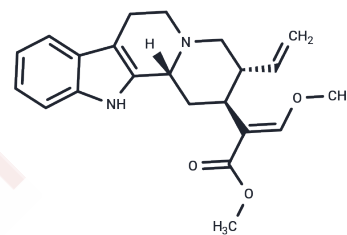


## Hirsuteine

## Chemical Properties

CAS No. :	35467-43-7
Formula:	C <sub>22</sub> H <sub>26</sub> N <sub>2</sub> O <sub>3</sub>
Molecular Weight:	366.45
Storage:	Keep away from direct sunlight, 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	Hirsuteine is a natural product. It non-competitively antagonizes nicotine-mediated dopamine release by blocking ion permeation through nicotinic receptor channel complexes.
Targets(IC50)	AChR, Dopamine Receptor
In vitro	Hirsuteine (300 nM-10 microM) inhibited dopamine release evoked by 100 microM nicotine in a concentration-dependent manner. Hirsuteine did not produce a parallel shift of the concentration-response relationship curve for nicotine, but reduced maximal dopamine release. Dopamine release evoked by 60 and 155 mM KCl was also inhibited by Hirsuteine, but the concentration necessary for significant inhibition was higher (more than 10 microM). Under whole cell voltage-clamp, Hirsuteine reversibly inhibited inward currents activated by 100 microM nicotine. The current inhibition was slightly accelerated by hyperpolarization[1]

## Solubility Information

Solubility	DMSO: 55 mg/mL (150.09 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.7289 mL	13.6444 mL	27.2889 mL
5 mM	0.5458 mL	2.7289 mL	5.4578 mL
10 mM	0.2729 mL	1.3644 mL	2.7289 mL
50 mM	0.0546 mL	0.2729 mL	0.5458 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

Non-competitive antagonism by hirsuteine of nicotinic receptor-mediated dopamine release from rat pheochromocytoma cells. *Jpn J Pharmacol.* 1993 Apr;61(4):351-6.

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