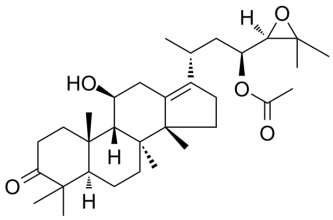
Alisol B 23-acetate

Cat. No.:	HY-N0805		
CAS No.:	26575-95-1		
Molecular Formula:	$C_{32}H_{50}O_5$		
Molecular Weight:	514.74		
Target:	Others		
Pathway:	Others		
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 : 50 mg/mL (97.14 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.9427 mL	9.7136 mL	19.4273 mL
	5 mM	0.3885 mL	1.9427 mL	3.8855 mL
	10 mM	0.1943 mL	0.9714 mL	1.9427 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 (4.86 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.86 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.86 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Alisol B 23-acetate (23-Acetylalismol B), a natural triterpenoid, produces protective effects against EE-induced cholestasis, due to FXR-mediated gene regulation.IC50 Value:Target: Anti-hepatotoxic natural product. In vitro: Alisol-B 23-acetate has an effect on FXR activation in a dose-dependent manner using luciferase reporter assay in HepG2 cells [3].In vivo: In alisol B 23-acetate-treated mice, the changes in transporters and enzymes, as well as ameliorative liver histology were abrogated by FXR antagonist guggulsterone [1]. Alisol B 23-acetate treatment in a dose-dependent manner resulted in protection against hepatotoxicity induced by CCl4via FXR activation. Through FXR activation, alisol B 23-acetate promoted hepatocyte proliferation via an induction in hepatic levels of FoxM1b, Cyclin D1 and Cyclin B1. Alisol B 23-acetate also reduced hepatic

bile acids through a decrease in hepatic uptake transporter Ntcp, bile acid synthetic enzymes Cyp7a1, Cyp8b1, and an increase in efflux transporter Bsep, Mrp2 expression. In addition, alisol B 23-acetate induced the expression of STAT3 phosphorylation, and STAT3 target genes Bcl-xl and SOCS3, resulting in decreased hepatocyte apoptosis [2].

REFERENCES

[1]. Meng Q, et al. Protective effects of alisol B 23-acetate from edible botanical Rhizoma alismatis against carbon tetrachloride-induced hepatotoxicity in mice. Food Funct. 2015 Apr 8;6(4):1241-50.

[2]. Meng Q, et al. Alisol B 23-acetate protects against ANIT-induced hepatotoxity and cholestasis, due to FXR-mediated regulation of transporters and enzymes involved in bile acid homeostasis. Toxicol Appl Pharmacol. 2015 Mar 15;283(3):178-86.

[3]. Meng Q, et al. Alisol B 23-acetate promotes liver regeneration in mice after partial hepatectomy via activating farnesoid X receptor. Biochem Pharmacol. 2014 Nov 15;92(2):289-98.

[4]. Meng Q, et al. Protective Effects of Alisol B 23-Acetate Via Farnesoid X Receptor-Mediated Regulation of Transporters and Enzymes in Estrogen-Induced Cholestatic Liver Injury in Mice. Pharm Res. 2015 Jun 4.

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