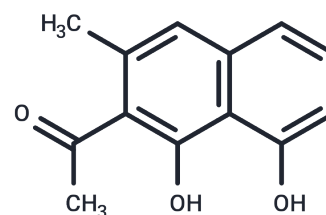


Nepodin

Chemical Properties

CAS No. :	3785-24-8
Formula:	C ₁₃ H ₁₂ O ₃
Molecular Weight:	216.23
Appearance:	no data available
Storage:	store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Nepodin has antimalarial, and anti-inflammatory activities, it shows significant cyclooxygenase (COX) inhibitory activity. Nepodin has an antidiabetic effect, which is at least partly mediated by stimulation of GLUT4 translocation via AMPK activation by nepodin.
Targets(IC50)	transporter, COX, AMPK, Parasite
In vitro	To obtain a novel modulator of glucose metabolism, we conducted screening of a small compound library in cultured L6 myotubes. We identified Nepodin that stimulated glucose uptake dose-dependently in differentiated L6 myotubes. The stimulatory effect of Nepodin on glucose uptake was abrogated by a 5'-adenosine monophosphate-activated protein kinase (AMPK) inhibitor. In addition, Nepodin stimulated the phosphorylation of AMPK. Nepodin also stimulated the translocation of GLUT4 to the plasma membrane in L6 myoblasts transfected with a Glut4 cDNA-coding vector and in differentiated L6 myotubes. In in vivo study, Nepodin suppressed the increases in fasting blood glucose levels and improved the glucose intolerance of C57BL/KsJ-db/db mice, a type 2 diabetic animal model. Nepodin rescued the impaired phosphorylation of AMPK in the skeletal muscle of db/db mice[1]

Solubility Information

Solubility	DMSO: 50 mg/mL (231.24 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.6247 mL	23.1235 mL	46.2471 mL
5 mM	0.9249 mL	4.6247 mL	9.2494 mL
10 mM	0.4625 mL	2.3124 mL	4.6247 mL
50 mM	0.0925 mL	0.4625 mL	0.9249 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.

Reference

Antidiabetic effect of nepodin, a component of Rumex roots, and its modes of action in vitro and in vivo. *Biofactors*. 2014 Jul-Aug;40(4):436-47.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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