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ProductInformation

Cyclophosphamide monohydrate

Product Number **C0768**
Storage Temperature 2-8 °C

Product Description

Molecular Formula: $C_7H_{15}Cl_2N_2O_2P \bullet H_2O$
Molecular Weight: 279.1
CAS Number: 6055-19-2
Synonym: Cytoxan

This product is an alkylating, antineoplastic agent, which is converted in the body to an active alkylating metabolite (4-hydroxycyclophosphamide). It possesses marked immunosuppressant properties.[1] The dosage of cyclophosphamide in mice for stimulating cell-mediated immunity is 10 mg/kg.[2] It has been used for induction chemotherapy to study predictive and prognostic values of tumor MGMT gene expression,[3] to study its effects on apoptosis and cell cycle progression,[4] and its cardiotoxicity during pretransplant conditioning in blood stem cell transplantation has been reported.[5]

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is soluble in water (40 mg/ml).[6] It is soluble in water (100 mg/ml) with heat.

Storage/Stability

Solutions break down on storage. Aqueous solutions may be kept for a few hours at temperatures up to 25 °C. At temperatures above 30 °C, hydrolysis occurs with removal of chlorine. A solution of cyclophosphamide reconstituted with water and diluted to 4 mg/ml with 0.9 % sodium chloride solution lost about 3.5% potency in 24 hours and 11.9% in one week when stored at 25 °C. When protected from light and stored at 5 °C the loss was 0.55% after 1 week and 1% after 4 weeks.[7] An equation for calculating potency at any time during storage has been reported.[8]

References

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