

Phanginin A

Chemical Properties

CAS No. : 1011528-58-7

Formula: C₂₁H₂₈O₅

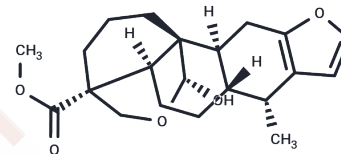
Molecular Weight: 360.44

Storage:

Keep away from direct sunlight, Keep away from moisture, Store at low temperature

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	Phanginin A, a natural product discovered in <i>Caesalpinia sappan</i> Linn, activates SIK1 and inhibits gluconeogenesis in mouse primary hepatocytes. Phanginin A increases PDE4 activity and suppresses the hepatic cAMP/PKA/CREB pathway, improving metabolic disorders in ob/ob mice. It may be used in studies of type 2 diabetes.
Targets(IC50)	SIK
In vitro	In primary mouse hepatocytes, Phanginin A (5, 10 μM, 0-120 minutes) inhibited p-CREB expression in a time- and dose-dependent manner, while Phanginin A (2.5, 5, 10 μM, 0-120 minutes) promoted p-SIK1 expression in a time- and dose-dependent fashion [1].
In vivo	In the type 2 diabetes ob/ob mouse model, a single oral administration of Phanginin A (100 mg/kg) demonstrated anti-Vitis vinifera ketone effects [1]. Continuous once-daily oral administration of Phanginin A (100 mg/kg) for 26 days effectively improved metabolic parameters in ob/ob mice [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7744 mL	13.8719 mL	27.7439 mL
5 mM	0.5549 mL	2.7744 mL	5.5488 mL
10 mM	0.2774 mL	1.3872 mL	2.7744 mL
50 mM	0.0555 mL	0.2774 mL	0.5549 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

Activation of SIK1 by phanginin A inhibits hepatic gluconeogenesis by increasing PDE4 activity and suppressing the cAMP signaling pathway. Mol Metab. 2020 Nov;41:101045.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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