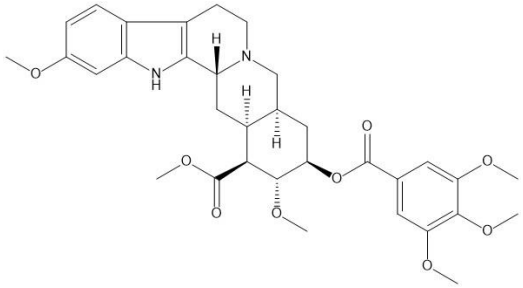
Catalog # 10-2689

Reserpine

CAS# 50-55-5

(3β,16β,17α,18β,20α)-11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-yohimban-16-carboxylic acid, methyl ester; NSC59272

Lot # X109444



An indole alkaloid isolated from *Rauwolfia serpentina* which acts as a potent antihypertensive agent. Irreversibly inhibits both isoforms of vesicular monoamine transporter VMAT1 and 2, K_i=34 and 12 nM, respectively.[1,2] May be used to pharmacologically deplete monoamines in various animal models.[3] Inhibits the multidrug resistance protein P-glycoprotein, IC_{50}=0.5 μM.[3] Reserpine-induced hypokinesia is considered a useful animal model of Parkinson's disease.[5]

1) Schuldiner *et al*. (1993), *Reserpine binding to vesicular amine transporter expressed in Chinese hamster ovary fibroblasts*; J. Biol. Chem., **268** 29
2) Erickson *et al*. (1996), *Distinct pharmacological properties and distribution in neurons and endocrine cells of two isoforms of the human vesicular monoamine transporter*; Proc. Natl. Acad. Sci. USA, **93** 5166
3) Antkiewicz *et al*. (2014), *Antidepressant-like effect of tetrahydroisoquinoline amines in the animal model of depressive disorder induced by repeated administration of a low dose of reserpine: behavioral and neurochemical studies in the rat*; Neurotox. Res., **26** 85
4) Wang *et al.* (2001), *Quantitative distinctions of active site molecular recognition by P-glycoprotein and cytochrome P450 3A4*; Chem. Res. Toxicol., **14** 1596
5) Duty *et al*. (2011), *Animal models of Parkinson's disease: a source of novel treatments and clues to the cause of the disease*; Oncotarget, **164** 1357

PHYSICAL DATA

Molecular Weight:	608.68
Molecular Formula:	$C_{33}H_{40}N_2O_9$
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 35 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase.
	Solutions in DMSO may be stored at -20°C for up to 3 months.

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