Data Sheet (Cat.No.T2150)

TargetMol

Guanfacine hydrochloride

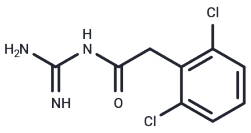
Chemical Properties

CAS No. : 29110-48-3

Formula: C9H10Cl3N3O

Molecular Weight: 282.55

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	Guanfacine hydrochloride (Intuniv) is a centrally acting antihypertensive agent with specificity towards ADRENERGIC ALPHA-2 RECEPTORS.
Targets(IC50)	Adrenergic Receptor
Cell Research	Cells (1 mL) are seeded into 24-well plates at a density of 1 × 105 cells/mL. Culture medium is replaced every two days until cells reached confluence. To investigate the potential influence of P-gp on guanfacine transport, intracellular accumulation of guanfacine is measured in LLC-PK1/MDR1 cells and P-gp-negative LLC-PK1 cells. Rhodamine6 g, a well-known P-gp substrate, is included as a positive control. After cells reach confluence, the culture medium is replaced by transport buffer for a 30-minute preincubation at 37°C. Transport buffer is then removed and the test compounds (5 μM rhodamine6 g, 5 μM guanfacine, or 50 μM guanfacine) are added, and an additional 60-minute incubation period commenced. Next, the solutions are discarded, and the cells are washed three times with ice-cold Dulbecco's phosphate-buffered saline and solubilized with 1% Triton X-100. Intracellular accumulation of rhodamine6 g is measured using a fluorescent microplate reader with a 530 nm excitation and a 580 nm emission wavelength, which is a well established method. Cellular retention of guanfacine is analyzed by the high-performance liquid chromatographic assay described below. The concentrations of rhodamine6 g and guanfacine are calculated from their respective standard curves, and standardized with the cellular protein content determined by a Pierce bicinchoninic acid protein kit.(Only for Reference)

Solubility Information

Solubility	DMSO: 55 mg/mL (194.66 mM),Sonication is recommended. H2O: 28.3 mg/mL (100.16 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 (7.08 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	3.5392 mL	17.696 mL	35.392 mL
5 mM	0.7078 mL	3.5392 mL	7.0784 mL
10 mM	0.3539 mL	1.7696 mL	3.5392 mL
50 mM	0.0708 mL	0.3539 mL	0.7078 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

Pillidge K, et al. Br J Pharmacol. 2014 Oct; 171(20):4785-96.