## Glipizide

Cat. No.:	HY-B0254			
CAS No.:	29094-61-9			
Molecular Formula:	$C_{21}H_{27}N_5O_4S$			
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	

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## SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (112.22 mM; Need ultrasonic) H <sub>2</sub> O : < 0.1 mg/mL (insoluble)					
Preparing Stock Solutions		Solvent Mass Concentration	1 mg	5 mg	10 mg	
	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	<ol> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: 2.5 mg/mL (5.61 mM); Suspended solution; Need ultrasonic</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (5.61 mM); Clear solution</li> </ol>					

BIOLOGICAL ACTIV	
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	IC50: 6.4 nM ATP-sensitive potassium (K <sub>ATP</sub> ) channels in primary mouse pancreatic $\beta$ 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.

## REFERENCES

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

[2]. Glipizide. From Wikipedia

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

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