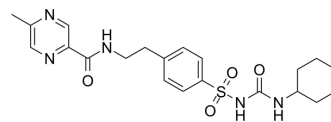


## Glipizide

Cat. No.:	HY-B0254		
CAS No.:	29094-61-9		
Molecular Formula:	C <sub>21</sub> H <sub>27</sub> N <sub>5</sub> O <sub>4</sub> S		
Molecular Weight:	445.54		
Target:	Potassium Channel		
Pathway:	Membrane Transporter/Ion Channel		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 50 mg/mL (112.22 mM; Need ultrasonic)  
 H<sub>2</sub>O : < 0.1 mg/mL (insoluble)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.2445 mL	11.2223 mL	22.4447 mL
	5 mM	0.4489 mL	2.2445 mL	4.4889 mL
	10 mM	0.2244 mL	1.1222 mL	2.2445 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
 Solubility: 2.5 mg/mL (5.61 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: ≥ 2.5 mg/mL (5.61 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Glipizide (CP 2872; K 4024) a potent, orally active and sulfonylurea class anti-diabetic agent and can be used for type 2 diabetes mellitus research but not type 1. Glipizide acts by partially blocking ATP-sensitive potassium (K<sub>ATP</sub>) channels among β cells of pancreatic islets of Langerhans<sup>[1][2]</sup>.

#### IC<sub>50</sub> & Target

IC<sub>50</sub>: 6.4 nM ATP-sensitive potassium (K<sub>ATP</sub>) channels in primary mouse pancreatic β cells<sup>[1]</sup>

#### In Vitro

Glipizide inhibits ATP-sensitive potassium (K<sub>ATP</sub>) channels in primary mouse pancreatic β cells (IC<sub>50</sub>=6.4 nM)<sup>[1]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

[1]. B J Züinkler, et al. Concentration-dependent effects of tolbutamide, meglitinide, glipizide, glibenclamide and diazoxide on ATP-regulated K<sup>+</sup> currents in pancreatic B-cells. Naunyn Schmiedebergs Arch Pharmacol. 1988 Feb;337(2):225-30.

[2]. Glipizide. From Wikipedia

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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