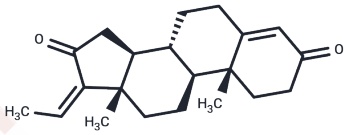
Data Sheet (Cat.No.T17280)

TargetMol

(Z)-Guggulsterone

Chemical Properties



CAS No. : 39025-23-5

Formula: C21H28O2

Molecular Weight: 312.45

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	(Z)-Guggulsterone inhibits the growth of human prostate cancer cells by causing apoptosis. Z-guggulsterone inhibits angiogenesis by suppressing the VEGF-VEGF-R2-Akt signaling axis.
Targets(IC50)	Apoptosis,FXR,Akt,Angiotensin-converting Enzyme (ACE),SARS-CoV,VEGFR
In vitro	In HUVEC, Z-guggulsterone (10, 20 μM; 24 or 48 hours) induces a reduction in the level of VEGF-R2 protein [1].
In vivo	In tumor volume and wet tumor weight, Z-guggulsterone (p.o.; 1 mg; 5 times/week) causes a statistically significant reduction [1].

Solubility Information

Solubility	DMSO: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2005 mL	16.0026 mL	32.0051 mL
5 mM	0.6401 mL	3.2005 mL	6.401 mL
10 mM	0.3201 mL	1.6003 mL	3.2005 mL
50 mM	0.064 mL	0.3201 mL	0.6401 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Xiao D, et al. z-Guggulsterone, a constituent of Ayurvedic medicinal plant Commiphora mukul, inhibits angiogenesis in vitro and in vivo. Mol Cancer Ther. 2008 Jan;7(1):171-80.
Wu Y, Zhou T, Qian D, et al.Z-Guggulsterone Induces Cell Cycle Arrest and Apoptosis by Targeting the p53/CCNB1/PLK1 Pathway in Triple-Negative Breast Cancer.ACS Omega.2023
Sun H, Su X, Liu Y, et al.Roseburia intestinalis relieves intrahepatic cholestasis of pregnancy through bile acid/FXR-FGF15 in rats.iScience.2023: 108392.
Dou X, Huo T, Liu Y, et al.Discovery of novel and selective farnesoid X receptor antagonists through structure-based virtual screening, preliminary structure-activity relationship study, and biological evaluation.European Journal of Medicinal Chemistry.2024: 116323.