Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

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

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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 IC_{50} of 511 μM[2]. Carbon tetrachloride does not affect the direct cytotoxicity of cyclophosphamide or 4-hydroxycyclophosphamide to cells in culture[3].