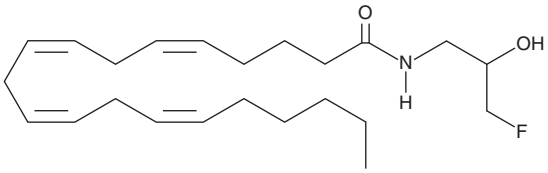
PRODUCT INFORMATION

ARN1203

Item No. 16065

CAS Registry No.:	1428445-15-1
Formal Name:	N-(3-fluoro-2-hydroxypropyl)-5Z,8Z,11Z,14Z-eicosatetraenamide
MF:	$C_{23}H_{38}FNO_2$
FW:	379.6
Purity:	≥98%
Supplied as:	A solution in ethanol
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

ARN1203 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 ARN1203 in these solvents is approximately 25 and 30 mg/ml, respectively.

ARN1203 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of ARN1203 should be diluted with the aqueous buffer of choice. ARN1203 has a solubility of 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Arachidonoyl ethanolamide (AEA, Item No. 90050), also known as anandamide, is an endogenous ligand of the cannabinoid receptors.[1] AEA is metabolized by fatty acid amide hydrolase (FAAH) to give arachidonic acid (Item No. 90010) and ethanolamine.[2] ARN1203 is a fluorinated analog of AEA that serves as a substrate of FAAH (K_m = 29 µM).[3] Fluorinated substrates, like ARN1023, are used in 'n-fluorine atoms for biochemical screening' (n-FABS) assays, NMR functional assays that directly measure the conversion of the substrate into product.[4] ARN1203 is used to perform n-FABS against FAAH to identify novel inhibitors.[3-5]

References

1. Felder, C.C., Briley, E.M., Axelrod, J., *et al.* Anandamide, an endogenous cannabimimetic eicosanoid, binds to the cloned human cannabinoid receptor and stimulates receptor-mediated signal transduction. *Proc. Natl. Acad. Sci. USA* **90(16)**, 7656-7660 (1993).
2. Felder, C.C., Dickason-Chesterfield, A.K., and Moore, S.A. Cannabinoid biology: The search for new therapeutic targets. *Mol. Interv.* **6(3)**, 149-161 (2006).
3. Lambruschini, C., Veronesi, M., Romeo, E., *et al.* Development of fragment-based n-FABS NMR screening applied to the membrane enzyme FAAH. *Chembiochem* **14(13)**, 1611-1619 (2013).
4. Veronesi, M., Romeo, E., Lambruschini, C., *et al.* Fluorine NMR-based screening on cell membrane extracts. *ChemMedChem* **9(2)**, 286-289 (2014).
5. Bertolacci, L., Romeo, E., Veronesi, M., *et al.* A binding site for nonsteroidal anti-inflammatory drugs in fatty acid amide hydrolase. *J. Am. Chem. Soc.* **135(1)**, 22-25 (2013).

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