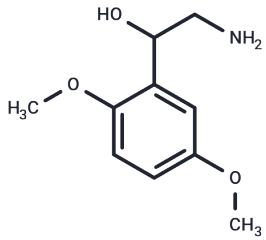
Data Sheet (Cat.No.T31388L)

TargetMol

Desglymidodrine

Chemical Properties



CAS No. : 3600-87-1

Formula: C10H15NO3

Molecular Weight: 197.23

Storage: Store at low temperature
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	Desglymidodrine (ST 1059) is a selective α1-adrenoceptor agonist and an active metabolite of Midodrine. It is a vasoconstrictor that can be used for cardiovascular research and neurocardiogenic syncope.
Targets(IC50)	Adrenergic Receptor,Drug Metabolite
In vitro	Desglymidodrine affects venoconstriction over a concentration range of 1-1000 μM, with a pD2 value of 4.64 (-log mol/L) in isolated canine femoral veins and 4.48 (-log mol/L) in isolated human saphenous veins. [1] Desglymidodrine binds to α1A, α1B, and α1D adrenergic receptors in rats and α2A adrenergic receptors in humans, corresponding to pKi values of 5.89, 5.16, 5.78, and 5.83, respectively. [2]

Solubility Information

Solubility	DMSO: 40 mg/mL (202.81 mM),Sonication is recommended. (< 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 (10.14 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	5.0702 mL	25.3511 mL	50.7022 mL
5 mM	1.014 mL	5.0702 mL	10.1404 mL
10 mM	0.507 mL	2.5351 mL	5.0702 mL
50 mM	0.1014 mL	0.507 mL	1.014 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

Nakayama K, et al. Effects of anisotropine methylbromide (Valpin) and its mixture with sulpyrine on vocalization response and spasm of intestine induced by acetylcholine in dogs. Jpn J Pharmacol. 1972 Apr;22(2):215-20.
Steven ABuckner, et al. ABT-866, a novel α1A-adrenoceptor agonist with antagonist properties at the α1B- and α1D-adrenoceptor subtypes,European Journal of Pharmacology,Volume 449, Issues 1-2,2002,Pages 159-1
Ali AA, et al. Development and validation of LC-MS/MS assay for the determination of the prodrug Midodrine and its active metabolite Desglymidodrine in plasma of ascitic patients: Application to individualized therapy and comparative pharmacokinetics. J Chromatogr B Analyt Technol Biomed Life Sci. 2015 Jun 1;991:34-40.
Barth T, et al. HPLC analysis of midodrine and desglymidodrine in culture medium: evaluation of static and shaken conditions on the biotransformation by fungi. J Chromatogr Sci. 2013 May-Jun;51(5):460-7.
Ali A, et al. Comparative Clinical Pharmacokinetics of Midodrine and Its Active Metabolite Desglymidodrine in Cirrhotic Patients with Tense Ascites Versus Healthy Volunteers. Clin Drug Investig. 2016 Feb;36(2):147-55.