Zederone

Cat. No.: HY-N1050

CAS No.: 7727-79-9

Molecular Formula: $C_{15}H_{18}O_3$

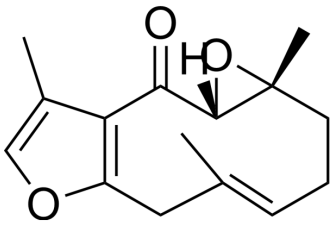
Molecular Weight: 246.3

Target: mTOR

Pathway: PI3K/Akt/mTOR

Storage: -20°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (203.00 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.0601 mL	20.3004 mL	40.6009 mL
	5 mM	0.8120 mL	4.0601 mL	8.1202 mL
	10 mM	0.4060 mL	2.0300 mL	4.0601 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (10.15 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (10.15 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (10.15 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Zederone, a germacrane-type sesquiterpene, has potently cytotoxic against human white blood cancer cells and human prostate cancer cells. Zederone significantly inhibits the proliferation and downregulates the protein expressions of mTOR, and phosphorylated p70 S6 kinase (p-p70s6K) in SKOV3 cells[1][2].

IC_{50} & Target

mTOR

REFERENCES

[1]. Prapapan Pimkaew, et al. Zederone, a sesquiterpene from Curcuma elata Roxb, is hepatotoxic in mice. Int J Toxicol. 2013 Nov-Dec;32(6):454-62.

[2]. Zhilei Zhang, et al. A study of zederone for the inhibition on ovarian cancer cell proliferation through mTOR/p70s6K signalling pathway. J BUON. 2020 Mar-Apr;25(2):785-791.

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