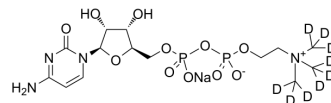


## Citicoline-d9 sodium

Cat. No.:	HY-B0739AS
Molecular Formula:	C <sub>14</sub> H <sub>16</sub> D <sub>9</sub> N <sub>4</sub> NaO <sub>11</sub> P <sub>2</sub>
Molecular Weight:	519.36
Target:	Endogenous Metabolite; Apoptosis
Pathway:	Metabolic Enzyme/Protease; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Citicoline-d9 (Cytidine diphosphate-choline-d9) sodium is the deuterium labeled Citicoline sodium. Citicoline sodium salt is an intermediate in the synthesis of phosphatidylcholine which is a component of cell membranes and also exerts neuroprotective effects.
<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;53(2):211-216.
- [2]. Davinelli S, et al. Cytoprotective Effects of Citicoline and Homotaurine against Glutamate and High Glucose Neurotoxicity in Primary Cultured Retinal Cells. *Oxid Med Cell Longev.* 2017;2017:2825703.
- [3]. Karpova MN, et al. Increase of the seizure threshold in C57BL/6 mice after citicoline administration. *Bull Exp Biol Med.* 2015 Jan;158(3):315-7.

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

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