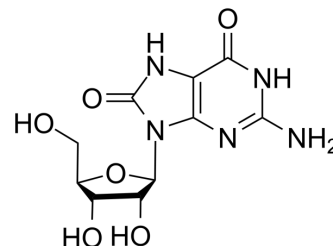


8-Hydroxyguanosine

Cat. No.:	HY-113262		
CAS No.:	3868-31-3		
Molecular Formula:	C ₁₀ H ₁₃ N ₅ O ₆		
Molecular Weight:	299.24		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (417.72 mM; ultrasonic and warming and heat to 60°C)

Concentration	Solvent	Mass	1 mg	5 mg	10 mg
			1 mg	5 mg	10 mg
1 mM			3.3418 mL	16.7090 mL	33.4180 mL
5 mM			0.6684 mL	3.3418 mL	6.6836 mL
10 mM			0.3342 mL	1.6709 mL	3.3418 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 (6.95 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (6.95 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (6.95 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

8-Hydroxyguanosine, an oxidized nucleoside, is a marker of RNA oxidative damage and oxidative stress. 8-Hydroxyguanosine stimulates proliferation and differentiation of B cells^{[1][2][3]}.

IC₅₀ & Target

Human Endogenous Metabolite

REFERENCES

[1]. Ahmad A, et al. 8-Hydroxyguanosine and 8-methoxyguanosine possess immunostimulating activity for B lymphocytes. Cell Immunol. 1985 Aug;94(1):276-80.

[2]. Fiala ES, et al. Oxidative DNA and RNA damage in the livers of Sprague-Dawley rats treated with the hepatocarcinogen 2-nitropropane. Cancer Res. 1989 Oct 15;49(20):5518-22.

[3]. Abe T, et al. Remarkable increase in the concentration of 8-hydroxyguanosine in cerebrospinal fluid from patients with Alzheimer's disease. J Neurosci Res. 2002 Nov 1;70(3):447-50.

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

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