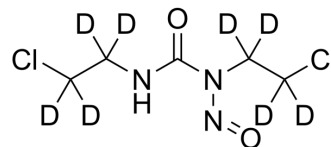


## Carmustine-d<sub>8</sub>

|                           |  |
|---------------------------|--|
| <b>Cat. No.:</b>          | HY-13585S  |
| <b>Molecular Formula:</b> | C <sub>5</sub> HD <sub>8</sub> Cl <sub>2</sub> N <sub>3</sub> O <sub>2</sub>                     |
| <b>Molecular Weight:</b>  | 222.1  |
| <b>Target:</b>            | DNA Alkylator/Crosslinker; Isotope-Labeled Compounds   |
| <b>Pathway:</b>           | Cell Cycle/DNA Damage; Others  |
| <b>Storage:</b>           | -20°C, protect from light<br>* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light) |



### BIOLOGICAL ACTIVITY

|                    |  |
|--------------------|--|
| <b>Description</b> | Carmustine-d <sub>8</sub> is the deuterium labeled Carmustine. Carmustine is an antitumor chemotherapeutic agent, which works by alkylating DNA and RNA[1][2].   |
| <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> .<br>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;53(2):211-216.
- [2]. Hung CF. Effects of carmustine and lomustine on arylamine N-acetyltransferase activity and 2-aminofluorene-DNA adducts in rat glial tumor cells. *Neurochem Res*. 2000 Jun;25(6):845-51.
- [3]. Demir A, et al. The effect of trimetazidine on intrahepatic cholestasis caused by carmustine in rats. *Hepato Res*. 2001 May 1;20(1):133-143.

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

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