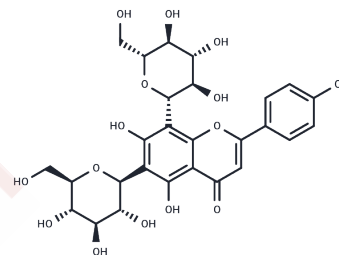


## Vicenin 2

## Chemical Properties

CAS No. :	23666-13-9
Formula:	C <sub>27</sub> H <sub>30</sub> O <sub>15</sub>
Molecular Weight:	594.52
Storage:	Keep away from direct sunlight Powder: -20°C for 3 years   In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



## Biological Description

Description	Vicenin 2 is an angiotensin-converting enzyme (ACE) inhibitor (IC <sub>50</sub> =43.83 μM) from the aerial parts of <i>Desmodium styracifolium</i> . Vicenin 2 is an inhibitor of α-glucosidase, PTP1B, and RLAR. Vicenin 2 has hepatoprotective, anti-cancer, antioxidant and anti-inflammatory activities, and DTL co-administration is more effective than either of the single agents in androgen-independent prostate cancer. Vicenin 2 might be a useful lead for the development of multiple target-oriented therapeutic modalities for the treatment of diabetes and diabetes-associated complications. Vicenin 2 could act as a UV light barrier to protect the plants.
Targets(IC <sub>50</sub> )	RAAS, Angiotensin-converting Enzyme (ACE)
In vitro	<i>Lychnophora salicifolia</i> , commonly known as 'arnicão', is used as an anti-inflammatory agent and as a flavoring agent in the Brazilian traditional spirit 'cachaça'. METHODS AND RESULTS: In this work, the permeation process of Vicenin -2 (1) and lychnopholic acid (2) (major secondary metabolites from the hydroalcoholic extract) was investigated using Caco-2 cells. For this investigation, a new HPLC-DAD method was developed and validated for the quantification step. It was observed that 2 crosses the Caco-2 cell monolayer by passive diffusion. On the other hand, 1 was not transported, suggesting no absorption and no efflux of this compound in Caco-2 cells.

## Solubility Information

Solubility	DMSO: 150 mg/mL (252.3 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 (16.82 mM), Suspension. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (3.36 mM), Sonication is recommended. <i>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.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	1.682 mL	8.4101 mL	16.8203 mL
5 mM	0.3364 mL	1.682 mL	3.3641 mL
10 mM	0.1682 mL	0.841 mL	1.682 mL
50 mM	0.0336 mL	0.1682 mL	0.3364 mL

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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

Evaluation of intestinal permeability of vicenin-2 and lychnopholic acid from *Lychnophora salicifolia* (Brazilian arnicão) using Caco-2 cells. *J Nat Prod.* 2014 Mar 28;77(3):464-71.

Kim K Y, Kang Y M, Lee A, et al. Hydroethanolic Extract of *Lepidium apetalum* Willdenow Alleviates Dextran Sulfate Sodium-Induced Colitis by Enhancing Intestinal Barrier Integrity and Inhibiting Oxidative Stress and Inflammation. *Antioxidants.* 2024, 13(7): 795.

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