[ Product Information ]

Name: Daucosterol
Catalog No.: CFN98713
Cas No.: 474-58-8
Purity: > 98%
M.F: C_{35}H_{60}O_{6}
M.W: 576.9
Physical Description: Powder


[ Intended Use ]

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

[ Source ]
The herbs of Dioscorea nipponica Makino
[ Biological Activity or Inhibitors]

Daucosterol can protect mice against disseminated candidiasis by the CD4\(^+\) Th1 immune response.\(^1\)

Daucosterol has proliferation-enhancing activity for neural stem cells (NSCs), may be involved in IGF1-AKT pathway, and it as an efficient and inexpensive growth factor alternative that could be used in clinical medicine and research applications.\(^2\)

Daucosterol exhibits moderate antibacterial activity against Bacillus subtilis and Staphylococcus aureus.\(^3\)

Daucosterol can inhibit cancer cell proliferation by inducing autophagy through reactive oxygen species-dependent manner.\(^4\)

Daucosterol has neuroprotective activity, could be potentially developed as a medicine for ischemic stroke treatment, can significantly reduce neuronal loss, as well as apoptotic rate and caspase-3 activity, increase the expression level of protein, diminish the down-regulation of p-AKT3 and p-GSK-3\(\beta\)4, thus activating the AKT5 signal pathway, diminish the down-regulation of the anti-apoptotic proteins Mcl-1 and Bcl-2, and decrease the expression level of the pro-apoptotic protein Bax, thus raising the ratio of Bcl-2/Bax.\(^5\)

Daucosterol has anti-cancer and apoptotic effects in human colon cancer cell line HCT-116, at different doses induces cell cycle arrest at sub-G1 phase of the cell cycle.\(^6\)

[ Solvent ]

Pyridine, DMSO, Methanol, Hot water, etc.

[ HPLC Method ]\(^7\)

HPLC-ELSD:

Mobile phase: Methanol -H2O=95:5 ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

Flow rate of air : 2.5 L/min;
Temperature of drift tube: 80 °C.

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

[ References ]

[ Contact ]
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