding affinity for the CB₁ receptor (K_is = 26.7 and 908 nM for CB₁ and CB₂, respectively). It also contributes additional selectivity, in that binding to CB₂ is decreased relative to AEA.¹ However, the *in vivo* activity of 2-fluoro AEA is enhanced much less than the binding affinity, because the analog remains a good substrate for FAAH and is rapidly hydrolyzed by this enzyme.

Reference

1. Lin, S., Khanolkar, A.D., Fan, P., *et al.* Novel analogues of arachidonylethanolamide (anandamide): affinities for the CB₁ and CB₂ cannabinoid. *J. Med. Chem.* **41**, 5353-5361 (1998).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM