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Ifosfamide

Catalog No: tcsc1424

Available Sizes

Size: 200mg

Size: 500mg

Specifications

CAS No:
3778-73-2

Formula:
$C_7H_{15}Cl_2N_2O_2P$

Pathway:
Cell Cycle/DNA Damage

Target:
DNA Alkylator/Crosslinker

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 50 mg/mL (191.50 mM)

Observed Molecular Weight:
261.09

Product Description

Ifosfamide is an **alkylating** chemotherapeutic agent with activity against a wide range of tumors.

IC50 & Target: DNA Alkylator[1]

In Vitro: Ifosfamide is an alkylating chemotherapeutic agent with activity against a wide range of tumors[1]. Ifosfamide is activated by the cytochrome P450 family. Ifosfamide (0-5 mM) suppresses the viability of CYP2B1-expressing C8III-1 cells, while it is cytotoxic

to the non-CYP2B1-expressing CrFK cells only at high concentration (5 mM)[2]. CYP BM3 mutants activates Ifosfamide, and Ifosfamide shows inhibitory activity against human U2OS cells[3].

In Vivo: Ifosfamide (50 mg/kg, i.p.) treatment before mating increases percentage of post-implantation loss and resorbs fetuses in pregnant rats. Ifosfamide also (50 mg/kg, i.p.) decreases the progesterone in the serum of pregnant rats. However, Ifosfamide causes no obvious difference with the control rats at 25 mg/kg. Ifosfamide (25, 50 mg/kg, i.p.) induces apoptosis and histological changes in the placentas and prenatal rats, most sensitive fetal organs are the brain, liver and kidney[1].