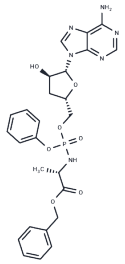
# Data Sheet (Cat.No.T78516)

TargetMol

## NUC-7738

### Chemical Properties



CAS No. : 2348493-39-8

Formula: C26H29N6O7P

Molecular Weight: 568.52

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

| | |
|---|---|
| Description | NUC-7738 is a 5'-aryloxyphosphoamidate prodrug of 3'-dA that reduces β-catenin nuclear expression in AML cells, modulates β-catenin signaling, and can be used in cancer research. |
| Targets(IC50) | Others |
| In vitro | NUC-7738 has anticancer activity and cytotoxic activity against leukocyte lineage with LC50 <30 μM. 1 μM NUC-7738 has good stability in human hepatocytes with a t1/2 value of 48.1 min. NUC-7738 is more stable in human plasma compared with the parent nucleoside, and the plasma concentration remained unchanged for 4 hours. [1] |

### Solubility Information

| | |
|---|---|
| Solubility | DMSO: 80 mg/mL (140.72 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (5.8 mM),Sonication is recommended.<br>*Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.* |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 1.759 mL | 8.7948 mL | 17.5895 mL |
| 5 mM | 0.3518 mL | 1.759 mL | 3.5179 mL |
| 10 mM | 0.1759 mL | 0.8795 mL | 1.759 mL |
| 50 mM | 0.0352 mL | 0.1759 mL | 0.3518 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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.