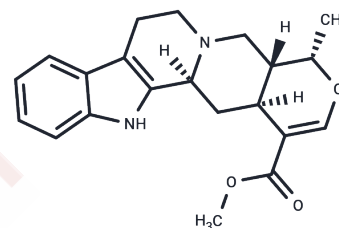


## Ajmalicine

## Chemical Properties

CAS No. :	483-04-5
Formula:	C <sub>21</sub> H <sub>24</sub> N <sub>2</sub> O <sub>3</sub>
Molecular Weight:	352.43
Storage:	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	Ajmalicine (Raubasine) (Raubasine) is a potent adrenergic agent which preferentially blocks $\alpha$ 1-adrenoceptor. Ajmalicine is a reversible but non-competitive nicotine receptor full inhibitor, $IC_{50} = 72.3 \mu M$ . Ajmalicine also can be used as anti-hypertensive, and serpentine, with sedative activity.
Targets( $IC_{50}$ )	Adrenergic Receptor, Cholinesterase (ChE)
In vitro	Ajmalicine preferentially blocks $\alpha$ 1-adrenoceptor than $\alpha$ 2-adrenoceptor[1]. Ajmalicine inhibits contractions in a concentration-dependent manner, $IC_{50} = 72.3 \pm 22.5 \mu M$ [2]. Ajmalicine acts preferentially at postsynaptic sites, competitively antagonizes the effect of noradrenaline on postsynaptic alpha-adrenoceptor with a $pA_2$ value of 6.57, blocks the inhibitory effect of clonidine with a $pA_2$ value of 6.2[3].
In vivo	Ajmalicine blocks the pressor action of electrical stimulation and is active against sympathetic stimulation. Ajmalicine (0.5-4 mg/kg) induces a marked dose-dependent inhibition against the pressor response to noradrenaline[1].

## Solubility Information

Solubility	DMSO: 2.5 mg/mL (7.09 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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	1mg	5mg	10mg
1 mM	2.8374 mL	14.1872 mL	28.3744 mL
5 mM	0.5675 mL	2.8374 mL	5.6749 mL
10 mM	0.2837 mL	1.4187 mL	2.8374 mL
50 mM	0.0567 mL	0.2837 mL	0.5675 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

Roquebert J, et al. Inhibition of the alpha 1 and alpha 2-adrenoceptor-mediated pressor response in pithed rats by raubasine, tetrahydroalstonine and akuammigine. *Eur J Pharmacol.* 1984 Oct 30;106(1):203-5.

Pereira DM, et al. Pharmacological effects of *Catharanthus roseus* root alkaloids in acetylcholinesterase inhibition and cholinergic neurotransmission. *Phytomedicine.* 2010 Jul;17(8-9):646-52.

Demichel P, et al. Effects of raubasine stereoisomers on pre- and postsynaptic alpha-adrenoceptors in the rat vas deferens. *Br J Pharmacol.* 1984 Oct;83(2):505-10

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