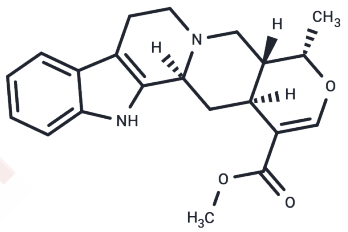
Data Sheet (Cat.No.T8044)

TargetMol

Ajmalicine

Chemical Properties



CAS No. : 483-04-5

Formula: C21H24N2O3

Molecular Weight: 352.43

Storage: Keep away from moisture,Keep away from direct sunlight
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 adrenolytic agent which preferentially blocks α1-adrenoceptor. Ajmalicine is an reversible but non-competitive nicotine receptor full inhibitor, IC50 = 72.3 μM. Ajmalicine also can be used as anti-hypertensive, and serpentine, with sedative activity.
Targets(IC50)	Adrenergic Receptor,Cholinesterase (ChE)
In vitro	Ajmalicine preferentially blocks α1-adrenoceptor than α2-adrenoceptor[1]. Ajmalicine inhibits contractions in a concentration-dependent manner, IC50=72.3 ± 22.5 μM[2]. Ajmalicine acts preferentially at postsynaptic sites, competitively antagonizes the effect of noradrenaline on postsynaptic alpha-adrenoceptor with a pA2 value of 6.57, blocks the inhibitory effect of clonidine with an pA2 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)

Preparing Stock Solutions

	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

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