

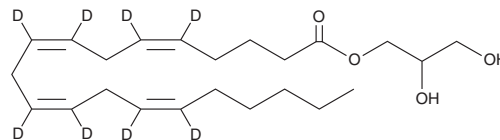
PRODUCT INFORMATION



1-Arachidonoyl-d₈-rac-glycerol

Item No. 22694

Formal Name: 5Z,8Z,11Z,14Z-eicosatetraenoic acid,
1-glyceryl ester-d₈
Synonym: 1-AG-d₈
MF: C₂₃H₃₀D₈O₄
FW: 386.6
Chemical Purity: ≥95% as a 9:1 mixture of the 1-AG and 2-AG
Deuterium
Incorporation: ≥99% deuterated forms (d₁-d₈); ≤1% d₀
Supplied as: A solution in acetonitrile
Storage: -80°C
Stability: ≥6 months



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

Laboratory Procedures

1-Arachidonoyl-d₈-rac-glycerol (1-AG-d₈) is intended for use as an internal standard for the quantification of 1-arachidonoyl glycerol (Item No. 62150) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

1-AG-d₈ is supplied as a solution in acetonitrile. To change the solvent, simply evaporate the acetonitrile under a gentle stream of nitrogen and immediately add the solvent of choice. The solvent DMSO purged with an inert gas can be used. The solubility of 1-AG-d₈ in DMSO is approximately 2 mg/ml. 1-AG-d₈ is also miscible in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of 1-AG-d₈ is needed, it can be prepared by evaporating the acetonitrile and directly dissolving the neat oil in aqueous buffers. The solubility of 1-AG-d₈ in PBS, pH 7.2, is approximately 0.1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

1-AG is a weak cannabinoid (CB₁) receptor agonist and may have other pharmacologic properties.¹ 1-AG is an isomer of 2-AG. 2-AG is chemically unstable and undergoes rapid isomerization to 1-AG (synonymous with 1(3)-AG) both *in vitro* and *in vivo*. 1-AG is a frequent contaminant in synthetic 2-AG preparations, and can markedly reduce their cannabinergic potency.

Reference

1. Sugiura, T., Kodaka, T., Kondo, S., *et al.* Is the cannabinoid CB₁ receptor a 2-arachidonoylglycerol receptor? Structural requirements for triggering a Ca²⁺ transient in NG108-15 cells. *J. Biochem.* **122**(4), 890-895 (1997).

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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