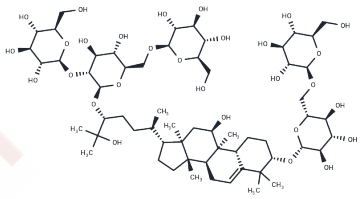
Data Sheet (Cat.No.T2978)

TargetMol

Mogroside V

Chemical Properties



CAS No. : 88901-36-4

Formula: C60H102O29

Molecular Weight: 1287.43

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	Mogroside V is a widely used sweetener, has in vitro AMPK activating effect, it also has anti-inflammatory potential in murine macrophages and a murine ear edema model, and has the potential to protect against LPS-induced airway inflammation in a model of ALI. Mogroside V has antioxidant properties and possesses tumor growth inhibitory activity in pancreatic cancer models.
Targets(IC50)	Reactive Oxygen Species,AMPK,ROS
In vivo	Female BALB/c mice were treated with Mogroside V (2.5, 5 and 10 mg/kg) for 1 h prior to intranasal injection of LPS (10 μg in 50 μl). After 12 h, airway inflammation in the ALI model was determined by the wet/dry weight (W/D) ratio, myeloperoxidase (MPO) activity of lung tissue, leukocyte recruitment and cytokine levels in the bronchoalveolar lavage fluid (BALF). Additionally, lung tissue was examined by histology and western blotting to investigate the changes in pathology and the signalling in the presence and absence of Mogroside V. Mogroside V at 5 and 10 mg/kg inhibited airway inflammation induced by LPS as measured by the decrease in the histological changes (44 and 67.3% reduction in lung injury score, respectively), a 28.9 and 55.3% reduction in lung MPO activity, and inflammatory cell counts, interleukin-1β (IL-1β, 382 and 280 pg/ml, respectively), IL-6 (378 and 232 pg/ml, respectively) and tumor necrosis factor-α (TNF-α, 12.5 and 7.8 ng/ml, respectively) levels in the BALF. Additionally, Mogroside V treatment reduced the activation of cyclooxygenase 2 (COX-2), inducible NO synthase (iNOS), and the nuclear factor (NF)-κB.

Solubility Information

Solubility	H2O: 100 mg/mL (77.67 mM),Sonication is recommended. Ethanol: Soluble, DMSO: 50 mg/mL (38.84 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 (1.55 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*

In vivo Formulation	*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	0.7767 mL	3.8837 mL	7.7674 mL
5 mM	0.1553 mL	0.7767 mL	1.5535 mL
10 mM	0.0777 mL	0.3884 mL	0.7767 mL
50 mM	0.0155 mL	0.0777 mL	0.1553 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

Shi D, et al. Protective effects and mechanisms of mogroside V on LPS-induced acute lung injury in mice. Pharm Biol. 2014 Jun;52(6):729-34.

Chen M, Li L, Qin Y, et al.Mogroside V ameliorates astrocyte inflammation induced by cerebral ischemia through suppressing TLR4/TRADD pathway.International Immunopharmacology.2025, 148: 114085.

Luo Z, et al. In vitro AMPK activating effect and in vivo pharmacokinetics of mogroside V, a cucurbitane-type triterpenoid from Siraitia grosvenorii fruits[J]. Rsc Advances, 2016, 6(9):7034-7041.