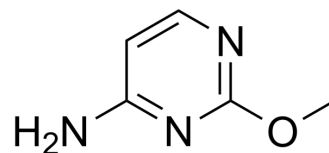


2-O-Methylcytosine

Cat. No.:	HY-69014
CAS No.:	3289-47-2
Molecular Formula:	C ₅ H ₇ N ₃ O
Molecular Weight:	125.13
Target:	DNA/RNA Synthesis; Endogenous Metabolite
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 60 mg/mL (479.50 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	7.9917 mL	39.9584 mL	79.9169 mL
				5 mM	1.5983 mL	7.9917 mL	15.9834 mL
				10 mM	0.7992 mL	3.9958 mL	7.9917 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 3 mg/mL (23.98 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 3 mg/mL (23.98 mM); Clear solution						
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 3 mg/mL (23.98 mM); Clear solution						

BIOLOGICAL ACTIVITY

Description	2-O-Methylcytosine, an O-alkylated analogue a DNA adduct, is the damaged nucleobase ^[1] .
IC ₅₀ & Target	Human Endogenous Metabolite
In Vitro	The damaged nucleobases can cause DNA mutation, resulting in various diseases such as cancer ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Aliakbar Tehrani Z, et al. Comparison of gas phase intrinsic properties of cytosine and thymine nucleobases with their O-alkyl adducts: different hydrogen bonding preferences for thymine versus O-alkyl thymine. J Mol Model. 2013;19(8):2993-3005.

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

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