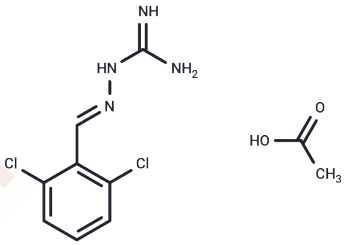
Data Sheet (Cat.No.T6522)

TargetMol

Guanabenz Acetate

Chemical Properties



CAS No. :	23256-50-0
Formula:	C8H8Cl2N4·C2H4O2
Molecular Weight:	291.13
Appearance:	no data available
Storage:	Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Guanabenz Acetate (Wytensin) is a specific agonist of adrenergic receptor. The pEC50 for α2a-adrenergic receptor, α2b-adrenergic receptor and α2c-adrenergic receptor is 8.25, 7.01 and ~5, respectively.
Targets(IC50)	Adrenergic Receptor
In vitro	Guanabenz inhibits the response of vascular contractions in various processes and initiates normal sympathetic nerve discharge, while also antagonizing the stimulation of the sympathetic nervous system. Administering 0.5 mg/kg of Guanabenz intravenously in anesthetized hypertensive rats and dogs leads to a reduction in blood pressure and heart rate. Moreover, an intravenous injection of 0.1 mg/kg Guanabenz in anesthetized dogs initially causes an increase in blood pressure due to the action of the sympathetic nervous system, followed by a decrease in cardiac output, contractility, and heart rate.
In vivo	In mammalian MovS6 cells, 10 μM of Guanabenz facilitates the complete clearance of PrPSc. Additionally, in HEK293 cells transfected with rat inducible nitric oxide synthase (nNOS), 30 μM Guanabenz induces a time-dependent reduction in nNOS activity, with a Ki value of 1 μM. In HEK 293 cells, treatment with 50 μM Guanabenz for 3 hours results in approximately a 75% decrease in the accumulation of nitrites and nitrates within the cells. Furthermore, treatment with 100 μM Guanabenz for 24 hours leads to about a 35% reduction in the quantity of inducible nitric oxide synthase protein detected by immunological methods.

Solubility Information

Solubility	DMSO: 40 mg/mL (137.4 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4349 mL	17.1745 mL	34.3489 mL
5 mM	0.687 mL	3.4349 mL	6.8698 mL
10 mM	0.3435 mL	1.7174 mL	3.4349 mL
50 mM	0.0687 mL	0.3435 mL	0.687 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

Jasper JR, et al. Biochem Pharmacol, 1998, 55(7), 1035-1043.
Noguchi S, et al. J Biol Chem, 2000, 275(4), 2376-2380.
Tribouillard-Tanvier D, et al. PLoS One, 2008, 3(4), e1981.
Baum T, et al. J Pharmacol Exp Ther, 1970, 171(2), 276-287.
Baum T, et al. Experientia, 1969, 25(10), 1066-1067.