

Product Data Sheet

Spermidine-d₈ hydrochloride

Cat. No.: HY-B1776AS CAS No.: 1173019-26-5 Molecular Formula: $C_7H_{14}D_8Cl_3N_3$

Molecular Weight: 262.68

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage: -20°C, sealed storage, away from moisture

* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

$$H_2N$$
 N
 H_2
 N
 H_2
 N
 H_3
 H_4
 H_4
 H_4
 H_5
 H_5

H-CI H-CI H-CI

BIOLOGICAL ACTIVITY

Description	Spermidine-d ₈ (hydrochloride)e is the deuterium labeled Spermidine trihydrochloride. Spermidine hydrochloride maintains cell membrane stability, increases antioxidant enzymes activities, improving photosystem II (PSII), and relevant gene expression. Spermidine hydrochloride significantly decreases the H2O2 and O2 contents[1].
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]. Zhang L, et al. The Alleviation of Heat Damage to Photosystem II and Enzymatic Antioxidants by Exogenous Spermidine in Tall Fescue. Front Plant Sci. 2017 Oct 12;8:1747.

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

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