

Produktinformation



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PRODUCT INFORMATION



(S)-(+)-Linoleyl-2'-Hydroxy-1'-Propylamide

Item No. 9001235

Formal Name:	N-((S)-2-hydroxypropyl)octadeca- 9Z,12Z-dienamide	HO
MF:	$C_{21}H_{39}NO_{2}$	
FW:	337.5	
Purity:	≥98%	
Supplied as:	A solution in ethanol	
Storage:	-20°C	
Stability:	As supplied, 1 year from the QC date provided on the Certificate of Analysis, when stored properly	

Laboratory Procedures

(S)-(+)-Linoleyl-2'-hydroxy-1'-propylamide 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 ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of (S)-(+)-linoleyl-2'-hydroxy-1'-propylamide in these solvents is approximately 20, 5, and 11 mg/ml, respectively.

(S)-(+)-Linoleyl-2'-hydroxy-1'-propylamide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of (S)-(+)-linoleyl-2'-hydroxy-1'-propylamide should be diluted with the aqueous buffer of choice. (S)-(+)-Linoleyl-2'-hydroxy-1'-propylamide has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

N-Acyl ethanolamines (NAEs) have diverse biological actions that are strongly affected by the associated acyl group. Linoleoyl ethanolamide (LOEA) has potential signaling roles in aging and neurological functioning.^{1.2} LOEA has a weak affinity for cannabinoid (CB) receptors ($K_i = 10, 25 \mu$ M for CB₁, CB₂, respectively) and inhibits voltage-gated K⁺ channels.^{3,4} LOEA also inhibits fatty acid amide hydrolase (FAAH; $K_i = 9 \mu$ M) and is hydrolyzed by FAAH.^{5,6} (S)-(+)-Linoleyl-2'-hydroxy-1'-propylamide is a homolog of LOEA, characterized by the addition of an (S)- β -methyl group at the terminal ethanolamine carbon. A similar modification of arachidonoyl ethanolamide (Item No. 90050) to produce S-2 methanandamide (Item No. 90076) imparts higher affinity for the CB receptor.⁷ The physiological actions of this compound have not been evaluated.

References

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- 3. Lin, S., Khanolkar, A.D., Fan, P., et al. J. Med. Chem. 41, 5353-5361 (1998).
- 4. Poling, J.S., Rogawski, M.A., Salem, N., Jr., et al. Neuropharmacology 35(7), 983-991 (1996).
- 5. Maccarrone, M., van der Stelt, M., Rossi, A., et al. J. Biol. Chem. 273, 32332-32339 (1998).
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WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFFTY DATA

al 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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