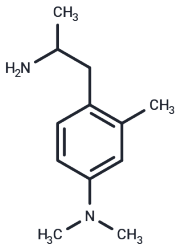
Data Sheet (Cat.No.T8589)

TargetMol

(±)-Amiflamine

Chemical Properties



CAS No. : 77502-96-6

Formula: C12H20N2

Molecular Weight: 192.3

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	(±)-Amiflamine (2-dimethylphenethylamine) is an inhibitor of reversible MAO-A.
Targets(IC50)	MAO,Monoamine Oxidase
In vitro	The ex vivo approach was found to be valid for moclobemide in brain and liver and for cimoxatone in brain tissue;a slight underestimation of the MAO A inhibitory effect of the latter in the liver is likely.Definite underestimation occurred with (±)-Amiflamine in both tissues.Kinetic investigations using homogenates from pretreated rats showed (±)-Amiflamine to be a competitive inhibitor;cimoxatone was competitive in the liver but showed a more complex pattern in the brain.Moclobemide was noncompetitive in both tissues, as has been shown previously for brofaremine.Moclobemide prevented the deamination of dopamine and serotonin released from their striatal stores by tetrabenazine nearly as efficiently as clorgyline at an otherwise equieffective dose; cimoxatone was somewhat less effective relative to the reference compound, as was brofaremine, which was however given at a more effective dose.(±)-Amiflamine was much less effective than clorgyline at protecting dopamine, but equieffective with respect to serotonin[1].
In vivo	(±)-Amiflamine was 3 times less potent within noradrenergic neurons than within serotonergic neurons. A brain to plasma ratio of about 20:1 was found for (±)-Amiflamine and its metabolites. The plasma and the brain concentrations of the N-demethylated metabolite [FLA 788(+)] exceeded that of (±)-Amiflamine after a single dose, whereas the N,N-demethylated [FLA 668(+)] was found in low concentrations. The effect on MAO-A correlated significantly with the plasma and the brain concentration of FLA 788(+)[2].

Solubility Information

Solubility	DMSO: 32.5 mg/mL (169.01 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.2002 mL	26.001 mL	52.0021 mL
5 mM	1.040 mL	5.2002 mL	10.4004 mL
10 mM	0.520 mL	2.6001 mL	5.2002 mL
50 mM	0.104 mL	0.520 mL	1.040 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

Waldmeier P C . On the reversibility of reversible MAO inhibitors[J]. Naunyn-Schmiedeberg's archives of pharmacology, 1985, 329(3):305-10.

Ask A L , Fagervall I , Jonze M , et al. Effects of acute and repeated administration of amiflamine on monoamine oxidase inhibition in the rat.[J]. Biochemical Pharmacology, 1984, 33(18):2839-2847.