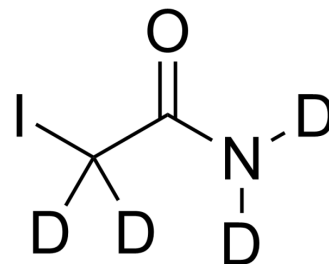


## 2-Iodoacetamide-d<sub>4</sub>

<b>Cat. No.:</b>	HY-34477S1		
<b>CAS No.:</b>	1219802-64-8		
<b>Molecular Formula:</b>	C <sub>2</sub> D <sub>4</sub> INO		
<b>Molecular Weight:</b>	188.99		
<b>Target:</b>	DNA Alkylator/Crosslinker		
<b>Pathway:</b>	Cell Cycle/DNA Damage		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (529.13 mM; Need ultrasonic)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	5.2913 mL	26.4564 mL	52.9128 mL
	5 mM	1.0583 mL	5.2913 mL	10.5826 mL
	10 mM	0.5291 mL	2.6456 mL	5.2913 mL

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

### BIOLOGICAL ACTIVITY

#### Description

2-Iodoacetamide-d<sub>4</sub> is the deuterium labeled 2-Iodoacetamide[1]. 2-Iodoacetamide (Iodoacetamide), an alkylating agent, is a commonly used agent for alkylation of cysteine during sample preparation for proteomics[2][3].

#### 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]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.

[2]. Peter G Hains, et al. The Impact of Commonly Used Alkylating Agents on Artfactual Peptide Modification. *J Proteome Resq*. 2017 Sep 1;16(9):3443-3447.

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

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