

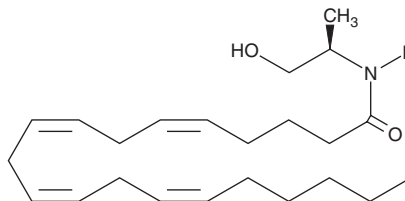
PRODUCT INFORMATION



R-1 Methanandamide

Item No. 90070

CAS Registry No.: 157182-49-5
Formal Name: N-(2-hydroxy-1R-methylethyl)-5Z,8Z,11Z,14Z-eicosatetraenamide
Synonyms: AM356, (R)-(+)-Arachidonyl-1'-Hydroxy-2'-Propylamide
MF: C₂₃H₃₉NO₂
FW: 361.6
Purity: ≥98%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥1 year



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

Laboratory Procedures

R-1 Methanandamide is supplied as a solution in ethanol. To change the solvent, simply evaporate the R-1 methanandamide 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 R-1 methanandamide in these solvents is approximately 10 and 30 mg/ml, respectively.

For maximum solubility in aqueous buffers, evaporate the methyl acetate and dissolve in ethanol. The ethanolic solution of R-1 methanandamide should be diluted with the aqueous buffer of choice. R-1 Methanandamide has a solubility of approximately 8.5 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method.

Description

R-1 methanandamide is a potent cannabinoid (CB) receptor 1 agonist in the methanandamide series. It is selective for CB₁ over CB₂ receptors with K_i values ranging from 17.9 to 28.3 and 815 to 868 nM, respectively.^{1,2} R-1 methanandamide is more potent than arachidonoyl ethanolamide (AEA; Item No. 90050). In addition, R-1 methanandamide is more resistant than AEA to hydrolytic inactivation by fatty acid amide hydrolase (FAAH).³

References

1. Pertwee, R.G. Pharmacology of cannabinoid receptor ligands. *Curr. Med. Chem.* **6(8)**, 635-664 (1999).
2. Goutopoulos, A., Fan, P., Khanolkar, A.D., *et al.* Stereochemical selectivity of methanandamides for the CB₁ and CB₂ cannabinoid receptors and their metabolic stability. *Bioorg. Med. Chem.* **9(7)**, 1673-1684 (2001).
3. Abadji, V., Lin, S., Taha, G., *et al.* (R)-Methanandamide: A chiral novel anandamide possessing higher potency and metabolic stability. *J. Med. Chem.* **37(12)**, 1889-1893 (1994).

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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