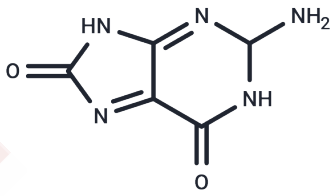
Data Sheet (Cat.No.T19165)

TargetMol

8-Hydroxyguanine

Chemical Properties



CAS No. : 5614-64-2

Formula: C5H5N5O2

Molecular Weight: 167.13

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	8-Hydroxyguanine (8 Hydroxyguanine) is the major premutagenic damage produced by reactive oxygen species. It causes G-T and A-C substitutions.8-Hydroxyguanine is a biomarker for RNA oxidation and oxidative DNA damage.8-Hydroxyguanine is mutagenic and carcinogenic and is commonly used in cancer experiments.8-Hydroxyguanine is a biomarker for RNA oxidation and oxidative DNA damage.
Targets(IC50)	Endogenous Metabolite

Solubility Information

Solubility	DMSO: < 1 mg/mL (insoluble or slightly soluble), H2O: 3.34 mg/mL (20 mM),when pH is adjusted to 11 with NaOH. Sonication and heating to 45°C are recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.9834 mL	29.9168 mL	59.8337 mL
5 mM	1.1967 mL	5.9834 mL	11.9667 mL
10 mM	0.5983 mL	2.9917 mL	5.9834 mL
50 mM	0.1197 mL	0.5983 mL	1.1967 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Arai T, et al. High accumulation of oxidative DNA damage, 8-hydroxyguanine, in Mmh/Ogg1 deficient mice by chronic oxidative stress. Carcinogenesis. 2002 Dec;23(12):2005-10.
Floyd RA, et al. The role of 8-hydroxyguanine in carcinogenesis. Carcinogenesis. 1990 Sep;11(9):1447-50.
Cheng KC, et al. 8-Hydroxyguanine, an abundant form of oxidative DNA damage, causes G-T and A-C substitutions. J Biol Chem. 1992 Jan 5;267(1):166-72.

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