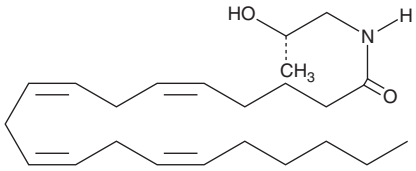
PRODUCT INFORMATION

S-2 Methanandamide

Item No. 90076

CAS Registry No.: 157182-48-4
Formal Name: N-(2S-hydroxypropyl)-5Z,8Z,11Z,14Z-eicosatetraenamide
Synonym: (S)-(+)-Arachidonyl-2'-Hydroxy-1'-Propylamide
MF: $C_{32}H_{39}NO_2$
FW: 361.6
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

S-2 methanandamide 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 S-2 methanandamide in these solvents is approximately 10 mg/ml.

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 S-2 methanandamide is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of S-2 methanandamide in PBS, pH 7.2, is approximately 100 µg/ml. We do not recommend storing the aqueous solution for more than one day. For maximum solubility in aqueous buffers, the ethanolic solution of S-2 methanandamide should be diluted with the aqueous buffer of choice. S-2 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

S-2 methanandamide is the second most potent CB_1 receptor agonist in the methanandamide series. It has a K_i value of 26 nM for the CB_1 receptor.[1] S-2 methanandamide is also less prone to FAAH inactivation, and inhibits the murine vas deferens twitch response with an IC_{50} value of 47 nM.[1]

Reference

1. Abadji, V., Lin, S., Taha, G., *et al.* (R)-Methanandamide: A chiral novel anandamide possessing higher potency and metabolic stability. *J. Med. Chem.* **37**, 1889-1893 (1994).

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