

7Beta-Hydroxycholesterol Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: 7Beta-Hydroxycholesterol

Catalog No.: CFN90610

Cas No.: 566-27-8

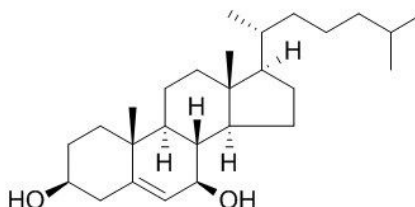
Purity: > 98%

M.F: C₂₇H₄₆O₂

M.W: 402.65

Physical Description: Powder

Synonyms: 5-Cholestene-3β,7β-diol; Cholest-5-ene-3-beta,7-beta-diol.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

[Source]

Not data available.

[Biological Activity or Inhibitors]

7beta-Hydroxycholesterol, a major cytotoxin in oxidized LDL, induces Ca⁽²⁺⁾ oscillations,

MAP kinase activation and apoptosis in human aortic smooth muscle cells.^[1]

7beta-Hydroxycholesterol and 7-ketocholesterol have dual cytotoxic effects on the cells of the vascular wall by their ability to induce apoptosis in endothelial and smooth muscle cells and necrosis in fibroblasts.^[2]

7beta-Hydroxycholesterol can inhibit the proliferation of NCI-H460 cells through apoptosis via caspase activation. ^[3]

7-beta-Hydroxycholesterol can reinforce the susceptibility of K562 adriamycin-resistant cells to this drug, it also can enhance radiosensitivity in RDM4 cells.^[4]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[5]

Mobile phase: 1 mM Phosphoric acid in water- Acetonitrile, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 60 °C;

The wave length of determination: 200 nm.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

[1] Ares M P, Pörn-Ares M I, Moses S, *et al. Atherosclerosis*, 2000, 153(1):23-35.

[2] Lizard G, Monier S, Cordelet C, *et al. Arterioscl. Throm. Vas.*, 1999, 19(5):1190-200.

[3] Kang K A, Chae S, Lee K H, *et al. Biol. Pharm. Bull.*, 2005, 28(8):1377-80.

[4] Hyun J W, Holl V, Weltin D, *et al. Anticancer Res.*, 2002, 22(2A):943-8.

[5] Rodriguez I R, Alam S, Lee J W. *Invest. Opth. Vis. Sci.*, 2004, 45(8):2830-7.

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