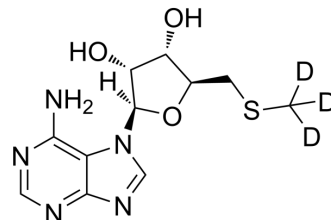


5'-Methylthioadenosine-d₃

Cat. No.:	HY-16938S1	
CAS No.:	174838-38-1	
Molecular Formula:	C ₁₁ H ₁₂ D ₃ N ₅ O ₃ S	
Molecular Weight:	300.35	
Target:	Apoptosis; Parasite; Endogenous Metabolite	
Pathway:	Apoptosis; Anti-infection; Metabolic Enzyme/Protease	
Storage:	Powder	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (166.47 mM; Need ultrasonic and warming)
 DMF : 2.5 mg/mL (8.32 mM; Need ultrasonic and warming)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.3294 mL	16.6472 mL	33.2945 mL
	5 mM	0.6659 mL	3.3294 mL	6.6589 mL
	10 mM	0.3329 mL	1.6647 mL	3.3294 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

5'-Methylthioadenosine-d₃ is the deuterium labeled 5'-Methylthioadenosine[1]. 5'-Methylthioadenosine (5'-(Methylthio)-5'-deoxyadenosine) is a nucleoside generated from S-adenosylmethionine (SAM) during polyamine synthesis. 5'-Methylthioadenosine suppresses tumors by inhibiting tumor cell proliferation, invasion, and the induction of apoptosis while controlling the inflammatory micro-environments of tumor tissue. 5'-Methylthioadenosine and its associated materials have striking regulatory effects on tumorigenesis[2][3][4].

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.

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- [2]. Tang Y, et al. 5'-Methylthioadenosine attenuates ischemia reperfusion injury after liver transplantation in rats. *Inflammation*. 2014;37(5):1366-1373.2018;78(15):4386-4395.
- [3]. Li Y, et al. 5'-Methylthioadenosine and Cancer: old molecules, new understanding. *J Cancer*. 2019;10(4):927-936.
- [4]. Tang B, et al. Specific Targeting of MTAP-Deleted Tumors with a Combination of 2'-Fluoroadenine and 5'-Methylthioadenosine. *Cancer Res*.
- [5]. Yaofeng Li, et al. 5'-Methylthioadenosine and Cancer: old molecules, new understanding. *J Cancer*. 2019;10(4):927-936.
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Caution: Product has not been fully validated for medical applications. For research use only.

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