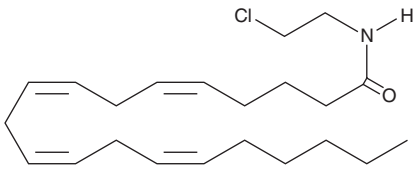
PRODUCT INFORMATION

Arachiodonyl 2'-Chloroethylamide

Item No. 91054

CAS Registry No.: 220556-69-4
Formal Name: N-(2-chloroethyl)-5Z,8Z,11Z,14Z-eicosatetraenamide
Synonym: ACEA
MF: $C_{22}H_{36}ClNO$
FW: 366.0
Purity: ≥95%
Supplied as: A solution in methyl acetate
Storage: -80°C
Stability: ≥2 years



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

Laboratory Procedures

Arachidonoyl 2'-chloroethylamide (ACEA) 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 ACEA in these solvents is 25, 20, and 30 mg/ml, respectively.

ACEA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, first evaporate the methyl acetate under a gentle stream of nitrogen and dissolve the neat oil in ethanol. The ethanolic solution can then be diluted with the aqueous buffer of choice. ACEA has a solubility of 250 µg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ACEA is a potent and selective cannabinoid (CB) receptor 1 agonist with K_i values of 1.4 and >2,000 nM for CB_1 and CB_2 receptors, respectively.[1] In whole animal experiments, ACEA induces hypothermia in mice with the same efficacy as arachidonoyl ethanolamide (AEA; Item No. 90050), in spite of its higher affinity for the CB_1 receptor. These data have been interpreted to indicate that ACEA may be a substrate for fatty acid amide hydrolase (FAAH), and thus only transiently available in whole animal experiments.[2]

References

1. Pertwee, R.G. Pharmacology of cannabinoid receptor ligands. *Curr. Med. Chem.* **6(8)**, 635-664 (1999).
2. Hillard, C.J., Manna, S., Greenberg, M.J., *et al.* Synthesis and characterization of potent and selective agonists of the neuronal cannabinoid receptor (CB_1). *J. Phar. Exp. Ther.* **289**, 1427-1433 (1999).

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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