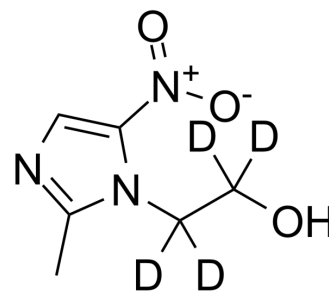


## Metronidazole-d<sub>4</sub>

<b>Cat. No.:</b>	HY-B0318S1		
<b>CAS No.:</b>	1261392-47-5		
<b>Molecular Formula:</b>	C <sub>6</sub> H <sub>5</sub> D <sub>4</sub> N <sub>3</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	175.18		
<b>Target:</b>	Apoptosis; Bacterial; Parasite; Antibiotic		
<b>Pathway:</b>	Apoptosis; Anti-infection		
<b>Storage:</b>	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 15 mg/mL (85.63 mM)  
 DMF : ≥ 15 mg/mL (85.63 mM)  
 Ethanol : ≥ 5 mg/mL (28.54 mM)  
 \* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	5.7084 mL	28.5421 mL	57.0841 mL
	5 mM	1.1417 mL	5.7084 mL	11.4168 mL
	10 mM	0.5708 mL	2.8542 mL	5.7084 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Metronidazole-d<sub>4</sub> is the deuterium labeled Metronidazole. Metronidazole is a nitroimidazole antibiotic medication used particularly for anaerobic bacteria and protozoa.

#### In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs<sup>[1]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Cohen, S.H., et al., Clinical practice guidelines for Clostridium difficile infection in adults: 2010 update by the society for healthcare epidemiology of America (SHEA) and

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

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