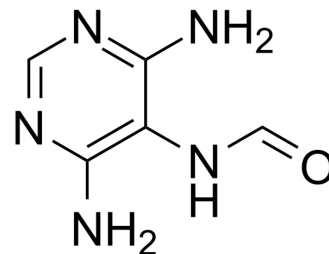


FAPy-adenine

Cat. No.:	HY-113303		
CAS No.:	5122-36-1		
Molecular Formula:	C ₅ H ₇ N ₅ O		
Molecular Weight:	153.14		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
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 : 17.86 mg/mL (116.63 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	6.5300 mL	32.6499 mL	65.2997 mL
		5 mM	1.3060 mL	6.5300 mL	13.0599 mL
10 mM		0.6530 mL	3.2650 mL	6.5300 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (13.58 mM); Clear solution Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 1.79 mg/mL (11.69 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1.79 mg/mL (11.69 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	FAPy-adenine is an oxidized DNA base. Fapy-adenine shows an increased trend levels in the Alzheimer's disease brain. Oxidized nucleosides are biochemical markers for tumors, aging, and neurodegenerative diseases ^{[1][2][3]} .
IC₅₀ & Target	Human Endogenous Metabolite
In Vitro	In the absence of the external field the FAPy-adenine is able to form pairs with all four canonical nucleic acid bases. In contrast, in the presence of the external field the mispairing abilities of FAPy-adenine become insignificant since the most

stable dimers are formed with thymine^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

The nuclear DNA damage by oxygen-derived radicals is increased in Alzheimer's disease and support the concept that the brain is under increased oxidative stress in Alzheimer's disease^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Gabbita SP, et al. Increased nuclear DNA oxidation in the brain in Alzheimer's disease.

[2]. Cysewski P, et al. Theoretical description of the coding potential of diamino-5-formamidopyrimidines. Z Naturforsch C J Biosci. 1999 Mar-Apr;54(3-4):239-45.

[3]. Lee SH, et al. A rapid and sensitive method for quantitation of nucleosides in human urine using liquid chromatography/mass spectrometry with direct urine injection. Rapid Commun Mass Spectrom. 2004;18(9):973-7.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA