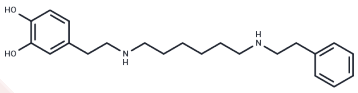
Data Sheet (Cat.No.T8653)

TargetMol

DOPEXAMINE

Chemical Properties



CAS No. : 86197-47-9

Formula: C22H32N2O2

Molecular Weight: 356.5

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	Dopexamine is a dopaminergic agonist
Targets(IC50)	Adrenergic Receptor,Dopamine Receptor
In vivo	Dopexamine hydrochloride has interesting vasodilator properties, with marked intrinsic agonist activity at beta-2 adrenoreceptors and a lesser agonist activity at dopaminergic receptors (DA1 and DA2).?Dopexamine hydrochloride is responsible for an inhibition of neuronal re-uptake of catecholamines (uptake-1), producing an indirect stimulation of cardiac beta 1-receptors.?Dopexamine hydrochloride improves cardiac performance by a marked vasodilation and a mild inotropic activity.?The specific activity at dopaminergic receptors increases cerebral, myocardial, splanchnic and renal blood flows.?These haemodynamic effects are associated with an increase in diuresis and natriuresis.?These benefits are achieved without side effects such as an increased myocardial oxygen consumption, although induced tachycardia may be responsible for chest pain/anginae pain in patients with ischaemic heart disease[1].

Solubility Information

Solubility	DMSO: 55 mg/mL (154.28 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.805 mL	14.0252 mL	28.0505 mL
5 mM	0.561 mL	2.805 mL	5.6101 mL
10 mM	0.2805 mL	1.4025 mL	2.805 mL
50 mM	0.0561 mL	0.2805 mL	0.561 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

Perrin G , Papazian L , Martin C . [Dopexamine: a new dopaminergic agonist].[J]. Ann Fr Anesth Reanim, 1993, 12 (3):308-320.

Eley K A , Young J D , Watt-Smith S R . Epinephrine, norepinephrine, dobutamine, and dopexamine effects on free flap skin blood flow.[J]. Plastic & Reconstructive Surgery, 2012, 130(3):564.

Napoleone P , Ricci A , Ferrante F , et al. Dopexamine hydrochloride in the human heart: receptor binding and effects on cAMP generation[J]. European Heart Journal, 1993, 13(12):1709-1717.