

## PRODUCT DATA SHEET

### Coprostanol

**Catalog number:** 1116, 1116-k

**Common Name:** 5-*beta*-Cholestane-3-*beta*-ol

**Source:** semisynthetic

**Solubility:** chloroform, ethyl ether, warm,  
methanol

**CAS number:** 360-68-9

**Molecular Formula:** C<sub>27</sub>H<sub>48</sub>O

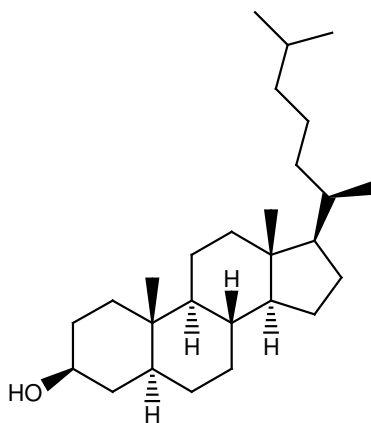
**Molecular Weight:** 389

**Storage:** -20°C

**Purity:** TLC >98%

**TLC System:** hexane/ethyl ether, (85:15 by vol)

**Appearance:** solid



### **Application Notes:**

Coprostanol is formed via the biohydrogenation of cholesterol in many animals by intestinal bacteria. It is widely used as a biomarker for human fecal matter in the environment, especially in regards to sewage pollution of water sources.<sup>1</sup> Coprostanol can be converted to coprostanone, another important fecal biomarker. Whereas many sterols are found esterified in vivo rather than as free sterols, coprostanol is not usually found esterified and is absorbed through the intestine as a free sterol.<sup>2</sup> After absorption through the intestine a small amount of coprostanol is converted to acidic, neutral, and water soluble compounds.<sup>3</sup> This product is a high purity sterol that is ideal as an analytical standard.<sup>4</sup>

### **Selected References:**

1. P. Nichols et al. "Comparison of the abundance of the fecal sterol coprostanol and fecal bacterial groups in inner-shelf waters and sediments near Sydney, Australia" *Journal of Chromatography A*, vol. 643(1-2) pp. 189-195, 1993
2. R. Rosenfeld, B. Zumoff, and L. Hellman "Metabolism of coprostanol-C14 and cholestanol-4-C14 in man" *Journal of Lipid Research*, vol. 4(3) pp. 337-340, 1963
3. R. Bell et al. "Bile Acids" *Journal of Biological Chemistry*, vol. 240(3) pp. 1054-1058, 1965
4. L. Jayasinghe et al. "Application of pentafluorophenyldimethylsilyl derivatization for gas chromatography-electron-capture detection of supercritically extracted sterols" *Journal of Chromatography A*, vol. 809 pp. 109-120, 1998

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