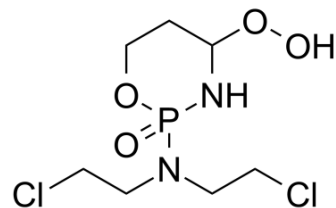


4-Hydroperoxy cyclophosphamide

Cat. No.:	HY-117433
CAS No.:	39800-16-3
Molecular Formula:	C ₇ H ₁₅ Cl ₂ N ₂ O ₄ P
Molecular Weight:	293.08
Target:	DNA Alkylator/Crosslinker; Apoptosis; Reactive Oxygen Species; Drug Metabolite
Pathway:	Cell Cycle/DNA Damage; Apoptosis; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB
Storage:	-20°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (341.20 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.4120 mL	17.0602 mL	34.1204 mL
		5 mM	0.6824 mL	3.4120 mL	6.8241 mL
		10 mM	0.3412 mL	1.7060 mL	3.4120 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.5 mg/mL (8.53 mM); Clear solution; Need ultrasonic Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (8.53 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (8.53 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	4-Hydroperoxy cyclophosphamide is the active metabolite form of the prodrug Cyclophosphamide. 4-Hydroperoxy cyclophosphamide crosslinks DNA and induces T cell apoptosis independent of death receptor activation, but activates mitochondrial death pathways through production of reactive oxygen species (ROS). 4-Hydroperoxy cyclophosphamide has the potential for lymphomas and autoimmune disorders.
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REFERENCES

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

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