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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Rapanone

Cat. No.: HY-N8213

CAS No.: 573-40-0

Molecular Formula: $C_{19}H_{30}O_4$

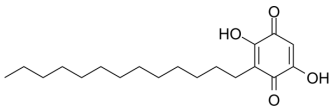
Molecular Weight: 322.44

Target: Apoptosis; Phospholipase; Bacterial; Parasite

Pathway: Apoptosis; Metabolic Enzyme/Protease; Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (77.53 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.1014 mL	15.5068 mL	31.0135 mL
	5 mM	0.6203 mL	3.1014 mL	6.2027 mL
	10 mM	0.3101 mL	1.5507 mL	3.1014 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.75 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Rapanone is a natural benzoquinone. Rapanone exhibits a broad spectrum of biological actions, including anti-tumor, antioxidant, anti-inflammatory, antibacterial and antiparasitic. Rapanone also is a potent and selective human synovial PLA $_2$ inhibitor, with an IC_{50} of 2.6 μM[1][2][3][4].

IC_{50} & Target

PLA2
2.6 μM (IC_{50})

In Vitro

Rapanone (10-40 μM; 24 h) inhibits the cell viability, with IC_{50}s of 35.58 μM and 27.89 μM for primary rats hepatocytes and HepG2 cells, respectively[1].
Rapanone (10-40 μM; 24 h) induces a concentration-dependent mitochondrial membrane potential dissipation, ATP depletion, hydrogen peroxide generation and, phosphatidyl serine externalization in HepG2 cells[1].
Rapanone inhibits electron transport at Complex III and promotes mitochondrial dysfunction[1].

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Rapanone (2.5-10 mg/kg; i.p.) exhibits anti-inflammatory effects in the carrageenan paw oedema model in mice[4]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Andreu GLP, et, al. Rapanone, a naturally occurring benzoquinone, inhibits mitochondrial respiration and induces HepG2 cell death. Toxicol In Vitro. 2020 Mar;63:104737.

[2]. Morais LS, et, al. Antileishmanial compounds from Connarus suberosus: Metabolomics, isolation and mechanism of action. PLoS One. 2020 Nov 6;15(11):e0241855.

[3]. Vega-Hernández K, et, al. Discerning the antioxidant mechanism of rapanone: A naturally occurring benzoquinone with iron complexing and radical scavenging activities. J Inorg Biochem. 2017 May;170:134-147.

[4]. Ospina LF, et, al. Inhibition of acute and chronic inflammatory responses by the hydroxybenzoquinonic derivative rapanone. Planta Med. 2001 Dec;67(9):791-5.

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

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