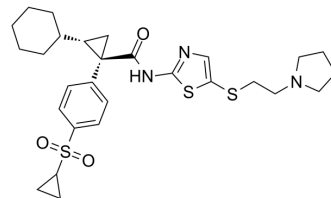


## Globalagliatin

<b>Cat. No.:</b>	HY-13529		
<b>CAS No.:</b>	1234703-40-2		
<b>Molecular Formula:</b>	C <sub>28</sub> H <sub>37</sub> N <sub>3</sub> O <sub>3</sub> S <sub>3</sub>		
<b>Molecular Weight:</b>	559.81		
<b>Target:</b>	Glucokinase		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 100 mg/mL (178.63 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.7863 mL	8.9316 mL	17.8632 mL
	5 mM	0.3573 mL	1.7863 mL	3.5726 mL
	10 mM	0.1786 mL	0.8932 mL	1.7863 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 (4.47 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
 Solubility: ≥ 2.5 mg/mL (4.47 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: ≥ 2.5 mg/mL (4.47 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Globalagliatin (LY2608204) is an activator of glucokinase (GK) with EC<sub>50</sub> of 42 nM. IC<sub>50</sub> value: 42 nM (EC<sub>50</sub>) Target: glucokinase in vitro: Globalagliatin activates glucokinase (GK) with EC<sub>50</sub> of 42 nM at 10 mM glucose with a concentration dependent manner at lower glucose concentrations. Globalagliatin also stimulates glucose metabolism in rat insulinoma INS1-E cells with EC<sub>50</sub> of 579 nM. in vivo: Globalagliatin decreases plasma glucose in a dose-dependent manner at both fasted and postprandial glucose levels. A maximal lowering of glucose AUC versus the untreated control group is observed with the high dose (30 mg/kg) and represents a 42% decrease. Interpolation of the data show that a 20% glucose AUC

---

decrease occurs at an average Globalagliatin concentration of 99 ng/mL (179 nM) in plasma, corresponding to a 6.9 mg/kg Globalagliatin dose. The in vivo blood brain barrier permeability of Globalagliatin results in a mean brain/plasma ratio of 0.17 five minutes post-dose with a mean total brain level of 0.539 nmol/g.

---

## CUSTOMER VALIDATION

- Cell Rep. 2021 Jul 6;36(1):109327.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA