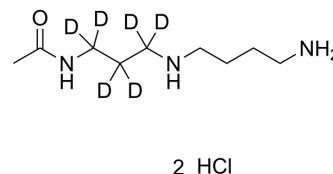


N1-Acetylspermidine-d₆ hydrochloride

Cat. No.:	HY-113056AS
Molecular Formula:	C ₉ H ₁₇ D ₆ Cl ₂ N ₃ O
Molecular Weight:	266.24
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



BIOLOGICAL ACTIVITY

Description	N1-Acetylspermidine-d ₆ (hydrochloride) is the deuterium labeled N1-Acetylspermidine hydrochloride. N1-Acetylspermidine hydrochloride is an acetyl derivative of polyamine. N1-acetylspermine is the substrate for the polyamine oxidase (PAO). N1-Acetylspermidine hydrochloride selectively elevates its level in human colorectal adenocarcinomas. N1-acetylspermidine shows cleavage efficiency at apurinic sites in DNA[1][2][3].
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;53(2):211-216.
- [2]. Royo M, et al. Mechanistic studies of mouse polyamine oxidase with N1,N12-bisethylspermine as a substrate. *Biochemistry.* 2005 May 10;44(18):7079-84.
- [3]. Haukanes BI, et al. Action of spermidine, N1-acetylspermidine, and N8-acetylspermidine at apurinic sites in DNA.
- [4]. Takenoshita S, et al. Selective elevation of the N1-acetylspermidine level in human colorectal adenocarcinomas. *Cancer Res.* 1984 Feb;44(2):845-7.

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

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