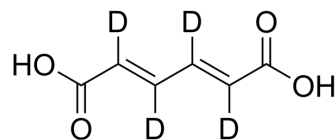


## Muonic acid-d<sub>4</sub>

Cat. No.:	HY-113247S1
CAS No.:	1185239-59-1
Molecular Formula:	C <sub>6</sub> H <sub>2</sub> D <sub>4</sub> O <sub>4</sub>
Molecular Weight:	146.13
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	trans-trans-Muonic acid-d <sub>4</sub> -1 is a deuterium labeled trans-trans-Muonic acid (HY-113247). trans-trans-Muonic acid is a urinary metabolite of benzene and has been used as a biomarker of exposure to benzene in human.
<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]. Bartczak A, ET AL. Evaluation of assays for the identification and quantitation of muonic acid, a benzene metabolite in human urine. J Toxicol Environ Health. 1994 Jul;42(3):245-58.
- [2]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-246.

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

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