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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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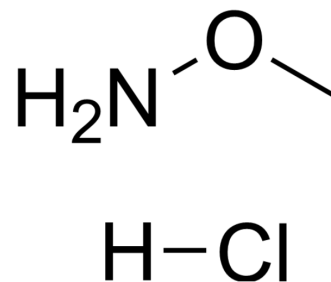
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Methoxyamine hydrochloride

Cat. No.:	HY-Y0958
CAS No.:	593-56-6
Molecular Formula:	CH ₅ ClNO
Molecular Weight:	83.52
Target:	DNA/RNA Synthesis; Apoptosis
Pathway:	Cell Cycle/DNA Damage; Apoptosis
Storage:	Store at room temperature, keep dry and cool



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (598.66 mM; Need ultrasonic)				
	Preparing Stock Solutions	Solvent Concentration Mass	1 mg	5 mg	10 mg
		1 mM	11.9732 mL	59.8659 mL	119.7318 mL
		5 mM	2.3946 mL	11.9732 mL	23.9464 mL
		10 mM	1.1973 mL	5.9866 mL	11.9732 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (29.93 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (29.93 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (29.93 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Methoxyamine (O-Methylhydroxylamine) hydrochloride is an orally active and potent base excision repair (BER) inhibitor. Methoxyamine hydrochloride binds to 3' hydroxyl groups that are left behind by 3-methylpurine-DNA glycosylase (MPG) following excision of the damaged base and thus inhibits BER activity. Methoxyamine hydrochloride binds directly to the apyrimidinic (AP) sites. Methoxyamine hydrochloride synergistically enhances the therapeutic efficacy of DNA-damaging agents ^{[1][2]} .
In Vitro	Methoxyamine (O-Methylhydroxylamine; 1 mM; 1-7 days) hydrochloride sensitizes pediatric (SJG2) GBM cells in vitro to Temozolomide (HY-17364; 100 μM) and induces apoptosis ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Compared with vehicle and Methoxyamine alone, only the mice (NOD-SCID mice injecting SJG2 cells) receiving dual treatment (65 mg/kg Temozolomide + 100 mg/kg Methoxyamine; oral gavage; daily for 2 weeks, weekends off) has a significant increase in survival^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Sameer Agnihotri, et al. ATM regulates 3-methylpurine-DNA glycosylase and promotes therapeutic resistance to alkylating agents. *Cancer Discov.* 2014 Oct;4(10):1198-213.
- [2]. Samideh Khoei, et al. Effects of resveratrol and methoxyamine on the radiosensitivity of iododeoxyuridine in U87MG glioblastoma cell line. *Exp Biol Med* (Maywood). 2016 Jun;241(11):1229-36.

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

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