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

Palifosfamide

Catalog No: tcsc1324

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

CAS No:
31645-39-3

Formula:
$C_4H_{11}Cl_2N_2O_2P$

Pathway:
Cell Cycle/DNA Damage;Metabolic Enzyme/Protease

Target:
DNA Alkylator/Crosslinker;Drug Metabolite

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 42 mg/mL (190.03 mM)

Alternative Names:
Isophosphoramide mustard;IPM;ZIO-201

Observed Molecular Weight:
221.02

Product Description

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Palifosfamide is a novel DNA alkylator and the active metabolite of ifosfamide, with antitumor activity.

In Vitro: Palifosfamide lysine (ZIO-201) is a stable form of palifosfamide. Palifosfamide lysine has broad activity in sarcoma lines *in vitro*. The **IC_{50}** ranges from 2.25 ro 6.75 μM for most cell lines except OS222 (IC_{50}=31.5 μM)[1].

In Vivo: Tumor growth inhibition is seen in both OS31 and OS33 xenografts and the RMS xenograft resulting in a significant difference in event-free survival between the control and the treated groups. Differential gene expression of ALDH3A1 but not ALDH1A1 is noted in the OS31 xenograft[1]. Stabilized palifosfamide administered to mice suppresses MX-1 tumor growth by greater than 80% with 17% complete antitumor responses. Oral bioavailability in rats is 48-73% of parenteral administration, and antitumor activity in mice is equivalent by both routes. Treatment with palifosfamide-tris combined with docetaxelor doxorubicin at optimal regimens results in complete tumor regression in 62-75% of mice[2].