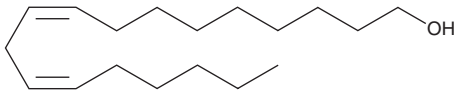
PRODUCT INFORMATION

cis,cis-Octadeca-9,12-dienol

Item No. 16556

CAS Registry No.: 506-43-4
Formal Name: 9Z,12Z-octadecadien-1-ol
Synonyms: FOH 18:2, Linoleic Alcohol, Linoleyl Alcohol
MF: $C_{18}H_{34}O$
FW: 266.5
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

cis,cis-Octadeca-9,12-dienol 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 *cis,cis*-octadeca-9,12-dienol in these solvents is approximately 10 and 15 mg/ml, respectively.

cis,cis-Octadeca-9,12-dienol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of *cis,cis*-octadeca-9,12-dienol should be diluted with the aqueous buffer of choice. *cis,cis*-Octadeca-9,12-dienol has a solubility of approximately 0.25 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method.

Description

cis,cis-Octadeca-9,12-dienol, known less formally as linoleyl alcohol, is a polyunsaturated fatty alcohol produced by the reduction of linoleic acid (Item No. 90150). Conversely, it is oxidized *in vivo* to produce linoleic acid.[1] *cis,cis*-Octadeca-9,12-dienol has been used to coat latex beads for phagocytosis assays and to synthesize a gallic acid ester for weight loss.[2,3] This alcohol of linoleic acid is also used in studies centering on the role of the carboxylic group of linoleic acid in enzyme recognition and cell signaling.[4,5]

References

1. Su, K.L. and Schmid, H.H.O. Metabolism of long-chain polyunsaturated alcohols in myelinating brain. *J. Lipid Res.* **13(4)**, 452-457 (1972).
2. Thomas, M.J., Hedrick, C.C., Smith, S., *et al.* Superoxide generation by the human polymorphonuclear leukocyte in response to latex beads. *J. Leukoc. Biol.* **51(6)**, 591-596 (1992).
3. Totani, N., Tateishi, S., Takimoto, T., *et al.* Gallic acid glycerol ester promotes weight-loss in rats. *J. Oleo Sci.* **60(9)**, 457-462 (2011).
4. Butovich, I.A., Lukyanova, S.M., and Reddy, C.C. Oxidation of linoleyl alcohol by potato tuber lipoxygenase: Possible mechanism and the role of carboxylic group in substrate binding. *Biochem. Biophys. Res. Commun.* **249(2)**, 344-349 (1998).
5. Shintani, T., Takahashi, N., Fushiki, T., *et al.* The recognition system of dietary fatty acids by the rat small intestinal cells. *Biosci. Biotechnol. Biochem.* **59(3)**, 479-481 (1995).

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