

Product Data Sheet

Product Name: Ferulenol

Cat. No.: GC12319

Chemical Properties

Cas. No. 6805-34-1

Chemical Name 4-hydroxy-3-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrien-1-yl]-2H-1-benzopyran-2-one

SMILES O=C1C(C/C=C(C)/CC/C=C(C)/CC/C=C(C)/C)=C(O)C2=CC=CC=C2O1

Formula $C_{24}H_{30}O_3$

M.Wt 366.5

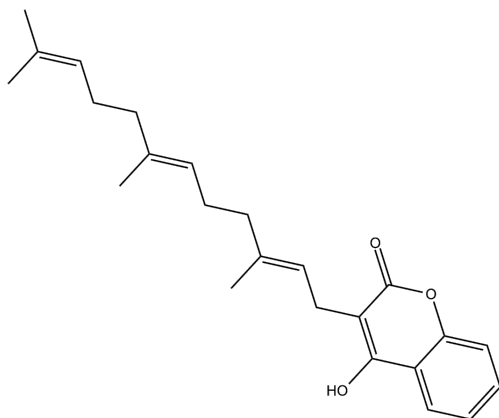
Solubility DMSO: Soluble, Ethanol: Soluble, Methanol: Soluble

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Ferulenol is a prenylated 4-hydroxycoumarin derivative from *Ferula communis* var. *genuina* with haemorrhagic action [1]. It has been demonstrated that ferulenol exhibits potent antimycobacterial activity [2].

In vitro: Ferulenol stimulated tubulin polymerization in the absence of GTP, with a less extensive

Caution: Product has not been fully validated for medical applications. For research use only.

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polymerization profile at 100 pM concentration. Ferulenol decreased radiolabeled colchicine bound by tubulin in a dose-dependent manner. Ferulenol altered the normal nuclear morphology of MCF-7 cells. Treatment with ferulenol (100 nM and 1 μ M) for 24h induced a dose-dependent reduction of cell viability [3]

In vivo: In albino mice, the acute LD50s of ferulenol by single po or ip were 2,100 and 319 mg/kg bw, respectively. Three days after ferulenol administration, dosed animals showed hypoprothrombinemia with internal and external hemorrhages. Male mice were more sensitive to intoxication than females [4].

References:

- [1] Lamnaouer D, Bodo B, Martin M T, et al. Ferulenol and ω -hydroxyferulenol, toxic coumarins from *Ferula communis* var. *genuina*[J]. *Phytochemistry*, 1987, 26(6): 1613-1615.
- [2] E. Mamoci, I. Cavoški, V. Simone, et al. Chemical composition and in vitro activity of plant extracts from *Ferula communis* and *Dittrichia viscosa* against postharvest fungi. *Molecules* 16(3), 2609-2625 (2011).
- [3] Bocca C, Gabriel L, Bozzo F, et al. Microtubule-interacting activity and cytotoxicity of the prenylated coumarin ferulenol[J]. *Planta medica*, 2002, 68(12): 1135-1137.
- [4] Fraigui O, Lamnaouer D, Faouzi M Y. Acute toxicity of ferulenol, a 4-hydroxycoumarin isolated from *Ferula communis* L[J]. *Veterinary and human toxicology*, 2002, 44(1): 5-7.

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