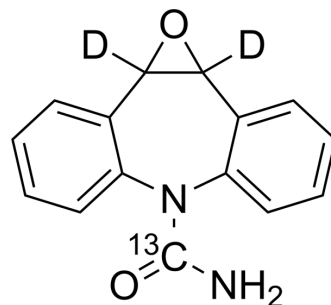


## Carbamazepine 10,11-epoxide-<sup>13</sup>C,<sub>2</sub>D<sub>2</sub>

<b>Cat. No.:</b>	HY-W013378S2
<b>CAS No.:</b>	1189497-48-0
<b>Molecular Formula:</b>	C <sub>14</sub> <sup>13</sup> CH <sub>10</sub> D <sub>2</sub> N <sub>2</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	255.27
<b>Target:</b>	Endogenous Metabolite
<b>Pathway:</b>	Metabolic Enzyme/Protease
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Carbamazepine 10,11-epoxide- <sup>13</sup> C, <sub>2</sub> D <sub>2</sub> is the deuterium labeled Carbamazepine 10,11-epoxide-C13. Carbamazepine 10,11-epoxide-C13 is a <sup>13</sup> C-labeled Carbamazepine 10,11-epoxide. Carbamazepine 10,11-epoxide is an orally active metabolite of Carbamazepine (HY-B0246). Carbamazepine has anticonvulsant effect. Carbamazepine can be used for the research of seizures[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> . 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]. T Tomson, et al. Single-dose kinetics and metabolism of carbamazepine-10,11-epoxide. *Clin Pharmacol Ther*. 1983 Jan;33(1):58-65.

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

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