

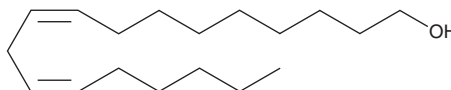
# PRODUCT INFORMATION



## *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<sub>18</sub>H<sub>34</sub>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.<sup>1</sup> *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.<sup>2,3</sup> 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.<sup>4,5</sup>

### 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).

#### 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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