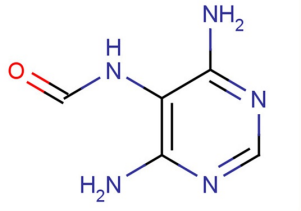
Data Sheet (Cat.No.T19320)

FAPy-adenine

Chemical Properties



CAS No.:	5122-36-1
Formula:	C5H7N5O
Molecular Weight:	153.14
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	FAPy-adenine is an oxidized DNA base.Adenine is on the rise in the brains of people with Alzheimer's disease.Nucleoside oxidation is a biochemical marker for tumors, senescence and neurodegenerative diseases.
Targets(IC_{50})	Human Endogenous Metabolite: None
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
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.

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.53 mL	32.65 mL	65.3 mL
5 mM	1.306 mL	6.53 mL	13.06 mL
10 mM	0.653 mL	3.265 mL	6.53 mL
50 mM	0.131 mL	0.653 mL	1.306 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

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.

Inhibitors · Natural Compounds · Compound Libraries

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