

Certificate of Analysis

Print Date: Dec 1st 2017

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Product Name: Nelarabine Catalog No.: 6359 Batch No.: 1

CAS Number: 121032-29-9

IUPAC Name: 9-β-D-Arabinofuranosyl-6-methoxy-9*H*-purin-2-amine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{11}H_{15}N_5O_5$ Batch Molecular Weight:297.27Physical Appearance:White solid

Solubility: DMSO to 100 mM

water to 10 mM with gentle warming

Storage: Store at +4°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 98.8% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 44.44 5.09 23.56 Found 44.37 5.1 23.64



Product Information

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IUPAC Name: 9-β-D-Arabinofuranosyl-6-methoxy-9*H*-purin-2-amine

Description:

Nucleoside analog. Metabolized by adenosine deaminase to active metabolite, arabinofuranosylguanine (ara-G). Inhibits DNA synthesis and induces apoptosis. Inhibits growth of human T cell lymphoblastic leukemia cells in vitro and in vivo.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₁H₁₅N₅O₅ Batch Molecular Weight: 297.27 Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

water to 10 mM with gentle warming

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:

Reilly and Kisor *et al* (2009) Profile of nelarabine: use in the treatment of T-cell acute lymphoblastic leukemia. OncoTargets Ther. **2** 219. PMID: 20616909.

Beesley et al (2007) In vitro cytotoxicity of nelarabine, clofarabine and flavopiridol in paediatric acute lymphoblastic leukaemia. Br.J.Haematol. **137** 109. PMID: 17391490.

Lambe et al (1995) 2-Amino-6-methoxypurine arabinoside: an agent for T-cell malignancies. Cancer Res. 55 3352. PMID: 7614470.