

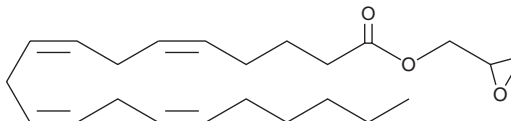
PRODUCT INFORMATION



O-Arachidonoyl Glycidol

Item No. 10010547

CAS Registry No.: 439146-24-4
Formal Name: 5Z,8Z,11Z,14Z-eicosatetraenoic acid, oxiranylmethyl ester
MF: C₂₃H₃₆O₃
FW: 360.5
Purity: ≥98%
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

O-Arachidonoyl glycidol 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 (DMF) purged with an inert gas can be used. The solubility of O-arachidonoyl glycidol in ethanol is approximately 20 mg/ml and approximately 50 mg/ml in DMSO and DMF.

If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent into aqueous buffers or isotonic saline. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

2-Arachidonoyl glycerol (2-AG) is an endogenous ligand that binds to both central cannabinoid (CB₁) and peripheral cannabinoid (CB₂) receptors and is involved in the regulation of a broad range of neurotransmitter signalling functions with implications in neurodegenerative diseases, pain, cancer, and obesity.¹ Levels of this endocannabinoid are regulated by hydrolysis to glycerol and arachidonic acid by the enzyme monoacylglycerol lipase. O-Arachidonoyl glycidol is a 2-AG analog that blocks 2-oleoyl glycerol hydrolysis in the cytosolic and membrane fractions of rat cerebella with IC₅₀ values of 4.5 and 19 μM, respectively.¹ O-Arachidonoyl glycidol inhibits fatty acid amide hydrolase-catalyzed hydrolysis of arachidonoyl ethanolamide (AEA) in the membrane fraction of rat cerebella with an IC₅₀ value of 12 μM.¹

Reference

1. Cisneros, J.A., Vandevoorde, S., Ortega-Gutiérrez, S., *et al.* Structure-activity relationship of a series of inhibitors of monoacylglycerol hydrolysis-comparison with effects upon fatty acid amide hydrolase. *J. Med. Chem.* **50**, 5012-5023 (2007).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 03/07/2024

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