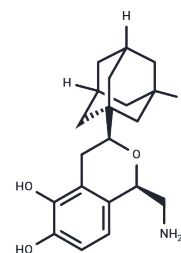


A-77636

Chemical Properties

CAS No. : 778546-51-3
 Formula: C₂₀H₂₇N₃O
 Molecular Weight: 329.43
 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	A-77636 is a potent, selective, and long-acting oral dopamine D1 receptor agonist with an effective concentration (EC ₅₀) of 1.1 nM and a corresponding pEC ₅₀ value of 8.13. It demonstrates the highest affinity for the dopamine D1 receptor with a dissociation constant (K _i) of 39.8 nM and a pK _i of 7.40 ± 0.09. Notably, A-77636 exhibits antiparkinsonian activity [1].
Targets(IC ₅₀)	Dopamine Receptor
In vivo	A-77636 (0-3.2 μmol/kg, subcutaneous injection) induced rotational behavior in rats with 6-OHDA lesions (ED ₅₀ = 0.32 μmol/kg sc) [1], attenuated drug-induced locomotor activity in a dose-dependent manner (1-10 mg/kg) [2], and elicited forelimb clonus in rats (ED ₅₀ = 12.3 μmol/kg s.c.) and mice (ED ₅₀ = 12.1 μmol/kg s.c.) [1]. In MPTP-treated marmosets, A-77636 (0.5, 1.0, or 2.0 μmol/kg, oral administration) increased motor activity and reduced Parkinsonian symptoms, demonstrating efficacy with both subcutaneous and oral administration [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0355 mL	15.1777 mL	30.3555 mL
5 mM	0.6071 mL	3.0355 mL	6.0711 mL
10 mM	0.3036 mL	1.5178 mL	3.0355 mL
50 mM	0.0607 mL	0.3036 mL	0.6071 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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