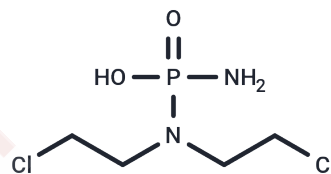


Phosphoramidate mustard

Chemical Properties

CAS No. :	10159-53-2
Formula:	C ₄ H ₁₁ Cl ₂ N ₂ O ₂ P
Molecular Weight:	221.02
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Phosphoramidate mustard is a toxic metabolite of cyclophosphamide with anticancer activity and ovarian toxicity that induces DNA damage.
Targets(IC50)	DNA Alkylation,DNA Alkylator/Crosslinker,Drug Metabolite
In vitro	In SIGCs cell lines, Phosphoramidate mustard (0.5 μM, 1 μM, 3 μM, 6 μM; 48 hours) reduced cell viability[1].
In vivo	In the rat model of subcutaneously implanted Walker 256 carcinosarcoma tumors, Phosphoramidate mustard (12 mg/kg; intraperitoneal injection, once daily, for 5 consecutive days) inhibited subcutaneous tumor growth by 50%[2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.5245 mL	22.6224 mL	45.2448 mL
5 mM	0.9049 mL	4.5245 mL	9.049 mL
10 mM	0.4524 mL	2.2622 mL	4.5245 mL
50 mM	0.0905 mL	0.4524 mL	0.9049 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

- Shanthi Ganesan, et al. Phosphoramidate mustard exposure induces DNA adduct formation and the DNA damage repair response in rat ovarian granulosa cells. *Toxicol Appl Pharmacol.* 2015 Feb 1; 282(3): 252-258.
- S Genka, et al. Brain and plasma pharmacokinetics and anticancer activities of cyclophosphamide and phosphoramidate mustard in the rat. *Cancer Chemother Pharmacol.* 1990;27(1):1-7.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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