Product Name: Clofarabine
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: $\text{C}_{10}\text{H}_{11}\text{ClF}_{5}\text{N}_{5}\text{O}_{3}$
  Batch Molecular Weight: 303.68
  Physical Appearance: White solid
  Solubility: DMSO to 100 mM
  Storage: Store at +4°C

2. ANALYTICAL DATA

  HPLC: Shows 99.8% purity
  $^1\text{H}$ NMR: Consistent with structure
  Mass Spectrum: Consistent with structure
  Microanalysis:
  Carbon Hydrogen Nitrogen
  Theoretical 39.55 3.65 23.06
  Found 39.55 3.7 23.07
Product Name: Clofarabine  
Catalog No.: 2600  
Batch No.: 2

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 (IC50 = 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: C10H11ClFN3O3
Batch Molecular Weight: 303.68
Physical Appearance: White solid
Minimum Purity: ≥99%

Batch Molecular Structure:

Storage: Store at +4°C

Solubility & Usage Info:
DMSO to 100 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.

References: