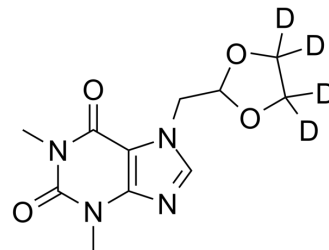


## Doxofylline-d4

Cat. No.:	HY-B0004S1
CAS No.:	1346599-13-0
Molecular Formula:	C <sub>11</sub> H <sub>10</sub> D <sub>4</sub> N <sub>4</sub> O <sub>4</sub>
Molecular Weight:	270.28
Target:	Adenosine Receptor; Phosphodiesterase (PDE)
Pathway:	GPCR/G Protein; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Doxofylline-d4 is the deuterium labeled Doxofylline. Doxofylline is an antagonist of adenosine A1 receptor which also inhibits phosphodiesterase IV <sup>[1][2]</sup> .
<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]. Shukla D, et al. Doxofylline: a promising methylxanthine derivative for the treatment of asthma and chronic obstructive pulmonary disease. *Expert Opin Pharmacother*. 2009 Oct;10(14):2343-56.

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

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