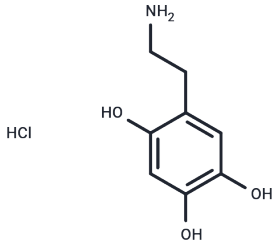
Data Sheet (Cat.No.T12352)

TargetMol

Oxidopamine hydrochloride

Chemical Properties



CAS No. : 28094-15-7

Formula: C8H12ClNO3

Molecular Weight: 205.64

Storage: Store under nitrogen,The compound is unstable in solution. Please use soon,Store at low temperature
Powder: -20°C for 3 years
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Oxidopamine hydrochloride (6-Hydroxydopamine hydrochloride) is a widely used neurotoxin and an antagonist of the neurotransmitter dopamine. It selectively destroys dopaminergic neurons, promotes COX-2 activation, induces PGE2 synthesis, and stimulates the secretion of the inflammatory cytokine IL-1β. It is commonly used to establish animal models of Parkinson's disease (PD).
Targets(IC50)	Mitophagy,Autophagy,Dopamine Receptor

Solubility Information

Solubility	H2O: 62.49 mg/mL (303.88 mM),Sonication and heating are recommended.The compound is unstable in solution, please use soon. DMSO: 62.49 mg/mL (303.88 mM),Sonication and heating are recommended.The compound is unstable in solution, please use soon. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (9.73 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.8629 mL	24.3143 mL	48.6287 mL
5 mM	0.9726 mL	4.8629 mL	9.7257 mL
10 mM	0.4863 mL	2.4314 mL	4.8629 mL
50 mM	0.0973 mL	0.4863 mL	0.9726 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

Fujita H et al. Cell-permeable cAMP analog suppresses 6-hydroxydopamine-induced apoptosis in PC12 cells through the activation of the Akt pathway. Brain Res. 2006 Oct 3;1113(1):10-23.
Fu C L, Dong B C, Jiang X, et al.A cell therapy approach based on iPSC-derived midbrain organoids for the restoration of motor function in a Parkinson's disease mouse model.Heliyon.2024
Soto-Otero R et al. Autoxidation and neurotoxicity of 6-hydroxydopamine in the presence of some antioxidants: potential implication in relation to the pathogenesis of Parkinson's disease. J Neurochem. 2000 Apr;74(4):1605-12.
Zhao X, Li F, Cheng C, et al.Social isolation promotes tumor immune evasion via β2-adrenergic receptor.Brain, Behavior, and Immunity.2024
Fu C L, Jiang X, Dong B C, et al.Protocol for transplantation of cells derived from human midbrain organoids into a Parkinson's disease mouse model to restore motor function.STAR protocols.2024, 5(3): 103251.