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Produktinformation

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Soyasapogenol B

Cat. No.: HY-N6074

CAS No.: 595-15-3

Molecular Formula: $C_{30}H_{50}O_3$

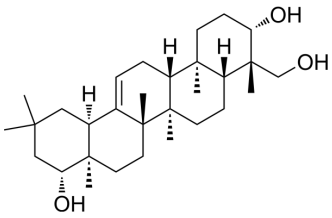
Molecular Weight: 458.72

Target: Autophagy; Apoptosis

Pathway: Autophagy; Apoptosis

Storage: 4°C, protect from light

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



SOLVENT & SOLUBILITY

In Vitro

DMSO : 33.33 mg/mL (72.66 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1800 mL	10.8999 mL	21.7998 mL
	5 mM	0.4360 mL	2.1800 mL	4.3600 mL
	10 mM	0.2180 mL	1.0900 mL	2.1800 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 (5.45 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Soyasapogenol B is a component of soy that has oral activity. Soyasapogenol B promotes autophagy and apoptosis. Soyasapogenol B has anti-inflammatory, antioxidant and antitumor activities[1][2][3].

In Vitro

Soyasapogenol B (5-20 μM, 48 h) can reduce tumor cell viability and promote apoptosis and autophagy of colorectal cancer cells through endoplasmic reticulum stress[1].

Sovasapogenol B (1-10 μM, 48 h) shows anti-growth and anti-metastasis activity in clear cell renal cell carcinoma (ccRCC)[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	HCT116, SW480
Concentration:	5, 10, 20 μM
Incubation Time:	24, 48 h

Result:	Decreased the viability of tumor cells.

Western Blot Analysis[1]

Cell Line:	HCT116, SW480
Concentration:	10, 20 μM
Incubation Time:	48 h
Result:	Increased the level of caspase-3 and PARP. Decreased the expression of Bcl-2 and increased the expression of Bax. Increased the expression of LC3-II/LC3-I, Beclin 1 and Atg5, decreased the expression of p62.

Apoptosis Analysis[1]

Cell Line:	HCT116, SW480
Concentration:	10, 20 μM
Incubation Time:	48 h
Result:	Increased the number of TUNEL positive cells. Increased the apoptotic percentage in HCT116 cells by more than 4 folds and 9 folds respectively, elevated to over 10% and 20% in SW480 cells.

In Vivo

Soyasapogenol B (25 or 50 mg/kg/day, intraperitoneal injection) can inhibit tumor growth, and promote apoptosis and autophagy in a mouse tumor model of colorectal cancer[1].
Soyasapogenol B (10 mg/kg, oral) alleviates memory impairment induced by lipopolysaccharide (HY-D1056) in mice by regulating the expression of BDNF mediated by NF-κB[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Xenograft murine models[1]
Dosage:	25 or 50 mg/kg
Administration:	i.p.
Result:	Increased the apoptotic cell death dose-dependently. Increased the expression of cleaved caspase-3, Bax, CHOP, GRP78 and LC3BII. Decreased the expression of Bcl-2 and Ki-67.

Animal Model:	Lipopolysaccharide-induced memory impairment in mice[3]
Dosage:	10 mg/kg
Administration:	p.o.
Result:	Increased LPS-suppressed BDNF expression and inhibited NF-κB activation and TNF-α expression.

REFERENCES

[1]. Wang L, et al. Endoplasmic reticulum stress triggered by Soyasapogenol B promotes apoptosis and autophagy in colorectal cancer. Life Sci. 2019 Feb 1;218:16-24.

[2]. Wang L, et al. Soyasapogenol B exhibits anti-growth and anti-metastatic activities in clear cell renal cell carcinoma. Naunyn Schmiedebergs Arch Pharmacol. 2019 May;392(5):551-563.

[3]. Lee HJ, et al. Soyasapogenol B and Genistein Attenuate Lipopolysaccharide-Induced Memory Impairment in Mice by the Modulation of NF-κB-Mediated BDNF Expression. J Agric Food Chem. 2017 Aug 16;65(32):6877-6885.

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