



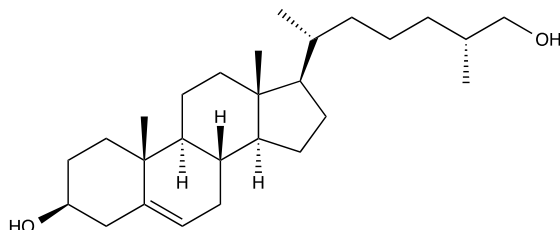
Catalog # 10-4536

27-Hydroxycholesterol

CAS# 20380-11-4

25(R), 26-Hydroxycholesterol; 5,25R-Cholesten-3 β ,26-diol

Lot # FBS1083



Metabolite resulting from the action of sterol 27-hydroxylase on cholesterol. Concentrations of 27-hydroxycholesterol are elevated in patients with Alzheimers disease and mild cognitive impairment.^{1,2} Endogenous selective estrogen receptor modulator³ and ligand for the liver X receptor (EC₅₀ = 85nM for LXR α and 71nM for LXR β)⁴.

- 1) Heverin *et al.* (2004), *Changes in the levels of cerebral and extracerebral sterols in the brains of patients with Alzheimer's disease*; J.Lipid Res. **45** 186
- 2) Shafaati *et al.* (2011), *Marked accumulation of 27-hydroxycholesterol in the brains of Alzheimer's patients with the Swedish APP 670-671 mutation*; J.Lipid Res. **52** 1004
- 3) Umetani *et al.* (2007), *27-Hydroxycholesterol is an endogenous SERM that inhibits the cardiovascular effects of estrogen*; Nature Medicine, **13** 1185
- 4) Fu *et al.* (2001), *27-Hydroxycholesterol is an endogenous ligand for liver X receptor in cholesterol-loaded cells*; J.Biol.Chem. **276** 38378

PHYSICAL DATA

| | |
|------------------------|---|
| Molecular Weight: | 402.66 |
| Molecular Formula: | C ₂₇ H ₄₆ O ₂ |
| Purity: | >98% by HPLC |
| | NMR: (Conforms) |
| Solubility: | DMSO (up to 10 mg/ml with warming), or ethanol (up to 10 mg/ml) |
| Physical Description: | White solid |
| Storage and Stability: | Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 2 months. |

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