

Cyclophosphamide (hydrate)

Catalog No: tcsc5005



Available Sizes

Size: 100mg

Size: 200mg

Size: 500mg



Specifications

CAS No:

6055-19-2

Formula:

$C_7H_{17}Cl_2N_2O_3P$

Pathway:

Cell Cycle/DNA Damage

Target:

DNA Alkylator/Crosslinker

Purity / Grade:

>98%

Solubility:

H₂O : ≥ 50 mg/mL (179.15 mM); DMSO : ≥ 38 mg/mL (136.15 mM)

Alternative Names:

Cyclophosphamide monohydrate

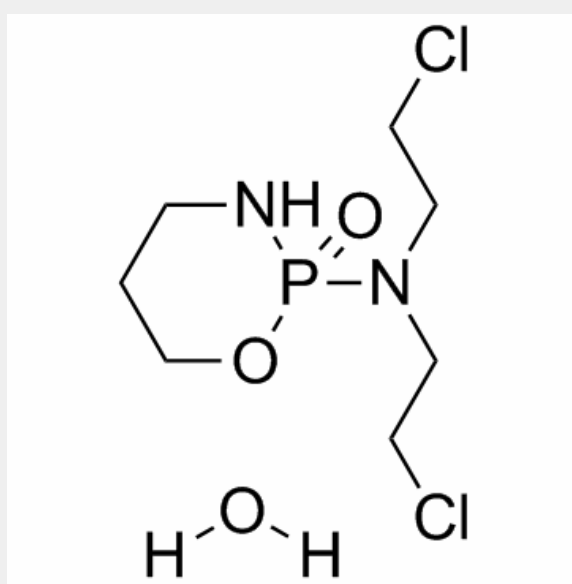
Observed Molecular Weight:

279.1

Product Description

Cyclophosphamide hydrate is a synthetic **alkylating** agent chemically related to the nitrogen mustards with antineoplastic and immunosuppressive activities.

In Vitro: Cyclophosphamide induces outer membrane blebbing, leads to DNA fragmentation, as revealed by TUNEL staining of free 3'-OH DNA ends, and induces cleavage of the caspase 3 and caspase 7 substrate PARP in 9L/P450 cells. Bcl-2 expression fully blocks the activation of both initiator caspases as well as the effector caspase 3 in cells treated with activated Cyclophosphamide. Bcl-2 inhibits the cytotoxic effects but not the cytostatic effects of activated Cyclophosphamide^[1]. Cyclophosphamide inhibits the AChE reversibly with an IC₅₀ of 511 μM^[2]. Carbon tetrachloride does not affect the direct cytotoxicity of cyclophosphamide or 4-hydroxycyclophosphamide to cells in culture^[3].



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