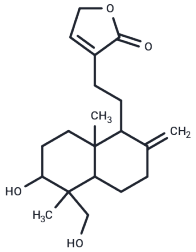
Data Sheet (Cat.No.TQ0185)

TargetMol

14-Deoxy-11,12-didehydroandrographolide

Chemical Properties



CAS No. : 42895-58-9

Formula: C20H28O4

Molecular Weight: 332.43

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	14-Deoxy-11,12-didehydroandrographolide (AP10) has hypotensive, anti-inflammatory, anti-asthma, and anti-cancer actions. It can inhibit NF-κB activation.
Targets(IC50)	NF-κB
In vivo	14-deoxy-11,12-didehydroandrographolide (1 mg/kg) significantly decreases resistance and restores Cdyn in Ovalbumin-challenged mice in response to methacholine.
Cell Research	A549 cells (3×10^3/well), BEAS-2B cells (5×10^3/well), and RBL-2H3 cells (3×10^3/well) are seeded in flat-bottomed 96-well plates overnight and then incubated with increasing concentrations (3-120 μM) of 14-deoxy-11,12-didehydroandrographolide for 24 and 48 h at 37°C. Cell viability is analyzed using the CellTiter 96 AQueous cell proliferation assay. Absorbance is recorded at 490 nm.
Animal Research	Female BALB/c mice, 6 to 8 weeks old, are sensitized and challenged with OVA. Briefly, mice are sensitized by ip injections of 20 μg of OVA and 4 mg of Al(OH)3 suspended in 0.1 mL of saline on days 0 and 14. On days 22, 23, and 24, mice are challenged with 1% OVA aerosol for 30 min. 14-deoxy-11,12-didehydroandrographolide (0.1, 0.5, and 1 mg/kg) or vehicle (1% DMSO) in 0.1 mL of saline is given by i.p injections 2 h before and 10 h after each OVA aerosol challenge.

Solubility Information

Solubility	DMF: 100 mg/mL (300.82 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (6.02 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0082 mL	15.0408 mL	30.0815 mL
5 mM	0.6016 mL	3.0082 mL	6.0163 mL
10 mM	0.3008 mL	1.5041 mL	3.0082 mL
50 mM	0.0602 mL	0.3008 mL	0.6016 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

Guan SP, et al. Protective role of 14-deoxy-11,12-didehydroandrographolide, a noncytotoxic analogue ofandrographolide, in allergic airway inflammation. J Nat Prod. 2011 Jun 24;74(6):1484-90.