Product Name: Clofarabine
Catalog No.: 2600 Batch No.: 1
CAS Number: 123318-82-1
IUPAC Name: 2-Chloro-9-(2-deoxy-2-fluoro-β-D-arabinofuranosyl)-9H-purin-6-amine

1. PHYSICAL AND CHEMICAL PROPERTIES

   Batch Molecular Formula: \( \text{C}_{10}\text{H}_{11}\text{ClF} \text{N}_5\text{O}_3 \)
   Batch Molecular Weight: 303.68
   Physical Appearance: White solid
   Solubility:
   - water to 10 mM
   - DMSO to 100 mM
   - ethanol to 10 mM
   Storage: Desiccate at +4°C
   Batch Molecular Structure:

2. ANALYTICAL DATA

   HPLC: Shows >99.5% purity
   \(^1\text{H} \text{NMR:} \) Consistent with structure
   Mass Spectrum: Consistent with structure
   Microanalysis:
   - Carbon Hydrogen Nitrogen
   - Theoretical: 39.55  3.65   23.06
   - Found: 39.69  3.68   22.67
Product Name: Clofarabine
CAS Number: 123318-82-1
IUPAC Name: 2-Chloro-9-(2-deoxy-2-fluoro-β-D-arabinofuranosyl)-9H-purin-6-amine

Description:
Deoxycytidine kinase (dCK) substrate. Phosphorylated to form clofarabine triphosphate, which competes with dATP for DNA polymerase-α and -ε and potently inhibits ribonucleotide reductase (IC\textsubscript{50} = 65 nM). Induces apoptosis by directly altering mitochondrial transmembrane potential. Demonstrates growth inhibition and cytotoxic activity in a variety of leukemias and solid tumors.

Physical and Chemical Properties:
Batch Molecular Formula: C\textsubscript{16}H\textsubscript{13}ClF\textsubscript{2}N\textsubscript{3}O\textsubscript{3}
Batch Molecular Weight: 303.68
Physical Appearance: White solid
Minimum Purity: >99%

References:

Storage: Desiccate at +4°C
Solubility & Usage Info:
- water to 10 mM
- DMSO to 100 mM
- ethanol to 10 mM

Stability and Solubility Advice:
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).
Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:
- SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.
- SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.