

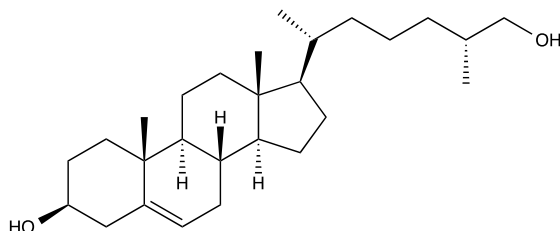
Catalog # 10-4536

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(EC_{50} = 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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Focus Biomolecules LLC 400 Davis Dr. Suite 600 Plymouth Meeting, PA 19462

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