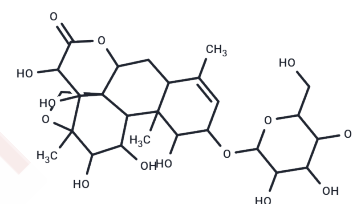


Yadanzigan

Chemical Properties

CAS No. :	76588-87-9
Formula:	C ₂₆ H ₃₈ O ₁₄
Molecular Weight:	574.57
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Yadanzigan (YDZG), a natural product from Brucea javanica and a specific NLRP3 inhibitor, attenuates the NF-κB pathway and reactive oxygen species generation in mitochondria, while enhancing TRIM31, which has anti-inflammatory effects and prevents lps-induced acute lung injury.
Targets(IC50)	NF-κB, NOD-like Receptor (NLR), NOD, ROS
In vitro	Yadanzigan (20-80 μM; 24 h) significantly inhibited LPS (1 μg/mL) + ATP (5 mM)-induced NLRP3 inflammasome activation in RAW264.7, J774A.1, and THP-1 macrophages, reducing caspase-1 and IL-1β expression/secretion, enhancing TRIM31 expression, and suppressing mitochondrial ROS production[1].
In vivo	In LPS-induced acute lung injury (ALI) mouse models, intravenous administration of Yadanzigan (5 or 10 mg/kg) significantly reduced NLRP3 and caspase-1 expression in lung tissues, alleviated histopathological damage, lowered leukocyte infiltration and inflammatory cytokines (IL-1β, TNF-α, IL-6), and improved survival[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7404 mL	8.7022 mL	17.4043 mL
5 mM	0.3481 mL	1.7404 mL	3.4809 mL
10 mM	0.174 mL	0.8702 mL	1.7404 mL
50 mM	0.0348 mL	0.174 mL	0.3481 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

Yushun Cui, Renyikun Yuan, Quan Wen, et al. Yadanzigan, a quassinoid glucoside, attenuates NLRP3 inflammasome activation to prevent LPS-induced acute lung injury. Authorea. February 28, 2020.

Su BN, Chang LC, Park EJ, Cuendet M, Santarsiero BD, Mesezar AD, Mehta RG, Fong HH, Pezzuto JM, Kinghorn AD. Bioactive constituents of the seeds of *Brucea javanica*. *Planta Med.* 2002 Aug;68(8):730-3.

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