

# 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:**

H<sub>2</sub>O : ≥ 50 mg/mL (179.15 mM); DMSO : ≥ 38 mg/mL (136.15 mM)

**Alternative Names:**

Cyclophosphamide monohydrate

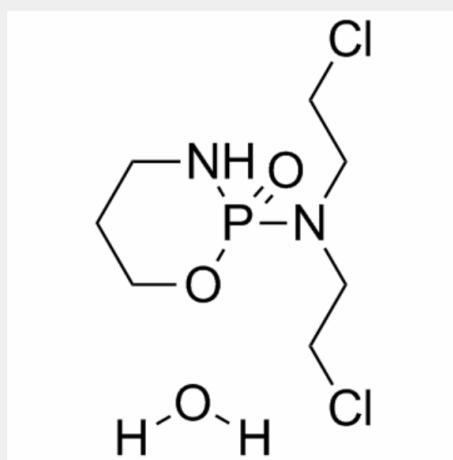
**Observed Molecular Weight:**

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<sup>[1]</sup>. Cyclophosphamide inhibits the AChE reversibly with an IC<sub>50</sub> of 511 μM<sup>[2]</sup>. Carbon tetrachloride does not affect the direct cytotoxicity of cyclophosphamide or 4-hydroxycyclophosphamide to cells in culture<sup>[3]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!