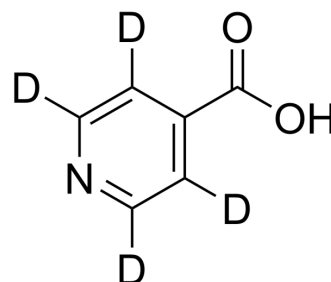


Isonicotinic acid-d₄

Cat. No.:	HY-I0736S
CAS No.:	53907-55-4
Molecular Formula:	C ₆ HD ₄ NO ₂
Molecular Weight:	127.13
Target:	Drug Metabolite; Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Isonicotinic acid-d ₄ is the deuterium labeled Isonicotinic acid[1]. Isonicotinic acid is a metabolite of Isoniazid. Isoniazid is converted to Isonicotinic acid by hydrazinolysis, with the Isoniazid to Isonicotinic acid biotransformation also to be catalyzed by cytochrome P450 (CYP) enzymes, e.g., CYP2C[2].
In Vitro	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 ^[1] . 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]. Seng KY, et al. Population pharmacokinetic analysis of isoniazid, acetylisoniazid, and isonicotinic acid in healthy volunteers. *Antimicrob Agents Chemother*. 2015 Nov;59(11):6791-9.

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

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