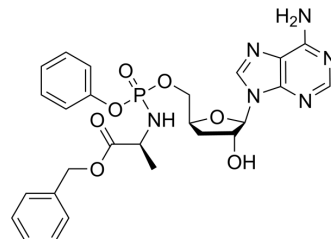


NUC-7738

Cat. No.:	HY-136506		
CAS No.:	2348493-39-8		
Molecular Formula:	C ₂₆ H ₂₉ N ₆ O ₇ P		
Molecular Weight:	568.52		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (175.90 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	1.7590 mL	8.7948 mL	17.5895 mL
5 mM	0.3518 mL	1.7590 mL	3.5179 mL
10 mM	0.1759 mL	0.8795 mL	1.7590 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (4.40 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (4.40 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

NUC-7738, an aryloxy phosphoramidate of 3'-Deoxyadenosine, is a 5'-aryloxy phosphoramidate prodrug of 3'-Deoxyadenosine (3'-dA). NUC-7738 has potent cytotoxic activity against a panel of hematological cancer cell lines. NUC-7738 can be used in research of cancer^[1].

In Vitro

NUC-7738 (compound 7a; 0-198 μM; 72 h; CCRF-CEM, HL-60, KG-1, MOLT-4, K562, MV4-11, THP-1, HEL92, NCI-H929, RPMI-8226, Jurkat, Z138, RL, HS445, HepG2, MCF-7, Bx-PC-3, HT29, MIA PaCa-2 and SW620 cells) has anticancer activity and cytotoxic activity against a lineage of leukocytes with LC₅₀ values of 30 μM^[1].
NUC-7738 (1 μM) has good stability in human hepatocytes with t_{1/2} value of 48.1 min^[1].
NUC-7738 has increased stability in human plasma compared to the parent nucleoside, with no change in plasma concentration up to 4 h^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Serpi M, et, al. Synthesis and Characterization of NUC-7738, an Aryloxy Phosphoramidate of 3'-Deoxyadenosine, as a Potential Anticancer Agent. J Med Chem. 2022 Dec 8;65(23):15789-15804.

Caution: Product has not been fully validated for medical applications. For research use only.

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