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ProductInformation

Campesterol
from *Glycine max* (soybean)

Product Number **C 5157**
Storage Temperature -0 °C

Product Description

Molecular Formula: $C_{28}H_{48}O$
Molecular Weight: 400.7
CAS Number: 474-62-4
Synonyms: 24α-Methyl-5-cholesten-3β-ol; 24(R)-Ergost-5-en-3β-ol

Campesterol is a sterol found in many plant species. It occurs in a wide variety of dietary sources, including plant oils,[1] fruits, and spices. Campesterol has been widely investigated in studies of diet, dietary cholesterol, and lipid metabolism.[2,3]

By HPLC and GC analysis, the product will have an apparent purity of approximately 98%. However, analysis by ^{13}C-NMR has shown that the naturally occuring campesterol will contain approximately 35% dihydrobrassiasterol (24β-methyl-5-cholesten-3β-ol, 24(S)-ergost-5-en-3β-ol). A technique for the determination of campesterol in vegetable oils using HPLC-UV and HPLC-atmospheric pressure chemical ionization MS has been published.[4]

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

Campesterol is soluble in chloroform (20 mg/ml), yielding a clear, colorless solution. Campesterol may also be dissolved in diacylglycerol and triacylglycerol.[5]

References

1. Beveridge, T. H., et al., Phytosterol Content in American Ginseng Seed Oil. J. Agric. Food Chem., **50(4)**, 744-750 (2002).
2. Plat, J., and Mensink, R. P., Effects of Plant Sterols and Stanols on Lipid Metabolism and Cardiovascular Risk. Nutr. Metab. Cardiovasc. Dis., **11(1)**, 31-40 (2001).
3. Awad, A. B., and Fink, C. S., Phytosterols as Anticancer Dietary Components: Evidence and Mechanism of Action. J. Nutr., **130(9)**, 2127-2130 (2000).
4. Careri, M., et al., Liquid Chromatography-UV Determination and Liquid Chromatography-atmospheric Pressure Chemical Ionization Mass Spectrometric Characterization of Sitosterol and Stigmasterol in Soybean Oil. J. Chromatogr. A, **935(1-2)**, 249-257 (2001).
5. Meguro, S., et al., Solubilization of Phytosterols in Diacylglycerol Versus Triacylglycerol Improves the Serum Cholesterol-lowering Effect. Eur. J. Clin. Nutr., **55(7)**, 513-517 (2001).

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