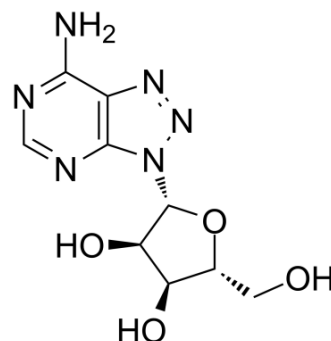


8-Azaadenosine

Cat. No.:	HY-115686
CAS No.:	10299-44-2
Molecular Formula:	C ₉ H ₁₂ N ₆ O ₄
Molecular Weight:	268.23
Target:	Adenosine Deaminase
Pathway:	Metabolic Enzyme/Protease
Storage:	-20°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (932.04 mM; Need ultrasonic)
H₂O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.7281 mL	18.6407 mL	37.2814 mL
	5 mM	0.7456 mL	3.7281 mL	7.4563 mL
	10 mM	0.3728 mL	1.8641 mL	3.7281 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (7.75 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (7.75 mM); Suspended solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (7.75 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

8-Azaadenosine is a potent ADAR1 (adenosine deaminases acting on double-stranded RNA) inhibitor. 8-Azaadenosine reduces A-to-I editing activity in a leukemia cell line, restores let-7 and inhibits leukemia stem cells self-renewal in vitro^[1].

In Vitro

8-Azaadenosine (10-25nM) restores let-7 miRNA biogenesis commensurate with a reduction in ADAR1 expression, RNA editing activity and LIN28B expression in JAK2/BCR-ABL1 transduced progenitors after two weeks in stromal co-culture^[1]. 8-Azaadenosine (10, 100 nM) shows no effect on BCR-ABL and JAK2 signaling, as demonstrated by qRT-PCR analysis and p-CRKL and p-STAT5a Western blot analysis^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Maria Anna Zipeto, et al. ADAR1 Activation Drives Leukemia Stem Cell Self-Renewal by Impairing Let-7 Biogenesis. Cell Stem Cell. 2016 Aug 4;19(2):177-191.

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

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