Desoxyrhaponticin

Cat. No.: HY-N2486

CAS No.: 30197-14-9

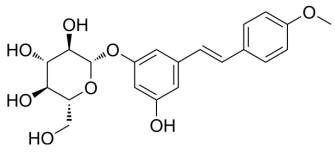
Molecular Formula: $C_{21}H_{24}O_8$

Molecular Weight: 404.41

Target: Fatty Acid Synthase (FASN); Apoptosis

Pathway: Metabolic Enzyme/Protease; 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 : 100 mg/mL (247.27 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4727 mL	12.3637 mL	24.7274 mL
	5 mM	0.4945 mL	2.4727 mL	4.9455 mL
	10 mM	0.2473 mL	1.2364 mL	2.4727 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 (6.18 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.18 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.18 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Desoxyrhaponticin is a kind of oral drug that inhibits effective fatty acid synthesis (FASN), and has a fatal effect on cancer cells. Desoxyrhaponticin has the ability to inhibit glucose uptake, improve oral glucose tolerance as a diabetic agent, and possess anti-diabetic effects.

In Vitro

The IC50s values for inhibition of renal membrane vesicle uptake in normal rats and diabetic rats were 118.8 and 115.7 μM, respectively. Desoxyrhaponticin effectively controls hyperglycemia by inhibiting glucose transport in the small intestine and inhibiting glucose reabsorption in the kidneys[2].
Desoxyrhaponticin inhibits glucose uptake in rabbit intestinal mesangial vesicles and rat everted intestinal cuffs with IC50s of 148.3 and 30.9 μMs, respectively[2].

	Desoxyrhaponticin (500 μM) inhibits glucose uptake into rabbit intestinal brush-border membrane vesicles, IC50=30.9 μM[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Desoxyrhaponticin (150, 300 mg/kg; po; single dose before the glucose loading) inhibits intestinal and renal glucose transport in normal and diabetic rats, and reduces postprandial hyperglycemia in diabetic rat[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Biomed Res Int. 2021 Sep 9;2021:9066938.

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REFERENCES

[1]. Li P, et al. Inhibitory effect of desoxyrhaponticin and rhaponticin, two natural stilbene glycosides from the Tibetan nutritional food Rheum tanguticum Maxim. ex Balf., on fatty acid synthase and human breast cancer cells.

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