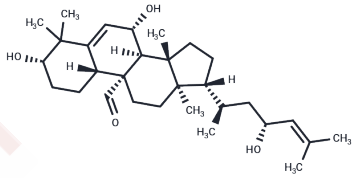
Data Sheet (Cat.No.TN1940)

TargetMol

Momordicine I

Chemical Properties



CAS No. : 91590-76-0

Formula: C30H48O4

Molecular Weight: 472.71

Storage: Keep away from direct sunlight,Keep away from moisture,Store at low temperature
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	Momordicine I is a natural cucurbitane-type triterpene exhibiting antihypertensive, anti-inflammatory, anti-hypertrophic, anti-fibrotic, and antioxidant properties. Its mechanisms of action include regulating insulin signalling, inducing cancer cell apoptosis, and modulating NO, ACE, PI3K/Akt, NF-κB, Nrf2, c-Met/STAT3 pathways, and may be applied in cardiovascular diseases and inflammation.
Targets(IC50)	RAAS,Others,NF-κB,Akt,Nrf2,NO Synthase,STAT,c-Met/HGFR,PI3K
In vitro	**Methods**: Momordicine I (0-18 μM, 48 hours) was used to treat SVGp12 astrocytes, LN229 glioma cells, and GBM8401 glioma cells. MTS assay was used to assess cell viability after 48 hours of treatment with specific concentrations. **Results**: Momordicine I had an inhibitory effect on the above cells with IC50 values of 14.4, 9.2, and 9.6 μM. [1]
In vivo	**Methods**: Momordicine I (30 mg/kg, intraperitoneal injection, once a day for 21 days) was used to treat MOC2-induced xenograft model mice to study its effects on growth and target protein expression in mice. **Results**: Momordicine I reduced the volume and weight of tumors in mice. It also reduced the expression of Hk1, Pdk3, Fasn, and Acly. [2]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1155 mL	10.5773 mL	21.1546 mL
5 mM	0.4231 mL	2.1155 mL	4.2309 mL
10 mM	0.2115 mL	1.0577 mL	2.1155 mL
50 mM	0.0423 mL	0.2115 mL	0.4231 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

Kao Y, et al. Momordicine I suppresses glioma growth by promoting apoptosis and impairing mitochondrial oxidative phosphorylation. EXCLI J. 2023 Jun 6;22:482-498.
Bandyopadhyay D, et al. Momordicine-I suppresses head and neck cancer growth by modulating key metabolic pathways. Cell Commun Signal. 2024 Dec 18;22(1):597.