Foscarnet trisodium hexahydrate

Cat. No.: HY-W013256

CAS No.: 34156-56-4

Molecular Formula: $CH_{12}Na_3O_{11}P$

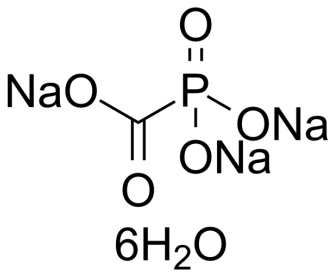
Molecular Weight: 300.04

Target: DNA/RNA Synthesis

Pathway: Cell Cycle/DNA Damage

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H_2O : 50 mg/mL (166.64 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.3329 mL	16.6644 mL	33.3289 mL
5 mM	0.6666 mL	3.3329 mL	6.6658 mL
10 mM	0.3333 mL	1.6664 mL	3.3329 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Foscarnet trisodium hexahydrate (Trisodium phosphonatoformate hexahydrate) is a viral DNA polymerase activity inhibitor, leading to reversible suppression of viral replication. Foscarnet trisodium hexahydrate is an antiherpesvirus agent used in cytomegalovirus retinitis[1][2][3].

In Vitro

Foscarnet sodium (Phosphonoformic acid) inhibit the human cytomegalovirus DNA polymerase (UL54) by mimicking the pyrophosphate leaving group of the nucleotide transfer reaction[1].

Foscarnet sodium (Trisodium phosphonoformate) inhibits Influenza A Victoria (IC_{50}=29 μM), Influenza B HK (IC_{50}=61 μM), and Avian myeloblastosis virus (IC_{50}=5-8 μM), HSV-1, several strains (IC_{50}=0.4-3.5 μM)[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Med Virol. 2022 Nov 27.

- Viruses. 2022 Sep 15;14(9):2049.

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REFERENCES

[1]. Zahn KE, Doublié S, et al. Phosphonoformic acid inhibits viral replication by trapping the closed form of the DNA polymerase. J Biol Chem. 2011 Jul 15;286(28):25246-55.

[2]. Oberg B, et al. Antiviral effects of phosphonoformate (PFA, foscarnet sodium).Pharmacol Ther. 1982;19(3):387-415.

[3]. Hakki M, et al. Moving Past Ganciclovir and Foscarnet: Advances in CMV Therapy.Curr Hematol Malig Rep. 2020 Jan 24.

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