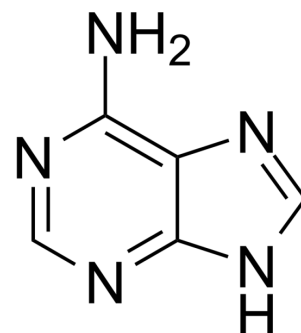


Adenine

Cat. No.:	HY-B0152		
CAS No.:	73-24-5		
Molecular Formula:	C ₅ H ₅ N ₅		
Molecular Weight:	135.13		
Target:	DNA/RNA Synthesis; Endogenous Metabolite		
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

1M HCl : 20 mg/mL (148.01 mM; Need ultrasonic)
 DMSO : ≥ 10 mg/mL (74.00 mM)
 H₂O : 2 mg/mL (14.80 mM; ultrasonic and warming and heat to 60°C)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	7.4003 mL	37.0014 mL	74.0028 mL
	5 mM	1.4801 mL	7.4003 mL	14.8006 mL
	10 mM	0.7400 mL	3.7001 mL	7.4003 mL

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

In Vivo

1. Add each solvent one by one: PBS
 Solubility: 1 mg/mL (7.40 mM); Clear solution; Need ultrasonic and warming and heat to 60°C

BIOLOGICAL ACTIVITY

Description

Adenine (6-Aminopurine), a purine, is one of the four nucleobases in the nucleic acid of DNA. Adenine acts as a chemical component of DNA and RNA. Adenine also plays an important role in biochemistry involved in cellular respiration, the form of both ATP and the cofactors (NAD and FAD), and protein synthesis^{[1][2][3]}.

IC₅₀ & Target

Human Endogenous Metabolite

CUSTOMER VALIDATION

- Phytomedicine. 2022 Mar 21;100:154067.
- Biosci Rep. 2021 Oct 29;41(10):BSR20211598.
- J Appl Polym Sci. 2021 Apr 16.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. ORO J, et al. Synthesis of purines under possible primitive earth conditions. I. Adenine from hydrogen cyanide. Arch Biochem Biophys. 1961 Aug;94:217-27.
- [2]. Griffiths AJF, et al. An Introduction to Genetic Analysis. 7th edition. New York: W. H. Freeman; 2000. Structure of DNA.
- [3]. Reader V. The assay of vitamin B(4). Biochem J. 1930;24(6):1827-31.
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Caution: Product has not been fully validated for medical applications. For research use only.

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