

Caulilexin C

Chemical Properties

CAS No. : 30536-48-2

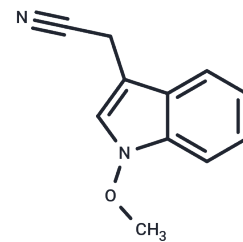
Formula: C₁₁H₁₀N₂O

Molecular Weight: 186.21

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

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Caulilexin C shows inhibitory activity on human Acyl CoA: cholesterol transferase I (hACATI) and on human Acyl CoA: cholesterol transferase 2 (hACAT2) at 100 mug/ml.
Targets(IC50)	Antifungal
In vitro	Toward this end, the metabolism of indolyl glucosinolates, their corresponding desulfo-derivatives, and derived metabolites, by three fungal species pathogenic on crucifers was investigated. While glucobrassicin, 1-methoxyglucobrassicin, 4-methoxyglucobrassicin were not metabolized by the pathogenic fungi <i>Alternaria brassicicola</i> , <i>Rhizoctonia solani</i> and <i>Sclerotinia sclerotiorum</i> , the corresponding desulfo-derivatives were metabolized to indolyl-3-acetonitrile, Caulilexin C (1-methoxyindolyl-3-acetonitrile) and arvelexin (4-methoxyindolyl-3-acetonitrile) by <i>R. solani</i> and <i>S. sclerotiorum</i> , but not by <i>A. brassicicola</i> . That is, desulfo-glucosinolates were metabolized by two non-host-selective pathogens, but not by a host-selective. Indolyl-3-acetonitrile, Caulilexin C and arvelexin were metabolized to the corresponding indole-3-carboxylic acids. Indolyl-3-acetonitriles displayed higher inhibitory activity than indole desulfo-glucosinolates. Indolyl-3-methanol displayed antifungal activity and was metabolized by <i>A. brassicicola</i> and <i>R. solani</i> to the less antifungal compounds indole-3-carboxaldehyde and indole-3-carboxylic acid.

Solubility Information

Solubility	DMSO: 50 mg/mL (268.51 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 (10.74 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

	1mg	5mg	10mg
1 mM	5.3703 mL	26.8514 mL	53.7028 mL
5 mM	1.0741 mL	5.3703 mL	10.7406 mL
10 mM	0.537 mL	2.6851 mL	5.3703 mL
50 mM	0.1074 mL	0.537 mL	1.0741 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

Interaction of cruciferous phytoanticipins with plant fungal pathogens: indole glucosinolates are not metabolized but the corresponding desulfo-derivatives and nitriles are. *Phytochemistry*. 2011 Dec;72(18):2308-16.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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