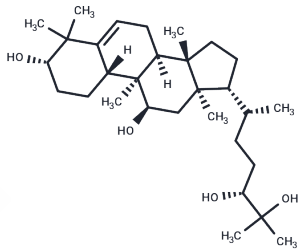
Data Sheet (Cat.No.TN2346)

TargetMol

Mogrol

Chemical Properties



CAS No. : 88930-15-8

Formula: C30H52O4

Molecular Weight: 476.73

Storage: Keep away from direct sunlight
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	Mogrol, a biometabolite of mogrosides, functions by inhibiting the ERK1/2 and STAT3 pathways, diminishing CREB activation, and activating AMPK signaling.
Targets(IC50)	ERK,AMPK,STAT
In vitro	Mogrol, but not mogrosides, suppressed triglyceride accumulation by affecting early (days 0 2) and late (days 4 8), but not middle (days 2 4), differentiation stages.?At the late stage, mogrol increased AMP-activated protein kinase (AMPK) phosphorylation and reduced glycerol-3-phosphate dehydrogenase activity.?At the early stage, mogrol promoted AMPK phosphorylation, inhibited the induction of CCAAT/enhancer-binding protein β (C/EBPβ;?a master regulator of adipogenesis), and reduced 3T3-L1 cell contents (e.g., clonal expansion).?In addition, mogrol, but not the AMPK activator AICAR, suppressed the phosphorylation and activity of the cAMP response element-binding protein (CREB), which regulates C/EBPβ expression.?Mogrol suppressed adipogenesis by reducing CREB activation in the initial stage of cell differentiation and by activating AMPK signaling in both the early and late stages of this process[2].

Solubility Information

Solubility	DMSO: 245 mg/mL (513.92 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 10 mg/mL (20.98 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (20.98 mM),Solution. *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	2.0976 mL	10.4881 mL	20.9762 mL
5 mM	0.4195 mL	2.0976 mL	4.1952 mL
10 mM	0.2098 mL	1.0488 mL	2.0976 mL
50 mM	0.042 mL	0.2098 mL	0.4195 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

Liu C, et al. Mogrol represents a novel leukemia therapeutic, via ERK and STAT3 inhibition. Am J Cancer Res. 2015 Mar 15;5(4):1308-18.

Naoki Harada, et al. Mogrol Derived from Siraitia grosvenorii Mogrosides Suppresses 3T3-L1 Adipocyte Differentiation by Reducing cAMP-Response Element-Binding Protein Phosphorylation and Increasing AMP-Activated Protein Kinase Phosphorylation. PLoS One. 2016, 11 (9), e0162252.