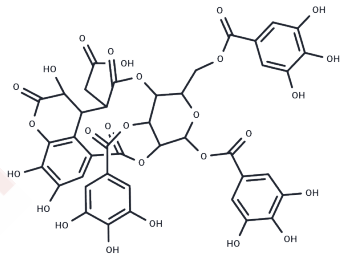
Data Sheet (Cat.No.TQ0184)

TargetMol

Chebulinic acid

Chemical Properties



CAS No. : 18942-26-2

Formula: C41H32O27

Molecular Weight: 956.68

Storage: Keep away from direct sunlight,Keep away from moisture
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	Chebulinic acid is a potent inhibitor of M. tuberculosis DNA gyrase. It also can inhibit SMAD-3 phosphorylation and H+ K+-ATPase activity.
Targets(IC50)	ATPase,Proton pump,Antibacterial,DNA/RNA Synthesis,TGF-beta/Smad
In vitro	Chebulinic acid obviously inhibited HQ/Cu(II)- and H(2)O(2)/Cu(II)-mediated pBR322 DNA strand breaks. When MRC-5 cells were treated with HQ/Cu(II), the presence of Chebulinic acid inhibited HQ/Cu(II)-mediated double-strand breaks of genomic DNA [1].
In vivo	Chebulinic acid had no effect on KCl-induced aortic contraction, but irreversibly inhibited the contractile responses to phenylephrine in an apparently non-competitive manner. Chebulinic acid also inhibited contractile responses of rat aorta to 5-hydroxytryptamine and angiotensin II. 3. Chebulinic acid inhibited the binding of [3H]-prazosin to dog aortic microsomal membranes in a concentration-dependent manner with an IC50 value of 0.34 mmol/L [2].

Solubility Information

Solubility	H2O: <1 mg/mL (insoluble) DMSO: 130 mg/mL (135.89 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.0453 mL	5.2264 mL	10.4528 mL
5 mM	0.2091 mL	1.0453 mL	2.0906 mL
10 mM	0.1045 mL	0.5226 mL	1.0453 mL
50 mM	0.0209 mL	0.1045 mL	0.2091 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

Zong-Chun Yi, et al. Chebulinic Acid and Tellimagrandin I Inhibit DNA Strand Breaks by hydroquinone/Cu(II) and H(2)O(2)/Cu(II), but Potentiate DNA Strand Breaks by H(2)O(2)/Fe(II). Toxicol In Vitro. Jun 2009; 23 (4), 667-73

Y Y Guan, et al. In Vitro Inhibitory Effects of Chebulinic Acid on the Contractile Responses of Cardiovascular Muscles. Clin Exp Pharmacol Physiol. Aug 1996 23 (8), 747-50

Mishra V et al. Anti-secretory and cyto-protective effects of chebulinic acid isolated from the fruits of Terminalia chebula on gastric ulcers. Phytomedicine. 2013 Apr 15;20(6):506-11.