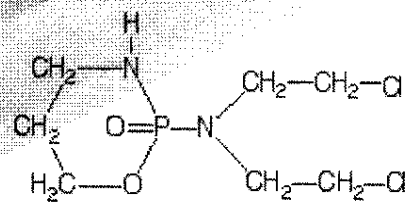
CYCLOPHOSPHAMIDE

Catalog No: C9609
Cas No: 6055-19-2



Antineoplastic

Cyclophosphamide is the most commonly used alkylating agent with broad application in cancer chemotherapy. The drug is activated by liver cytochrome P-450 (CYP) via 4-hydroxylation to produce the cytotoxic alkylating mustard phosphoramide[1]. Like other nitrogen mustards, Cyclophosphamide exerts its antitumor activity by causing DNA strand cross link or link between bases with in the same strand of DNA and inhibiting DNA replication in proliferating cancer cells[2]. It is also used for the treatment of rheumatoid arthritis[3].

Appearance:	White crystalline powder
Molecular formula:	$C_7H_{15}Cl_2N_2O_2P$
Molecular Weight:	261.10
Solubility:	Soluble in water and slightly soluble in ethanol

References:

1. Roy, P., Yu, L.J., Crespi, C.L., Waxman, D.J., *Drug Metab. Dispos.* 27(6):655-66, 1999.
2. Pratt, W.B., Ruddon, R.W., Ensminger, W.D., Maybaum, J., The Anticancer Drugs, Oxford University Press, 1994.
3. Cron, R.Q., Sharma, S., Shaw, D.D., *J. Rheumatol.* 26(9):2066-9, 1999.

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