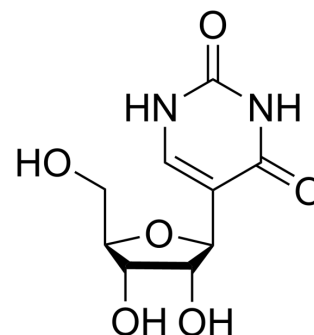


Pseudouridine

Cat. No.:	HY-113061		
CAS No.:	1445-07-4		
Molecular Formula:	C ₉ H ₁₂ N ₂ O ₆		
Molecular Weight:	244.2		
Target:	Endogenous Metabolite; Nucleoside Antimetabolite/Analog; DNA/RNA Synthesis		
Pathway:	Metabolic Enzyme/Protease; Cell Cycle/DNA Damage		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (511.88 mM; Need ultrasonic)
 H₂O : 25 mg/mL (102.38 mM; ultrasonic and warming and heat to 60°C)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	4.0950 mL	20.4750 mL	40.9500 mL
	5 mM	0.8190 mL	4.0950 mL	8.1900 mL
	10 mM	0.4095 mL	2.0475 mL	4.0950 mL

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

In Vivo

- Add each solvent one by one: PBS
Solubility: 25 mg/mL (102.38 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (8.52 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (8.52 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (8.52 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Pseudouridine is an isomer of the nucleoside uridine, and the most abundant modified nucleoside in non-coding RNAs. Pseudouridine in rRNA and tRNA can fine-tune and stabilize the regional structure and help maintain their functions in mRNA decoding, ribosome assembly, processing and translation^{[1][2][3][4]}.

REFERENCES

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- [4]. Carlile TM, et al. Pseudouridine profiling reveals regulated mRNA pseudouridylation in yeast and human cells. *Nature*. 2014 Nov 6;515(7525):143-6.
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Caution: Product has not been fully validated for medical applications. For research use only.

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