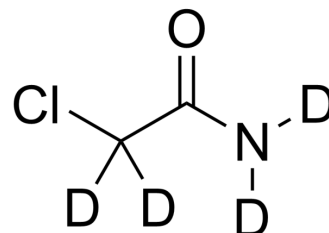


## 2-Chloroacetamide-d<sub>4</sub>

<b>Cat. No.:</b>	HY-W010629S
<b>CAS No.:</b>	122775-20-6
<b>Molecular Formula:</b>	C <sub>2</sub> D <sub>4</sub> ClNO
<b>Molecular Weight:</b>	97.54
<b>Target:</b>	Bacterial
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	2-Chloroacetamide-d <sub>4</sub> is the deuterium labeled 2-Chloroacetamide[1]. 2-Chloroacetamide is a preservative and is a herbicide for both uplands and paddy fields. 2-Chloroacetamide is a biocide in agriculture, glues, paints and coatings. 2-Chloroacetamide inhibits very-long-chain fatty acid elongase[2][3][4].
<b>In Vitro</b>	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]. Hidenori Okamoto, et al. Synthesis and Herbicidal Activity of N(1-Arylethenyl)-2-chloroacetamides. *Agricultural and Biological Chemistry*, Volume 55, 1991-Issue 11.
- [3]. A Fonia, et al. Active Sensitization to Chloracetamide. *Contact Dermatitis.* 2009 Jan60(1):58-9.
- [4]. Christian Eckermann, et al. Covalent Binding of Chloroacetamide Herbicides to the Active Site Cysteine of Plant Type III Polyketide Synthases. *Phytochemistry.* 2003 Nov64(6):1045-54.

**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

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