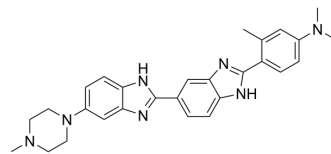


Methylproamine

Cat. No.:	HY-15620		
CAS No.:	188247-01-0		
Molecular Formula:	C ₂₈ H ₃₁ N ₇		
Molecular Weight:	465.59		
Target:	DNA/RNA Synthesis		
Pathway:	Cell Cycle/DNA Damage		
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 : ≥ 41 mg/mL (88.06 mM)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	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

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: ≥ 0.62 mg/mL (1.33 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 0.62 mg/mL (1.33 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Methylproamine is a DNA-binding radioprotector, acts by repair of transient radiation-induced oxidative species on DNA. Methylproamine also protects against ionizing radiation by preventing DNA double-strand breaks^[1].

In Vitro

Methylproamine also protects against ionizing radiation by preventing DNA double-strand breaks^[1]. Methylproamine can protect bystander cells from radiation-induced DNA damage^[2]. Methylproamine has a concentration-dependent radioprotective effect^[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Cytotoxicity Assay^[3]

Cell Line:	Keratinocytes
Concentration:	10, 20 μ M
Incubation Time:	60 min
Result:	Did not show any detectable cytotoxicity at 10 μ M and had appreciable cytotoxicity at 20 μ M.

CUSTOMER VALIDATION

- J Mol Med (Berl). 2019 Aug;97(8):1183-1193.

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REFERENCES

- [1]. Carl N Sprung, et al. Methylproamine protects against ionizing radiation by preventing DNA double-strand breaks.
- [2]. Susanne Burdak-Rothkamm, et al. Radioprotection of targeted and bystander cells by methylproamine. Strahlenther Onkol. 2015 Mar;191(3):248-55.
- [3]. Pavel N Lobachevsky, et al. Protection by methylproamine of irradiated human keratinocytes correlates with reduction of DNA damage. Int J Radiat Biol. 2011 Mar;87(3):274-83.
- [4]. 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.
- [5]. 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.
- [6]. Martin RF, Broadhurst S, Reum ME, In vitro studies with methylproamine: a potent new radioprotector. Cancer Res. 2004 Feb 1;64(3):1067-70.

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

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