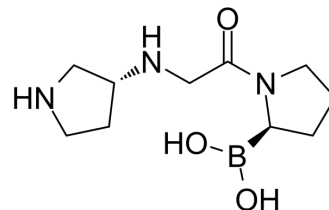


## Dutogliptin

Cat. No.:	HY-10286
CAS No.:	852329-66-9
Molecular Formula:	C <sub>10</sub> H <sub>20</sub> BN <sub>3</sub> O <sub>3</sub>
Molecular Weight:	241.1
Target:	Dipeptidyl Peptidase
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 300 mg/mL (1244.30 mM; Need ultrasonic)					
	H <sub>2</sub> O : 100 mg/mL (414.77 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
			1 mM	4.1477 mL	20.7383 mL	41.4766 mL
			5 mM	0.8295 mL	4.1477 mL	8.2953 mL
10 mM			0.4148 mL	2.0738 mL	4.1477 mL	
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 7.5 mg/mL (31.11 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 7.5 mg/mL (31.11 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 7.5 mg/mL (31.11 mM); Clear solution					

### BIOLOGICAL ACTIVITY

Description	Dutogliptin (PHX-1149 free base) is an orally available, potent, and selective dipeptidyl peptidase-4 (DPP4) inhibitor for the treatment of type 2 diabetes mellitus.
IC <sub>50</sub> & Target	DPP4 <sup>[1]</sup>
In Vivo	Dutogliptin exhibits low plasma protein binding (11%) and is rapidly absorbed with a T <sub>max</sub> of 3-4 h and a half-life of 10-13 h. Dutogliptin is metabolically stable and does not inhibit or induce the activity of major CYP450s <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

- [1]. Marier JF, et al. Population pharmacokinetic analysis of dutogliptin, a selective dipeptidyl peptidase-4 inhibitor. Clin Pharmacol Drug Dev. 2014 Jul;3(4):297-304.
- [2]. Pattzi HM, et al. Dutogliptin, a selective DPP4 inhibitor, improves glycaemic control in patients with type 2 diabetes: a 12-week, double-blind, randomized, placebo-controlled, multicentre trial. Diabetes Obes Metab. 2010 Apr;12(4):348-55.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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