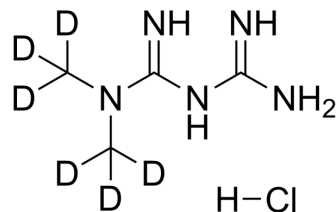


Metformin-d₆ hydrochloride

Cat. No.:	HY-110228
CAS No.:	1185166-01-1
Molecular Formula:	C ₄ H ₆ D ₆ ClN ₅
Molecular Weight:	171.66
Target:	AMPK; Autophagy; Mitophagy
Pathway:	Epigenetics; PI3K/Akt/mTOR; Autophagy
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 50 mg/mL (291.27 mM; Need ultrasonic)					
	DMSO : 50 mg/mL (291.27 mM; ultrasonic and warming and heat to 60°C)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		5.8255 mL	29.1273 mL	58.2547 mL
5 mM			1.1651 mL	5.8255 mL	11.6509 mL	
	10 mM		0.5825 mL	2.9127 mL	5.8255 mL	
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (12.12 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (12.12 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	Metformin-d ₆ (hydrochloride)e is a deuterium labeled Metformin hydrochloride. Metformin hydrochloride inhibits the mitochondrial respiratory chain in the liver, leading to activation of AMPK, enhancing insulin sensitivity for type 2 diabetes research. Metformin hydrochloride triggers autophagy[1].
IC₅₀ & Target	AMPK

REFERENCES

[1]. Soraya H, et al. Acute treatment with metformin improves cardiac function following NSC 37745 induced myocardial infarction in rats. Pharmacol Rep. 2012;64(6):1476-84.

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

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