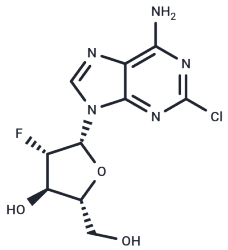
# Data Sheet (Cat.No.T0297)

TargetMol

## Clofarabine

### Chemical Properties



CAS No. : 123318-82-1

Formula: C10H11ClFN5O3

Molecular Weight: 303.68

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

### Biological Description

| | |
|---|---|
| Description | Clofarabine (Clofarex)m, a second generation purine nucleoside analog with antineoplastic activity, inhibits the enzymatic activities of ribonucleotide reductase (IC50 = 65 nM) and DNA polymerase. |
| Targets(IC50) | Apoptosis,Nucleoside Antimetabolite/Analog,Autophagy,DNA/RNA Synthesis |
| In vitro | In athymic nude mice or severe combined immunodeficient (SCID) mice, Clofarabine demonstrates inhibitory effects on various subcutaneously transplanted human tumor xenografts. |
| In vivo | In lymphocytes from chronic lymphocytic leukemia, 10 μM Clofarabine inhibits the repair induced by 4-hydroperoxycyclophosphamide with a peak inhibition at an intracellular concentration of 5 μM. Across a range of leukemia and solid tumor cell lines, Clofarabine demonstrates potent growth inhibition and cytotoxicity (IC50= 0.028-0.29 μM). |

### Solubility Information

| | |
|---|---|
| Solubility | DMSO: 40 mg/mL (131.72 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 3.2929 mL | 16.4647 mL | 32.9294 mL |
| 5 mM | 0.6586 mL | 3.2929 mL | 6.5859 mL |
| 10 mM | 0.3293 mL | 1.6465 mL | 3.2929 mL |
| 50 mM | 0.0659 mL | 0.3293 mL | 0.6586 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.

Reference

Bonate PL, et al. Nat Rev Drug Discov, 2006, 5(10), 855-863.
Berthier A, Gheeraert C, Johanns M, et al.The Molecular Circadian Clock Is a Target of Anti-cancer Translation Inhibitors.Journal of Biological Rhythms.2023: 07487304231202561.
Yamauchi T, et al. Clin Cancer Res, 2001, 7(11), 3580-3589.
Cooper T, et al. Cancer Chemother Pharmacol, 2005, 55(4), 361-368.



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