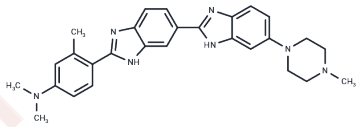
Data Sheet (Cat.No.T12019)

TargetMol

Methylproamine

Chemical Properties



CAS No. : 188247-01-0

Formula: C28H31N7

Molecular Weight: 465.59

Appearance: no data available

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

Biological Description

Description	Methylproamine is a DNA-binding radioprotector that acts by repairing transient radiation-induced oxidative species on DNA.
Targets(IC50)	Others
In vitro	Immunocytochemical methods were used to measure the accumulation of phosphorylated H2AX (γH2AX) foci following ionizing radiation (IR) in patient-derived lymphoblastoid cells exposed to methylproamine. Pulsed field gel electrophoresis DNA damage and repair assays were performed to directly interrogate the action of methylproamine on DNA in irradiated cells.Methylproamine-treated cells had fewer γH2AX foci after IR compared to untreated cells. Also, the presence of methylproamine decreased the amount of lower molecular weight DNA entering the gel[2].

Solubility Information

Solubility	DMSO: 55 mg/mL (118.13 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1478 mL	10.7391 mL	21.4781 mL
5 mM	0.4296 mL	2.1478 mL	4.2956 mL
10 mM	0.2148 mL	1.0739 mL	2.1478 mL
50 mM	0.043 mL	0.2148 mL	0.4296 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

Lobachevsky PN, Vasireddy RS, Broadhurst S, Protection by methylproamine of irradiated human keratinocytes correlates with reduction of DNA damage. Int J Radiat Biol. 2011 Mar;87(3):274-83.
Sprung CN, Vasireddy RS, Karagiannis TC, Methylproamine protects against ionizing radiation by preventing DNA double-strand breaks. Mutat Res. 2010 Oct 13;692(1-2):49-52.
Martin RF, Broadhurst S, Reum ME, In vitro studies with methylproamine: a potent new radioprotector. Cancer Res. 2004 Feb 1;64(3):1067-70.