

alpha-Spinasterol Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: alpha-Spinasterol

Catalog No.: CFN98748

Cas No.: 481-18-5

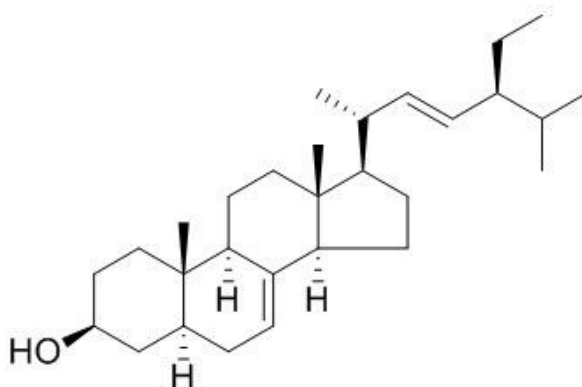
Purity: > 95%

M.F: C₂₉H₄₈O

M.W: 412.7

Physical Description: Powder

Synonyms: (3β,5α,22E)-Stigmasta-7,22-dien-3-ol; Bessisterol; Hitodesterol.



[Intended Use]

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

[Source]

The roots of *Bupleurum chinense* DC.

[Biological Activity or Inhibitors]

alpha-Spinasterol is a potent inhibitor ($IC(50) = 3.9 \times 10^{-12}$ g/mL, 9.5 pmol/L) of glomerular mesangial cell proliferation caused by high-ambient glucose (5.6 mM vs. 25 mM), and its inhibitory potency is about 1,000 times higher than that of simvastatin, an HMG-CoA reductase inhibitor used as a positive control; it also significantly reduces the increases of serum triglycerides, renal weight and urinary protein excretion in streptozotocin-induced diabetic mice, suggests that alpha-spinasterol has a significant therapeutic potential to modulate the development and/or progression of diabetic nephropathy.^[1]

alpha-Spinasterol has anti-inflammatory activity.^[2]

alpha-Spinasterol exhibits significant and dose-related antinociceptive effects against acetic acid-induced visceral pain.^[3]

alpha-Spinasterol, a TRPV1 receptor antagonist, elevates the seizure threshold in three acute seizure tests in mice.^[4]

[Solvent]

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

[HPLC Method]^[5]

TLC:

Expand agents: Petroleum ether - Ethyl acetate - Methanol = 8:2:1;

The wave length of determination: 400 nm.

[Storage]

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

[References]

[1] Jeong S I, Kim K J, Choi M K, *et al. Planta Med.*, 2004, 70(8):736-9.

[2] Zhou C C, Sun X B, Liu J Y, *et al. Acta Pharm.Sin.*, 1985, 20(4):257-61.

[3] Ardenghi J V, Pretto J B, Souza M M, *et al. J. Pharm. Pharmacol.*, 2006, 58(1):107-12.

[4] Katarzyna Socała, Dorota Nieoczym, Mateusz Pieróg, *etal. J. Neural Transmission*, 2015, 122 (9).

[5] Liu YJ, Shi Y P, Yao Q Q, *et al. Journal of West Pharmaceutical*, 2002, 17 (1): 58-9.

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