SAH-d₄

Cat. No.: HY-19528S

Molecular Formula: $C_{14}H_{16}D_4N_6O_5S$

Molecular Weight: 388.44

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)

Product Data Sheet

BIOLOGICAL ACTIVITY

Description	SAH- d_4 is the deuterium labeled SAH. SAH (S-Adenosylhomocysteine) is an amino acid derivative and a modulartor in several metabolic pathways. It is an intermediate in the synthesis of cysteine and adenosine[1]. SAH is an inhibitor for METTL3-METTL14 heterodimer complex (METTL3-14) with an IC50 of 0.9 μ M[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;53(2):211-216.

[2]. DE LA HABA G, et al. The enzymatic synthesis of S-adenosyl-L-homocysteine from adenosine and homocysteine. J Biol Chem. 1959 Mar;234(3):603-8.

[3]. Li F, et al. A Radioactivity-Based Assay for Screening Human m6A-RNA Methyltransferase, METTL3-METTL14 Complex, and Demethylase ALKBH5. Biomol Screen. 2016 Mar;21(3):290-7.

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

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