

## Reserpine

## Chemical Properties

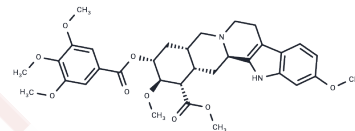
CAS No. : 50-55-5

Formula: C33H40N2O9

Molecular Weight: 608.68

Appearance: no data available

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



## Biological Description

Description	Reserpine (Serpalan) is an alkaloid found in the roots of <i>Rauwolfia serpentina</i> and <i>R. vomitoria</i> . Reserpine inhibits the uptake of norepinephrine into storage vesicles resulting in depletion of catecholamines and serotonin from central and peripheral axon terminals. It has been used as an antihypertensive and an antipsychotic as well as a research tool, but its adverse effects limit its clinical use.
Targets(IC50)	Autophagy, Monoamine Transporter, MRP, Potassium Channel
In vitro	Compared to the control group, alternate-day subcutaneous injections of reserpine solution (1 mg/kg s.c.) for three days significantly increased the duration of vacuous chewing, tongue protrusion, and facial twitching in rats. Reserpine reduced glutamate uptake in the cortical region of rats and caused a significant depletion of vasopressin/oxytocin - neurophysin-like immunoreactivity (LI) and CRH-L1 in the rat's median eminence. Additionally, reserpine notably restored performance in the delayed response task in monkeys. At a dose of 5 mg/kg, reserpine significantly increased pointless jaw movements in monkeys and reduced grooming behavior across all age groups in rats. A subcutaneous injection of 5 mg/kg reserpine in intact rats decreased extracellular dopamine levels to 4% of baseline values. The impact of reserpine on performance in a visual discrimination task, a reference memory task not reliant on the prefrontal cortex, was minimal.
In vivo	Reserpine was demonstrated to inhibit efflux pumps in 11, 21, and 48 out of the 102 unrelated clinical isolates tested, resulting in a fourfold decrease in the IC50 values and MICs of sparfloxacin, moxifloxacin, and ciprofloxacin, respectively.

## Solubility Information

Solubility	DMSO: 50 mg/mL (82.14 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6429 mL	8.2145 mL	16.429 mL
5 mM	0.3286 mL	1.6429 mL	3.2858 mL
10 mM	0.1643 mL	0.8214 mL	1.6429 mL
50 mM	0.0329 mL	0.1643 mL	0.3286 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.

## Reference

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