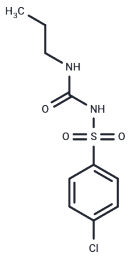
Data Sheet (Cat.No.T0490)

TargetMol

Chlorpropamide

Chemical Properties



CAS No. : 94-20-2

Formula: C10H13ClN2O3S

Molecular Weight: 276.74

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	Chlorpropamide (Diabinese) is a sulfonylurea hypoglycemic agent used in the treatment of non-insulin-dependent diabetes mellitus not responding to dietary modification.
Targets(IC50)	ATPase,ABC Transporter
In vivo	At a concentration of 0.2 mM, chlorpropamide elevated the levels of fructose-2,6-bisphosphate (F-2,6-P2) in isolated hepatocytes from rats. The compound operates through a cyclic AMP-independent mechanism, enhancing insulin's inhibitory effect on glucagon-stimulated gluconeogenesis. Chlorpropamide significantly increased glucose metabolism and total lipid content, irrespective of insulin deficiency (30%) or presence (31%).
Kinase Assay	Androgen Receptor Assay: Aliquots of 100 µl cytosol are incubated at 0-4°C for 18 h with 100 µl of the indicated saturating concentration of [3H]T in the presence or absence of increasing concentrations of nonlabeled T, DHT, flutamide (FLU) or flutamide-OH (FLU-OH). At the end of the incubation, free and bound T are separated by the addition of 200 µl dextran-coated charcoal (1 % charcoal, 0.1% dextran T-70, 0.1% gelatin, 1.5 mM EDTA and 50 mM Tris (pH 7.4)) for 15 min before centrifugation at 2300 × g for another 15 min at 0-4°C. Aliquots (350 µl) of the supernatant are transferred to scintillation vials with 10 ml of an aqueous counting solution before counting in a Beckman LS 330 counter.

Solubility Information

Solubility	Ethanol: 51 mg/mL (184.29 mM),Sonication is recommended. DMSO: 55 mg/mL (198.74 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 (7.23 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	3.6135 mL	18.0675 mL	36.135 mL
5 mM	0.7227 mL	3.6135 mL	7.227 mL
10 mM	0.3614 mL	1.8068 mL	3.6135 mL
50 mM	0.0723 mL	0.3614 mL	0.7227 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

Monge L, et al. Diabetes, 1986, 35(1), 89-96.
Jacobs DB, et al. Metabolism, 1987, 36(6), 548-554.
Durr JA, et al. Am J Physiol Renal Physiol, 2000, 278(5), F799-808.