

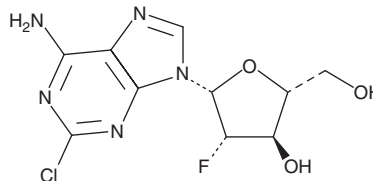
PRODUCT INFORMATION



Clofarabine

Item No. 14125

CAS Registry No.: 123318-82-1
Formal Name: 2-chloro-9-(2-deoxy-2-fluoro-β-D-arabinofuranosyl)-9H-purin-6-amine
Synonyms: Clolar, Evoltra
MF: C₁₀H₁₁ClFN₅O₃
FW: 303.7
Purity: ≥98%
UV/Vis.: λ_{max}: 212, 263 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Clofarabine is supplied as a crystalline solid. A stock solution may be made by dissolving the clofarabine in the solvent of choice, which should be purged with an inert gas. Clofarabine is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of clofarabine in these solvents is approximately 20 mg/ml.

Clofarabine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, clofarabine should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Clofarabine has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Clofarabine is a nucleoside analog that inhibits ribonucleotide reductase and DNA polymerase-α (IC₅₀s = 65 and 3.9 nM, respectively) and is cytotoxic to K562 myelogenous leukemia cells (IC₅₀ = 5 nM).¹ It induces apoptosis in primary chronic lymphocytic leukemia cells by directly altering mitochondrial transmembrane potential.² Clofarabine demonstrates growth inhibition and cytotoxic activity in a variety of leukemias and solid tumors.³⁻⁵

References

1. Parker, W.B., Shaddix, S.C., Chang, C.-H., *et al. Cancer Res.* **51**, 2386-2394 (1991).
2. Genini, D., Adachi, S., Chao, Q., *et al. Blood* **96(10)**, 3537-3543 (2000).
3. Yamauchi, T., Nowak, B.J., Keating, M.J., *et al. Clin. Cancer Res.* **7**, 3580-3589 (2001).
4. Chiarini, F., Lonetti, A., Teti, G., *et al. Oncotarget* **3(12)**, 1615-1628 (2012).
5. Lee, Y.-J., Im, J.-H., Lee, D.M., *et al. BMB Rep.* **45(11)**, 647-652 (2012).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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